

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

**Quantum Computing Inc: A Failed Beverage
Company Rebottled into a Retail-Driven
Quantum Scam
(NASDAQ: QUBT)**

Laurens Brisbane

December 2024 / January 2025

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

Part 1, Overview and History: The Bizarre Journey from Beverage Distribution to Quantum Computing

“The past is never dead. It’s not even past.” – William Faulkner

Quantum Computing Inc (the “Company”) focuses on providing software tools and applications for quantum computers in Virginia. The Company offers Qatalyst, a quantum application accelerator that enables developers to create and execute ‘quantum-ready’ applications on conventional computers, while being ready to run on quantum computers. The Company also provides multiple quantum processing units including DWave, Rigetti, and IonQ. It focuses on serving commercial and government entities.

Despite current hype around quantum computing, this paper will attempt to provide reasonable grounds for suspicion of the company and justify why a near 3000% stock runup in 6 months is a bubble waiting to burst.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

In order to understand the present-day company that is Quantum Computing Inc, one must first understand its history. Formerly known as Innovative Beverage Group Holdings Inc, (OTC: IBGH), which was the surviving entity as a result of a merger between Kat-A-Tonic Distributing Inc, and United European Holdings Ltd, was a company that engaged in beverage distribution operations and product development. In 2013, IBGH ceased operations, and in May of 2017, an IBGH shareholder (William Alessi) filed suit against IBGH alleging ‘fraud, breach of fiduciary duties of care, loyalty and good faith to the corporation’s shareholders’. Alessi’s complaint alleged that the officers and directors of IBGH had abandoned it and allowed the company’s assets to be wasted, causing injury to the company and its shareholders. In 2017, the North Carolina Court entered a default judgement for the plaintiff and appointed a receiver over the company. In January of 2018, while the company was in receivership, it sold 500,000 shares to Convergent Risk Group (CRG), a company owned and operated by the Company’s (IBGH) former CEO, Robert Liscouski. Mr. Liscouski will become relevant later, as he is someone who pivoted from a career as a homicide detective and now runs a multibillion-dollar company. Mr. Liscouski was simultaneously elected as Chairman of the Board and directed the Company to change its domicile from North Carolina to Delaware and change its name to Quantum Computing Inc (SEC, 2020).

The story of Quantum Computing thus far, is a former homicide detective buying a failed beverage company out of receivership for \$155,000 and turning it into a quantum computing software business, seemingly out of nowhere. Since incorporation, the financial picture of the Company has been bleak. The Company generated 0 dollars of revenue from FY17-21, only generated \$100,000 of revenue in FY2022, and \$400,000 in 2023. As of the 3 quarters of 2024, the company has generated \$311,000 in revenue, making an average of \$34 thousand per month. In this period, the Company posted a net loss of around \$17 million, similar to prior years, in which the company also loses tens of millions annually. In 2022, net income was -\$38 million, 2021 was -\$27.9 million, 2020 -\$24.7 million, etc. The company has around \$21 million dollars in tangible assets.

Most of the sales the Company has are also attributable to OTC traded staffing company Quad-M Solutions, which is also the Company’s first consulting customer. Quad-M is directed by Liscouski, who also happened to be CEO of Quantum Computing at the time.

Recently, the Company announced a contract with NASA, sending the stock flying 33%, on top of its already massive 1600% rise at the time. Navigating the decrepit website of the Federal Procurement Data System, we were able to find the exact specifications of the contract:

