THE QUANTUM INSIDER

The Quantum Quarterly

Q1 2024

Welcome to the Quantum Quarterly Review.

Here we cover the biggest commercial news in the quantum computing industry over the last 3 months.

THE QUANTUM QUARTERLY

Q1 2024 IN A BRIEF

The first quarter of 2024 started out with a bang. Honeywell announced the closing of $300 million equity investment round for Quantinuum. The round also ushered in quantum's first, let's call it a 'multi-corn', with the quantum company's pre-money valuation set at $5 billion.

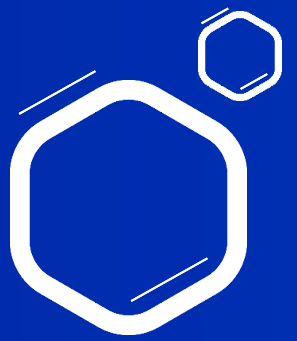
Unfortunately, Quantinuum's round did not signal a flood of new investments. In fact, the capital markets remained fairly quiet in quantum sectors (and most other sectors, as financial experts remind us).

Several companies – IBM and QuEra, to name two leaders – did reveal ambitious roadmaps during the quarter. While the markets were January cold, solid research advances warmed up the industry and by the end of the quarter community leaders were openly debating the inevitability of fault-tolerant quantum computers. Once again Quantinuum arguably led the charge. Quantinuum and Microsoft gained headlines across the globe for their work on logical qubits, with several independent researchers suggesting the advance was another step out of the NISQ era and into a regime where quantum computing could deliver practical benefits.

We'll look at those stories and more information and data that moved quantum in Q1 2024

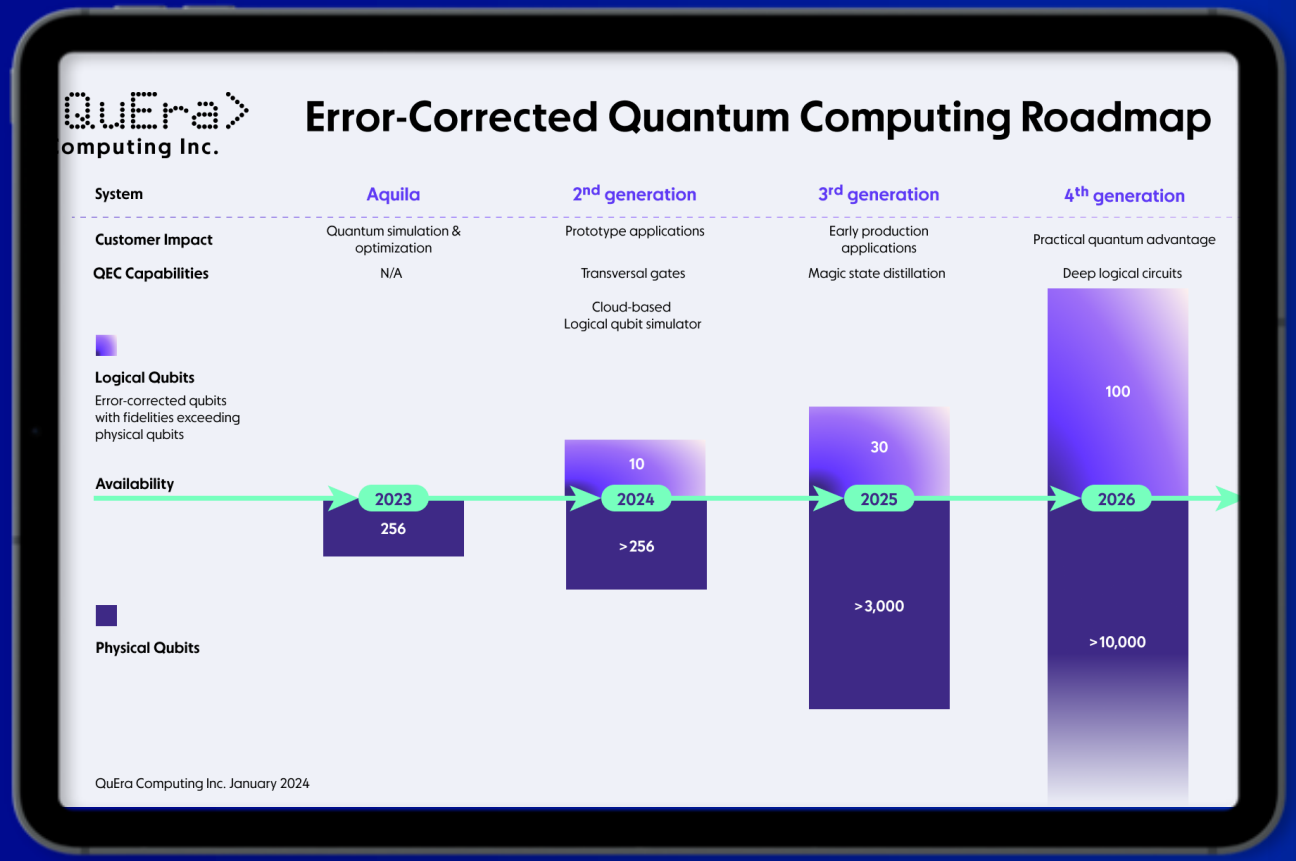
Click this icon throughout this press to see the full stories behind the brief

The Big News



Honeywell Closes $300 Million Equity Investment Round For Quantinuum At $5 Billion Pre-Money Valuation

Honeywell announced the closing of a $300 million equity fundraise for Quantinuum, an integrated quantum computing company, at a pre-money valuation of $5 billion. The round was anchored by Quantinuum’s strategic partner JPMorgan Chase, with additional participation from Mitsui & Co., Amgen and Honeywell, which remains the company’s majority shareholder.

