



D-WAVE QUANTUM INC.

ANNUAL REPORT 2024

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Dear D-Wave Stockholders,

I am very pleased to report to you that quantum computing is here, now.

At D-Wave, we are seeing firsthand the value that our quantum technology is delivering for customers today. Unlike with other quantum computing approaches, they don't need to wait another 15 or 30 years. In fact, our customers are seeing tangible benefits from using our systems right now, solving highly complex computational problems often better and faster than their current classical technologies. D-Wave quantum computers offer a more powerful and energy-efficient approach than classical computers. In a world facing a significant computational crunch and escalating energy costs from artificial intelligence (AI) workloads, the opportunity to use incredibly powerful quantum computers that consumes less electricity than classical computing for hard problems has the potential to be game changing.

This is quantum realized, brought to you only by D-Wave.

We developed the Quantum Realized framework to deflate industry hype and help people formulate an informed position on quantum. The framework presents three benchmarks to consider when assessing a particular quantum company's value. First, does the quantum computing company have technology that can solve complex problems better or faster than classical computing alone? Second, are the quantum systems highly performant, reliable and available? Third, does the company have proven commercial customer successes in proof of concepts and in-production application deployments? These are the criteria that customers need to see to realize real value from quantum computing today – and we believe that only D-Wave currently meets all of these criteria.

It's a very exciting time for D-Wave, as well as our customers, partners and stockholders. Our business momentum is accelerating. The increasing demand for our technology is evident in our record Bookings for fiscal year 2024, which were \$23.9 million, an increase of \$13.4 million, or 128%, from Bookings of \$10.5 million for fiscal year 2023. In addition, we substantially improved the strength of our balance sheet by raising additional equity and paying off our secured debt resulting in excess of \$300 million in cash as of the date of our March 13, 2025 fiscal year 2024 earnings release. We believe this level of cash is sufficient to bridge the company to sustained profitability.

Our technological development and scientific milestones reflect a track record of continuous innovation and product delivery designed to unlock lasting customer value. Achievements include demonstrations of our system solving problems beyond the reach of classical computers, increased qubit coherence and connectivity, exciting early exploration of quantum AI, novel quantum blockchain architectures and much more. We've seen 100+ customers adopting our technology to address some of their most computationally difficult problems and build applications that are driving operational efficiencies and fueling new scientific discoveries.

We continue to stand at the forefront of the quantum market. We were the first to launch commercial quantum systems, the first to have quantum applications running in production for commercial customers, and we believe we are the first to achieve a demonstration of quantum supremacy on a real-world problem.

D-Wave is Quantum Realized.

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Beyond Classical: D-Wave Outperforms One of World's Most Powerful Supercomputers

We believe that we are the only quantum computing company that can claim and support that it has outperformed classical computing on a useful highly complex computational problem of relevance to business and science today. This groundbreaking work, which was achieved using our 1,200 qubit Advantage2™ prototype annealing quantum computer, was published in a peer-reviewed paper in Science on March 12, 2025. D-Wave's quantum computer performed a complex magnetic materials simulation in minutes and with a level of accuracy that would take nearly one million years using one of the world's most powerful supercomputers. In addition, it would require more than the world's annual electricity consumption to solve this problem using that supercomputer, which is built with graphics processing unit clusters.

It's a truly remarkable achievement, and it's just the beginning. We are already developing applications that use techniques from the quantum supremacy demonstration, including blockchain. We introduced a novel blockchain architecture that adds quantum to traditional blockchain computation to enhance security and efficiency. Blockchains rely on hashing, a mathematical function that acts like a digital fingerprint. D-Wave has built and tested a "quantum proof of work" algorithm that uses quantum computation to generate and validate blockchain hashes. Our research indicates that using quantum computation for hashing and proof of work could potentially require a fraction of the electricity used by classical resources alone and reduce electricity costs by up to a factor of 1,000.

Building Scalable, Production-Grade Quantum Technologies

We are nearing completion of the full Advantage2 system, our sixth generation annealing quantum computer. Compared with the current Advantage™ system, the Advantage2 processor delivers significant performance gains with doubled qubit coherence time, driving faster time to solution; a 40% increase in energy scale for higher-quality solutions; and increased qubit connectivity from 15 to 20-way, enabling solutions to larger, more complex problems. Even with all of its advancements and system improvements, the Advantage2 quantum computer consumes the same amount of energy as our previous generation systems—between 12 and 15 kilowatts. As of March 31, 2025, more than 20 million jobs have been submitted to our Advantage2 quantum computer prototype since its release in June 2022.

Our product roadmap focuses on developments that aim to unlock new customer production application use cases in the Advantage2 and forthcoming Advantage3™ quantum computers and beyond. It focuses on rapid innovation in scaling, including increased connectivity and coherence, next-generation digital addressing, and multi-chip processor fabrics to accelerate a path to reaching 100,000 qubits. We're also developing technologies in analog-digital quantum computing to advance quantum optimization, quantum AI and quantum research by adding digital controls to annealing quantum computing processors. Lastly, we're continuing our efforts to build scalable, error-corrected gate model processors, leveraging our established superconducting quantum technologies with plans to address different types of applications for customers.

Accelerating Customer Adoption of Commercial-Grade Quantum Technologies

Commercial demand for our solutions is strong and expanding. Organizations trust D-Wave with their toughest computational challenges, such as optimizing mobile networks, creating more efficient workforce scheduling, and streamlining automotive manufacturing processes.

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We have introduced several new initiatives, including updates to our hybrid quantum solvers and expanded use cases, that reflect increased demand for quantum optimization solutions from enterprises, governments, educational institutions, independent software vendors (ISVs), system integrators (SIs), and resellers. Several customers now have applications in production built with D-Wave technology – including Ford Otosan (an automotive manufacturer owned by Ford Motor Company and Koç Holding), NTT DOCOMO (Japan's largest mobile operator), and Pattison Food Group (one of Canada's largest retailers of food and health products), and we anticipate the number of commercial production deployments to begin to accelerate.

As customers move applications into production, they need to rely on the stability of our technology to maintain operational excellence. Our systems are commercial-grade. Our Leap™ quantum cloud service delivers 99.9% uptime and availability and sub-second response times. In addition, we believe that we were the first quantum computing company to provide service level agreements for customers moving into production deployments, reflecting confidence in our ability to support commercial-grade applications through high levels of availability, reliability and scalability.

While many of our commercial customers engage with us through our cloud-based “Quantum Computing as a Service” or with our team of professional services experts for hands-on business application development, we have recently introduced the opportunity for customers to purchase and own on-premises systems, helping them push the boundaries of quantum-backed experimentation, development and usage. In February 2025, we announced that the Jülich Supercomputing Centre is the first high-performance computing (HPC) center to purchase and own a D-Wave Advantage annealing quantum computing system. It is expected that D-Wave's system will be connected to the JUPITER supercomputer, Europe's first and only exascale HPC, to facilitate breakthroughs in AI and quantum optimization applications. We expect to see systems sales as an increasingly important component in our go-to-market strategy moving forward as HPC centers around the world recognize the near-term opportunities of owning an annealing quantum computer as part of their infrastructure.

Interest in quantum is strong and growing, and we're still in the early stages of market adoption. We believe that this means there is a substantial opportunity ahead. To support this accelerating pace, we have also placed increased emphasis on our go-to-market efforts over the last 12 months, in order to expedite sales and accelerate deployments with customers. Most recently we announced our “Quantum Uplift” program, offering incentives to organizations that have been disappointed with the results they've seen from competitors' quantum systems. In addition, we introduced the Leap Quantum LaunchPad™ program, a three-month trial that provides access to D-Wave's quantum computers, our Leap real-time quantum cloud service, and our team of quantum professional services experts for project support. We believe that these programs will facilitate the expansion of the universe of organizations using quantum to solve their complex problems today.

Quantum AI is a burgeoning area where we're seeing growing interest from customers keen to explore the complementary benefits of the two technologies. We're developing quantum AI hybrid architectures for more efficient and performant models and exploring an integrated machine learning and optimization framework to facilitate expanded use cases in areas such as materials design and simulation, supply chain demand forecasting and optimization, and optimization of wireless infrastructure supply and demand. We also see quantum AI's potential in life sciences, as evidenced by our work with the pharmaceutical division of Japan Tobacco Inc. (JT) on a joint proof-of-concept project that used quantum computing technology and AI in the drug discovery process. JT and D-Wave enhanced large language models (LLMs) with a quantum-hybrid workflow to increase their generative capabilities and enable JT to produce novel, more ‘drug-like’ molecular structures beyond those found in the training datasets for the quantum-hybrid generative AI system.

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Opportunity Abounds

We believe that the company is in the strongest position in its history and is leading the quantum computing industry based on product performance, technical maturity and commercial adoption. Key points shareholders should consider include:

- We are a well-capitalized company with over \$300 million in cash as of March 13, 2025 and, we believe, sufficient capital to reach profitability.
- We believe we are the only quantum computing company that has demonstrated its system's ability to outperform classical computers on a useful problem, with a landmark peer-reviewed paper published in Science, "Beyond-Classical Computation in Quantum Simulation."
- We have a fleet of the largest quantum computers in the world – each with 5,000+ qubits able to solve complex computational problems now.
- We are the first quantum computing company to have customers with commercial applications in production.
- We offer customers service level agreements, which means we stand behind the high levels of availability, reliability and scalability of our Leap cloud service.
- We have developed and own one of the world's largest quantum computing patent portfolios.

We see only tailwinds as we continue to blaze the trail of quantum computing innovation and adoption. I've never been more confident in our business, our technology, our commercial opportunities, and our remarkable team.

Thank you for believing in D-Wave's vision and future.

Dr. Alan Baratz
President and CEO
D-Wave Quantum Inc.

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Forward-Looking Statements

Certain statements in this shareholder letter are forward-looking, as defined in the Private Securities Litigation Reform Act of 1995. These statements involve risks, uncertainties, and other factors that may cause actual results to differ materially from the information expressed or implied by these forward-looking statements and may not be indicative of future results. These forward-looking statements are subject to a number of risks and uncertainties, including, among others, various factors beyond management's control, including the risks set forth under the heading "Risk Factors" discussed under the caption "Item 1A. Risk Factors" in Part I of our most recent Annual Report on Form 10-K or any updates discussed under the caption "Item 1A. Risk Factors" in Part II of our Quarterly Reports on Form 10-Q and in our other filings with the SEC. Undue reliance should not be placed on the forward-looking statements in this shareholder letter in making an investment decision, which are based on information available to us on the date hereof. We undertake no duty to update this information unless required by law.

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2024

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from _____ and _____
Commission file number 001-41468**

D-WAVE QUANTUM INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

88-1068854

(I.R.S. Employer
Identification No.)

2650 East Bayshore Road, Palo Alto, California

(Address of Principal Executive Offices)

94303

(Zip Code)

(604) 630-1428

(Address, including zip code, and telephone number, including area code, of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.0001 per share	QBTS	New York Stock Exchange
Warrants, each whole warrant exercisable for 1.4541326 shares of common stock at an exercise price of \$11.50	QBTS.WT	New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☐ No ☒

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of any error to previously issued financial statements. ☒

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of common stock held by non-affiliates of the registrant (119,934,321 shares) based on the closing price of the registrant's common stock as reported on the New York Stock Exchange on June 30, 2024 was \$136,725,126. For purposes of this computation, all officers, directors and holders of more than 10% of our common stock have been excluded in that such persons may be deemed to be affiliates. Such determination should not be deemed to be an admission that such officers, directors and holders are, in fact, affiliates of the registrant.

As of March 12, 2025, there were outstanding 287,797,149 shares of the registrant's common stock, par value \$0.0001 per share. In addition, there were 3,551,175 exchangeable shares outstanding as of March 12, 2025, which are convertible into shares of common stock on a one for one basis at any time for no consideration.