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

Award ID (Mod#):	80NSSC25PA273 (0) (View)	Award Type:	PURCHASE ORDER
Legal Business Name:	QUANTUM COMPUTING INC	Contracting Agency:	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Date Signed:	December 05, 2024	Action Obligation:	\$26,163.2
Referenced IDV:		Contracting Office:	NASA SHARED SERVICES CENTER
NAICS (Code):	CUSTOM COMPUTER PROGRAMMING SERVICES (541511)	PSC (Code):	IT AND TELECOM - COMPUTE AS A SERVICE: MAINFRAME/SERVERS (DB10)
Entity City:	HOBOKEN	Unique Entity ID:	DMTDV6GZCQZ3
Entity State:	NJ	Ultimate Parent Unique Entity ID:	DMTDV6GZCQZ3
Entity ZIP:	070305722	Ultimate Parent Legal Business Name:	QUANTUM COMPUTING INC
Cage Code:	8DR21		

The only contract NASA has done with Quantum Computing Inc, is one worth \$26 thousand, for ‘custom computer programming services’, with no further information available in the contract details. Despite the miniscule size of the contract, which isn’t even enough to cover the Company’s rent, the Company enthusiastically announced it ‘Wins NASA contract to address phase unwrapping with Dirac-3 photonic solver’, declaring it a ‘critical mission’ of the space agency. With the limited size of the contract, one can speculate the NASA deal likely amounts to the purchase/rental of a singular quantum machine from the Company, though the press release headline of ‘winning a NASA contract’ certainly seems more glamorous than the reality of the contract. The company fails to mention in any disclosure that the contract amounts to \$26,163, not wanting to dampen the quantum hype.

A former beverage company winning a seemingly high-tech and recondite contract with NASA for quantum computing could certainly be seen as bullish by prospective investors, though fear of missing out on this elusive technology is the driving force behind the stock – not any realistic future value creation, let alone any tangible current value. Quantum Computing Inc has spent a cumulative \$24 million on research and development over the past 4 years (2020-2024), to try and compete with companies such as:

IBM, and the IBM Quantum division, which created the Qiskit framework and developed the 127-qubit ‘Eagle’ and 433-qubit ‘Osprey’ quantum hardwares.

Google, and it’s Quantum AI division, which has developed the Sycamore quantum processor and the more recent Willow, which spurred the ‘Quantumania’ hype in the first place. Willow is a chip that can ‘solve a standard benchmark problem in 5 minutes, a task that would take the fastest conventional supercomputers 10 septillion years to complete’.

Microsoft, via Azure Quantum, which is its cloud-based quantum computing service.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

Multiple other notable names, such as Amazon, Intel, Quantinuum (Honeywell, Cambridge merger), IonQ, and even Alibaba, are all trying to make forays into the quantum computing space, all dedicating hundreds of millions of dollars to the field.

Notably, only one of six Company managers have any experience with quantum computing, the 'chief quantum officer' Huang Yuping, who joined the Company in 2022. Liscouski, still chairman of the board, was a former homicide detective and director of information assurance at Coca Cola. Chris Roberts, CFO, has a background in healthcare IT and hardware manufacturing. William McGann, CTO, worked in security detection systems. David Morris, CRO, worked in enterprise sales and distribution. Mike Keymer, the VP of quantum solutions, worked in life sciences analytics and engineering. Yuping is an associate professor of physics, and the Director of the Center for Quantum Science and Engineering at the Stevens Institute, and the only one with any relevant quantum experience. COO McGann also ran Implant Sciences Corporation, a company that made explosive detection systems. Liscouski was president, and McGann was CEO; the company filed for bankruptcy in October 2016, with historical financials from 2012-16 showing the company 'falling apart under the weight of its debt', as described by Iceberg Research. The company did not turn any profit.

The history and evolution of Quantum Computing Inc from a beverage company in receivership to a quantum computing company worth \$2 billion (at the time of writing) is bizarre, made possible only by a series of questionable management practices. The Company is one that is capitalising on the hype of quantum computing, rather than demonstrating any substantive value creation. Quantum Computing Inc also intends to mooch the Nvidia/chip production craze by manufacturing thin film lithium niobate devices (TFLN).

