



The Quantum Quarterly

Q3 2023

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

In the first two quarters of 2023, quantum looked to be one of those industries that managed to avoid the venture capital pullback and the general investment doldrums that hit most of the tech industry, besides the ChatGPT-fueled funding in artificial intelligence. However, at least where we stand today, the capital markets have cooled on quantum. In Q3 funding announcements were less frequent and raise size was smaller.

Not all is lost, however. Government intervention to tackle inflation seems to be easing. Meanwhile policymakers are ensuring that quantum technologies, integral to national security and prosperity, are continuing to back companies, startups and research institutions.

Another richer vein of silver in that lining: Quantum scientists continue to make significant advances on key issues to pave the way for practical quantum computing -- error correction work, among the most important.

In this report we will review a glimpse of those research and funding stories.



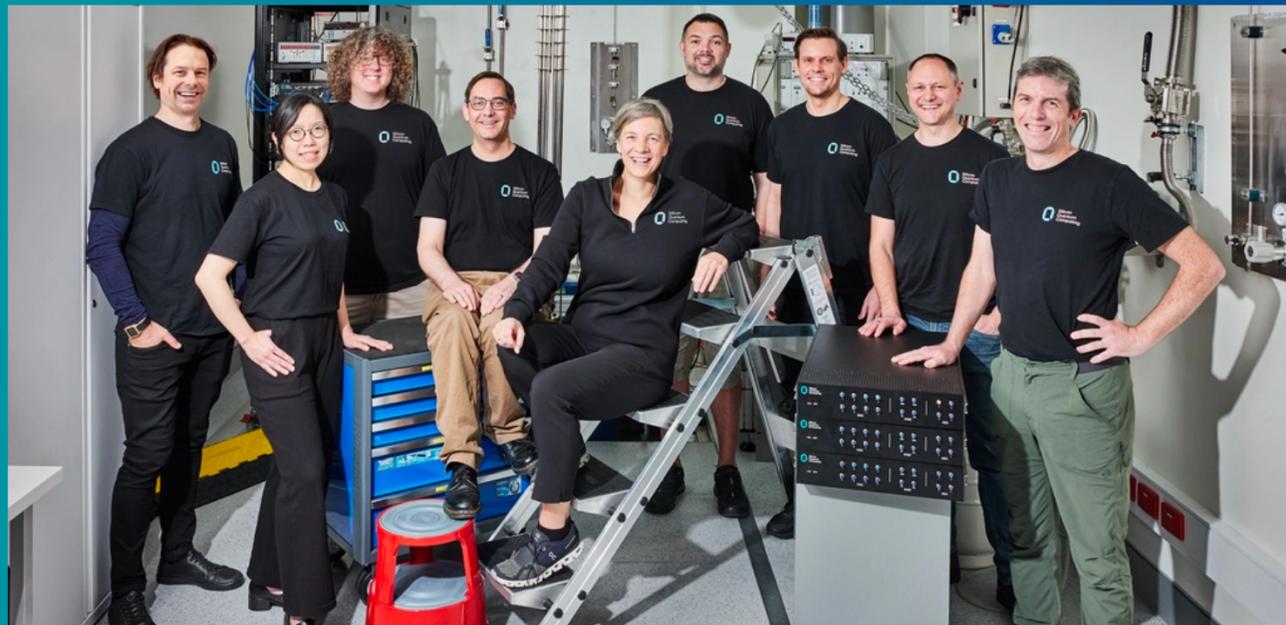
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THE QUANTUM QUARTERLY

The Big News



SILICON QUANTUM COMPUTING CLOSES \$50.4 MILLION SERIES A, FALLS SHORT OF INITIAL \$130 MILLION GOAL



Silicon Quantum Computing reportedly closed a \$50.4 million in Series A. The investors in this round include the Commonwealth Government and some of Australia's most prominent institutions. The raise is just over a third of the \$130 million the company was aiming at last year when they started the raise.