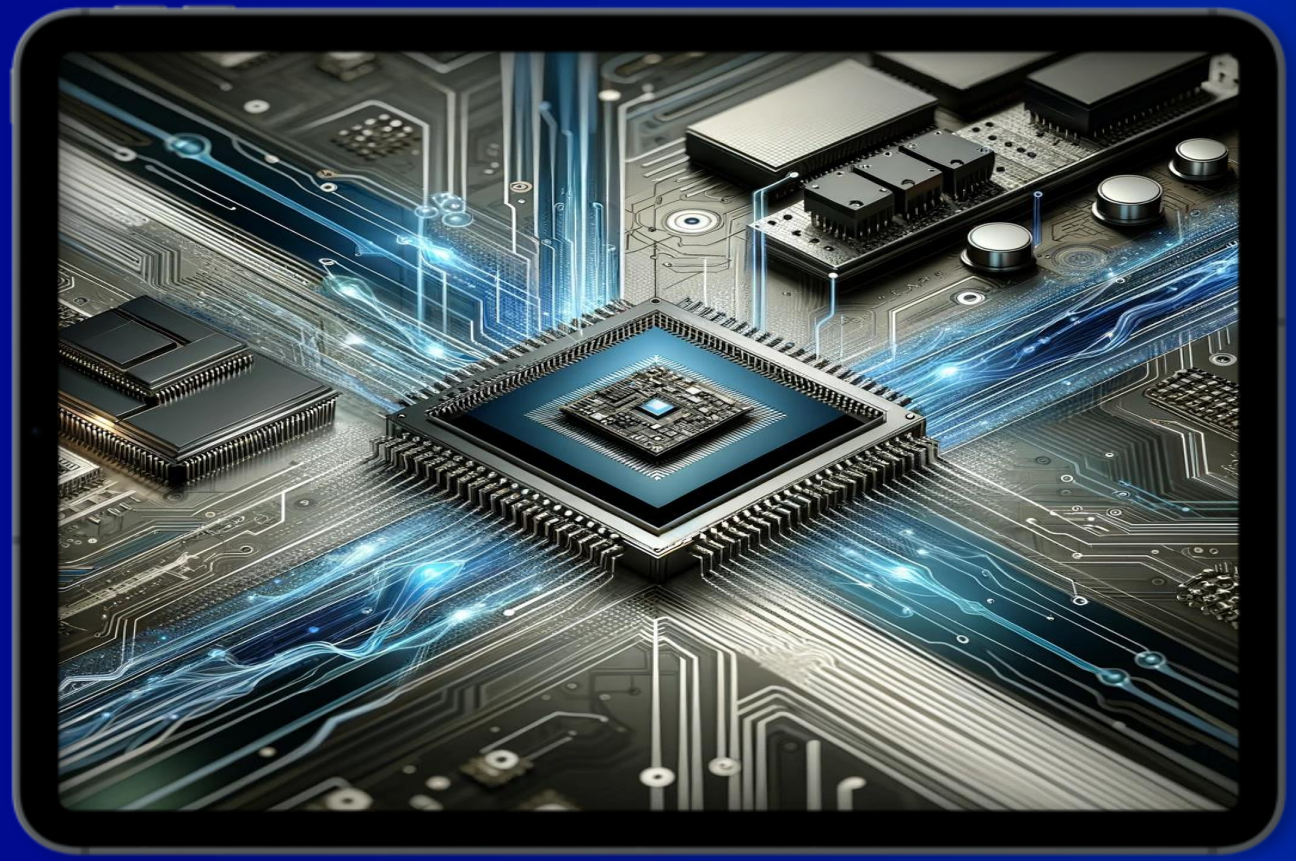


QuEra's Roadmap For Advanced Error-Corrected Quantum Computers

QuEra Computing, the quantum computing trailblazer, announced a bold strategic roadmap for a series of error-corrected quantum computers, starting in 2024 and culminating in a system with 100 logical error-corrected qubits. This announcement marks the ushering in of a new era in quantum computing and caps off a banner year for QuEra.

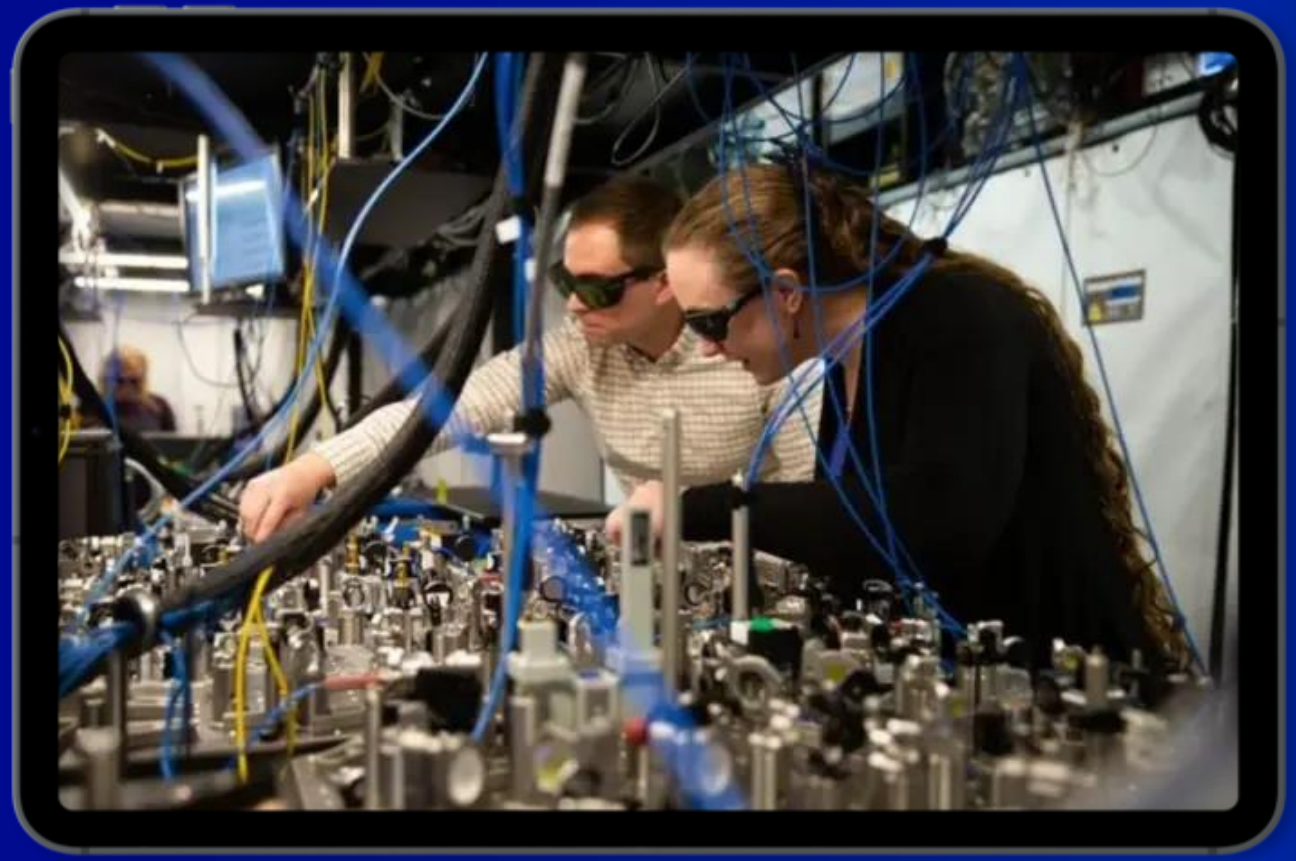
Zapata AI Stock Faced Steep Decline On First Day Of Trading

Zapata Computing Holdings Inc., an artificial intelligence-slash-quantum startup, saw its shares crash by as much as 60% in a dramatic first day on the stock market, after merging with a blank-check firm headed by former IndyCar driver Michael Andretti, according to Bloomberg and other media outlets.