Part 2: TFLN Chips and the Pretend Chip Factory

“The fraudster’s art lies in selling dreams, not reality.” – Harry Markopolos

Thin film lithium niobate (TFLN) chips are cutting-edge components used in photonics and optical communication systems. Lithium niobate has exceptional optical, piezoelectric, and electro-optic properties, and makes it ideal for applications that require high-speed light signals, with emerging use cases in fields like artificial intelligence and machine learning. These chips are also extremely challenging to manufacture, as advanced fabrication equipment capable of molecular beam epitaxy, chemical vapor deposition, and precision lithography. Currently, the TFLN market is dominated by large corporations such as Japan’s Fujitsu, and Switzerland’s Lightium, which have already commercialised their TFLN products, while Quantum Computing’s chip foundry appears to be located in a commercial office space and is yet to manufacture anything.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

The Company announced two purchase orders for its TFLN chips in November of 2024, one being by ‘a prominent research and technology institute based in Asia’, and the other being a ‘US-based university’, originally named as the University of Texas at Austin, though the Company removed all references to the university soon after the press release. Equity research firm Iceberg Research spoke with a university professor at UT Austin, who confirmed ‘only a small order had been placed,’ and ‘the individual in charge of the order was surprised to see the QUBT announcement, as it was not reviewed prior to release’. The manufacture of TFLN requires a technologically complicated chip foundry, one of which the company claims to have at 2050 E ASU Circle Suite 107 Tempe AZ 85284, which is a leased space within the Arizona State University Research Park. This facility, nominally, will fulfill purchase orders of TFLN chips, with order fulfillment expected in Q1 2025. Notably, production is also set to begin in Q1 2025, which gives the company an incredibly short turnaround time to fulfill its two apparent TFLN orders. The Company states the facility “could be the nation’s first dedicated optical integrated circuit manufacturing foundry using TFLN wafers to achieve quantum effects and superior optical interconnects for data centers”. For a chip foundry about to start “mass production”, the building the foundry is located in is far from expected.



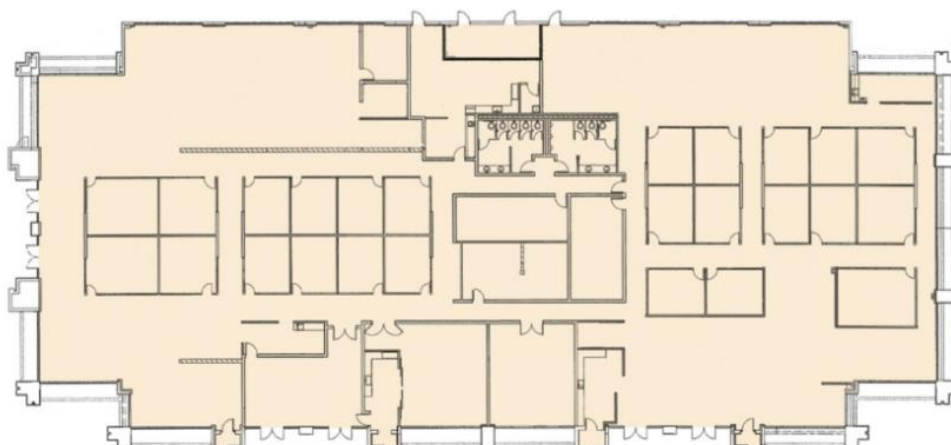
This is a Google Earth image of the building the chip foundry is contained in, which is a commercial office space. Iceberg Research contacted the building management of the address, who were very confident that there was no foundry within the building. A typical chip foundry would require high ceilings and large open spaces for heavy equipment, industrial ventilation systems, industrial power supply, cleanroom facilities, and gas distribution systems (argon, oxygen, nitrogen). For sensitive equipment, vibration isolation rooms are also required to maintain the precision required for TFLN manufacture. The building the Company is located in appears to have none of these things, because it’s a commercial office space. Tenants who share the building with the Company include IT staffing firm Experis, and

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

content services platform VisualVault. These companies are non-industrial service providers and can plausibly be in a commercial office space. Twitter user '@johnnywalkerAZ' also visited the alleged TFLN site, and spoke to director of the quantum foundry Milan Begliarbekov, who said they have 'yet to manufacture anything', and are 'just in the beginning'. Below is a photo of the Company office space, taken by the user.