PHOTONVENTURES RAISES €60 MILLION TO SUPERCHARGE EUROPE'S PHOTONICS STARTUPS



PhotonVentures has launched a venture capital fund aimed at early-stage photonic chip startups and scale ups. €60 million was raised in its first financing round with PhotonDelta as the lead investor alongside numerous private investors. PhotonVentures plans to raise a total of €100 to €150 million, with its final close set for the start of 2024. It will prioritise Series A rounds.



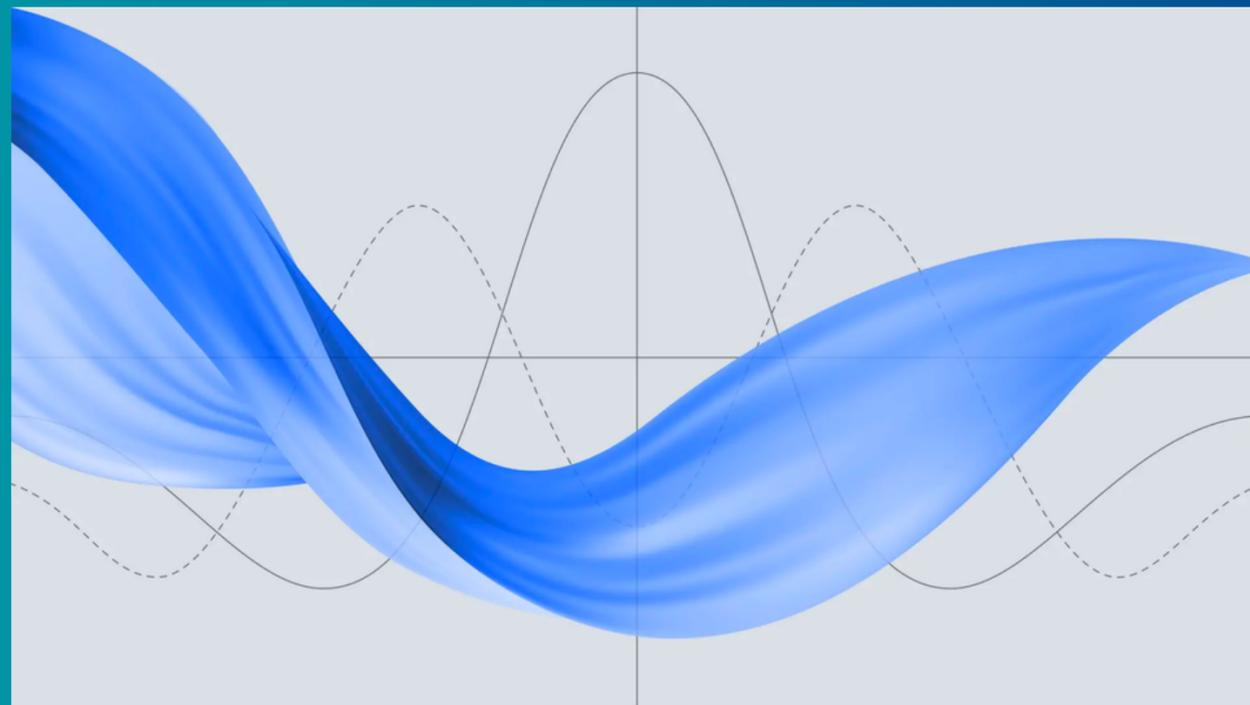
MAIN SEQUENCE SURPASSES \$1 BILLION FUNDS UNDER MANAGEMENT, LAUNCHES NEW FUND



Main Sequence, the Australian deep tech investment fund founded by Australia's national science agency CSIRO, has announced the first close of its third fund, raising \$AU450 million, surpassing the milestone of \$AU1 billion in total funds under management.