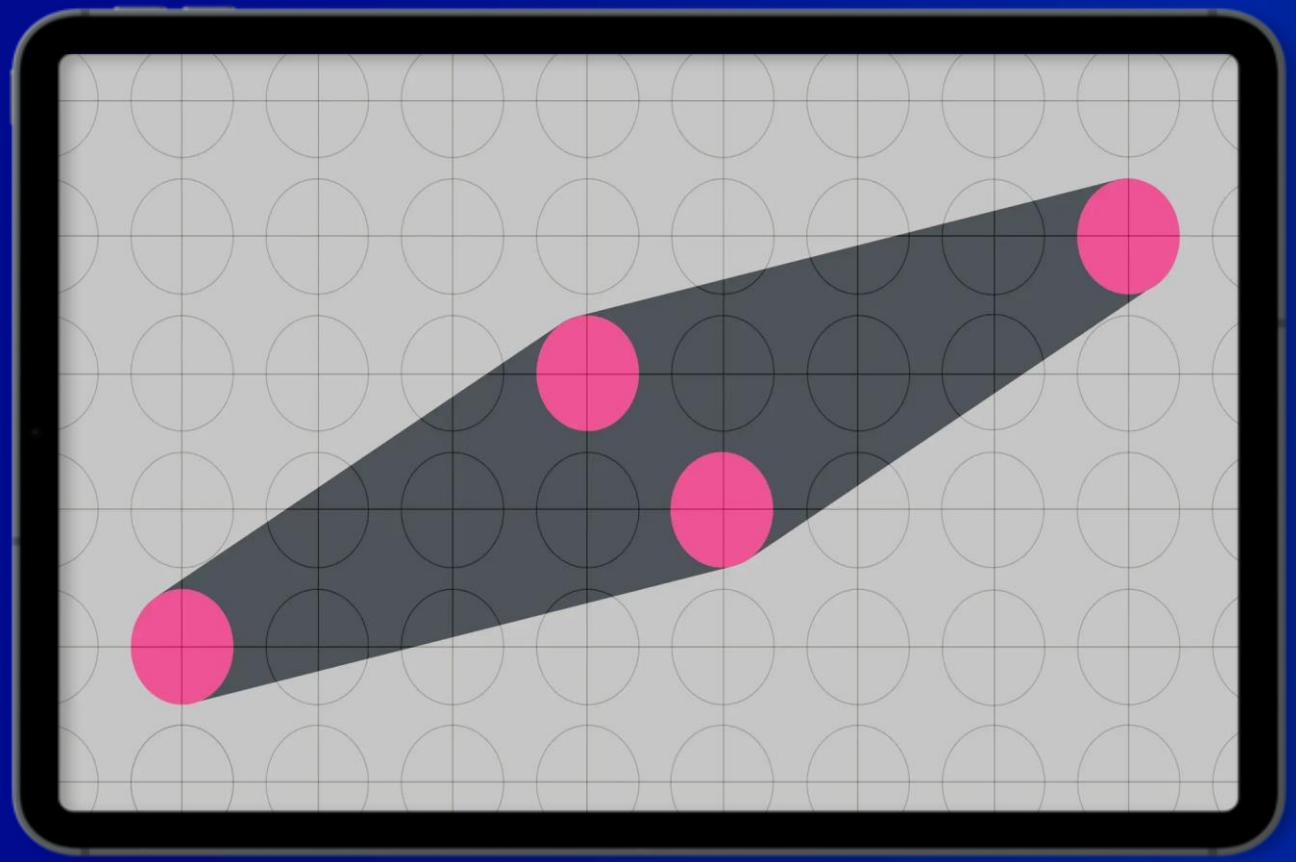
Infleqtion Acquired Silicon Photonics Leaders SiNoptiq Inc. And Morton Photonics Inc.

Infleqtion announced it acquired two integrated silicon photonics companies: SiNoptiq Inc. and Morton Photonics Inc. These acquisitions will enable Infleqtion to expedite plans for chip-scale integration of lasers and photonic and atomic systems, which is essential for commercializing quantum products,



Research: Microsoft, Quantinuum Research Yielded ‘Most Reliable Logical Qubits Ever Recorded’

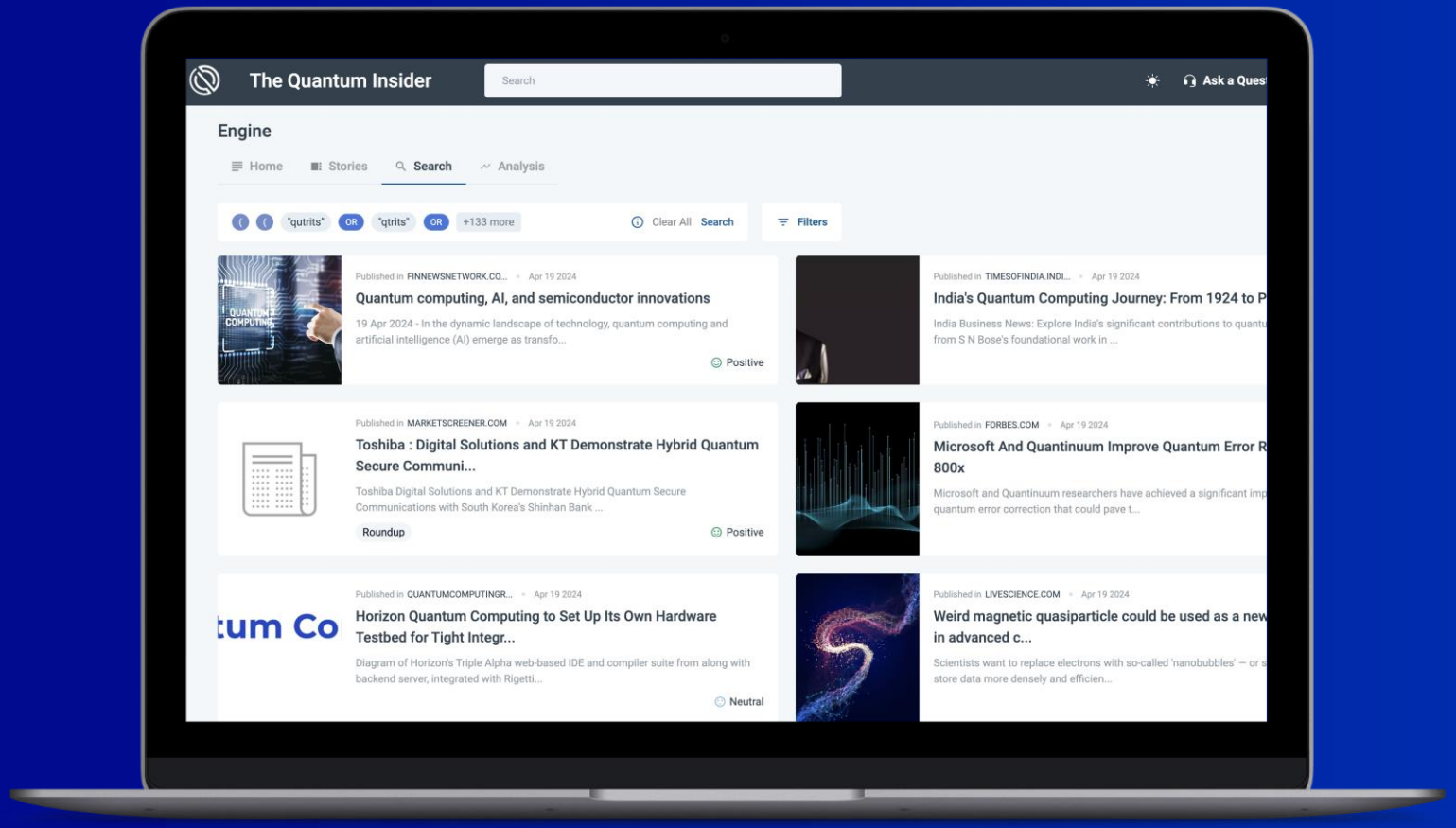
If you thought you had heard the sound of a door latching behind you, Microsoft and Quantinuum may have just closed — perhaps not slammed — the door shut on the Noisy Intermediate-Scale Quantum (NISQ) era. In what could be a significant advance, Microsoft and Quantinuum scientists reported they successfully demonstrated the most reliable logical qubits ever recorded.