Further due diligence conducted by Iceberg Research reveals an old floor plan of an identical neighbouring building (2030 E. ASU Circle), which shows 'multiple rooms, hallways, and specific spaces for restrooms, but there is no clear indication of spaces for industrial equipment'.



Source: Showcase.com

Iceberg Research obtained the floor plans of the Company building through an old real-estate listing.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

In 2023, the Company told investors through a press release that the chip foundry is 'located on five acres within the extensive 320-acre research park hosted by ASU', though the entire building is barely more than an acre, with Suite 107 rented by the Company obviously also not reaching that scale. The Company was originally scheduled to start production in the first half of 2024, which was pushed to 'late 2024', and now is scheduled for Q1 2025. As of September 30, 2024, PP&E of the Company amounts of around \$5.8 million, which is a far cry from the typical tens-to-hundreds of millions of dollars required to establish a TFLN foundry, especially a foundry soon capable of 'mass production', as the Company touts.

Lightium, a company that already has a functional TFLN foundry that offers services from 'rapid prototyping' to 'volume production', notes that TFLN is 'one of the most difficult materials to process' and has been 'restricted to prototyping' in academic and R&D settings.

The Company recently shared an image on X (Twitter) of its TFLN foundry, which is 'near completion':



The setup looks more akin to a laboratory, and not a foundry ready for 'mass production', on a 'five-acre site hosted by ASU'. Images of TFLN foundries are difficult to find, as the field is nascent and companies with

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

TFLN foundries likely do not want to reveal manufacturing secrets. Though, the Swiss Center for Electronics and Microtechnology (CSEM) has shared a singular image online through Hamed Satari, who is an entrepreneur in the TFLN space. Below is an image of a cleanroom within the CSEM TFLN foundry.



The image shows a large industrial/laboratory space and is in stark contrast to the images shared by Quantum Computing Inc. Presumably, this foundry meets the requirements of a foundry mentioned above (clean rooms, industrial requirements, etc), and is housed within a large space specifically dedicated to TFLN chip manufacturing. In contrast, the Quantum Computing Inc chip foundry is located within a commercial office space, with no known industrial capacity, and the images shared via the company on X show cobbled together machinery that, a priori, would not be suitable for 'large-scale TFLN chip manufacture', as claimed. If all it took was 5.8 million dollars and an office space, many other companies would be manufacturing these coveted TFLN chips, though actual manufacturers within the industry make it clear that tens to hundreds of millions in R&D and equipment is required, along with a highly specialised industrial space to properly house a TFLN foundry. The Quantum Computing Inc foundry is yet another misrepresentation by the company, attempting to capitalise on current chip manufacture hype and justify a bloated valuation.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

Conclusion: QUBT Stock and the Quantum Bubble

“The trend is your friend, until the end, when it bends.” – Ed Seykota

Currently, there are virtually no notable institutional holders of Quantum Computing Inc stock. The top institutional holders are Vanguard, Blackrock, and State Street, all indexers, and Geode Capital Management, a broad asset manager with \$1.5T AUM. Vanguard is the only institutional holder with a stake above \$1 million (\$1.5mm), while the rest of the holders are below \$500 thousand in market value. 74.83% of the stock is held by retail holders and individuals, a far cry from the typical 14% retail ownership of other companies, and hence propping up the quantum hype.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