Documents Incorporated by Reference

None.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K (this “Form 10-K”) may constitute “forward-looking statements” within the meaning of the federal securities laws, including the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Our forward-looking statements include, but are not limited to, statements regarding D-Wave Quantum Inc.’s and D-Wave Quantum Inc.’s management team’s expectations, hopes, beliefs, intentions or strategies regarding the future. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. In some cases, you can identify forward-looking statements by the following words: “believe,” “may,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “anticipate,” “trend,” “believe,” “estimate,” “predict,” “project,” “potential,” “seem,” “seek,” “future,” “outlook,” “forecast,” “projection,” “continue,” “ongoing,” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. These statements involve risks, uncertainties, and other factors that may cause actual results, levels of activity, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements. We caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, which are subject to a number of risks. Factors that might cause or contribute to a material difference include those risks discussed below and risks discussed in the Company's other filings with the SEC. You should not place undue reliance on these forward-looking statements in making an investment decision with respect to the securities offered under this Form 10-K. These forward-looking statements are not intended to serve as, and must not be relied on as, a guarantee, an assurance, a prediction or a definitive statement of fact or probability regarding future performance, events or circumstances. Many of the factors affecting actual performance, events and circumstances are beyond the control of D-Wave Quantum. As a result of a number of known and unknown risks and uncertainties, our actual results or performance may be materially different from those expressed or implied by these forward-looking statements. All forward-looking statements set forth in this Form 10-K are qualified by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by the Company will be realized or, even if substantially realized, that they will have the expected consequence to or effects on the Company or its business or operations. The following discussion should be read in conjunction with the Company’s audited Consolidated Financial Statements and related notes thereto included elsewhere in this Form 10-K. These forward-looking statements are based on information available as of the date of this Report, and current expectations, forecasts and assumptions, and involve a number of judgments, risks and uncertainties and are not predictions of actual performance. Accordingly, forward-looking statements should not be relied upon as representing our views as of any subsequent date, and we do not undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

Summary of the Risk Factors

The following is a summary of the principal risks described below in this Form 10-K. This summary does not address all of the risks that we face. We encourage you to carefully review the full risk factors contained in this Form 10-K in their entirety, together with our other filings with the SEC, for additional information regarding the material factors that make an investment in our securities speculative or risky. Additional risks beyond those summarized below or discussed elsewhere in this Form 10-K may apply to our business and operations as currently conducted or as we may conduct them in the future or to the markets in which we currently, or may in the future, operate. Principal risks and uncertainties facing us include, but are not limited to, the following:

- D-Wave Quantum is in its growth stage which makes it difficult to forecast its future results of operations and its funding requirements.
- D-Wave Quantum has a history of losses and expects to incur significant expenses and continuing losses for the foreseeable future.
- If D-Wave Quantum does not adequately fund its research and development efforts or use research and development teams effectively or build a sufficient number of annealing quantum computer production systems, it may not be able to achieve its technological goals, meet customer and market demand, or compete effectively and D-Wave Quantum's business and operating results may be harmed.
- D-Wave Quantum depends on its ability to retain existing senior management and other key employees and qualified, skilled personnel and to attract new individuals to fill these roles as needed. If D-Wave Quantum is unable to do so, such failure could adversely affect its business, results of operations and financial condition.
- D-Wave Quantum expects to require additional capital to pursue its business objectives, growth strategy and respond to business opportunities, challenges or unforeseen circumstances, and it may be unable to raise capital or additional financing when needed on acceptable terms, or at all.
- D-Wave Quantum's industry is competitive on a global scale, from both quantum and classical competitors, and D-Wave Quantum may not be successful in competing in this industry or establishing and maintaining confidence in its long-term business prospects among current and future partners and customers, which would materially harm its reputation, business, results of operations and financial condition.
- Any cybersecurity-related attack, significant data breach or disruption of the information technology systems, infrastructure, network, third-party processors or platforms on which D-Wave Quantum relies could damage D-Wave Quantum's reputation and adversely affect its business and financial results.
- Market adoption of cloud-based online quantum computing platform solutions is relatively new and unproven and may not grow as D-Wave Quantum expects and, even if market demand increases, the demand for D-Wave Quantum's QCaaS may not increase, or certain customers may be reluctant to use a cloud-based QCaaS for applications, all of which may harm D-Wave Quantum's business and results of operations.
- D-Wave Quantum may, in the future, be adversely affected by global public health crises such as epidemics or pandemics.
- Unfavorable conditions in D-Wave Quantum's industry or the global economy, including uncertain geopolitical conditions such as inflation, recessions and war, among others, could limit D-Wave Quantum's ability to grow the business and negatively affect D-Wave Quantum's results of operations.
- System failures, interruptions, delays in service, catastrophic events, inadequate infrastructure and resulting interruptions in the availability or functionality of D-Wave Quantum's products and services could harm its reputation or subject D-Wave Quantum to significant liability, and adversely affect its business, financial condition and operating results.
- D-Wave Quantum may be unable to obtain, maintain and protect its intellectual property or prevent third parties from making unauthorized use of its intellectual property, which could cause it to lose the competitive advantage resulting from its intellectual property.
- D-Wave Quantum's patent applications may not result in issued patents or its patent rights may be contested, circumvented, invalidated or limited in scope, any of which could have a material adverse effect on D-Wave Quantum's ability to prevent others from interfering with the commercialization of its products and services.

- D-Wave Quantum may face patent infringement and other intellectual property claims that could be costly to defend and may result in injunctions and significant damage awards or other costs. If third parties claim that D-Wave Quantum infringes upon or otherwise violates their intellectual property rights, D-Wave Quantum's business could be adversely affected.
- If D-Wave Quantum does not meet the expectations of investors or securities analysts, the market price of D-Wave Quantum's securities may decline.
- Uncertainty about the effect of the Transaction may affect D-Wave Quantum's ability to retain key employees, integrate management structures and may materially impact the management, strategy and results of its operation as a combined company.
- D-Wave Quantum may be required to take write-downs or write-offs, or D-Wave Quantum may be subject to restructuring, impairment or other charges that could have a significant negative effect on D-Wave Quantum's financial condition, results of operations and the price of D-Wave Quantum's securities, which could cause you to lose some or all of your investment.
- The price of the Company's Common Shares has been and may continue to be volatile or may decline regardless of our operating performance.
- D-Wave Quantum may issue additional Common Shares or other equity securities without your approval, which would dilute your ownership interests and may depress the market price of the Common Shares.
- D-Wave Quantum's Amended and Restated Certificate of Incorporation (the "*D-Wave Quantum Charter*") contains anti-takeover provisions that could adversely affect the rights of our stockholders.

Frequently Used Terms

Unless otherwise stated or unless the context otherwise requires, the terms “*D-Wave Quantum*,” “*D-Wave*,” “*Company*,” “*the registrant*,” “*we*,” “*us*” and “*our*” refers to D-Wave Quantum Inc., a Delaware corporation, together with its subsidiaries.

In addition, in this Form 10-K:

“*Common Shares*” mean shares of D-Wave’s common stock, par value \$0.0001.

“*DGCL*” means the Delaware General Corporation Law.

“*DPCM*” means DPCM Capital, Inc., a Delaware corporation and a direct, wholly-owned subsidiary of D-Wave Quantum Inc.

“*DPCM Class A Common Stock*” means the shares of DPCM’s Class A common stock, par value \$0.0001 per share.

“*DPCM Class B Common Stock*” means the shares of DPCM’s Class B common stock, par value \$0.0001 per share.

“*DPCM IPO*” means DPCM’s initial public offering, consummated on November 17, 2020, through the sale of 30,000,000 DPCM Units at \$10.00 per DPCM Unit.

“*DPCM Trust Account*” means the trust account of DPCM that held the proceeds from the DPCM IPO.

“*DPCM Unit*” means one share of DPCM Class A Common Stock and one-third of one warrant of DPCM, whereby each whole warrant entitled the holder thereof to purchase one share of DPCM Class A Common Stock at an exercise price of \$11.50 per share of DPCM Class A Common Stock, sold in the DPCM IPO.

“*Exchange Act*” means the Securities Exchange Act of 1934, as amended.

“*Exchangeable Shares*” refer to shares in the capital of D-Wave Quantum Technologies Inc. (“*ExchangeCo*”), an indirect Canadian subsidiary of D-Wave. The Exchangeable Shares are exchangeable from time to time, at the holder’s election for Common Shares on a one-for-one basis.

“*Initial Stockholders*” means the Sponsor (defined below) and certain of DPCM’s former officers, directors and other special advisors.

“*PIPE Financing*” means the sale to the PIPE Investors of an aggregate number of Common Shares in exchange for an aggregate purchase price of \$40.0 million pursuant to the PIPE Subscription Agreements.

“*PIPE Investors*” means persons that entered into subscription agreements to purchase Common Shares pursuant to the PIPE Subscription Agreements on or prior to the date of the Transaction Agreement, which included certain shareholders of D-Wave Systems and the holders of other equity interests in D-Wave Systems (including D-Wave Options and D-Wave Warrants), in each case, prior to the Transaction, and certain Initial Stockholders.

“*PIPE Subscription Agreements*” means those certain subscription agreements executed by PIPE Investors on or before the date of the Transaction Agreement in connection with the PIPE Financing.

“*Private Warrants*” means the warrants held by the Sponsor that were issued to the Sponsor at the closing of the DPCM IPO, each of which was exercisable, at an exercise price of \$11.50, for one share of DPCM Class A Common Stock, in accordance with its terms, prior to the consummation of the Transaction.

“*Registration Rights and Lock-Up Agreement*” means that certain Registration Rights and Lock-Up Agreement, entered into among D-Wave, certain holders of DPCM Class B Common Stock, and certain shareholders of D-Wave pursuant to which D-Wave filed a registration statement to register the resale of certain equity securities of D-Wave and certain shareholders were contractually restricted from selling or transferring any of their D-Wave securities until February 5, 2023.

“*Resale Registration Statements*” means the registration statements filed by D-Wave registering the issuances to and/or resale by certain third parties unrelated to the Purchase Agreement of certain securities issued prior to, or in connection with, the Transaction.

“*Transaction*” means the transactions contemplated by the Transaction Agreement, including, among other things, the DPCM Merger and the Arrangement (as defined below), whereby DPCM and D-Wave became subsidiaries of D-Wave Quantum.

“*SEC*” means the Securities and Exchange Commission.

“*Securities Act*” means the Securities Act of 1933, as amended.

“*Warrants*” means the warrants of D-Wave, which are exercisable for Common Shares.

Part I

Item 1. Business

Unless the context requires otherwise, references in this section to “D-Wave,” “we,” “our” or “us” refer to D-Wave Quantum Inc., a Delaware corporation, and its consolidated subsidiaries following the consummation of the Transaction, and prior to the Consummation of the Transaction, to D-Wave Systems Inc., a British Columbia corporation (“D-Wave Systems”).

Overview

At D-Wave, our mission is to help customers realize the value of quantum computing to address problems that cannot be solved with classical computing alone. As a pioneer in the quantum industry for more than 25 years and the world’s first company to deliver commercial-grade annealing quantum computing solutions, we believe we are leading the industry in ushering in the era of enterprise quantum computing. This is a pivotal moment for the industry. We are driving the transition from academic endeavors exploring quantum’s potential to enterprise-scale adoption and deployment, solving some of the world’s toughest problems. Based on our strategic decision to bring to market a different type of quantum technology—annealing quantum computing, we hold a first-mover advantage that no other company in the world can claim.

Our market leadership position is evident—we were the first to launch commercial quantum systems, the first to achieve a demonstration of quantum supremacy on a useful, real-world problem, and the first to have quantum applications running in production for commercial customers.

Built upon our decades of quantum innovation, we offer a full stack of quantum systems, software and services capable of solving highly complex problems today. Our relentless commitment to innovation and invention means that we are laser-focused on continuously building quantum solutions that push the boundaries of what is possible. A key corporate strategy is to advance the science of quantum, and in support of that effort, we recently achieved a world-first quantum supremacy result—solving a useful, real-world problem that classical computation cannot. The peer-reviewed research paper was published in the esteemed publication, *Science*. The work was achieved using our latest qubit architecture, which shows increased coherence and thus more computational power. We will continue our groundbreaking research and innovation on qubit architecture design and fabrication and apply what we learn to new products and applications.

From a product perspective, we continue to develop systems that outperform previous generations, driving toward higher qubit count, greater qubit coherence, and increased energy scale. Benchmarking results from prototypes of our sixth-generation annealing quantum computing system, Advantage2™, indicate that this is our most performant system to date with 20-way connectivity, higher coherence times, and higher energy scales that to enable us to solve even larger and more complex problems, drive faster time-to-solution, and deliver higher-quality solutions. Our efforts to build a gate-model system are continuing to progress, with the development of high-coherence fluxonium qubits that show quantum properties comparable to the best seen to date in peer-reviewed scientific literature. We’re also extending the capabilities of hybrid and classical solvers to achieve best-in-class performance, expected to be unmatched by the industry. Our continuous software enhancements translate to production-grade reliability, access and security to support customers’ production deployments.

Our solutions drive tangible business outcomes such as lower costs, increased operational efficiency and increased revenue opportunities, and our technical roadmap is focused on delivering product advancements that directly impact customer return on investment (“ROI”), now and in the future. Our cloud-based approach offers customers real-time access to our technology, helping them not only find answers to their computationally challenging problems, but also better navigate unexpected disruptions that arise in daily business. We believe our recently announced initiative to develop and bring to market applications that combine the power of generative AI and quantum computing technologies will further extend our customer value, as we launch the commercial era of quantum AI.

Our efforts across every facet of the business—from scientific research to processor development and hybrid solver advancements to production deployment support—remain squarely focused on helping our customers succeed in realizing value from quantum computing.

Introduction to Quantum Computing

While classical computing technology has delivered significant advancements in performance, it has limitations. In classical computation, binary information is encoded in bits that can be in a 0 or 1 state. Classical processors manipulate and transform this binary information to run classical algorithms and perform computations. Still, many important and high-value problems remain difficult or out of reach for classical computers, which creates a demand for quantum computing. Our quantum computing systems harness quantum mechanics to deliver powerful computational resources. Our systems contain quantum bits (qubits) that can be in a superposition of both 0 and 1 simultaneously, and support entanglement across many qubits. These properties provide computational tools that enable new algorithms and applications for solving problems that are outside the reach of classical computing systems.

The computational value of quantum computing underpins the promise of even greater societal and business impact, from the creation of new products and identification of new lines of business to solutions unimagined in drug discovery, weather modeling, global supply-chain distribution, financial market portfolio optimization, and new materials. As the only quantum computing company in the world building both commercial annealing quantum computing systems and gate-model quantum computing systems, we can help customers benefit from a simplified, cross-platform experience that provides access to the full breadth of potential quantum applications. This dual-system approach is crucial to serving the full quantum total addressable market (“TAM”), as different types of quantum systems benefit different types of quantum applications: annealing quantum computing systems are optimal for optimization problems; gate-model systems are best for differential equations, such as those in quantum chemistry; and both annealing and gate-model systems can solve linear algebraic and factoring problems, such as those in cryptography. As use of quantum computers accelerates, we expect to find an expanding set of use cases for annealing quantum computing systems and for gate-model quantum computing systems.