Research: IBM Reported 10 Times More Efficient Error-Correcting Method Brings Practical Quantum Computers Closer To Reality

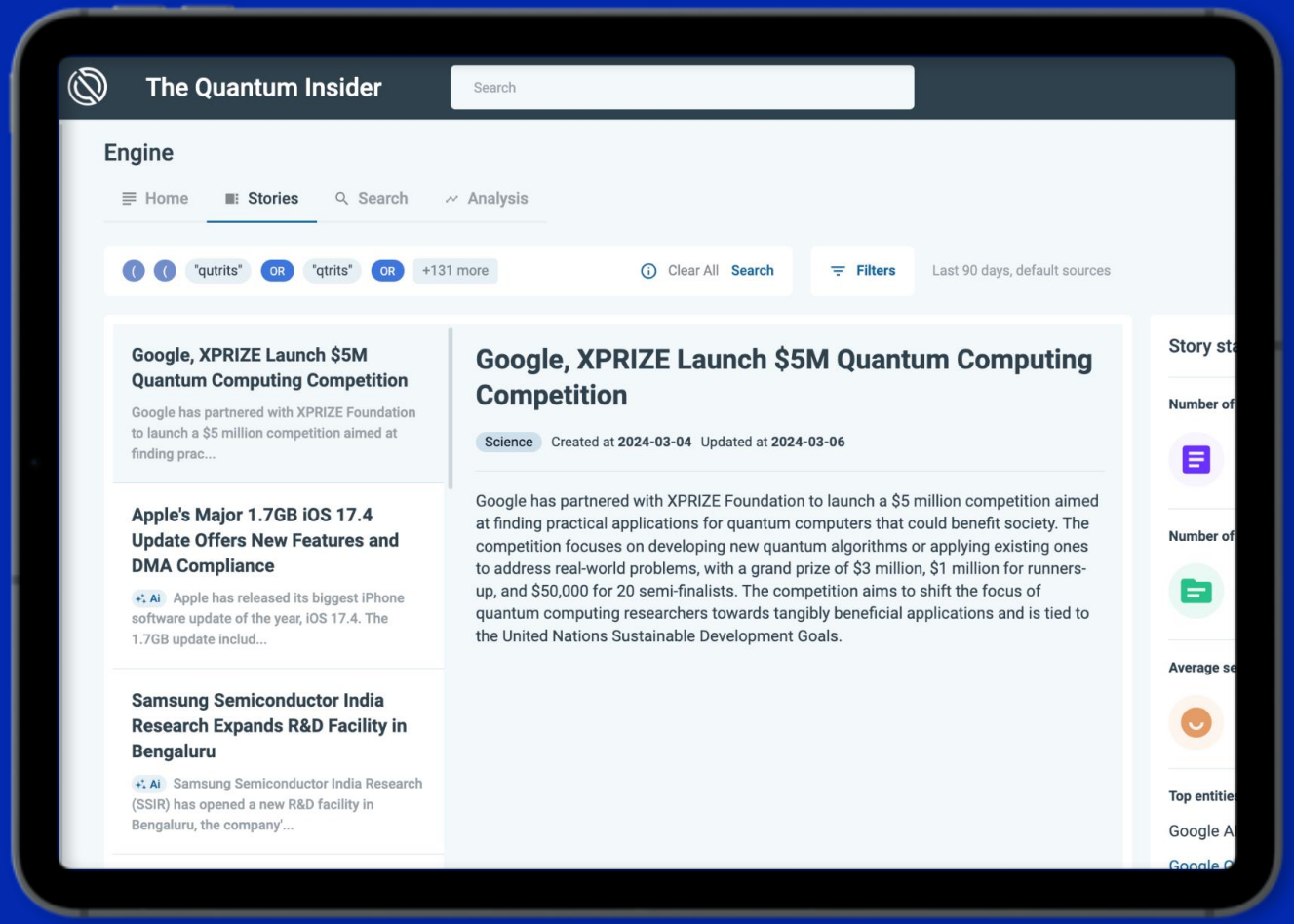
IBM scientists reported they came one step closer to overcoming a stubborn obstacle to unlock the game-changing potential of quantum computers. In a paper published as the cover story in Nature, IBM researchers describe a new quantum error-correcting code that is roughly 10 times more efficient than previous methods at protecting delicate quantum data from accumulating errors.

Want more news?



