

# THE QUANTUM QUARTERLY

## Q2 2022

Welcome to the Quantum  
Quarterly Review.

Here we cover the biggest  
commercial news in the  
Quantum Computing industry  
over the last 3 months.

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# Q2 2022 IN BRIEF

"Buckle your seatbelts. It's going to be a bumpy ride." -- Quarter 2 to the Quantum Community.

The second quarter of 2022 was a crazy ride -- with incredible ups and some punishing downs. The industry matched some of the other dramatic turbulence politically and economically in the world. And those global conditions shaped the quantum turbulence for sure. As venture capitalists and other funders began to signal a pullback in investments in other industries, particularly tech, we heard rumors that quantum startups should expect the open checks might be closing up.

We had some other achievements and challenges unique to quantum, though. ionq xanadu

Speaking of research, institutions and organizations have announced major advances.

We'll look at the quarter's highlights next.



*Click this icon throughout this pres to see the full stories behind the brief*



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# THE BIG NEWS



## **SOURCES: XANADU CLOSE TO \$100 MILLION FUND RAISE, \$1 BILLION VALUATION**



The Globe and Mail reports that Xanadu Quantum Technologies may be on the verge to ink another \$100 million (US) in financing round. The Canadian newspaper, citing three unnamed sources, reports that Georgian Partners will lead the round and would spot valuation of the Toronto-based quantum computer pioneer at \$1 billion, more than double its estimated size if the round is successful.



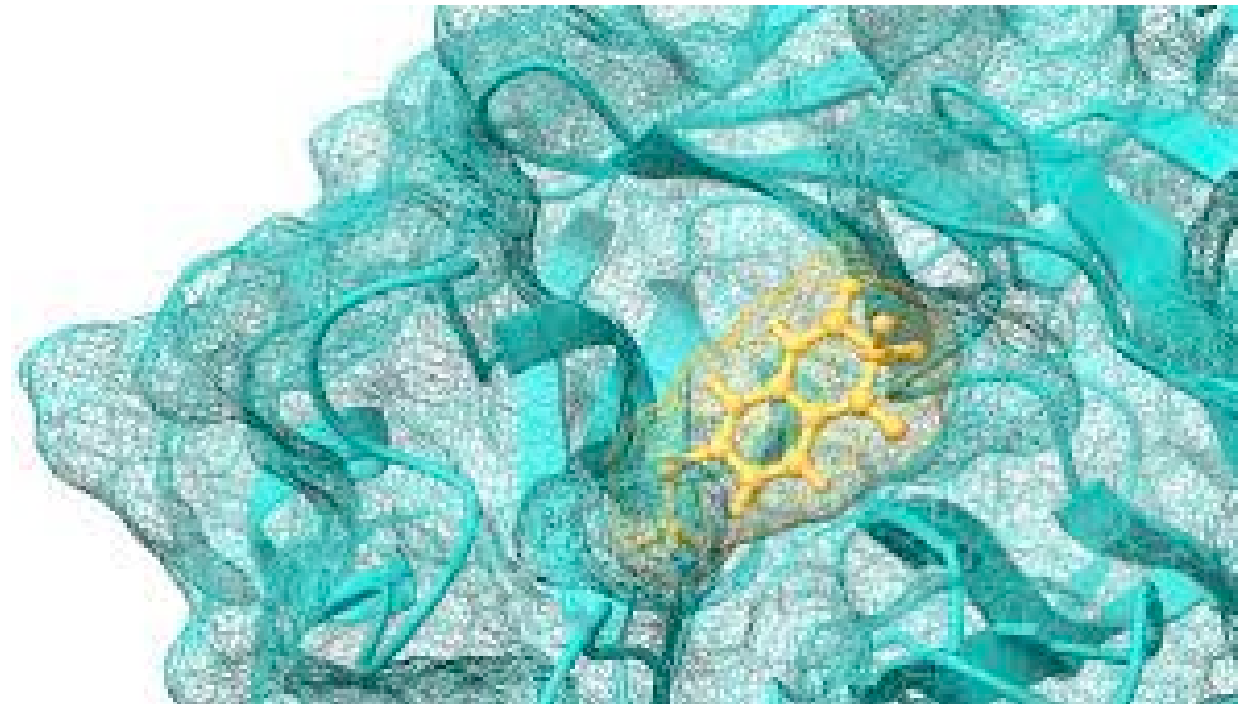
## **TERRA QUANTUM AG EXTENDS SERIES A FUNDING TO \$75 MILLION**



Terra Quantum AG, a globally leading quantum technology company, announced today that it has extended its Series A funding round to \$75 million, as well as its research offering a ground-breaking solution to the longstanding challenge of efficient power devices for nanoelectronics. Terra Quantum is the first company to reveal the underlying mechanism of ferroelectric-based negative capacitance while also sharing methods for its practical realization.