By offering both annealing and gate-model quantum computers, we intend to impact the lifecycles of a broader range of use cases and serve as the only cross-platform solution for enterprise customers. For example, in the pharmaceutical sector, annealing quantum computing systems are best suited for patient trial and supply chain optimization, as well as protein folding, while gate-model systems are best suited to assist with drug discovery. Both systems will likely play a role in quantum AI for toxicity mitigation. In manufacturing, new materials may be designed with gate-model systems, while annealing quantum computing systems can be used to optimize factory automation to deliver new products that feature those new materials. By providing both annealing and gate-model quantum computing capabilities, D-Wave plans to address the entire TAM rather than only a portion thereof, unlocking customers’ ability to use annealing and gate-model systems as a single-point solution.

Quantum computing gives our customers a set of tools for finding solutions to hard problems. In a June 2024 report by Hyperion Research, most surveyed businesses expect to make a long-term annual commitment of \$3 to \$6 million toward quantum optimization initiatives. The survey also revealed a significant increase in quantum adoption planning, with 21 percent of survey respondents either currently using or planning to put quantum technology into production within the next 12 to 18 months. This represents a 50 percent increase in adoption plans over findings in Hyperion Research’s 2022 report, which D-Wave believes indicates growing recognition of quantum computing’s real-world business value. All of this contributes to acceleration in the use of, and demand for, quantum computing. The need for quantum computing solutions is here today, and we believe D-Wave is well positioned to capture a significant portion of the commercial quantum computing market.

Our customers have included a highly diversified global portfolio of blue-chip enterprise companies, including Mastercard, Deloitte, BASF, Unisys, Siemens Healthineers, NTT DOCOMO, Ford Otosan, Interpublic Group, Davidson Technologies, ArcelorMittal, Pattison Food Group (formerly Save-On-Foods), DENSO, BBVA, and NEC Corporation (“NEC”). In addition, thousands of developers around the globe have built early quantum software applications on our systems in areas as diverse as customer offer allocation, resource scheduling, factory scheduling, vehicle routing, logistics optimization, drug discovery, industrial construction design, portfolio optimization and maintenance, repair and overhaul optimization, plus many more under development, demonstrating increased recognition of the benefits of quantum computing across industries.

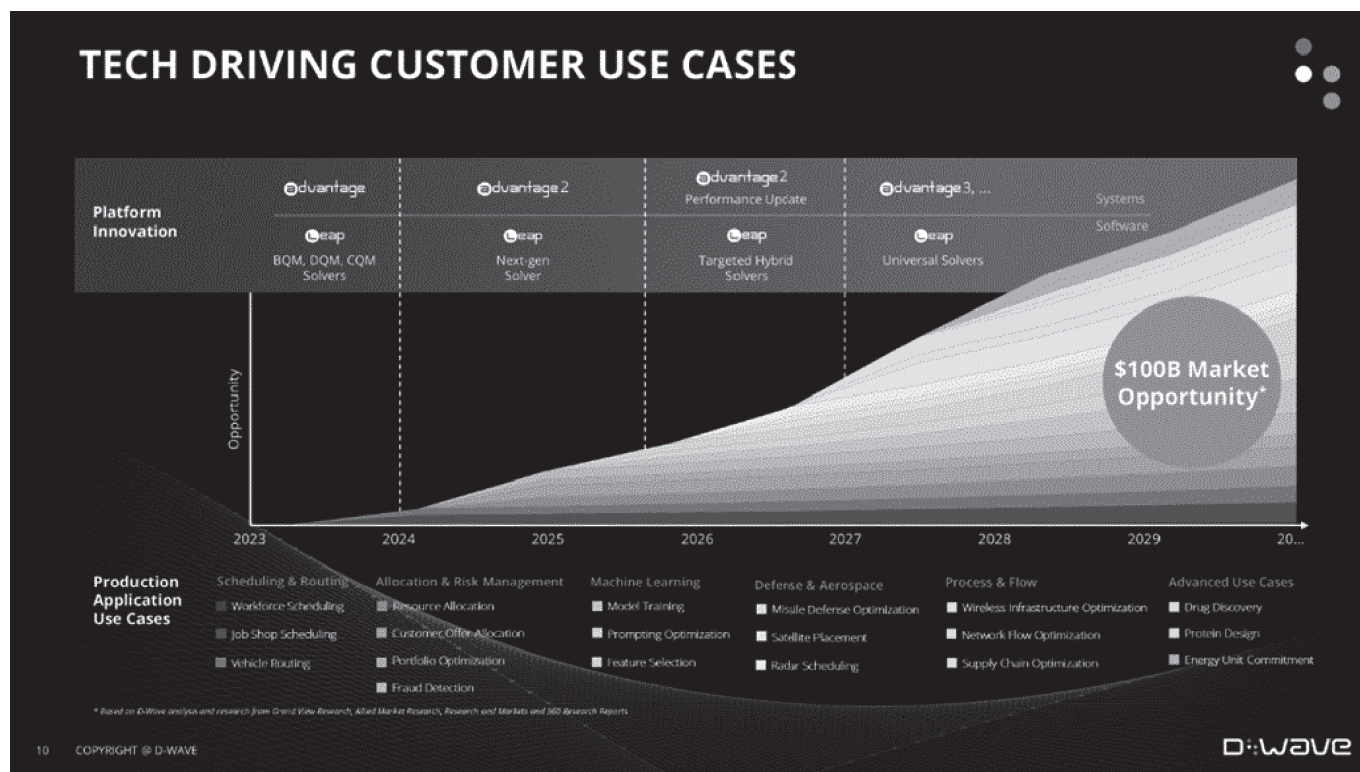
We believe that most commercial quantum computation and successful application development will be hybrid, meaning that problems will be solved using powerful combinations of quantum and classical resources. Much like the value of a graphical processing unit in classical computation, quantum computers are accelerators. Our quantum hybrid approach offers customers solvers that combine quantum and classical computing resources to solve industry scale optimization problems. This enables customers to realize quantum value today, and ensures that they can continue to address increasingly complex problems as the technology grows and their business requirements expand.

We have already demonstrated important results. In March 2025, we believe D-Wave became the first in the world to demonstrate quantum supremacy on a useful, real-world problem. This groundbreaking work, which was achieved using our 1,200 qubit Advantage2 quantum computing prototype, was published in a peer-reviewed paper in the esteemed journal, Science. D-Wave's quantum computer performed the complex simulation in minutes and with a level of accuracy that would take nearly one million years using one of the world's most powerful supercomputers. It also would require more than the world's annual electricity consumption to solve this problem using that supercomputer, which is built with graphics processing unit (GPU) clusters. In addition, we have shown in the peer-reviewed paper published in Nature Communications in 2021 that our systems have demonstrated a three-million-times speed-up over the best-known classical approaches on an application in quantum materials simulation. In another peer-reviewed paper published in Nature in 2023, our systems demonstrated a significant speed-up and scaling advantage on approach to optimality for an important class of hard optimization problems.

We believe that our hybrid quantum computing approach will accelerate the value of quantum computing for enterprises today, and once fully developed, our cross-platform offerings of both annealing and gate-model systems will provide customers with access to quantum computing for all their use cases. We believe we are poised to disrupt and revolutionize the notion of computational power. In turn, we anticipate this will enable business and society to realize the value of quantum computing technology.

We are more than our innovative products. We are an organization of professionals across many disciplines and boast distinguished domain experts with decades of experience in their respective fields. We believe the maturity of our technologies, our deep professional services expertise, our history of delivering both scientific advancements and new quantum products via cloud services, and our proven track record of building and growing new markets fully equip us to partner with customers on their quantum journeys and to continue to capture a significant portion of the growing market.

All our systems, tools and products are, and will continue to be, focused on providing an accelerated path to practical, real-world applications that deliver measurable value to our customers.



Our Quantum Computers, Developer Tools, and Quantum Hybrid Solvers Delivered via QCaaS

We believe we are uniquely positioned to serve the growing market for quantum computing solutions and services. Based on our analysis of recent market research, we've identified priority industries and use cases where we see the greatest growth opportunity for our business—both in the near- and longer-term. We will initially focus on supporting use cases in logistics, retail and manufacturing, solving problems such as workforce scheduling, production scheduling, vehicle routing and resource allocation—areas where our current technology is successfully driving positive business outcomes for our customers. As our technology development progresses, we will continuously expand the portfolio of applicable use cases to support even more complex problems. For example, we are investigating the use of our quantum processors as AI accelerators that might enable more efficient model construction and training, more efficient inference and a reduced power footprint, which would further drive performance in generative AI and machine learning use cases such as drug discovery.

Our revenue is derived from cloud-based quantum computing as a service ("QCaaS"), which includes access to annealing quantum computers with more than 5,000 qubits and quantum-classical hybrid solvers that can solve problems with up to two million variables. We also recognize revenue by assisting customers in identifying and implementing quantum computing applications through our professional services offerings. And we generate revenue when research, academic, and government customers purchase our on-premises D-Wave™ Advantage™ quantum computers to push the boundaries of quantum-fueled experimentation, development and usage. For a breakdown of revenue by type of product or service, please see *Note 3 - Revenue from contracts with customers* included in the notes to our audited consolidated financial statements. While we generate revenue from these products and services, we have a history of net losses since inception and experienced negative cash flows from operations. See "Risk Factors—Risks Related to D-Wave Quantum's Financial Condition and Status as an Early-Stage Company—We have a history of losses and expect to incur significant expenses and continuing losses for the foreseeable future."

Advantage and Advantage2 quantum computers: We are at the forefront of providing annealing quantum computers. Today's Advantage annealing quantum system was built for business and excels at optimization problems ubiquitous in real-world commercial applications, such as optimizing manufacturing processes and reducing waste. Advantage systems are available via our Leap™ quantum cloud service (the "Leap service"), and access to Leap and other services can be purchased directly from D-Wave or through Amazon Web Services ("AWS") Marketplace. We believe the industry is on at least a seven-to-fifteen-year timeline for delivering scaled, error-corrected gate-model systems, and we expect our gate-model program to be competitive within that timeline. We plan to extend our product portfolio with our scalable gate-model program to deliver gate-based quantum computing technology. This program directly leverages the technology and approach that has enabled us to deliver five generations of progressively larger annealing quantum computers. Much like our existing annealing quantum computers, we plan to deliver access to the gate-model quantum computers via our Leap quantum cloud service. However, we anticipate that there may be unique research and government classified applications that require stand-alone systems (potentially for both annealing and gate-model systems) on customer premises. In parallel with building gate-model quantum computing systems, we will continue to invest in our Advantage annealing program with a clear roadmap for future generations of increasingly larger and more powerful, coherent, and connected annealing quantum computing products. In February 2024, we made available in the Leap service a 1200+ qubit prototype of our upcoming Advantage2 product, notable in its substantial improvements over the previous Advantage product in energy scale, qubit connectivity, and qubit coherence. In April 2024 we released the fast anneal feature on all annealing quantum computing solvers in our Leap service. This allows all users to perform annealing protocols on timescales that minimize the role of thermal noise and allow all users to perform coherent quantum annealing at scale. In November 2024, we completed calibration and benchmarking of a 4400+ qubit Advantage2 processor that delivered substantial improvements over the Advantage processor: doubled the qubit coherence times which drives faster time to solution, increased energy scale by 40 percent which drives higher-quality solutions, and increased qubit connectivity from 15-way to 20-way which enables solutions to larger more complex problems.

Our offerings include:

Leap quantum cloud service: We are also at the forefront of providing real-time quantum cloud service for quantum applications. Launched in 2018 and now available in 42 countries and counting, the Leap quantum cloud service gives D-Wave customers secure and reliable access to our state-of-the-art quantum computers and a portfolio of quantum-classical hybrid solvers that can solve problems at industry scale. The Leap service enables customers to achieve the commercial and research benefits of using D-Wave's newest technology without the need for capital expenditure, infrastructure upgrades, or costly systems integration. The Leap service is a real-time platform, meaning that customers can submit jobs and receive immediate answers: no need for reservations or lengthy queues. From the start, we have made multiple quantum computers available through the Leap service, which means that system maintenance does not interrupt customer access to quantum and hybrid resources. This level of availability distinguishes the Leap service from alternative platforms: with more than 99.9 percent uptime across key components, we offer service-level agreements (SLAs) to customers running mission-critical applications. Since 2023, the Leap service has maintained compliance with the SOC 2® Type 2 data-security standard, an independent attestation that we have taken proactive steps to mitigate cybersecurity risks for our customers.

D-Wave Launch™ on-board to quantum computing program: The D-Wave Launch program offers a phased approach to identifying and building in-production quantum hybrid applications. Our professional services team works with customers to help identify which problems would be most impacted by quantum solutions, develop quantum proofs-of-concept, pilot hybrid quantum applications, and put those applications into production. Our standard professional services offerings also include training sessions and quantum computing access.

Quantum computing systems: D-Wave also offers customers the ability to purchase its D-Wave Advantage annealing quantum computing systems. By purchasing an on-premises system, customers have access to all aspects of the Advantage quantum computer, including the ability to modify system parameters and integrate the system in ways previously unavailable to them. Demand for on-premises systems comes amid growing interest from research centers, academic institutions, and high-performance computing centers looking to accelerate competitive differentiation, bolster national security, and explore how quantum computing can address challenges resulting from AI's escalating power consumption.

Ocean™ developer tools: Offering a full suite of open-source programming tools, the Ocean software development kit ("SDK") simplifies the process of building quantum hybrid applications while reducing associated time and cost.

Customers and Applications

Quantum use cases: We categorize quantum use cases as either pre-production or production. For over ten years, customers have been using our quantum computers for modeling, testing, and research while also providing a feedback loop that not only has grown into a collection of examples of how the system can be used today, but also provides insight into emerging use cases. These are pre-production use cases.

