

Quantum Insider Insights: Volume 1 - HQS / CQC

At TQD access to our leading data platform - [The Quantum Insider](#) – allows us to provide deeper insights into the key recent quantum news.

Honeywell Quantum Solutions / Cambridge Quantum

The news is still circulating about the Honeywell Quantum Solutions and Cambridge Quantum joint venture.

Key points in [our story in TQD](#):

- Honeywell Quantum Solutions (HQS) and Cambridge Quantum Computing (CQC), two world-leading quantum computing and quantum technology businesses, will combine to form what is expected to be the largest standalone quantum computing company in the world.
- Honeywell will own a majority stake in the new company, with commensurate governance rights.
- Honeywell will invest between \$270 million and \$300 million in the new company and will have a long-term agreement to help manufacture the critical ion traps needed to power the quantum hardware. Honeywell's businesses will continue to serve as a proving ground for the new company's quantum offerings.
- Honeywell Chairman and Chief Executive Officer Darius Adamczyk will serve as chairman of the new company, Ilyas Khan, the CEO and founder of CQC will serve as CEO and Tony Uttley, currently the president of HQS, will serve as the new company's president.
- The combined company will have a staff of over 300, more than 100 of whom hold doctorates and over 200 of whom are scientists that include some of the world's leading quantum computing experts.

Observations

Consolidation

The repercussions may last much longer than the headlines, particularly in whether this move trips a surge in quantum technology M&A. If so, how will it alter the rapidly emerging quantum landscape? If quantum players are looking for joint ventures, there are a lot of pieces on the board. HQS-CQ model -- coupling hardware and software -- should be easy to find matches because, at least at this point, the quantum market remains highly fragmented. You could theoretically match a major software player -- let's say a Zapata or a Riverlane -- with any number of quantum hardware developers. This may create a degree of soul-searching in the market as players decide what part of the future quantum value chain they want to sit in. Having full control over your hardware has its advantages but it may involve an annual capex bill which is unsavoury for many companies focussed on developing the software. For investors in QC companies, there may be a degree of FOMO -- fear of missing out -- some may feel pressure to demonstrate big deals. With that said, hardware agnostic quantum software players might not

want to give up their independence and their ability to be versatile as winners in the quantum hardware field becomes more evident.

Divestitures

We could also start seeing more spin outs in the market. As Honeywell did with its Quantum Solutions unit, larger concerns -- think of your Googles and IBMs -- could consider spinning out their quantum businesses to satisfy the market. We believe this holds less strategic logic than the Honeywell approach; many of the other large corporates have growing Cloud computing businesses, where Quantum Computing as a Service (QCaaS) may fit nicely as part of their wider business in the future.

The Insider View

Speaking of which, one of the real stories behind the HQS-CQ merger is the increasing investment demand for quantum technologies. One of the reasons behind the joint venture is investor demand. Investors wanted to invest JUST in HQS, not Honeywell’s other super-profitable business units.

According to Adamczyk:

“Since we first announced Honeywell’s quantum business in 2018, **we have heard from many investors who have been eager to invest directly in our leading technologies at the forefront of this exciting and dynamic industry – now, they will be able to do so.** The new company will provide the best avenue for us to onboard new, diverse sources of capital at scale that will help drive rapid growth.”

We have seen increasing funding flowing into quantum technologies (whether through VCs or SPACs) and believe this transaction will kick off a spate of other “big deals”.



Matt Swayne, Editor and Analyst

Matt Swayne is the editor of The Quantum Daily. He is a science and information officer at Penn State and has over 30 years journalistic experience. He has written extensively on the key quantum ethics issues, including numerous interviews with key industry thought leaders



Alex Challans, CEO

Alex Challans is the CEO of The Quantum Daily. He was previously an Investment Director of a London-based Private Equity fund, focussed on technology investments.