## **QUBIT PHARMACEUTICALS RAISES €16.1 MILLION IN SEED ROUND**



Qubit Pharmaceuticals announced that the company raised €16.1 million in a seed round. Investors in the round include Quantonation, XAnge, Omnes Capital and Octave Klaba. Qubit Pharmaceuticals is working to leverage the tremendous computational powers of early stage quantum computers and supercomputers to boost the discovery of new drugs.





## **HORIZON QUANTUM COMPUTING RAISES \$12 MILLION FROM TENCENT HOLDINGS**



Horizon Quantum Computing raised \$12 million in Series A funding from Tencent Holdings, according to a story in Deal Street Asia. We understand that this is part of a wider funding round that is in process. Horizon Quantum Computing is based in Singapore and led by Joseph Fitzsimons, who is CEO and a founder of the company, and chief science officer Si-Hui Tan



**WATERLOO-BASED  
EVOLUTIONQ SECURES  
\$5.5 MILLION IN SERIES A**



evolutionQ, a Kitchener-Waterloo-based company pioneering the development of quantum-safe cybersecurity products, announced the closing of US\$5.5 million in Series A funding from a group of international venture capital (VC) partners.

Quantonation, a Paris-based VC fund dedicated to quantum technologies, led the investment, with participation from the USA and Canada, including The Group Ventures, a Toronto-based fund focused on early-stage tech start-ups.



## **AEGIQ ANNOUNCES TOTAL FUNDING NOW NEARLY £4 MILLION**



Aegiq has announced that it secured significant investment from Black Quant and Quantum Exponential, as well as private angels. Together, with existing funding from Innovate UK and High-Tech Gründerfonds, the investment brings Aegiq's total available funding to nearly £4 million, or about \$4.8 million. Sources suggest the latest round brought in about \$1.5 million.



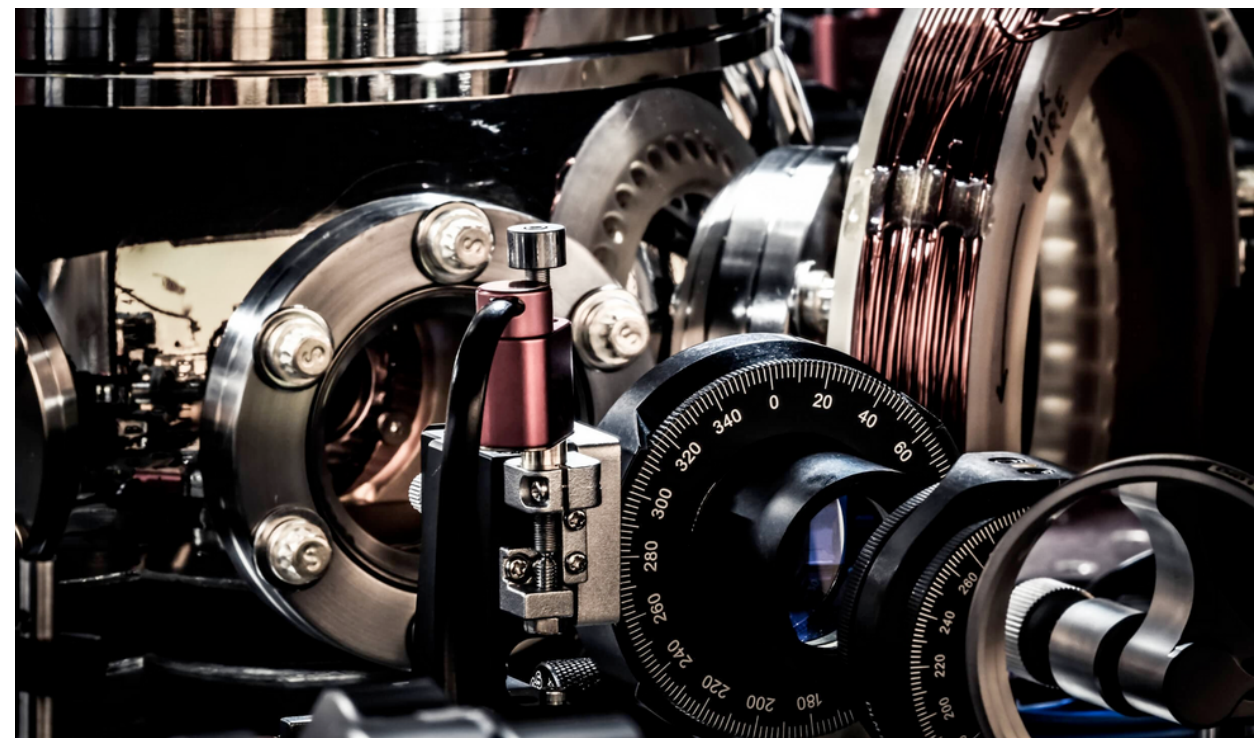
# RESEARCH: XANADU'S CLOUD QC HITS QUANTUM COMPUTATIONAL ADVANTAGE



Xanadu reportedly demonstrated quantum computational advantage using Borealis, their newest photonic quantum computer. It is the first photonic quantum computer offering full programmability of all its gates to demonstrate quantum computational advantage, and the first time that a machine capable of quantum advantage has been made available to the public in the cloud.