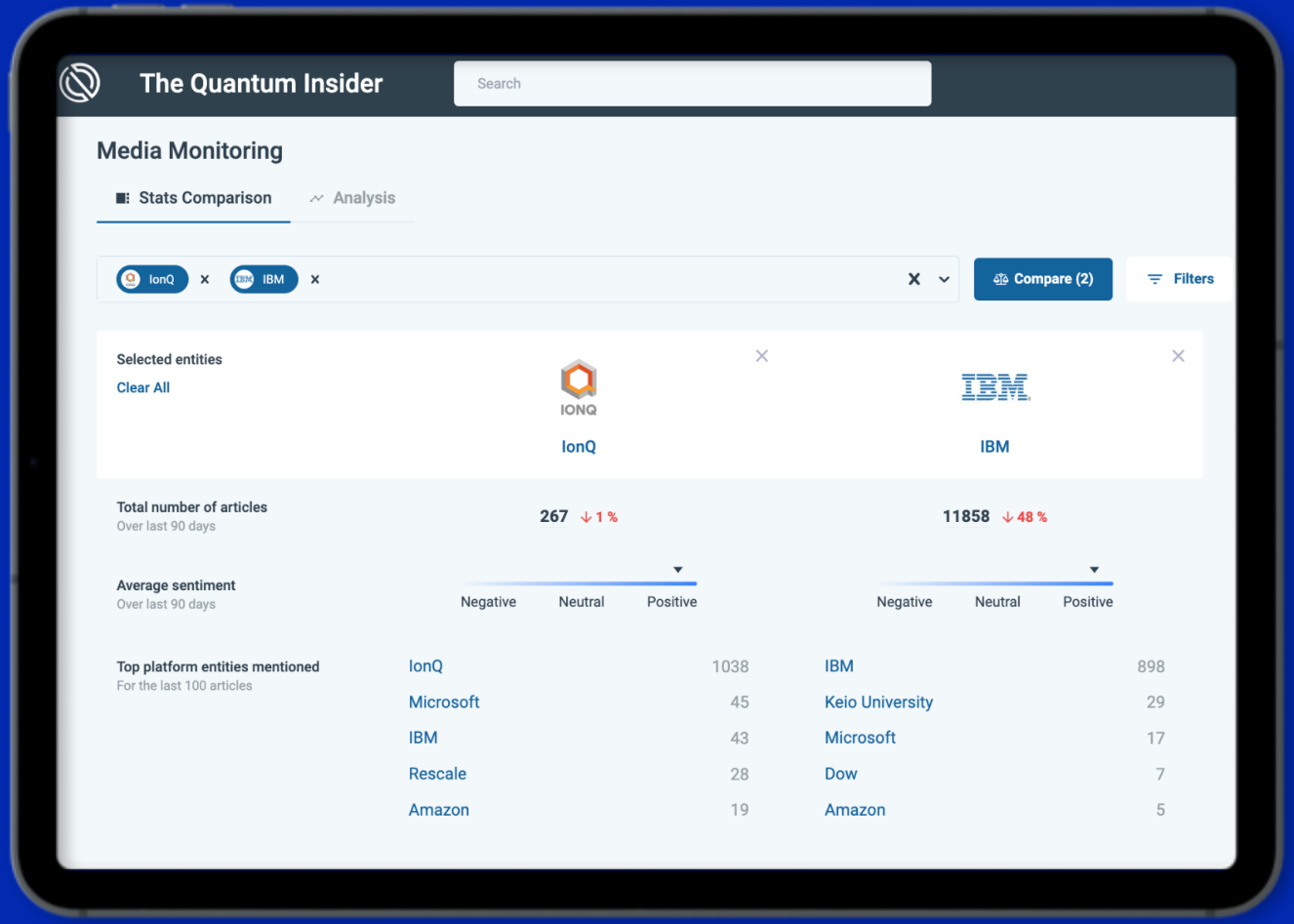
The Quantum Insider's intelligence platform customers now get access to curated news, ranked and analysed for sentiment and connected up to a rich entity database…

Want more news?



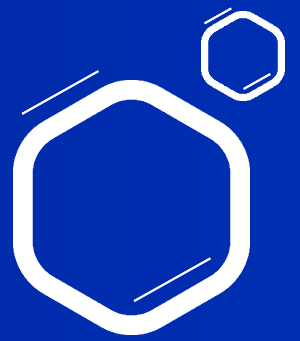
...enriched with AI summaries and named entity recognition…

Want more news?



…and powerful comparative tools

Key data



$0.4BN

New private capital flowing into Quantum Technology companies in 2023

-7%

Percentage change in private investment into quantum technologies in Q1 2024 versus Q1 2023

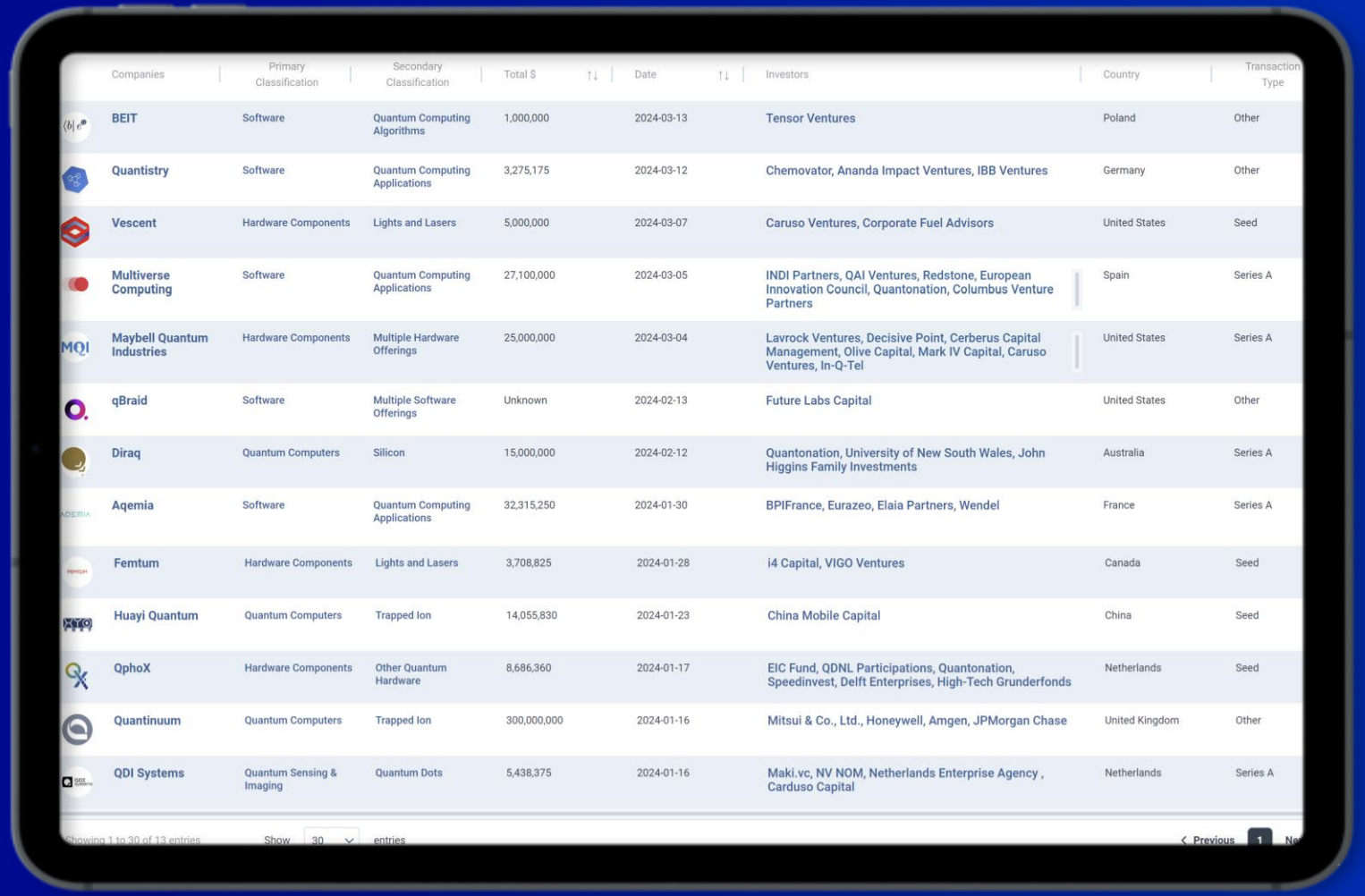
Quarterly quantum technology total funding

Investment in quantum technology has remained subdued in Q1 2024, in line with the same period over the previous year…

Quarterly quantum technology number of rounds

…and funding is being focused on fewer companies, driven by investors placing their bets and slower startup formation