We are now observing a shift in certain quantum use cases, notably optimization-based, that are beginning to move into production, with customers identifying real business problems, developing quantum hybrid proofs-of-concept, piloting them, and then running those use cases in production environments, thus fueling their daily operations. But we believe this is just the beginning. As annealing quantum computing becomes more powerful and gate-model systems come online in the future, other pre-production and production use cases are expected to emerge.

As of 2025, hundreds of user-built early applications have been developed to run on our annealing quantum computing systems and in our hybrid solver service. Spanning a wide range of diverse industries, these applications include examples in workforce scheduling, resource optimization, production scheduling, logistics routing, and portfolio optimization.

Our annealing quantum computer runs an algorithm that natively solves optimization problems. As a result, a growing collection of use cases tends to fall into the optimization category. Applications include peptide design, employee scheduling, last-mile vehicle routing, production scheduling, financial portfolio return optimization, farm-to-market food delivery, digital marketing, organic light-emitting diode ("OLED") materials development, financial risk reduction, marketing campaign optimization, shipping container logistics, ribonucleic acid folding, and clinical trial optimization. We believe verticals including, but not limited to, manufacturing, retail, logistics, financial services, life sciences, energy, and telecommunications stand to benefit from the processing power of quantum computing.

Our customers have built a plethora of applications with our annealing quantum computing technologies that demonstrate tangible business outcomes, including:

- SavantX, a quantum analytics company, worked with the Port of Los Angeles to create a quantum application specific to the port's third largest terminal—Pier 300—to optimize cargo handling and truck scheduling using D-Wave's annealing quantum computer. With the application, truck drivers were directed to the right container based on a crane's current location, reducing crane movement while increasing crane productivity. The result of this system was the reduction of wait-time for truckers, and increased movement of containers out of the port. Per-crane deliveries went from 60 to 97 per day following implementation, a 62 percent increase in productivity.
- Pattison Food Group, Canada's largest Western-based provider of food and health products, has successfully used hybrid solvers in the Leap service, which incorporate the Advantage quantum processing unit ("QPU"), to find solutions to optimization problems in grocery operations. The company is moving multiple quantum hybrid applications into production. The first, an e-commerce driver delivery scheduling application, is now in production to create schedules that serve over 100 stores. This application has trimmed what was once an 80-hour task to just 15 hours each week, resulting in over 80 percent time savings. In addition, the company brought another quantum-hybrid application into production that optimizes in-store resource scheduling in its stores across Canada.
- Using D-Wave's annealing quantum computing solutions, Japan's largest mobile phone operator, NTT DOCOMO Inc., identified ways to demonstrably improve mobile network performance. The company found that it could reduce congestion at base stations by decreasing paging signals during peak calling times by 15 percent, potentially leading to increased efficiencies and lowered infrastructure costs. The solution's efficiency was demonstrated in pilot tests for certain areas in Japan (Tokai, Chugoku, Kyushu regions) when compared to classical methods. While a general-purpose solver took 27 hours, D-Wave's hybrid solver completed the same task in just 40 seconds. The test results showed that quantum optimization led to a 15 percent reduction in paging signals, allowing approximately 1.2 times more terminals to be connected during periods of high call volume. The company plans to deploy the hybrid-quantum solution in production across its Japanese branch offices.
- When Turkey-based Ford Otosan, a joint venture between Ford Motor Company and Koç Holding, wanted to streamline the manufacturing of its Ford Transit line of passenger vans, the company turned to hybrid quantum computing to devise a solution. Together, D-Wave and Ford Otosan built a hybrid quantum application to optimize production sequencing, identifying a solution that scheduled 1,000 vehicles per run in under 5 minutes, compared to 30 minutes using the current process. The solution found that, despite shifts in demand or parts availability, the carmaker could respond appropriately to avoid any disruptions to its productivity.
- Momentum Worldwide is a global experiential agency, part of the Interpublic Group, whose clients include many of the world's most famous brands. A recurring task for the agency is to create routes for promotional tours. Currently, creating these tours takes significant work hours and domain expertise to ensure that all client requirements and federal regulations are considered. For this project, D-Wave developed a hybrid quantum-classical solution deployed in the Leap service to automate the creation of these tours with optimal routes, reducing Momentum's operational costs for producing and running these tours. The prototype solution D-Wave provided was able to solve the given problem in less than an hour, and is designed to allow for an easy transition to a full production-quality application.
- Davidson Technologies, a U.S.-based technology services company that provides innovative engineering, technical, and management solutions for the Department of Defense, the aerospace industry, and commercial customers, has been working with D-Wave on several quantum-hybrid applications to advance national defense efforts. Most recently, we have built a radar-scheduling application that efficiently manages the time-limited resources of a phased-array radar system, enabling scheduling of communication with moving objects. We observed enhanced resource utilization in all our test cases. On average, we achieved a 15 percent increase in utilization across all problem scenarios and time limits, with the highest improvement reaching an impressive 42 percent.

- BBVA, a global financial institution set out to identify management strategies that yield the highest Sharpe ratio, a metric reflecting the rate of return at a given level of risk. An algorithmic solver was used to find the optimal solution to a cost function equation that describes the risk, return, and transaction costs associated with a given portfolio. Utilizing D-Wave's hybrid solvers, BBVA was able to find the maximum value at the lowest risk in 171 seconds, even with 10,382 possible portfolios. In comparison, existing solutions either took an entire day or failed to find a solution.
- We have been working with VINCI Energies, an accelerator of environmental and digital transition, on a pilot project to better design the layout of an HVAC system for new buildings, considering discrete duct sizes and joint costs. VINCI Energies has been developing an automated solution for what had been a largely manual process. Built to supplement that automated solution, our quantum-hybrid application showed better qualitative and quantitative results across all evaluation metrics. Overall, we have been able to identify a lower cost and more aesthetically pleasing solution for HVAC system placement.

Enterprises are beginning to see ongoing benefit from their D-Wave-powered use cases. Moreover, the accumulated quantum learning experience is expected to accelerate the addition of new use cases, as both new applications emerge and technologies mature. The cycle of moving from proof-of-concept development to production applications provides opportunities for continuous learning and innovation. Providing tangible customer value is an important way in which we differentiate ourselves from other companies in the market, whose primary focus, out of necessity, is scientific discovery rather than the delivery of quantum products for business-scale commercial applications.

Scientific applications: Notwithstanding our focus on commercial customer value, we also demonstrate excellence in scientific applications. Over the past several years, simulation of quantum magnetic systems has emerged as a promising application and better means of studying the dynamics of the QPU. Responding to a 2021 Nature Communications paper on a simulation of topological phenomena in a quantum magnet using a D-Wave 2000Q™ system, Nobel laureate J. Michael Kosterlitz, who won the prize for his work on this topic, said: “This paper represents a breakthrough in the simulation of physical systems which are otherwise essentially impossible.”

The History of Building a Quantum Ecosystem

Building a quantum ecosystem of developers, talent, systems, software, tools, and users has been a core focus of D-Wave. Throughout our history, we have demonstrated a successful track record of providing technology and innovation to customers. We have gathered significant operational and commercial experience for running a quantum computing company at scale. Our hardware and software expertise provides us with a unique capability to address customer needs.

The early years of D-Wave were largely dedicated to research and development, leading to our first working qubits and scalable systems. In 2004, we made the critical and deliberate decision to focus on annealing quantum computing to deliver practical business value with quantum computing. By 2011, we officially moved our research and development into a new phase when we announced our collaboration with Lockheed Martin, allowing for outside scientists and engineers to work with our quantum systems and to provide critical feedback on our continuing quantum system development. Since the Lockheed Martin engagement, our technology has been used for a variety of research and academic applications at companies and institutions including Google, the Oak Ridge National Laboratory, Los Alamos National Laboratory, Jülich Supercomputing Centre, University of Southern California (“USC”) Information Sciences Institute, and the NASA Quantum Artificial Intelligence Laboratory and University Space Research Organization. Through this early quantum access, we gained crucial feedback on how to improve quantum computers and make them more accessible for practical use. As a result, each generation of our annealing quantum computing systems has enabled organizations to achieve dramatic improvements in performance.

In 2018, we removed barriers to access our annealing quantum computing systems by launching our Leap service, which was the industry's first real-time, publicly accessible quantum cloud service that allowed developers to access live quantum processors and create applications using Python, a high-level general-purpose programming language. D-Wave's cloud approach facilitated and increased access to quantum computers, thereby allowing businesses, developers, and researchers to directly access our systems.

In 2019, our customers began to put application pilots into production. Volkswagen debuted the first-ever real-time quantum application in limited production, a quantum shuttle service that carried people between conference centers in Lisbon, Portugal.

A year later, we released the Advantage annealing quantum computer, a 5,000+-qubit system, along with new quantum hybrid solvers in the Leap quantum cloud service. This marked an inflection point that allowed far larger, more complex, business-scale problems to be solved on our systems.

And in 2021, we released performance upgrades to the Advantage system and added the constrained quadratic model (“CQM”) hybrid solver to make it easier to solve problems with constraints. Business optimization problems use constraints, such as the distance a truck is able to travel before running out of gas. In October 2021, we also announced a preview of our next-generation quantum computing platform, which will include both annealing and gate-model quantum computers. With the expansion of our products and services to include gate-model systems, we believe we will be poised to provide the multiplatform computational power required to tackle a broad array of problems facing businesses.

In 2022, we introduced new updates to our hybrid CQM solver, enabling businesses to run quadratic optimization problems with continuous variables as well as weighted constraints, and introducing pre-solve techniques that simplify problem formulation. By incorporating constraints, the new solver is valuable in addressing the real business problems of current and future customers. Most recently, we launched new algorithmic updates to our constrained quadratic model hybrid solver that deliver increased performance for existing binary problem classes, which can include offer allocation, portfolio optimization, and satisfiability. Future software developments are expected to improve solution quality for our priority verticals and key use cases in manufacturing and logistics, as well as advanced applications involving AI and machine learning.

Our 2023 peer-reviewed milestone paper in Nature showing the performance of the 5,000+ qubit Advantage quantum computer is significantly faster than classical computing on 3D spin-glass optimization problems, an intractable class of optimization problems. This paper also represented the largest programmable quantum simulation reported to date. In addition, we introduced changes that delivered increased performance on our hybrid CQM solver on a broad set of problem classes.

In 2024, we introduced the Advantage2 quantum computer, our sixth-generation annealing quantum computer, with a 1,200+ qubit experimental prototype that is demonstrating significant performance gains on hard optimization problems and is expected to be particularly powerful for new use cases such as machine learning. We also made generally available the fast anneal protocol on all annealing quantum solvers in the Leap service that allows users to perform coherent quantum annealing. In November of 2024 we completed calibration and benchmarking of a 4400+ qubit Advantage2 processor. We also launched a new hybrid quantum solver for nonlinear programs, capable of handling production-scale use cases of up to 2 million variables and enabling customers to confront and solve real-world problems of growing complexity. The nonlinear hybrid quantum solver allows users to specify their problems using array operations. In September – December of 2024, we released support for eight new operations in the nonlinear model to support active customer engagements.

Our Business Strategy and Differentiators

Our mission is to help customers realize the power of quantum computing to address problems that cannot be solved with classical computing alone.

To empower organizations with the ability to best assess a quantum computing company’s value, we have developed a framework called Quantum Realized, which presents three benchmarks to consider when considering an investment in quantum computing technology. The three benchmarks are as follows:

- The company provides quantum technology that is better or faster at solving computationally complex problems than a classical computer alone.
- Its quantum systems are highly performant, highly reliable, and highly available.
- It has proven commercial customer successes in proof-of-concepts and applications in production.

Currently D-Wave is the only company that meets the above criteria.

Our technology has been proven to solve important problems beyond the reach of classical computers—with clear demonstrations of our system’s outperformance. Recently, the solution to a complex materials simulation problem was solved in approximately 20 minutes on our system. It would have taken one million years to solve this on one of the world’s most powerful supercomputers and would have used more than the world’s annual energy consumption to solve using classical supercomputers built with GPU clusters. The peer-reviewed paper of this groundbreaking work was published in the esteemed journal, Science, in March 2025. D-Wave’s systems are commercial-grade. Our Leap quantum cloud service delivers 99.9 percent uptime and availability and subsecond response times. The Leap service is accessible in 42 countries, with enterprise-ready performance, security, and scalability. Our hybrid quantum solvers can extend solution quality for larger and more complex problems with up to two million variables. And finally, our customers, including more than two dozen of the Forbes Global 2000 companies, are experiencing firsthand the power of annealing quantum computing.

We have a long track record of a quantum computing company working with customers on real-world, computationally complex optimization problems. We are the only company in the industry with operational and commercial experience running a quantum computing business at production levels. We are leaders in the development of the intersection of quantum hardware and software, unlocking greater ease of use and application performance for customers. To our knowledge, we are the only quantum computing company developing both annealing and gate-model quantum computers. Moreover, our commercial-first approach focuses on building products delivered via the cloud that help enterprises solve complex business problems and drive business value today. Combined, this gives us a unique perspective on how to anticipate and address the needs of customers, with a goal to accelerate quantum computing market creation and adoption.

Full stack for the entire quantum journey: We are developing annealing and gate-based quantum systems with a full-stack, cross-platform vision for the future. Our quantum-in-the-cloud offering comprises a complete portfolio of products and services that supports building in-production applications across broad use cases for businesses and developers. We currently deliver commercial annealing quantum computing systems via our Leap quantum cloud service, open-source application development tools, and professional services that bring demonstrable business value to our customers. We are also developing gate-model systems to provide coverage for an expanding number of customer use cases.