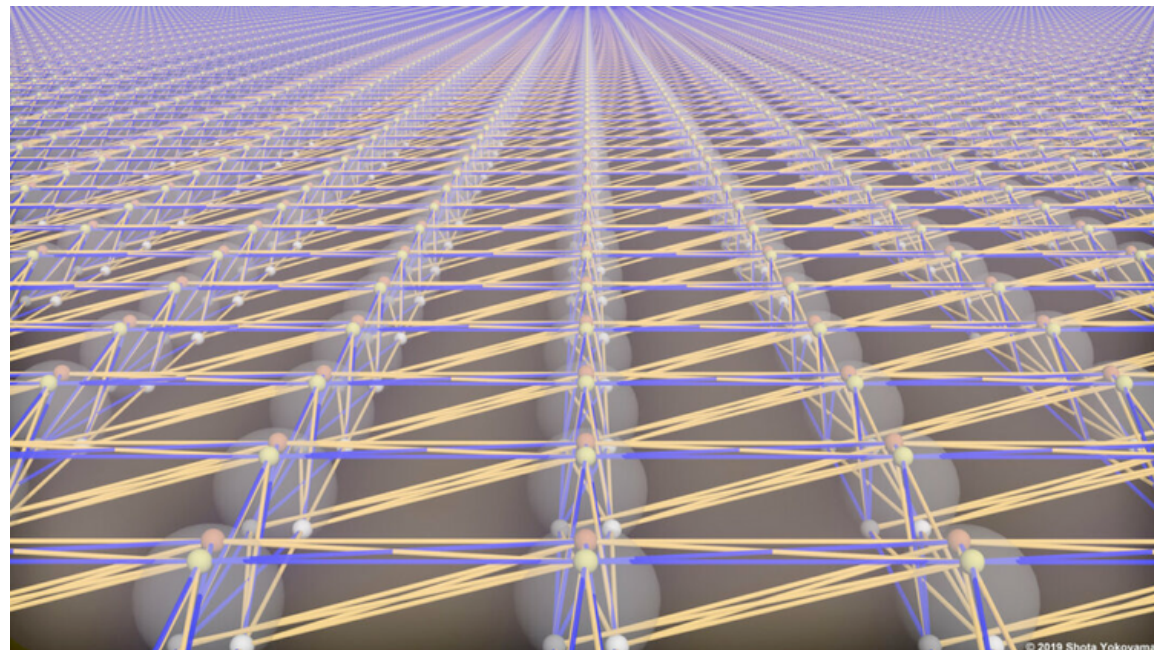
## **RESEARCH: QUANTINUUM COMPLETES HARDWARE UPGRADE; ACHIEVES 20 FULLY CONNECTED QUBITS**



Quantinuum completed a major upgrade to its System Model H1 technology that includes expanding to 20 fully connected qubits and increasing the number of quantum operations that can be completed in parallel. The company said these improvements will increase bolster the computational capabilities of the H1-1 quantum computer.



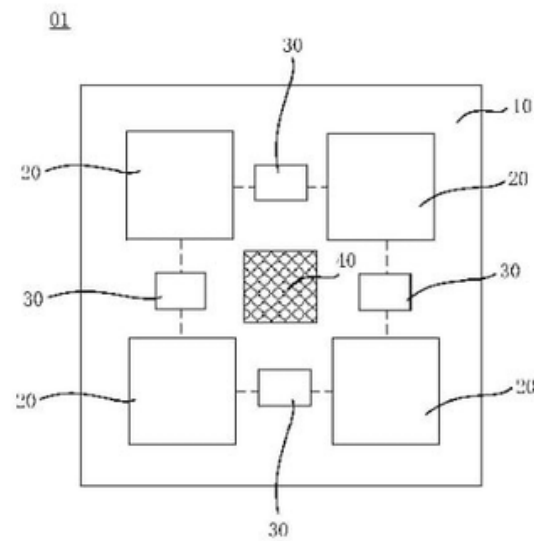
## RESEARCH: SCIENTISTS EXPLORE TOPOLOGICAL QUANTUM APPROACH



In a study published in Nature, researchers said they were able to create an ordered and tunable Majorana-zero-mode (MZM) lattice, which they say could serve as the backbone for topological quantum computers. Topological quantum computers rely on unitary quantum gates that result from the braiding of certain topological quantum objects — quasiparticles — called anyons.