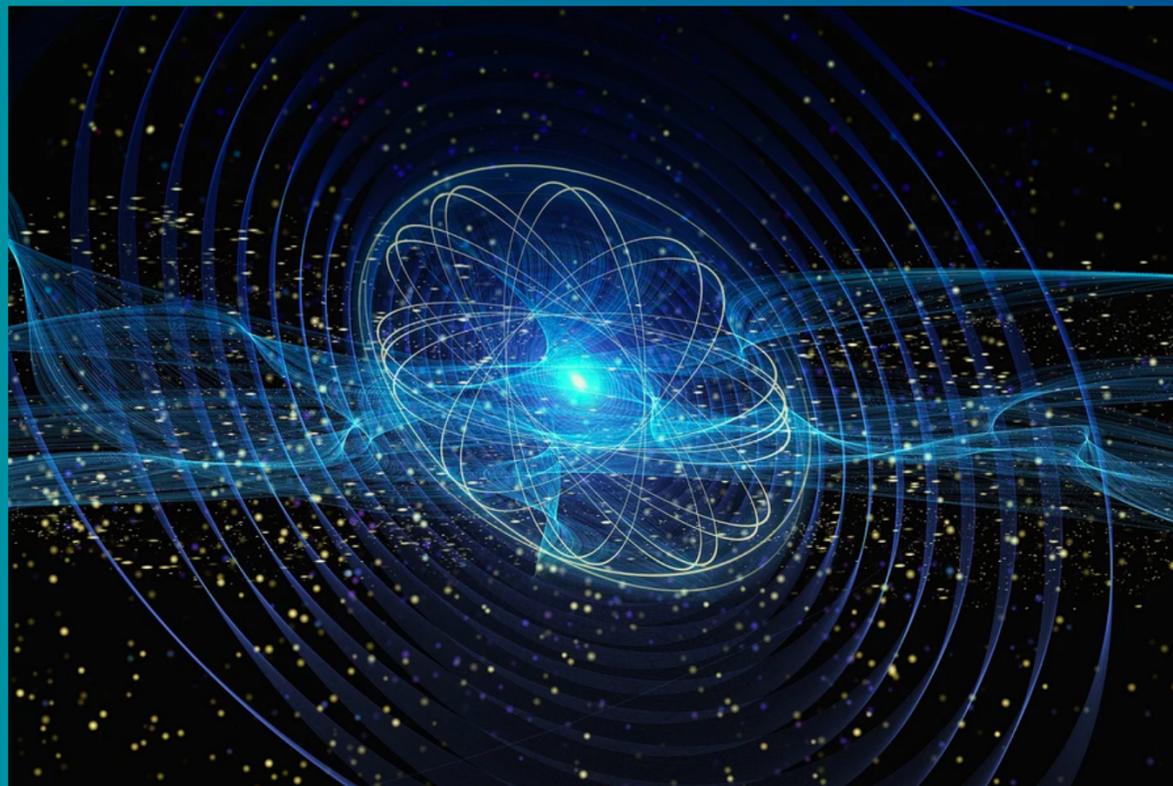
RESEARCH: IBM QUANTUM RESEARCH POINTS TOWARD QUANTUM SPEEDUP IN TACKLING COMPLEX, USEFUL CALCULATIONS



In a significant step towards making quantum computing practical and useful, IBM Quantum researchers report that they have made strides in extracting value from near-term quantum processors while laying the groundwork for fault-tolerant quantum-centric supercomputers.



RESEARCH: D-WAVE DEMONSTRATES STATE-OF-THE-ART COHERENCE RESULTS WITH FLUXONIUM QUBITS



D-Wave Quantum announced notable progress in its development of high coherence qubits, with results expected to have a significant impact on its future quantum technologies. D-Wave has designed, manufactured, and operated fluxonium qubits that have demonstrated quantum properties that are comparable to the best seen to date in scientific literature.



RESEARCH: IMMUTABLE TOPOLOGICAL STATES CAN BE ENTANGLED



Rice University physicists have shown that immutable topological states, which are highly sought for quantum computing, can be entangled with other, manipulable quantum states in some materials.