Cross-platform: We believe our platform-agnostic approach will help customers solve their toughest and most complex business problems without having to worry about which quantum technology approach or platform to use. Upon the development of our gate-model systems, customers will not have to choose between annealing or gate-model systems, as our cross-platform open-source developer tools will enable them to invest in one tool and use it across multiple quantum systems.

Hybrid strategy: Some problems are solved with classical computing resources, others with quantum computing resources, but many are best solved with a combination of both. This is why our product strategy enables customers to tap into and harness the power of both quantum and classical resources to satisfy their given use case. Our hybrid solvers (part of our Leap quantum cloud service) offer a seamless way for end users to easily leverage both our quantum and classical resources via the cloud to run complex problems. Over 200 million problems have been submitted to our annealing quantum computing solvers directly and through our portfolio of hybrid solvers since the Leap service was launched in 2018.

Annealing for optimization: While our strategy encompasses both annealing and gate-model technologies, we are the first quantum computing company in the world that builds and delivers access to annealing quantum computers. Annealing quantum computing is uniquely effective at solving optimization problems, and this problem class makes up a significant proportion of the enterprise problem universe. Moreover, optimization use cases are suitable for a recurring revenue model, as many are repeatable, real-time (always-on) processes. Recent publications point to the fact that annealing is better for solving optimization problems both today and in the future while, in contrast, the overhead involved with pre-processing and error correction for gate-model systems make them ineffective at solving optimization problems.

Practical quantum computing for accelerated time-to-value: We build products and services that help enterprises solve complex business problems and deliver business value today. All our systems, tools and products are, and will continue to be, focused on providing an accelerated path to practical, real-world applications that deliver value to our customers.

Cloud-first and enterprise scale: The Leap quantum cloud service provides real-time access to production-grade annealing quantum computers with enterprise class performance and scalability. The Leap service is engineered for high reliability and availability, offering greater than 99.9 percent uptime and sub-second response times even under heavy customer usage, and provides the security and privacy measures needed for enterprises to go live with in-production quantum hybrid applications. Much of our technical focus is on ensuring delivery of a secure production-grade quantum technology stack that customers can rely on to support critical business workflows. In December 2023, we became the first full-stack quantum technology provider that is SOC 2 Type 2 compliant, building assurance with our customers that their data is secure. Established by the American Institute of Certified Public Accountants (AICPA), the SOC 2 examination is designed for organizations to ensure the personal assets of their potential and existing customers are protected. SOC 2 reports are globally recognized and affirm that a company's infrastructure, software, people, data, policies, procedures, and operations have been formally reviewed.

We also continue to focus on key initiatives to allow for seamless deployment of new Leap service features with no downtime for customers, as well as the expansion of our Leap platform to new countries.

Professional services accelerate QCaaS: Our model features a professional services-enabled approach for application discovery and proof-of-concept development, and a QCaaS model for recurring revenue as applications move to production. This model enables us to capture professional services revenue in the initial stages of the customer journey and recurring QCaaS revenue in the subsequent stages once the application has been built and validated.

Our Business Model

- *Three-pronged go-to-market model:* Our go-to-market model—across direct sales, partner channels, and developers—extends our ability to scale sales.
- Our **direct sales strategy** involves: (1) growing our existing customer base by accelerating the path from pre-production to in-production application deployment on the Leap quantum cloud service; and (2) acquiring net new customers using a customer engagement model, D-Wave Launch, which is a services-enabled journey to the adoption of quantum technology. With D-Wave Launch, we take our customers along a journey of use-case analysis and problem formulation to a fully implemented proof-of-concept deployment and finally onto a production state, where the devised solution is integrated into the customer’s day-to-day operational workflow. The initial stages of engagement prior to production deployment are considered non-recurring revenue per application. Once the application is in production, D-Wave generates recurring revenue by providing QCaaS services to enable customers to run the full production application on an ongoing basis. See “Our Quantum Computers, Developer Tools and Quantum Hybrid Solvers Delivered via QCaaS—D-Wave Launch™ on-board to quantum computing program” for additional information.
- Our **partner strategy** involves: (1) expanding our reach by enabling AWS customers to purchase Leap and other services through AWS Marketplace; (2) creating new markets and unlocking new use cases via systems consultants and integrators such as Deloitte; and (3) building an ecosystem of global resellers such as NEC and regional resellers such as Strangeworks and Sigma-i. For our partner-led strategy, we work with system integrators, independent software vendors, and cloud providers to resell our Leap quantum cloud service around the globe to scale our business.
- Our **developer strategy** involves: (1) providing access to a free trial of Leap, our quantum cloud service, through our Quantum LaunchPad™ program; (2) engaging technically with Quantum LaunchPad program participants to help support their application development and identify new emerging use cases of our technology; and (3) lead generation, i.e., engaging with our Quantum LaunchPad program participants to identify prospects for conversion to paid customers and applications that can move into production usage.

Our Growth Strategy

According to the Boston Consulting Group (“BCG”) quantum computing will create \$450 billion to \$850 billion of economic value—sustaining a \$90 billion to \$170 billion market for hardware and software providers—by 2040.

We believe our full-stack, cross-platform approach, alongside our go-to-market strategy, technical capabilities, and product vision, positions us to capture a significant portion of the quantum TAM available to hardware, software, and service providers.

Our overall growth strategy has three key focus areas: (1) build the business; (2) advance the science; and (3) improve the technology.

Build the business: We continue to build the business through a combination of QCaaS services, professional services, and partner / developer ecosystem growth. The key elements of this strategy are:

- *Win the fast-growing optimization market:* Annealing quantum computing is uniquely suited for solving optimization problems and, as noted above, this problem class is anticipated to comprise \$22 billion to \$42 billion of the longer-term quantum computing TAM that is available to hardware, software, and service providers. As the first company in the world offering annealing quantum computing technology, we plan to continue to leverage this competitive position and acquire additional customers with optimization use cases across multiple verticals, including manufacturing, retail, logistics, financial services, telecommunication services, life sciences and pharmaceuticals, and the public sector.

- *Direct sales, recurring revenue, and expanding partner strategy:* We are pursuing multiple revenue streams from our go-to-market model with a focus on five key initiatives. Our main line of business—cloud service—has seen significant year-over-year growth, which we anticipate will continue. Specifically, between 2018, when we introduced our Leap cloud service, and the end of 2024, cloud revenue has grown at a compound annual growth rate of 24 percent. We have two types of cloud revenue contracts: large multiyear engagements and smaller recurring contracts that are often multi-month in duration. We continue to acquire net new customers through the D-Wave Launch program and further drive recurring QCaaS revenue by moving existing customers from their pre-production journey into production applications. To broaden our reach and potential customer footprint with these key verticals and use cases, we are increasing our focus on partners and resellers. We currently sell through a group of strategic partners including Deloitte, uptownBasel/quantumBasel, NEC, Unisys, Carahsoft, and Staque and are in active conversations with many others to scale our go-to-market (“GTM efforts”).
- *Prioritize key vertical markets:* Foundational to driving sales growth in the commercial sector is a focus on key industry verticals where we identify the best solution and market fit. The first vertical markets identified are manufacturing, retail, logistics, financial services, telecommunication services, life sciences and pharmaceuticals, and the public sector. We have a focus on use cases that have shown the effectiveness of our quantum and quantum-hybrid solvers to provide competitive solutions to complex optimization problems that exist within those vertical markets. We’re pursuing a go-to-market growth strategy designed to increase sales and expedite customer applications moving into production. We believe this GTM approach will better position us to serve markets that are ready to capitalize on the tangible benefits of our quantum computing solutions. Early adopter customers are on the forefront of massive digitization efforts, as they incorporate cutting-edge technologies designed to optimize their operations and identify new processes and products that fuel operational efficiencies, cost savings and increased revenue. As part of our GTM strategy, we are focusing on use cases with the broadest near-term applicability including workforce scheduling, production scheduling, logistics routing, resource allocation, marketing offer allocation, maintenance, repair and overhaul optimization, and portfolio optimization. In parallel with this verticalized go-to-market focus, we continue to identify and implement new and existing use cases across multiple industries as opportunities arise. New use cases and verticals will be added as they become mature, which we expect will include machine learning, generative AI, and blockchain.
- *Land new customers and expanding the existing base:* With our verticalized focus at the forefront, our direct sales strategy involves: (1) growing our existing customer base by accelerating the path from pre-production to in-production application deployment on our Leap quantum cloud service. This is achieved through a focused customer success program to ensure successful migration to QCaaS production usage, ongoing renewals, and the identification of additional use-case areas; and (2) acquiring net new customers using the D-Wave Launch program, a services-enabled journey to the adoption of quantum technology. For direct-to-enterprise sales, we regularly initiate customer relationships through the D-Wave Launch engagement model. These engagements typically start with our professional services organization working with the customer to build out an actual proof-of-concept software implementation running on the Leap quantum cloud service to test if the implementation works correctly and identifies business value to the customer. On occasion, a quicker, lighter model is built first, as a proof-of-technology, to identify use case applicability before engaging in a more rigorous proof-of-concept development. Following a successful proof-of-concept implementation, we work with our customers to integrate the full quantum-hybrid solution into their day-to-day workflow and surrounding systems’ infrastructure. The goal of this work is to put the quantum hybrid application into production pilots and full production. At this point, our customer typically runs the problem in their environment while connected to the Leap quantum cloud service, at full scale, and deriving additional business benefits beyond those identified in the earlier development stages. All engagements up until full production are considered non-recurring revenue per application. At full production, the Leap service access provided to run the final application represents recurring revenue as it consumes QCaaS resources on a continuous basis. As an application consumes QCaaS resources, D-Wave recognizes the revenue. See “Our Quantum Computers, Developer Tools and Quantum Hybrid Solvers Delivered via QCaaS—D-Wave Launch™ on-board to quantum computing program” for additional information.

- *Reduce time to production:* As an independent, full-stack quantum computing platform and solutions provider, D-Wave is unique in having many commercial customers with a steadily increasing proportion of those using D-Wave quantum-hybrid solutions within their day-to-day production workflow. As more customers enter into production usage, our focus now shifts to reducing the time it takes to get more D-Wave quantum-hybrid solutions into daily workflows. We are doing this by focusing on the Launch process and leveraging any best practices or additional efficiencies that can be implemented across all projects. As more and more solutions successfully proceed through our Launch program, we will take advantage of the lessons learned, improving and refining the process as we go. We expect these changes will drive better efficiency and reduce project length and time to production. We are also defining standardized templates for certain use cases and industries. We expect this will allow us to have repeatable formulations and solutions for standard business problems and put solutions in place for new customers with those problems in less time using our standard offerings. These offerings would allow for some minor modifications or customizations for client-specific requirements but reduce the time to production, as we expect we will have an established partial solution in place that can be leveraged and built upon. We intend that these standard templates will both take into consideration the industry-specific regulatory and compliance requirements and eliminate the need for each new project to have to account for these important factors.
- *Engage partners for increased breadth and speed:* We also intend to expand our channel partner and reseller relationships to identify new geographies, customers, and use cases, all of which could potentially use our products. We continue to develop, implement and manage a comprehensive partner program to ensure that the most appropriate and productive partner relationships are initiated, enabled and managed, across solution providers, system integrators and referral / reseller partners.
- *Pursue government sales and grants:* We see an increasing demand signal from governments for their interest in building quantum applications and their support for both annealing quantum computing, quantum-classical hybrid technologies, and continued research and development for gate-model quantum computing systems. In Japan, the government has funded application development for a variety of different public sector problems including optimized tsunami evacuation routes and lowering CO2 emissions. In Australia, the government announced an interest in building applications to optimize transportation networks. In Canada, the National Quantum Strategy includes a pillar aimed at commercialization, and the United Kingdom's SparQ programs explicitly include quantum annealing along with gate-model systems. In the U.S., there are many policy initiatives to be explicitly inclusive of the different quantum technologies, as well as for identifying the right use cases and developing near-term quantum applications. Government quantum programs also continue to provide funds for enhanced research and development efforts. D-Wave will continue to work directly and through appropriate partnerships to pursue these opportunities. Outside of government funding programs, we are also seeing an increased interest in direct engagements across the public sector, including transportation, telecommunications, energy, emergency services, defense, and homeland security. To support growing government adoption of quantum computing, D-Wave announced in January 2025 a partnership with Carahsoft Technology Corp. ("Carahsoft"), a trusted government IT solutions provider, making D-Wave's quantum computing technologies available to the public sector through Carahsoft's reseller partners and Carahsoft's approved contract vehicles. In addition, in October 2024, D-Wave achieved "awardable" status through the Chief Digital and Artificial Intelligence Office's ("CDA") Tradewinds Solutions Marketplace. The Tradewinds Solutions Marketplace is the premier offering of the Department of Defense's suite of tools and services for accelerating the procurement and adoption of emerging technologies. The marketplace will now include D-Wave's annealing quantum computing technology alongside other offerings like artificial intelligence (AI)/machine learning (ML), data, and analytics capabilities.