Q1 2024 Funding Rounds



Companies	Primary Classification	Secondary Classification	Total $	Date	Investors	Country	Transaction Type
BEIT	Software	Quantum Computing Algorithms	1,000,000	2024-03-13	Tensor Ventures	Poland	Other
Quantistry	Software	Quantum Computing Applications	3,275,175	2024-03-12	Chemovator, Ananda Impact Ventures, IBB Ventures	Germany	Other
Vescent	Hardware Components	Lights and Lasers	5,000,000	2024-03-07	Caruso Ventures, Corporate Fuel Advisors	United States	Seed
Multiverse Computing	Software	Quantum Computing Applications	27,100,000	2024-03-05	INDI Partners, QAI Ventures, Redstone, European Innovation Council, Quantonation, Columbus Venture Partners	Spain	Series A
Maybell Quantum Industries	Hardware Components	Multiple Hardware Offerings	25,000,000	2024-03-04	Lavrock Ventures, Decisive Point, Cerberus Capital Management, Olive Capital, Mark IV Capital, Caruso Ventures, In-Q-Tel	United States	Series A
qBraid	Software	Multiple Software Offerings	Unknown	2024-02-13	Future Labs Capital	United States	Other
Diraq	Quantum Computers	Silicon	15,000,000	2024-02-12	Quantonation, University of New South Wales, John Higgins Family Investments	Australia	Series A
Aqemia	Software	Quantum Computing Applications	32,315,250	2024-01-30	BPIFrance, Eurazeo, Elaia Partners, Wendel	France	Series A
Femtum	Hardware Components	Lights and Lasers	3,708,825	2024-01-28	i4 Capital, VIGO Ventures	Canada	Seed
Huayi Quantum	Quantum Computers	Trapped Ion	14,055,830	2024-01-23	China Mobile Capital	China	Seed
QphoX	Hardware Components	Other Quantum Hardware	8,686,360	2024-01-17	EIC Fund, QDNL Participations, Quantonation, Speedinvest, Delft Enterprises, High-Tech Grunderfonds	Netherlands	Seed
Quantinuum	Quantum Computers	Trapped Ion	300,000,000	2024-01-16	Mitsui & Co., Ltd., Honeywell, Amgen, JPMorgan Chase	United Kingdom	Other
QDI Systems	Quantum Sensing & Imaging	Quantum Dots	5,438,375	2024-01-16	Maki.vc, NV NOM, Netherlands Enterprise Agency , Carduso Capital	Netherlands	Series A

Showing 1 to 30 of 13 entries Show 30 entries Previous 1

Q1 24 saw 13 quantum technology funding rounds.

Investment was spread regionally.

Quantinuum’s $300m funding stood out as one of the largest ever quantum technology investment rounds

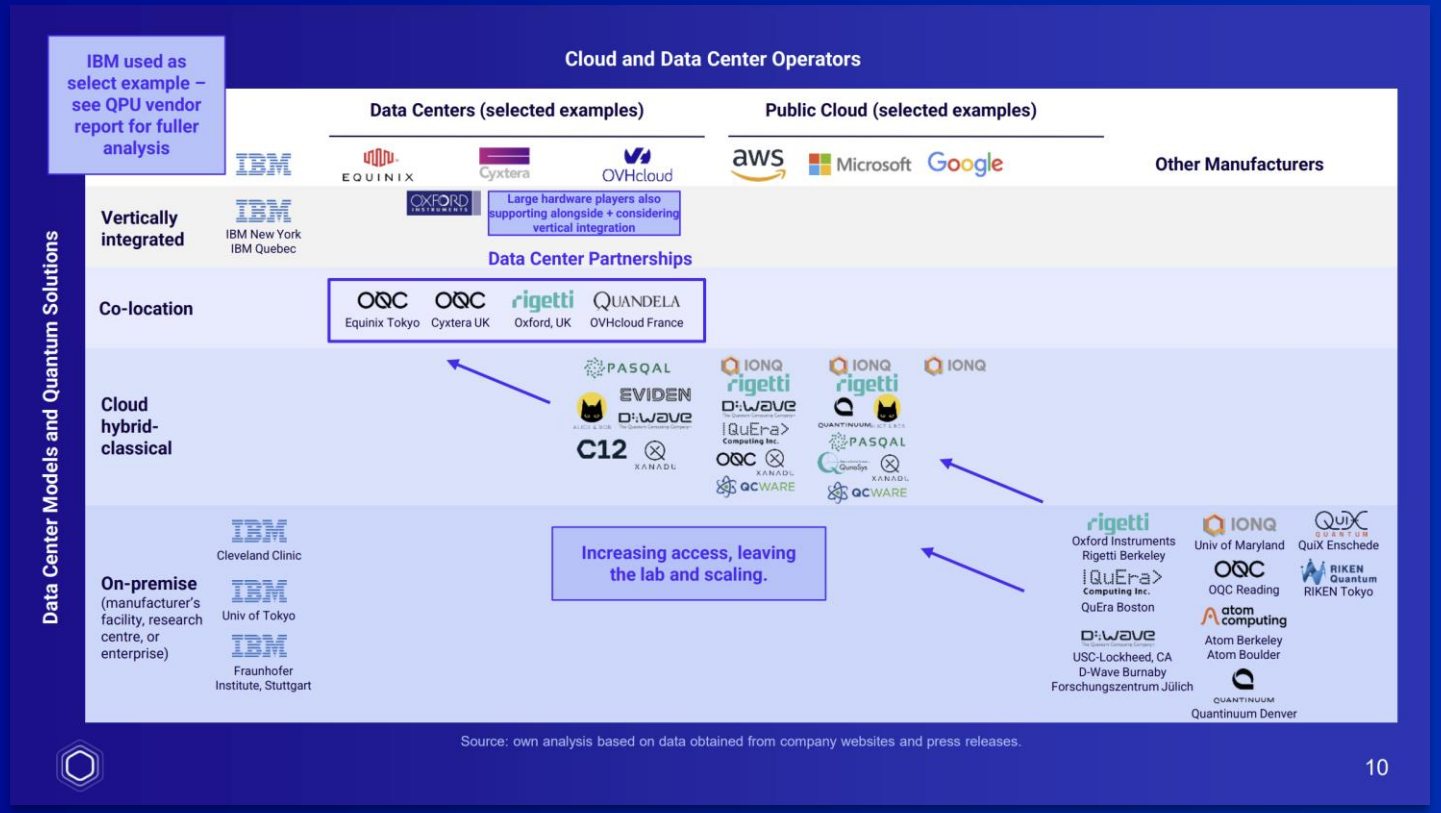
Q1 patents

In Q1 24, we tracked ~2.5k patents submitted by ~1k organizations

China led the way with >1.2k patents submitted

The large corporates are building material patent “war chests”

Q1 focus: quantum data centers

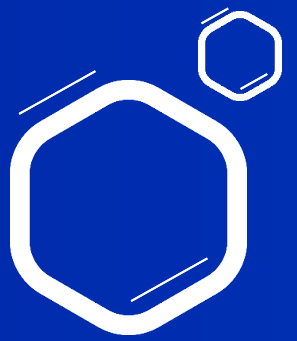


Report extract

We received a lot of inquiries into the emerging relationships between QC companies and traditional data center providers, and made a detailed report available to premium subscribers.