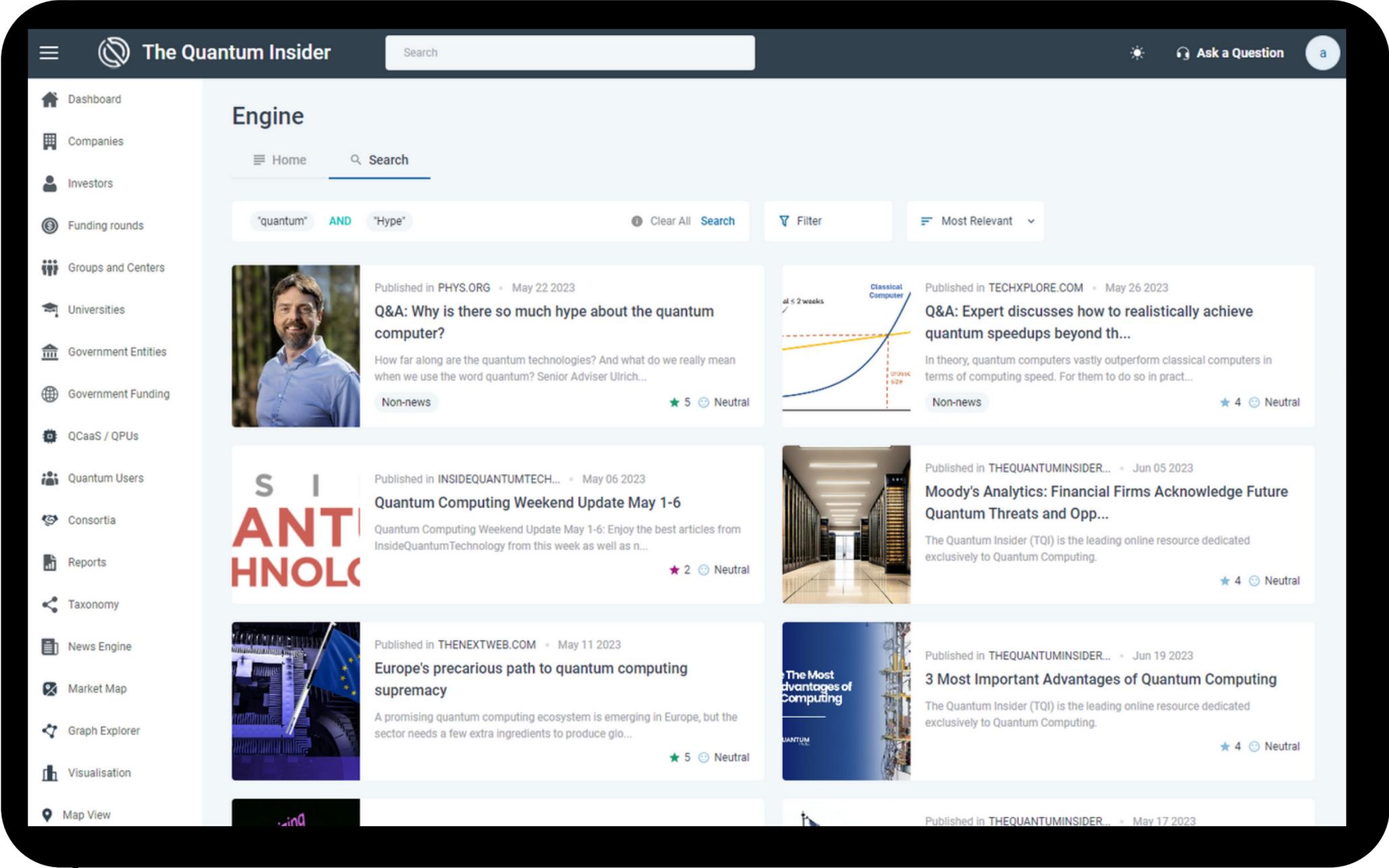


EXCLUSIVE: A BRIEF OVERVIEW OF QUANTUM COMPUTING IN SOUTH KOREA IN 2023



The announcement earlier this year that South Korea plans to invest over 3 trillion won (\$2.33 billion) in quantum science and technology by 2035 is a sure sign the country intends to become a global leader in the field. It will do this by increasing the number of quantum researchers seven-fold to 2,500 and developing its own quantum computer and advanced quantum sensors.

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.