- *Advance the science:* We advance the science through the pursuit and creation of new knowledge in the quantum space, with the goal of demonstrating customer value and ultimately quantum supremacy (i.e., a computational quantum outcome that cannot be achieved by any existing classical computation system) in a growing portfolio of problems. The key elements of this strategy are:
 - *Demonstrate the power of our quantum technology through benchmarking:* Our annealing quantum computers have outperformed the best classical computers in several specific use cases. As noted in a peer-reviewed paper published in Nature Communications (2021), our systems demonstrated a solution to a problem three million times faster than the best-known classical approaches on an application in quantum materials simulation. In another peer-reviewed paper published in Nature (2023), we showed the power of coherent quantum annealing in delivering a scaling advantage over classical approaches, as a function of computation time, in solving certain types of problems. In the context of real-world applications, our customers have shown material efficiency improvements in solving business problems (for example, up to 500 times faster for Pattison Food Group, as described above). In March 2025, we believe D-Wave became the first in the world to demonstrate quantum supremacy on a useful, real-world problem. This groundbreaking work was published in a peer-reviewed paper in the esteemed journal, Science, showing that D-Wave’s quantum computer performed the complex simulation in minutes and with a level of accuracy that would take nearly one million years using one of the world’s most powerful supercomputers.
 - *Pursue the cutting edge and push the boundaries of quantum knowledge:* We plan to continue to create new knowledge in the quantum space that shows the power of our scientific and technological approaches and pushes the frontiers of quantum information science. We have an active research program that focuses on quantifying the increases in performance we achieve with increasingly coherent quantum systems. Furthermore, we have seen promising new results on interesting physics problems, currently in peer-review, because of even greater coherence in our systems.
 - *Improve the technology:* We improve the technology through continuous innovation in annealing and gate-model quantum computing development, hybrid algorithm advancement, and leveraging customer and market feedback to inform our product innovations and lifecycle. The key elements of this strategy are:
 - *Continue to invest in our differentiated annealing quantum computing technology:* As discussed above, while our technology approach encompasses both annealing and gate-model technologies, we are the first company to build and commercially deliver production-scale annealing quantum computers. Our extensive intellectual property portfolio around our annealing quantum computing systems and ten-year head start in superconducting quantum technology development give us a first-mover advantage, making it difficult for others to enter this space. Quantum annealing is the only quantum computing model that, as part of the hybrid solver service, can efficiently solve large combinatorial optimization problems at enterprise scale, which make up approximately 25 percent of the addressable quantum market.
 - *Build and deliver a unified quantum platform that offers solutions for broad quantum use cases for customers:* The intersection of systems, software, services, and tools is familiar to us. We are using our integrated engineering expertise to build a cross-platform quantum service with both annealing and gate-model systems that we believe will be the first and only quantum computing offering to impact full product lifecycles across multiple industries.
 - *Extend our track record of continuous innovation, execution, and operational excellence:* We have a strong track record of innovation in building and delivering annealing quantum computing systems to the market. From the D-Wave One™, D-Wave Two™, D-Wave 2X™, D-Wave 2000Q™, D-Wave 2000Q Lower Noise (“LN”), Advantage and Advantage Performance Update, to the forthcoming Advantage2 system, we have demonstrated a relentless pursuit of increased device count, coherence (qubit quality), qubit connectivity, and computational performance. This has resulted in a rapid increase in the complexity of problems our customers are able to solve. We plan to continue this trajectory and focus on driving additional improvements in coherence, connectivity, and scale in our annealing quantum computing systems to further expand the universe of solvable problems, while using this expertise to build our gate-model system.

Our Technology Approach

Quantum computing technology landscape

There are two primary approaches to building quantum computers:

- *Annealing quantum computation:* Heavily inspired by physics and uniquely effective at solving challenging, ubiquitous optimization problems, annealing quantum computation is the first and only approach to date that delivers large scale commercial quantum computing and is a core of our product platform. Annealing quantum computing systems comprise qubit architectures with programmable interactions between qubits, and qubit controls that are continuously applied which allow users to prepare and then evolve quantum states that are harnessed to solve hard optimization problems.
- *Gate-model computation:* Heavily inspired by classical digital computation, gate-model computation replaces classical registers of bits with qubits and performs a series of single and multi-qubit operations, or gates, on the registers to run a computation. There are superconducting, ion trap, neutral atom, and photonic-based approaches to building gate-model quantum computing architectures.

Our quantum systems approach

In 2004, D-Wave made a singular strategic choice, guided both by analysis of the market for potential quantum applications and the state of available technology. Our decision to first develop a large-scale annealing quantum computing technology for optimization remains prescient today. Challenging optimization problems are found across all areas of business, and a growing body of theoretical and empirical evidence identifies annealing quantum computing as the best approach for solving them. Exploiting the natural tendency of systems to remain in ground or low energy configurations, this model of quantum computing is more error-tolerant than gate-model architectures and therefore easier to develop into a large-scale technology.

We have a multidisciplinary team of scientists, technicians, software developers, and engineers of all types working together on all aspects of the technology, systems, and software. Wherever possible, we leverage third-party technology and expertise to accelerate our core technology development. We build our qubits with superconducting circuits in a multilayer integrated circuit process. A multilayer fabrication stack is composed of multiple alternating layers of superconducting metals, dielectric insulators, as well as other superconducting device layers that allow for a dense implementation of complex circuitry. This approach allows us to integrate control and readout circuitry into the fabric of the quantum processor unit and facilitates scaling to large processor sizes. Our fabrication is done with mature, proven, reliable, and readily available industry-standard technology, processes, and components wherever possible. As a result, we can work with existing third-party foundries without the need to invest capital in a new fabrication facility.

At the same time, some critical elements of the technology are fabricated and tested with our own equipment, in our own facilities. We have an in-house team of superconducting application-specific integrated circuit designers, and we design all our own superconducting circuitry. All testing and characterization of superconducting circuits is performed in-house at our facilities by a team of scientists trained in cryogenic characterization and operation of superconducting circuits and devices. By collocating, co-developing, and controlling both design and testing, we maximize speed of development and control product quality.

With our current product fabrication at very large-scale integration (“VLSI”), we also benefit from the ability to integrate on-chip superconducting control circuitry. This can serve to tune and control qubits and implement scalable readout. “Scalable” in this context means that many tens of thousands of devices can be controlled and read with only hundreds of wires—a characteristic rare in the quantum computing world. Our superconducting VLSI control circuitry has enabled us to scale our systems from a handful of qubits to over 5,000 qubits in the current Advantage system.

Control electronics are an integral part of all quantum computing architectures, and we have designed and built more than seven generations of semiconductor-based electronic systems for control and readout of superconducting quantum processors. Co-developing the cryogenic superconducting and room-temperature semiconducting-based electronics is essential to optimizing performance.

Our Burnaby facility in British Columbia, Canada, hosts system development and manufacturing. To ensure that we have an efficient and sustainable manufacturing process that can continue to scale, we have capacity to expand across all our core technology areas:

- In fabrication, our existing foundry can scale to a level significantly higher than our current throughput.
- With the release of our D-Wave 2000Q LN annealing quantum computer, we demonstrated that a second source fabrication facility can significantly accelerate technology development; we continue to explore alternatives for this portion of the supply chain.

- Our wiring and input/output manufacturing is in-house and we can scale this capability by adding production staff and resources.
- Room-temperature semiconductor electronic systems have been designed in-house and built by third-party vendors; with additional funding, electronics manufacturing can easily be scaled.

Our development philosophy emphasizes systems engineering to maximize customer benefit. This means that we design the qubit, from the beginning, in a way that allows us to control, operate, and read many thousands of qubits, not just tens of qubits. This approach has supported scaling our system through five generations of commercial quantum computers, and with it, the complexity of problems our quantum computers can handle. Notable improvements we made while transitioning from the D-Wave 2000Q to the Advantage quantum system (released in September 2020) include:

- Increasing the number of qubits from 2,000 to over 5,000 (2.5 times)
- Increasing connectivity between qubits from 6 to 15 (2.5 times)
- Increasing problem precision (the precision to which a problem can be posed) by two times
- Reducing problem latency by 60 percent

The increase in qubits and connectivity from the previous degree-6 topology to the degree-15 topology typically allows our Advantage processor to take inputs two to four times larger than those of the D-Wave 2000Q processor.

In addition, the Advantage annealing quantum system performance update released in October 2021 included several key changes that boosted performance over the original Advantage system release:

- An updated processor design that increased problem precision
- Improvements in system control enabled faster anneal times
- An increased yield of qubits and couplers that allows more complex problems to be solved

In April 2022, D-Wave announced the general availability of a 500+ qubit prototype of our upcoming Advantage2 system, notable in its substantial improvement over the previous Advantage system in qubit connectivity. On February 12, 2024, D-Wave announced the release and general availability of a 1200+ qubit prototype of our upcoming Advantage2 system, notable in its substantial improvements over the previous Advantage system, including a doubling of the qubit coherence time, an increase in qubit energy scale, and the same increase in connectivity as the prototype made available in 2022: each qubit now connected to 20 others. As of February 2025, nearly 17 million problems have been run on our Advantage2 prototypes, which we believe highlights the strong customer desire to access these improved features.

Expansion into gate-model: Our early focus on annealing quantum computing directly lends itself to our gate-model efforts. Many of the lessons learned in building a superconducting annealing quantum computing system are transferable to building a scalable superconducting gate-model quantum computer. Scale, superconducting chip fabrication, materials design, cryogenics, and intellectual property are all necessary and relevant for delivering a commercial, scalable gate-model system to the market. Our deep experience and built-from-the-ground-up commercial-scale design strategy give us a first-mover advantage over companies in the early stages of merely developing the building blocks of gate-model systems.

We believe the time is right to also pursue gate-model technology because:

- Gate-model quantum computing (“GMQC”) theory has matured considerably since 2004.
- Over the past 20 years, we have accrued considerable experience and intellectual property in quantum systems engineering, including cryogenics, environmental control, input/output and filtering, and scalable control and readout of superconducting devices. This can be directly brought to bear on building scalable GMQC technology.
- We have a mature superconducting VLSI design and manufacturing capability that we are employing for our gate-model program. This is the only physical implementation of a quantum computing technology that can be utilized for both annealing and gate-model quantum computers.
- While there is still a need to further improve error-corrected GMQC theory to reduce overheads, both in physical circuit size and gate sequence depth and to the point where it can truly be practical to implement, a confluence of new theoretical developments, coupled with our practical quantum computing design experience, gives us a path to commercializing this technology.

- **Power consumption and refrigeration:** Our annealing quantum computers draw 12 kilowatts of nominal power and have used the same-sized dilution refrigerators for cooling since the 2010 release of the original D-Wave One system. This is despite an increase of 50 times in the number of qubits since that first product. The refrigerators' cryocoolers require the bulk of this power to provide cooling to 4 kelvin. While the computational power of our annealing systems has dramatically increased with each product generation, the power requirements have remained the same and are expected to do so for at least the next two system product generations. This contrasts with competitors who are using and developing massive dilution refrigerators, which will require increasingly more power to continue with technology development.

D-Wave's track record of reliable operation: We have been delivering commercial quantum computers for longer than many of our competitors have been in existence. Our experience allows us to operate a field-tested service and support organization that can anticipate many technical challenges of quantum system deployment.

Our software, tools, and cloud services approach

Software development: Our software teams use Agile and Scrum methodologies to ensure customer requirements are met and that the highest priority features are included in each release to maximize the utility of our system. The development process for Ocean developer tools follows best practices for open-source products, and we use GitHub for all open-source code. As a result, developers can edit the code in their own repository and merge it with the original repository when it is ready for release, and external users can contribute to the codebase.

Ocean software development kit: Available on the D-Wave GitHub repository, the Ocean SDK is a suite of open-source tools for solving challenging problems with quantum computers and quantum hybrid solvers. The Ocean software stack provides a chain of tools that implements the steps needed to solve problems on D-Wave solvers.

Leap quantum cloud service: We are the first quantum computing company to offer secure, real-time access to quantum computers and quantum hybrid solvers via the cloud. D-Wave has multiple QPUs online, and the Leap service is multiregional, which means we have physical systems available in different geographical locations, including at our Quantum Center of Excellence in Burnaby, BC and at the University of Southern California's Information Sciences Institute (ISI).

Secure access and data protection: We implement industry-accepted controls and technology and combine enterprise-grade security features with comprehensive audits of our applications, systems, and networks to ensure customer data is protected. As of December 22, 2023, we became SOC 2 Type 2 compliant. We successfully completed our second SOC 2 Type 2 audit in November 2024 and received a comprehensive report from a third-party auditor that contains no exceptions.

Leap hybrid solver service: Launched in 2020, the hybrid solver service ("HSS") within our Leap service provides a combination of quantum and classical computation resources and advanced algorithms to solve problems of enterprise scale with up to two million variables. Several hybrid solvers are available within the HSS today to support different problem formulations. The Leap service's hybrid solvers enable customers to benefit from D-Wave's deep investment in researching, developing, optimizing, and maintaining quantum hybrid algorithms.

Key Strategic Relationships

AWS: In October 2022, we officially launched in AWS Marketplace, expanding and extending the reach of our quantum computing solutions. AWS Marketplace customers can purchase access to our Leap cloud service as well as our professional services offerings. D-Wave was the first pure-play quantum computing company with offerings available in AWS Marketplace.

Davidson: In January 2023, D-Wave announced a multi-year reseller agreement with Davidson Technologies, a technology services company that provides innovative engineering, technical and management solutions for the U.S. Department of Defense, the aerospace industry and commercial customers. The alliance enables Davidson to resell D-Wave's products and services, including the Leap quantum cloud service. In addition, Davidson will host the second U.S.-based D-Wave Advantage quantum computer at its global headquarters in Huntsville, AL, in 2025. The system will eventually be housed in a secure facility developed to run sensitive applications using quantum computing technology.

Deloitte: We have worked with Deloitte in Canada and U.S. on quantum development projects, specifically in government, to help accelerate adoption of quantum computing solutions in the public sector.