Curiously, the stock has a community on Reddit, a social news aggregation and forum social network (r/qubt_stock). The current top post on the subreddit is 'It's up 2000% and it's only down 40% so far today. We're still up 1960%! HODL'. Despite the math here being egregiously wrong, other posts also hype the stock, discussing the \$27k NASA contract, and promoting the stock 'mooning' to \$30 'by next week'. Despite the inutility of visiting the QUBT stock community, it is important to see the people on the other side of the trade. In the case of QUBT, one is not trading against sophisticated institutional investors, but retail speculators trading the hype of quantum computing, hoping to avoid missing out on 'the next big thing'. The quantum computing rally was catalysed by Google's RCS (random circuit sampling) result, driving QUBT stock from \$1.13/share on the 1st of November to more than \$25/share by the 18th of December, for an overall gain of 2991.23% in the past 6 months.

The quantum computing bubble cannot last forever; currently, QUBT stock trades at around \$18, though a realistic price target for this stock is in the low single digits. Just last month (November), the stock traded at around \$1 per share, and on the 16th of November, the Company issued 16 million shares of common stock for \$2.5 per share. The rise from a 60 million to 2-billion-dollar market capitalisation is absurd, much like the 5220x price/sales ratio. There is no specific catalyst to stop the quantum bubble, besides when the last purchaser of the stock at the top realises, he has no one to sell it to.

We maintain a price target of \$3-6/share for QUBT and are short the stock; the transformation from a beverage distributor to a self-proclaimed QC pioneer is a business model that relies entirely on half-hearted trend chasing to create a mirage of prospective future value. Despite the Company's claims of innovation in quantum computing and TFLN manufacture, the operational reality is starkly different. Miniscule revenue generation, a history of poor management practices, and striking misrepresentations of Company capabilities shows Quantum Computing Inc. is not the groundbreaking tech firm it purports to be.

Quantum Computing Inc is just another speculative bubble; it was not the first, nor will it be the last, though all bubbles must eventually burst.

The author(s) of this paper are short shares of QUBT, as the Company has persistently failed to elucidate any real value proposition, while riding purely on the back of the 'current thing'. It is not a matter of if the quantum bubble will burst, but when. Quantum Computing Inc's days of a 2-billion-dollar market capitalisation are numbered.

Legal Disclaimer

Use of the research contained in this paper is at your own risk. In no event will the author of this paper be liable for any direct or indirect trading losses caused by any information in this report. To the best of the author's knowledge, all information contained in this report is reliable, though such information is presented "as is" without warranty of any kind. The author makes no representation, express or implied, as to the accuracy, timeliness, or completeness of any such information or about results obtained from its use. All expressions contained within are expressions of opinion and are subject to change without notice.

References

FPDS Ez-y Search (2024). *FPDS-NG ezSearch*. [online] Fpds.gov. Available at: https://www.fpds.gov/ezsearch/search.do?q=Quantum+Computing+PIID%3A%2280NSSC25PA273%22+PIID%3A%2280NSSC25PA273%22+CAGE_CODE%3A%228DR21%22+PIID%3A%2280NSSC25PA273%22&s=FPDS.GOV&templateName=1.5.3&indexName=awardfull [Accessed 22 Dec. 2024].

Fujitsu (n.d.). *Commercialization of compact thin-film LN modulator*. [online] FUJITSU OPTICAL COMPONENTS LIMITED. Available at: <https://www.fujitsu.com/jp/group/foc/en/subsidiary-gig5-sample/about/resources/news/press-releases/downloads/20211022.html>.

Google (2024). *Quantum Computer*. [online] Google Quantum AI. Available at: <https://quantumai.google/quantumcomputer>.

IBM (n.d.). *IBM Quantum*. [online] www.ibm.com. Available at: <https://www.ibm.com/quantum/qiskit>.

Iceberg Research (2022). *Quantum Computing Inc. (\$QUBT): On its Way to Vacuum state*. [online] Iceberg Research. Available at: <https://iceberg-research.com/2022/10/05/quantum-computing-inc-qubt-on-its-way-to-vacuum-state/> [Accessed 22 Dec. 2024].