Key numbers

\$329M

New private capital flowing into
Quantum Technology companies in
Q3 2023 (\$217m if SMART Photonics
excluded)

21

New disclosed private funding rounds
in Q2 23

Q3 2023 FUNDING ROUNDS

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Company Count
1171

Total Funding USD
9.0 bn

Most Recent Round
2023-09-15

ID	Companies	Primary Classification	Secondary Classification	Date	Country	City	Transaction Type
37525ff7-592c-4b22-8fb-34eb98da5aab	Oxford Ionics	Quantum Computers	Trapped Ion	2023-08-31	United Kingdom	Begbroke	Other
8e7647f0-abad-40e8-8c70-9e7713fdf231	Phasecraft	Software	Quantum Computing Algorithms	2023-08-16	United Kingdom	London	Series A
17549817-bf84-477d-8571-f6edbb82efae	SECQAI	Quantum Communications & Security	Multiple Security Solutions	2023-08-15	United Kingdom	London	Other
9444adf7-7407-43db-8d94-513c4e2670ac	SQE.io	Quantum Communications & Security	Multiple Security Solutions	2023-08-07	United States	Boston	Series A
d40232e6-0160-4fe7-b4a3-b0007c893570	Q-CTRL	Software	Firmware and Enablers	2023-07-25	Australia	Sydney	Series B
68e3625d-fdb1-4551-86d1-93f8fcd083ca	Silicon Quantum Computing	Quantum Computers	Silicon	2023-07-25	Australia	Sydney	Series A
d3621787-64af-4ca2-932e-6dcf5ffe568a	Optalysys	Quantum Communications & Security	Post Quantum Encryption	2023-07-17	United Kingdom	Hemsworth	Series A
46996c45-3823-4331-9244-9cf176b61ffd	Quobly (formerly SiQuance)	Quantum Computers	Silicon	2023-07-12	France	Grenoble	Seed
9afc463c-06e4-4c94-880a-3267b50c6845	SMART Photonics	Hardware Components	Lights and Lasers	2023-07-12	Netherlands	Eindhoven	Other