Jülich Supercomputing Centre: In October 2021, we completed the installation of an Advantage performance update quantum system with 5,000-plus qubits and 15-way connectivity at the Jülich Supercomputing Centre at Forschungszentrum Jülich (“FZJ”). This installation is the cornerstone of the Jülich Unified Infrastructure for Quantum Computing lab. This quantum system is the first installation of a D-Wave quantum computer outside of North America and provides cloud access to the first practically usable quantum computer for researchers, governments, and enterprise customers in Europe. Most recently, in February 2025, D-Wave announced that FZJ has purchased the D-Wave quantum computer, becoming the first high-performance computing center in the world to own a D-Wave Advantage annealing quantum computing system.

NEC: We entered into a strategic investment and subsequent global re-seller agreement with NEC in April 2019 and December 2021, respectively. The relationship includes reselling our Leap quantum cloud service and professional services in NEC’s core markets, primarily Japan and Australia.

USC: USC has been at the forefront of quantum computing research since 2011, when it established the Quantum Computing Center (“QCC”) at the USC Information Sciences Institute. The center has housed several generations of D-Wave’s quantum systems, enabling researchers to explore the capabilities of annealing quantum computing for a wide range of applications. Since May 2022, the QCC has been home to the first U.S.-based D-Wave Advantage quantum computer. In May 2024, D-Wave announced a renewed multiyear partnership with USC, under which the USC Viterbi School of Engineering will continue to house a D-Wave Advantage quantum computer, facilitating ongoing exploration and adoption of annealing quantum computing solutions for businesses, researchers, and government.

quantumBasel: In December 2022, we entered into a strategic collaboration with quantumBasel, a Switzerland-based competence center for Industry 4.0. D-Wave is serving as the center’s quantum optimization technology provider, giving tenants and customers access to the Advantage annealing quantum computer via the Leap quantum cloud service. In addition, the center’s customers can engage with D-Wave’s team of professional services experts to facilitate the analysis, formulation, and ultimately creation, of production-ready quantum computing applications.

While strategically significant to our long-term goals, we have determined that our current agreements or other arrangements with each of these respective parties are not material to our business, financial condition, or results of operations.

Operation Agreements

On December 31, 2012, we entered into an agreement with Cypress Semiconductor Corporation (“Cypress”) for the purchase of available capacity of Cypress’ 8-inch wafer semiconductor line for the purposes of manufacturing wafers as well as services related to the use of such semiconductor line (the “Semiconductor Line Operation Agreement”). On September 30, 2017, Cypress assigned the Semiconductor Line Operation Agreement to SkyWater Technology Foundry, Inc., to which we consented on November 9, 2017. The Semiconductor Line Operation Agreement, as amended, provides for an initial term of ten years followed by automatic extensions of one year unless either party provides the other party six (6) months prior written notice of its intention to terminate the agreement. On March 1, 2023, January 24, 2024, and January 24, 2025, we entered into amendments to the Semiconductor Line Operation Agreement to revise the pricing and quarterly commitments.

Competition

The quantum computing market is highly competitive. With new technologies and entrants into the market, we expect competition to continue to increase. Our competitive differentiators include being the only provider in the world building both annealing quantum computing systems and gate-model quantum computing systems, our long-term proven track record of delivering increasingly mature higher-performance quantum systems that scale, and our use cases with demonstrable business value.

In addition to being the first commercial supplier of annealing quantum computing systems, we are also building gate-model quantum computing systems. We plan to validate gate-model multi-layer fabrication, demonstrate scalable on-chip control, and ultimately deliver a 5,000-qubit scaled gate-model system with either full or partial error correction. We are applying the learning from the development of our five generations of annealing quantum computers to the manufacturing, scale, and implementation of the gate-model program. At the same time, we continue to invest in our Advantage annealing quantum computing program with future generations of increasingly more powerful and connected annealing quantum computing systems. Other companies, including Rigetti Computing, IBM, Google, IonQ, Quantinuum, QuEra, Atom, Pasqal, PsiQuantum, and Xanadu, are pursuing gate-model quantum computing, each using different technologies for the qubits and control, and each at different levels of technical maturity. Approaches include superconducting, ion traps, photonics, spin qubits, and neutral atoms. A brief summary of a few of the approaches follows:

- The superconducting gate-model approach uses the same basic underlying technology as that found in our qubits. Still, there are significant differences in the details of the implementations, levels of integration, and the performance achieved to date, particularly in optimization and material simulation.
- The ion trap approach uses the state of atoms trapped in electric fields that are manipulated by electric fields and lasers for qubits. Current ion trap systems are in the range of about 35 qubits. While technologies such as optical interconnects have been proposed to connect many ion-trap QPUs with high connectivity, this level of integration has not yet been demonstrated at a large enough scale to be used for business-sized problems, and early customer comparisons suggest that such technology is not commercially viable.
- The neutral atom approach uses the states of neutral atoms that are arranged and stabilized in an optical trap. Current neutral atom efforts are at the several hundred qubit scale.
- The photonic approach uses photons of light for qubits. These technologies are in the development stage.

All the above gate-model approaches are in the noisy intermediate-scale quantum (“NISQ”) era. This means that these architectures are not yet fully error corrected and have limitations on the number of 1- and 2-qubit gates that can be performed.

Our successful technological offering and trusted commercial readiness are evident as objectively assessed by U.S. National Institute of Standards and Technology (“NIST”), which analyzed the quantum technology readiness levels (“TRL”) across multiple quantum technologies in 2021. Using a scale from one to nine, NIST rated our annealing quantum computing technology at TRL 8 (mature technology) and other gate-model superconducting providers from TRL 1 to TRL 3 (basic and feasibility research).

With respect to larger technology companies versus pure quantum computing enterprises, quantum cloud access providers, including Amazon Braket and Microsoft Azure, do not currently have the full-featured benefits and real-time access of D-Wave’s real-time Leap quantum cloud service or quantum hybrid offerings. The quantum systems to which they offer access are developed by others, such as IonQ, Rigetti, or Quantinuum, and are significantly smaller in scale and capability when compared to D-Wave’s systems and our Leap and hybrid services.

We believe competitive analysis of the quantum industry should be viewed through the lens of what advantage customers can realize with real-world commercial applications. With our extensive intellectual property portfolio, record of commercial execution, peer-reviewed speed-ups on real-world quantum chemistry simulations, and emerging use cases demonstrating practical value to enterprise customers, we believe we are well positioned to compete, grow, and capture a significant share of the quantum computing market.

The classical optimization market is also very competitive and there are multiple vendors and technologies that compete with us in providing solvers for optimization problems. Commercial products like ILOG CPLEX, Gurobi Optimizer, and Hexaly Optimizer offer mathematical optimization solvers. Toshiba and Fujitsu offer “quantum-inspired” technology based on classical heuristics like simulated annealing and parallel tempering. These classical optimization products can only leverage classical resources in performing the computations supporting optimization use cases.

Intellectual Property

Development, know-how, and engineering skills are an essential component of our business, resulting in the creation of our broad intellectual property portfolio. We rely on a combination of patents, trademarks, and trade secrets, as well as contractual provisions and restrictions, to establish and protect our intellectual property and other proprietary rights in the United States, Canada, and other jurisdictions.

We pursue patent protection when we believe it is consistent with our overall intellectual property strategy and is cost effective. We have accumulated a broad patent portfolio that covers all the main aspects of our technology, including systems and software, and we intend to protect our innovative inventions.

Currently, we own all our core intellectual property and do not license in or out any of our material intellectual property. As of December 31, 2024, we owned more than 240 issued U.S. patents, which will expire between 2025 and 2043, and more than 200 additional issued and pending patents worldwide. Our patent portfolio is the third largest patent portfolio in the world related to quantum technology. Our pending and issued patents target both the hardware and software sides of our business, including systems, qubits and other devices, fabrication, architecture, system software, cryogenics, hybrid quantum computing, and applications of quantum computing. Currently, we own all elements of our core patent portfolio. As of December 31, 2024, we owned four registered U.S. trademarks and seven registered foreign trademarks. We had also registered domain names for websites we use in our business, such as dwavequantum.com, dwavesys.com, qubits.com, and similar variations.

In addition to the above, we also protect our intellectual property and other proprietary rights by entering into confidentiality and invention assignment agreements (or similar agreements) with our employees, consultants, collaborators, contractors, and other third parties.

Leadership

D-Wave is led by Dr. Alan Baratz, who became Chief Executive Officer in 2020. Previously, as executive vice-president of research and development and chief product officer, he drove the development, delivery, and support of all of D-Wave's products, technologies and applications. Dr. Baratz has more than 25 years of experience in product development and bringing new products to market at leading technology companies and software startups. As the first president of JavaSoft at Sun Microsystems, Dr. Baratz oversaw the growth and adoption of Java from its infancy to a robust platform supporting mission-critical applications in nearly 80 percent of Fortune 1000 companies. He has also held executive positions at Symphony, Avaya, Cisco, and IBM; served as chief executive officer and president of Versata, Zaplet, and NeoPath Networks; and was a managing director at Warburg Pincus. Dr. Baratz holds a doctorate in computer science from the Massachusetts Institute of Technology.

In addition, D-Wave has built an executive team that brings breadth and depth in diverse areas of expertise, including technology leadership, corporate strategy, and go-to-market execution. In particular, our executive team excels at building product roadmaps, delivering leading-edge technology products through the development and commercialization of technology, enabling companies to achieve successful outcomes, driving technology adoption in the market, new market creation, and growing revenue. Team members also draw from experience in taking companies public and scaling private and public companies.

Corporate History

D-Wave Systems, incorporated in British Columbia, Canada, in 1999 through its predecessor company, is a pioneer in the quantum industry. D-Wave Systems was the first company to deliver an annealing quantum computing system to a customer, to enable early complex optimization applications on quantum computers, to demonstrate peer-reviewed quantum mechanical effects within a quantum annealer, and to deliver real-time quantum access via the cloud.

On February 7, 2022, D-Wave Systems entered into the transaction agreement (the "Transaction Agreement") with DPCM Capital, Inc. ("DPCM"), D-Wave, DWSI Holdings Inc. ("Merger Sub"), DWSI Canada Holdings ULC ("CallCo"), and D-Wave Quantum Technologies Inc. ("ExchangeCo"), pursuant to which, among other things: (a) Merger Sub merged with and into DPCM, with DPCM surviving as a direct, wholly-owned subsidiary of D-Wave, (b) D-Wave indirectly acquired all of the outstanding share capital of D-Wave Systems and D-Wave Systems became an indirect subsidiary of D-Wave, with D-Wave becoming a public company and an SEC registrant as successor to DPCM (the "Merger").

D-Wave was incorporated as a corporation organized and existing under the Delaware's General Corporation Law on January 24, 2022. The Company was formed for the purpose of effecting a merger between DPCM, D-Wave, and certain other affiliated entities through a series of transactions constituting the Merger pursuant to the Transaction Agreement. The closing of the Merger occurred on August 5, 2022, and is herein referred to as "the Closing." On the date of the Closing, DPCM and D-Wave Systems became wholly-owned subsidiaries of, and are operated by, D-Wave. Upon the completion of the Merger, D-Wave succeeded to all of the operations of its predecessor, D-Wave Systems. On August 8, 2022, the common shares and warrants of D-Wave commenced trading on the NYSE under the ticker symbols "QBTS" and "QBTS.WT," respectively.

Governmental Regulations

Environmental regulations

We are subject to numerous federal, state, provincial, local, and international environmental laws and regulations, including requirements regarding the protection of the environment and human health. There are significant capital, operating, and other costs associated with compliance with environmental laws and regulations related to solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. In addition, various authorities also regulate health, safety, and permitting. Laws and regulations may become more stringent in the future, which could increase costs of compliance or require us to make material changes to our operations, resulting in significant increases in the cost of production.

Privacy and data protection regulations

We may receive, store, and otherwise process personal information and other data from and about our customers, employees, and from other stakeholders like our vendors. There are numerous federal, state, provincial, local, and international laws and regulations regarding privacy, data protection, information security, and the storing, sharing, use, processing, transfer, disclosure, retention, and protection of personal information and other content, the scope of which is rapidly changing, subject to differing interpretations and may be inconsistent among regions, countries and states, or conflict with other legal requirements. We strive to comply with applicable laws, regulations, policies, and other legal obligations relating to privacy, data protection, and information security.

The United States, Canada, the European Union, the United Kingdom, and other countries in which we operate are increasingly adopting or revising privacy, information security, and data protection laws and regulations that could have a significant impact on our current and planned privacy, data protection, and information security-related practices, our collection, use, sharing, retention, and safeguarding of customer, consumer and/or employee information, as well as any other third-party information we receive, and some of our current or planned business activities. In the United States, this includes the California Consumer Privacy Act of 2018 (“CCPA”) which came into effect on January 1, 2020. In the European Union and the United Kingdom, this includes the General Data Protection Regulation (“GDPR”), which came into effect in May 2018. In Canada, this includes Canada’s Personal Information Protection and Electronic Documents Act (“PIPEDA”) and the Personal Information Protection Act in British Columbia.

We expect that there will continue to be new or changing laws, regulations, and industry standards concerning privacy, data protection, and information security proposed and enacted in other jurisdictions in which we operate. Such new or revised laws could impact our current and planned practices or business activities; they may also impact the computing services and software industry platforms and data providers we utilize, and thereby indirectly impact our business. For example, uncertainty in the laws and regulations affecting cross border transfers of personal data may affect the demand and functionality of our services and require us to implement substantial changes to our information technology infrastructure. In addition, laws affording consumers expanded privacy protections and control over their personal information may require us to modify our data processing practices and policies, and to incur substantial costs and expenses in an effort to comply.