Iceberg Research (2024a). *\$QUBT is Already Running Behind with its New Chip Manufacturing Hype*. [online] Iceberg Research. Available at: <https://iceberg-research.com/2024/12/09/qubt-is-already-running-behind-with-its-new-chip-manufacturing-hype/> [Accessed 22 Dec. 2024].

Iceberg Research (2024b). *Quantum Computing Inc.: the Phantom Chip Foundry*. [online] Iceberg Research. Available at: <https://iceberg-research.com/2024/11/27/quantum-computing-inc-the-phantom-chip-foundry/> [Accessed 22 Dec. 2024].

Lightium (2024). *Lightium - Thin Film Lithium Niobate (TFLN) Photonic Foundry*. [online] Lightium - Crafting Light, Shaping The Future. Available at: <https://lightium.com/> [Accessed 22 Dec. 2024].

Microsoft (n.d.). *Azure Quantum - Quantum Cloud Computing Service | Microsoft Azure*. [online] azure.microsoft.com. Available at: <https://azure.microsoft.com/en-us/products/quantum>.

Disclaimer: The author of this paper is short Quantum Computing Inc. (NASDAQ: QUBT)

Quantum Computing Inc (2023). *Quantum Computing Inc. Selects Tempe, Arizona as the Site for its Quantum Photonic Chip Foundry - Quantum Computing Inc.* [online] Quantumcomputinginc.com. Available at: <https://quantumcomputinginc.com/news/press-releases/quantum-computing-inc.-selects-tempe-arizona-as-the-site-for-its-quantum-photonic-chip-foundry> [Accessed 22 Dec. 2024].

Quantum Computing Inc (2024). *x.com*. [online] X (formerly Twitter). Available at: <https://x.com/QciQuantum/status/1842212578417619335> [Accessed 22 Dec. 2024].

Reuters Staff (2016). Implant Sciences files for bankruptcy with deal to sell to L-3. *Reuters*. [online] 11 Oct. Available at: <https://www.reuters.com/article/legal/implant-sciences-files-for-bankruptcy-with-deal-to-sell-to-l-3-idUSL1N1CH0D8/>.

Sattari, H. (2024). *LinkedIn* \mathcal{O} *Hamed Sattari: #tfln #foundry #tfln #pics.* [online] LinkedIn.com. Available at: https://www.linkedin.com/posts/sattari_tfln-foundry-tfln-activity-7212130874014732289-H1xX [Accessed 22 Dec. 2024].

SEC (2022a). *Quad M Solutions, Inc. Form 10-q.* [online] Sec.gov. Available at: <https://www.sec.gov/Archives/edgar/data/66600/000149315222023734/form10-q.htm> [Accessed 22 Dec. 2024].

SEC (2022b). *Quantum Computing Inc. (Form: S-3, Received: 12/29/2022 16:59:57).* [online] Edgar-online.com. Available at: https://content.edgar-online.com/ExternalLink/EDGAR/0001213900-22-083615.html?hash=90c2a9457c62a4ca3fbcd072dde0699005c922df4319c375c906b9ccdec0baae&dest=ea169744ex-fee_quantum_htm#ea169744ex-fee_quantum_htm [Accessed 22 Dec. 2024].

SEC (2024a). *Quantum Computing Inc S-3.* [online] Sec.gov. Available at: https://www.sec.gov/Archives/edgar/data/1758009/000121390024110795/ea0225439-s1_quantum.htm [Accessed 22 Dec. 2024].

SEC (2024b). *Securly - Geolocation sharing.* [online] Sec.gov. Available at: <https://www.sec.gov/Archives/edgar/data/1758009/000121390020036783/R7.htm> [Accessed 22 Dec. 2024].

X (formerly Twitter). (2024). *x.com*. [online] Available at: <https://x.com/johnnyWalkerAZ/status/1868752531545112963> [Accessed 22 Dec. 2024].