THE QUANTUM QUARTERLY

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About the Platform



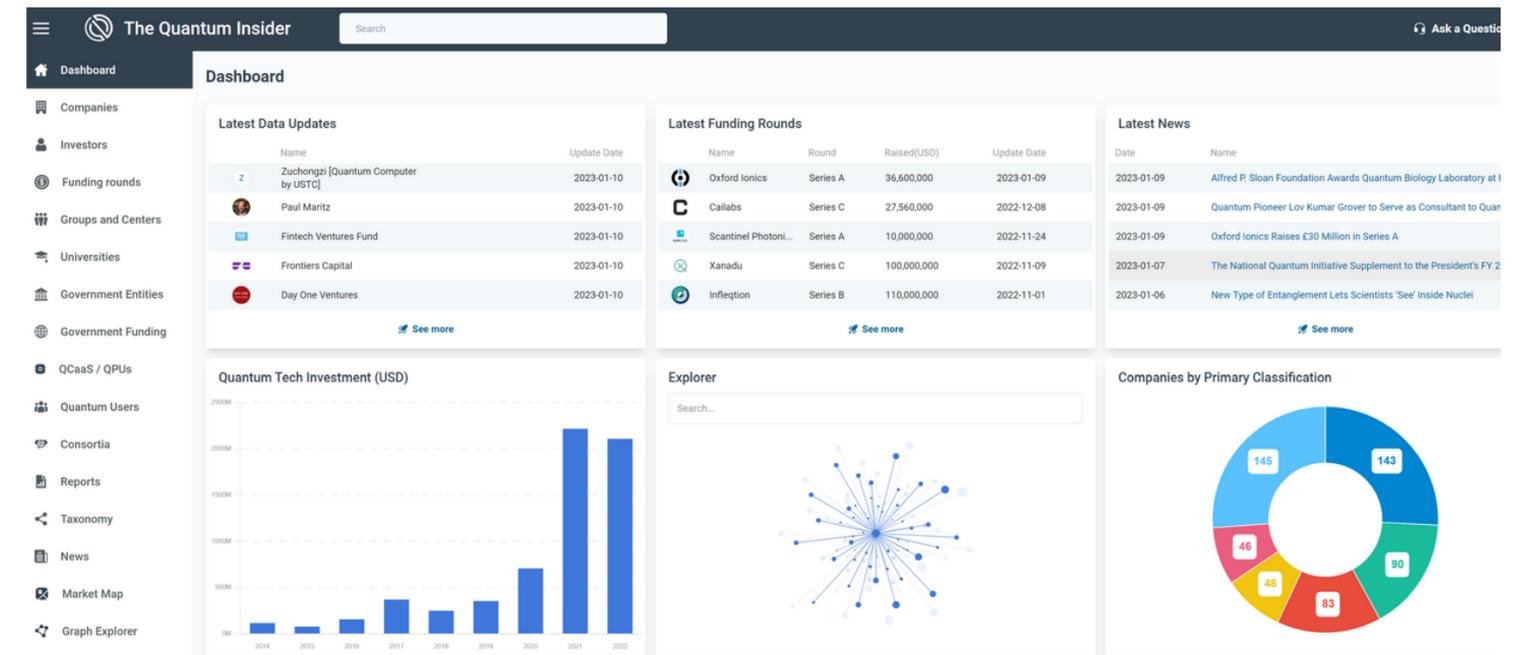
THE QUANTUM INTELLIGENCE PLATFORM

The leading provider of information, data, and insights on Quantum Technologies

OUR PLATFORM

The Quantum Insider collects and structures global data on quantum technologies and delivers this in a user-friendly platform.

Our platform helps investors, startups, corporations, accelerators, policy makers and governments gain a holistic overview of the quantum technology landscape.



Detailed data on companies, investors, academic groups, government institutions and more.



Proprietary taxonomy and customizable metadata.



Robust funding information that can be filtered by subsector and technology type.



Powerful visualization tools including our unique graph explorer and market mapping.

About the Platform



OUR FEATURES



CUSTOM TAXONOMY

We have applied our deep expertise in quantum technologies to carefully classify and segment all stakeholders across the ecosystem



ADVISORY

Our multidisciplinary team of experts help Start-ups, Multinational Corporations and Governments answer material questions and produce measurable value that is all underpinned by robust data



DUE DILIGENCE

Analyzing rapidly emerging technologies requires access to the latest and deepest information. Our platform provides you with myriad data points whether you need to source and evaluate investments, uncover competitive intelligence, or support your own products and services



MARKET INTELLIGENCE

The landscape of emerging technologies is constantly shifting. Our platform delivers deep analysis and reports, helping you to keep track of a complex, emerging industry and gain an edge over competitors



ECOSYSTEM

Our data covers more than companies and investors. We provide information on the wider quantum technology ecosystem including academic institutions, national labs and corporate end users



NEWS & MEDIA

News moves markets and changes industries. Get the latest industry news, reports and updates all powered by The Quantum Insider

OUR DATA



COMPANIES

1k+ quantum technology companies (including computing, security, sensing, etc.)



INVESTORS

800+ investors who have been involved in quantum technology fundraises



FUNDING

500+ funding rounds since 2012



GROUPS & CENTRES

More than 400 groups / centres involved in quantum technology research



UNIVERSITIES

All universities involved in quantum technologies



GOV. ENTITIES

Over 30 national labs and list of government agencies



END USERS

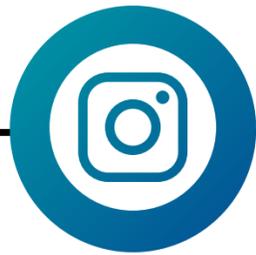
200+ end users of Quantum technology



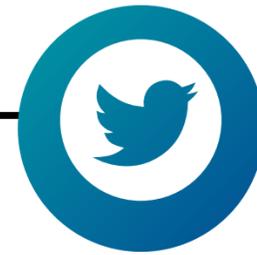
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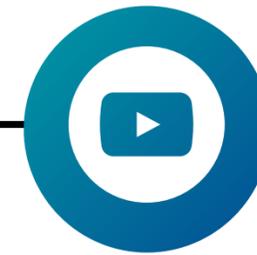
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