In Q1 24, premium subscribers also got access to data on emerging quantum enterprise users, grant opportunities and vendor sales data.

Appendix: About Us



Executive Summary

- Resonance provides data-underpinned market intelligence to enterprises, investors and governments.
- We are a venture-backed 40-person team of analysts, developers, consultants and ex-investors, HQ’d in Toronto, Canada.
- We specialize in complex, emergent markets such as quantum, space, immersive, AI, and climate-related technologies.
- Our **market intelligence** is underpinned by a combination of expert analysis and AI-underpinned data collection and structuring at scale and sold as a subscription
- We use our data to inform our **strategic advisory** work but enrich this with primary research, looping in our sector experts where required.
- We own proprietary media brands in the verticals we operate in, giving us a strong position to provide **marketing** services
- We have a strong track record of case studies and a blue-chip client base.

Resonance provides the market intelligence to navigate technologies shaping the future

Commercial offerings

- Data and market intelligence
- Enterprise marketing
- Strategic Advisory
- Catalyst / Labs

Industries covered

- THE QUANTUM INSIDER
- THE METAVERSE INSIDER
- SPACE IMPULSE
- CLIMATE INSIDER
- AI INSIDER

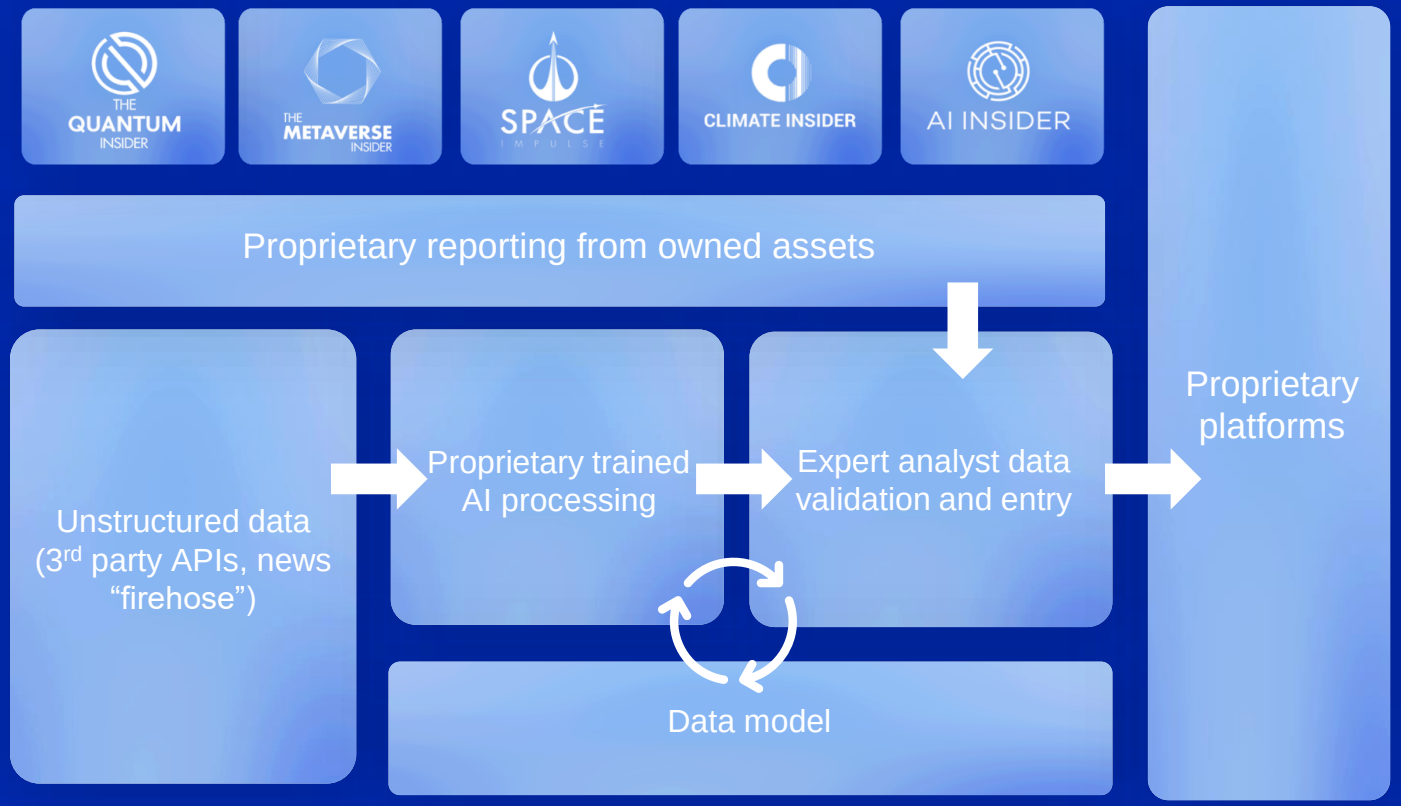
Metrics

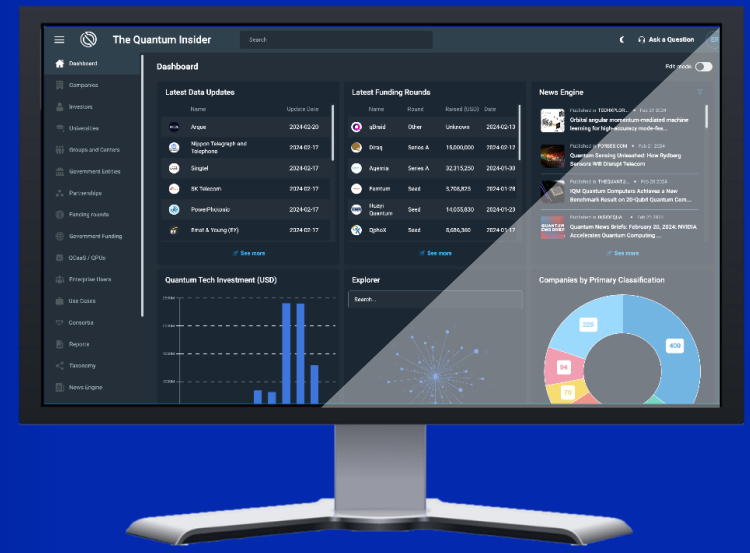
5	Verticals covered, representing the world's most critical exponential technologies
3	Live data platforms, proprietary AI-underpinned technology
1M+	Monthly readers
50k+	Social media followers
150+	Happy clients from startups to blue-chip enterprises and governments
120%	Revenue growth, representing consistent
Labs	Active deep tech research partnering with public institutions
Backing	Venture backed with deep industry connections and advisory board

We own proprietary intelligence platforms which provides customers with foundational intelligence on exponential technologies