# RESEARCH: HUAWEI FILES PATENT FOR QUANTUM CHIP AND COMPUTER



**Huawei Patent  
Quantum Chip  
and  
Computer**



Huawei has recently issued a novel invention patent related to the Quantum chip and computer. The company published the respective patent with a specified number as CN114613758A. According to the latest information, the current Huawei patent offers a quantum chip as well as a computer to solve the low yield issues.

THE QUANTUM QUARTERLY



# CAPITAL MARKETS



# \$100M

of new private capital flowing into  
Quantum Technology companies in Q1  
22












*Excludes unknown raises from Synergy  
Quantum, Good Chemistry and Diraq*

# 12

New disclosed private funding rounds in  
Q2 22

# FUNDRAISES IN THE QUARTER

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	Companies	Primary Classification	Secondary Classification	Date	Country	City	Transaction Type	Region	Total \$M	Edit
	<b>Oxford Quantum Circuits</b>	Quantum Computers	Superconducting	2022-07-04	United Kingdom	Shinfield	Series A	EMEA	45,220,000	<a href="#">Edit</a>
	<b>Quantum Source</b>	Quantum Computers	Photonics	2022-07-03	Israel	Rehovot	Seed	EMEA	15,000,000	<a href="#">Edit</a>
	<b>planqc</b>	Quantum Computers	Neutral Atoms	2022-06-28	Germany	Munich	Seed	EMEA	4,784,000	<a href="#">Edit</a>
	<b>EvolutionQ</b>	Other Quantum	Consultancy	2022-06-13	Canada	Kitchener	Series A	Americas	5,500,000	<a href="#">Edit</a>
	<b>Qubit Pharmaceuticals</b>	Software	Quantum Computing Applications	2022-06-10	France	Paris	Seed	EMEA	17,066,000	<a href="#">Edit</a>
	<b>ORCA Computing</b>	Quantum Computers	Photonics	2022-06-09	United Kingdom	London	Series A	EMEA	15,000,000	<a href="#">Edit</a>
	<b>QuantWare</b>	Quantum Computers	Superconducting	2022-06-08	Netherlands	Delft	Other	EMEA	7,875,000	<a href="#">Edit</a>
	<b>Universal Quantum</b>	Quantum Computers	Trapped Ion	2022-05-16	United Kingdom	Brighton	Other	EMEA	553,500	<a href="#">Edit</a>
	<b>AegiQ</b>	Hardware Components	Lights and Lasers	2022-05-03	United Kingdom	Sheffield	Other	EMEA	1,500,000	<a href="#">Edit</a>
	<b>Diraq</b>	Quantum Computers	Silicon	2022-04-30	Australia	Sydney	Seed	APAC	1	<a href="#">Edit</a>
	<b>IQM</b>	Quantum Computers	Superconducting	2022-04-28	Finland	Espoo	Other	EMEA	36,750,000	<a href="#">Edit</a>

Extracts from our intelligence platform

Notes: All fundraises shown in \$m and converted at spot rate on the day of announcement \*Total \$m is latest round

# THE QUANTUM INSIDER (TQI) IS THE LEADING PROVIDER OF NEWS AND MARKET INTELLIGENCE IN THE QUANTUM TECHNOLOGY SECTOR



TQI has 3 mutually synergistic offerings

## WHAT WE HAVE

## WHAT WE OFFER



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Incisive and regular news on the quantum technology market - keeping people informed, up-to-date and connected

Multi-channel digital marketing campaigns designed to support your product, service or call to action



### INTELLIGENCE

Robust market intelligence on the quantum technology industry - providing stakeholders with rich commercial data and insights

Free community access to our basic data; paid subscription access to online intelligence platform



### CONSULTING

Advisory and strategy consulting in the quantum technology market - supporting client's business growth through quantum tech

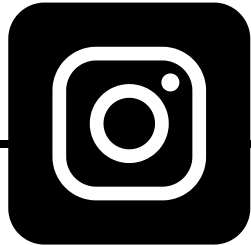
Bespoke advisory and consulting projects to answer specific questions for our clients



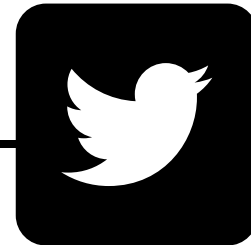
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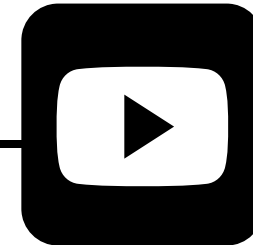
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