Data and market intelligence

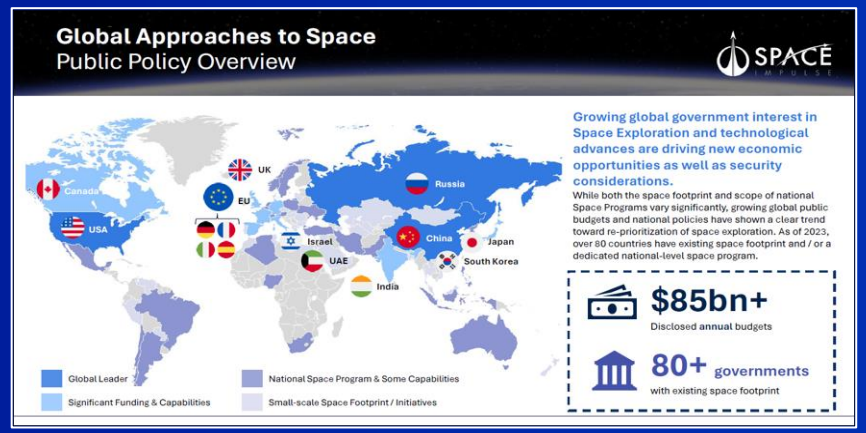
Our intelligence engine leverages AI to structure and present real time data, at scale

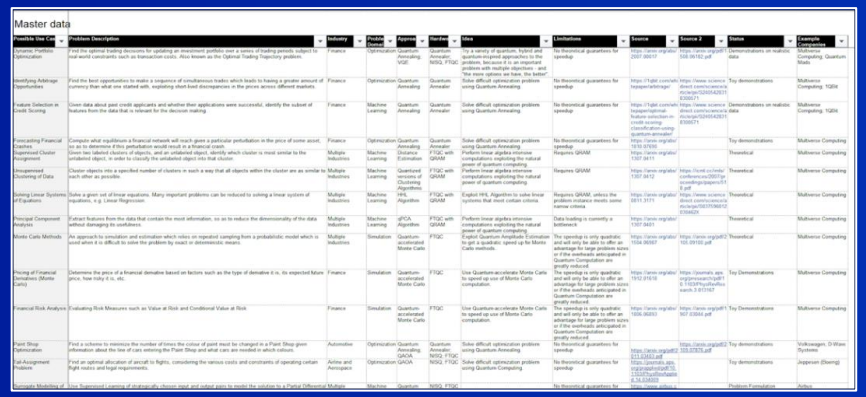




Data and market intelligence

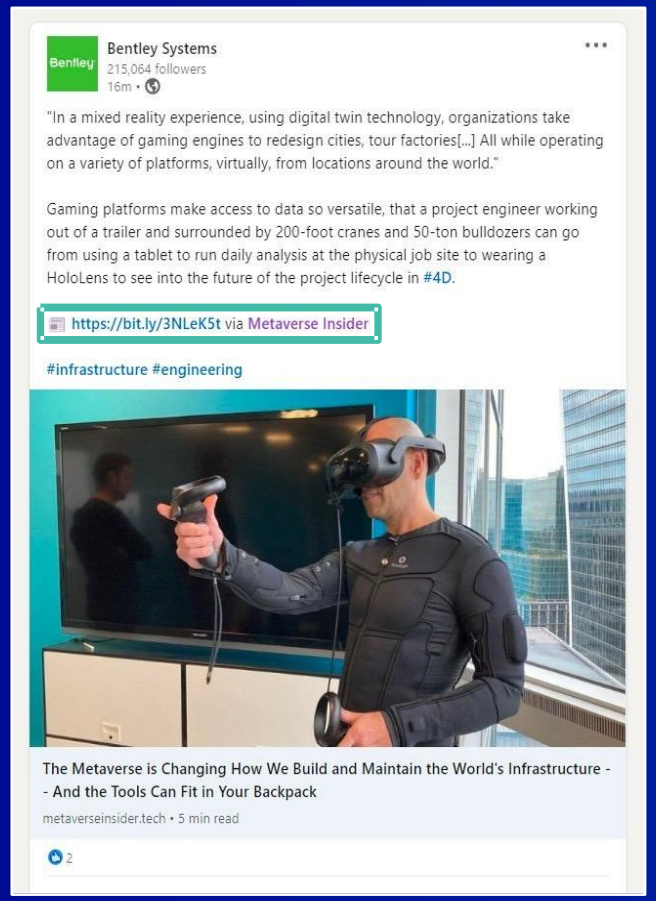
Our unique combination of proprietary industry intelligence and multi-disciplinary team underpins our strategic advisory support

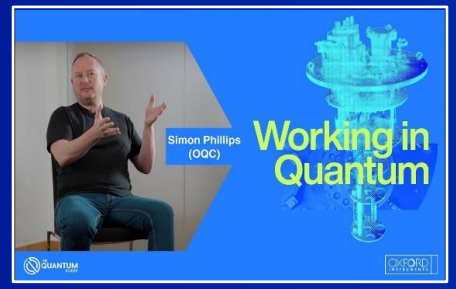


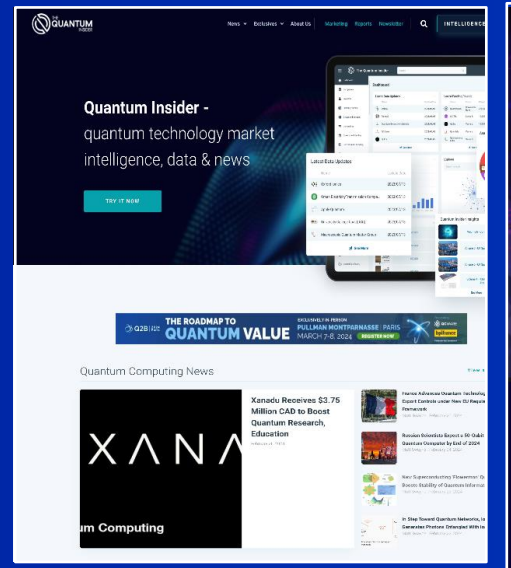


Strategic advisory

We provide incisive updates on exponential technologies and use our platforms to support our clients







Resonance Advisory Board

Dan Caruso

- 3X decacorn entrepreneur
- Managing Director of Caruso Ventures
- Previously, founding CEO/Chairman of Zayo Group

Inder Singh

- Numerous board positions, including at one of the world's leading quantum companies (IonQ)
- Former CFO of tech companies incl Arm, and a Wall Street veteran
- Advisor on critical infrastructure and national security projects

Stuart Woods

- Head of Operations & Strategy at Quantum Exponential
- Previously, Managing Director and board member at Oxford Instruments

Shelli Brunswick

- Numerous executive board and advisory positions
- Former COO of Space Foundation
- 25 years of experience in the US Air Force and global Space sector

Anton Black

- Partner at Rothschild
- European Head of Technology M&A
- Rothschild veteran with 20 years of experience advising on a wide range of technology transactions

Julianto Sidarto

- Numerous board positions including at one of Asia's largest mobile network operators (XL Axiata)
- Previously, Managing Director of Accenture in South-East Asia

GET IN TOUCH

We would love to hear your feedback on our work. Please don't hesitate to contact us.

✉ hello@resonance.holdings

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