Human Capital Resources

Our employees are key to D-Wave’s success. As of December 31, 2024, we had approximately 220 employees across our systems, software, sales, marketing, and corporate teams, including 216 full-time employees. Approximately 64 percent of D-Wave’s employees are based near our research and development headquarters in Burnaby, British Columbia, Canada. We continue to grow D-Wave’s U.S. presence, primarily in the fabrication, software, professional services, and go-to-market areas, and have a small presence in Japan and the United Kingdom. We also engage a small number of consultants and contractors to supplement our permanent workforce. A majority of our employees are engaged in research and development and related functions, with approximately 20 percent having earned a PhD, many from the world’s top ranked universities. And our go-to-market leaders have a track record of building and growing new markets, which we believe allows us to continue to build and capture the quantum computing market.

To date, D-Wave has not experienced any work stoppages, and none of our employees are subject to a collective bargaining agreement or represented by a labor union.

Available Information

Our Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K (including exhibits), and any amendment to these reports are filed with the SEC. Such reports and other information filed by us with the SEC and are available free of charge on our website at www.dwavequantum.com as soon as reasonably practicable after we electronically file that material with or furnish it to the SEC. For the avoidance of doubt, information contained on, or accessible through, our website is not incorporated into, and does not form a part of, this Form 10-K or any other report or document we file with the SEC.

Item 1A. Risk Factors

In this section, unless otherwise specified, the terms “we,” “our,” “us,” “D-Wave,” and “D-Wave Quantum” refer to D-Wave Quantum Inc. and its consolidated subsidiaries. You should carefully review and consider the following risk factors in addition to the other information included in this Form 10-K, including matters addressed in the section entitled “Cautionary Note Regarding Forward-Looking Statements”, the section entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and the consolidated financial statements and notes to the consolidated financial statements included herein. The occurrence of one or more of the events or circumstances described in these risk factors, alone or in combination with other events or circumstances, may have a material adverse effect on the business, cash flows, financial condition and results of operations of D-Wave Quantum. The risks discussed below may not prove to be exhaustive and are based on certain assumptions made by us that later may prove to be incorrect or incomplete. We may face additional risks and uncertainties that are not presently known to us, or that are currently deemed immaterial, which may also impair D-Wave Quantum’s business or financial condition.

Risks Related to D-Wave Quantum’s Financial Condition and Status as an Early-Stage Company

We are in our growth stage which makes it difficult to forecast our future results of operations and our funding requirements.

Near term, our ability to generate revenue will largely be dependent on our ability to continue to develop and produce annealing quantum computers and hybrid quantum-classical solvers that are able to solve customer business problems at scale. Longer term, our ability to generate revenue will also be dependent on our ability to develop, produce and commercialize gate-model quantum computers. We have commercialized annealing quantum computers, but we have not yet commercialized a gate-model quantum computer. Our product roadmap may not be realized as quickly as hoped, or at all.

Our ability to scale our business is dependent upon building referenceable quantum-hybrid applications. Additionally, we must accelerate sales cycles to meet revenue projections and our business depends on our ability to successfully upsell customers through our on-board process and move them into production applications.

The development of our scalable business model will require the incurrence of a substantially higher level of costs than incurred to date, while our revenues may not substantially increase until more powerful products are produced, which requires a number of technological advancements which may not occur on the currently anticipated timetable or at all. As a result, our historical results should not be considered indicative of our future performance. Further, in future periods, our growth could slow or decline for any number of reasons, including but not limited to failing to achieve targeted demand for our services, increased competition, changes to technology, inability to scale up our technology, a decrease in the growth of the overall market, or our failure, for any reason, to continue to take advantage of growth opportunities.

We have also encountered, and will continue to encounter, risks and uncertainties frequently experienced by growing companies in rapidly changing industries. If our assumptions regarding these risks and uncertainties and our future growth are incorrect or change, or if we do not address these risks successfully, our operating and financial results and our funding needs could differ materially from our expectations, and our business could suffer. Our success as a business ultimately relies upon fundamental research and development breakthroughs in the coming years and decades. There is no certainty these research and development milestones will be achieved for the costs we have forecast or as quickly as hoped, or at all.

We have a history of losses and expect to incur significant expenses and continuing losses for the foreseeable future.

Since our inception, we have incurred significant net losses. As of December 31, 2024 and 2023, the Company had an accumulated deficit of \$626.9 million and \$483.1 million, respectively. For the years ended December 31, 2024 and 2023, the Company incurred a net loss of \$143.9 million and \$82.7 million, respectively, and the Company had net cash outflows from operating activities of \$42.6 million and \$60.6 million, respectively. To date, our primary sources of capital have been through sales of our equity securities, debt financing, revenue from the sale of our products and services, and government assistance.

We expect to incur additional operating losses and negative cash flows from operating activities as we continue to expand our commercial operations and research and development programs. The extent of our future operating losses and the timing of profitability are highly uncertain, and we expect to continue incurring significant expenses and operating losses over the next several years. Any additional operating losses may have an adverse effect on our stockholders’ equity and the price of our common stock, and we cannot assure you that we will ever be able to achieve profitability.

Even if we achieve profitability, we may not be able to sustain or increase such profitability. Additionally, our costs may increase in future periods and we may expend substantial financial and other resources on, among things, sales and marketing, the hiring of additional officers, employees, contractors and other service providers, and general administration, which may include a significant increase in legal and accounting expenses related to public company compliance, continued compliance and various regulations applicable to our business or arising from the growth and maturity of our company. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our development efforts, obtain regulatory approvals, diversify our product and service offerings or continue our operations, and may cause the price of our common stock to decline.

If we do not adequately fund our research and development efforts or use research and development teams effectively or build a sufficient number of annealing quantum computer production systems, we may not be able to achieve our technological goals, build sufficient systems, meet customer and market demand, or compete effectively and our business and operating results may be harmed.

To remain competitive, we must continue to develop new product offerings and reach technological milestones, as well as add features and enhancements to our existing platform and products. Maintaining adequate research and development personnel and resources to meet the demands of the market is essential. If we experience high employee or management turnover, or a lack of other research and development resources, we may miss market opportunities. The success of our business is dependent on our research and development teams developing a roadmap that allows us to achieve technical milestones for both annealing and gate-model quantum computing, including with respect to our hybrid solvers and our Leap and Ocean platforms, retain and increase the spending of our existing customers and attract new customers. The quantum computing industry is quickly evolving and we may invest significantly in particular functionality or integrations that may become obsolete in the future, and any future product offerings, features or enhancements that we develop may be unsuccessful. The success of any new product offerings, enhancements or features depends on several factors, including our understanding of market demand, timely execution, successful introduction, and market acceptance. We may not successfully develop new features or enhance our existing platform and products to meet customer needs or our new products, features or enhancements may not achieve adequate acceptance in the market. Additionally, our improvements and enhancements may not result in our ability to recoup our investments in a timely manner, or at all. We may make significant investments in new offerings, features or enhancements that may not achieve expected returns. Further, many of our competitors may expend a considerably greater amount of funds on their research and development programs, and those that do not may be acquired by larger companies that would allocate greater resources to our competitors' research and development programs. Our failure to maintain adequate research and development resources, to use our research and development resources efficiently or to compete effectively with the research and development programs of our competitors could materially adversely affect our business.

Our estimates of the magnitude of the market opportunity, forecasts of market growth and our operating metrics may prove to be inaccurate and may not be indicative of our future growth.

Our estimates of market opportunity included in this Form 10-K may prove to be inaccurate and may not be indicative of our future growth or performance. Market opportunity estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. While our estimate of the TAM included in this Form 10-K is made in good faith and is based on assumptions and estimates we believe to be reasonable under the circumstances, this estimate may not prove to be accurate. Further, even if the estimate of our market opportunity does prove to be accurate, we could fail to capture significant portions, or any portion, of the available markets. Alternatives to our quantum computing products may present themselves and if they do, could substantially reduce the market for our computing services. Advances in classical computing may prove more robust for longer than currently anticipated and could adversely affect the timing of any quantum advantage being achieved, if at all. Any expansions in our markets depend on a number of factors, including the cost, performance, and perceived value associated with our products and services. In making such forecasts, we rely on data provided by industry sources and customers, among other things, that we have not independently verified and such data may not be accurate, and any inaccuracy will affect the accuracy of our forecasts. The accuracy of our forecasts may also be affected by human error in the interpretation of such data.

Our business could be harmed if we fail to manage growth effectively.

If we fail to manage growth effectively, our business, results of operations and financial condition could be harmed. We anticipate that a period of significant expansion will be required to address potential growth. This expansion will place a significant strain on our management, operational and financial resources. Expansion will require significant cash investments and management resources. Such investments may not result in additional sales of our products or services, and we may not be able to avoid cost overruns or be able to hire additional personnel as required. In addition, we will also need to ensure our compliance with regulatory requirements in various jurisdictions applicable to the sale, installation and servicing of our products. To manage the growth of our operations and personnel, we must establish appropriate and scalable operational and financial systems, procedures and controls and establish and maintain a qualified finance, administrative and operations staff. We may be unable to acquire the necessary capabilities and personnel required to manage growth or to identify, manage and exploit potential strategic relationships and market opportunities. The growth we have experienced in our business places significant demands on our operational infrastructure. The scalability and flexibility of our platform depends on the functionality of our technology and network infrastructure and its ability to handle increased traffic and demand for processing and bandwidth. Any problems with the transmission of increased data and requests could result in harm to our brand or reputation.

Our growth has placed, and will likely continue to place, a significant strain on our managerial, administrative, operational, financial and other resources. As we grow, we will be required to continue to improve our operational and financial controls and reporting procedures and we may not be able to do so effectively. Furthermore, some members of our management do not have significant experience managing a large global business operation, so our management may not be able to manage such growth effectively. As such, we may be unable to manage our revenue and expenses effectively in the future, which may negatively impact our gross profit or operating expenses. In managing our growing operations, we are also subject to the risks of over-hiring and/or overcompensating our employees and over-expanding our operating infrastructure. We intend to further expand our overall business, including headcount, with no assurance that our revenues will continue to grow. In addition, North America is currently experiencing one of the most competitive markets for human capital talent in recent times. Coupled with the incredibly complex nature of the quantum industry, we may face significant challenges and delays in hiring and challenges with employee retention.

If we fail to attract new customers and retain and increase the spending of existing customers, our revenue, business, results of operations, financial condition and growth prospects would be harmed.

Even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all. Our success will depend upon our ability to expand our platform's capabilities, scale our operations, increase our sales capability and successfully complete professional services projects, that may or may not progress to in-production applications.

Our long-term growth will ultimately be dependent upon our ability to successfully scale up manufacturing of our products in sufficient quantity and quality and in a cost-effective manner. Unforeseen issues associated with scaling up and constructing quantum computing technology at commercially viable levels could negatively impact our business, financial condition and results of operations.

Our growth is dependent upon our ability to successfully market and sell quantum computing technology. One of our marketing strategies is to drive traffic to our cloud-based services. We utilize various unpaid content marketing strategies, including customer events, seminars, webinars, blogs, thought leadership and social media engagement, as well as paid advertising and third-party event sponsorship, to attract prospective users of our cloud-based services. These unpaid or paid efforts may not attract a sufficient volume and quality of traffic to our cloud-based services and, in the future, we may be required to increase our marketing spend to achieve our volume and quality of traffic targets.

We depend on our ability to retain existing senior management and other key employees and qualified, skilled personnel and to attract new individuals to fill these roles as needed. If we are unable to do so, such failure could adversely affect our business, results of operations and financial condition.

Our future performance depends on the continued service and contributions of our senior management, and other key employees to execute on our business plan, to develop our platform and products, to attract and retain customers and to identify and pursue strategic opportunities. The failure to properly manage succession plans, develop leadership talent, and/or the loss of services of senior management or other key employees could significantly delay or prevent the achievement of our strategic objectives. From time to time, there may be changes in our senior management team resulting from the hiring or departure of executives, which could disrupt our business. In addition, our ability to identify, hire, develop, motivate and retain qualified personnel will directly affect our ability to maintain and grow our business, and such efforts will require significant time, expense and attention. The inability to attract or retain qualified personnel or delays in hiring required personnel may seriously harm our business, financial condition and operating results. Our ability to continue to attract and retain highly skilled personnel, specifically employees with technical and engineering skills and employees with high levels of experience in designing and developing software, will be critical to our future success. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that such personnel have been improperly solicited or have divulged proprietary or other confidential information. The loss of service of senior management or other key employees could significantly delay or prevent the achievement of our development and strategic objectives. The replacement of any of our senior management personnel or other key employees would likely involve significant time and costs, and such loss could adversely affect our revenue, business, results of operations and financial condition.

Our business and growth are dependent on the success of our strategic relationships with third parties.

We depend on, and anticipate that we will continue to depend on, various third-party suppliers in order to sustain and grow our business. Failure of any of these suppliers to continue to provide products and services to maintain, support or secure their technology platforms or our integrations, or errors or defects in their technologies, products or services, could adversely affect our relationships with our customers, damage our brand and reputation and result in delays or difficulties in our ability to provide our platform. Our ability to produce and scale our annealing and gate model quantum computers is dependent also upon components we must source from the electronics and semiconductor industries. Shortages or supply interruptions in any of these components will adversely impact our financial performance.

Our platform and products depend on the ability to access and integrate with third-party cloud providers. In particular, we have developed our platform and products to integrate with certain third-party cloud providers and the third-party applications of other parties. If we choose or are required to change cloud providers, we will incur costs to port our platform and products to a new service and may experience service interruptions during a change of cloud provider. Generally, third-party cloud providers and the data we receive from the third-party cloud providers are written and controlled by the application provider. Any changes or modifications to the third-party cloud providers or the data provided could negatively impact the functionality of, or require us to make changes to, our platform and products, which would need to occur quickly to avoid interruptions in service for our customers. See “*Our products and services are dependent upon our relationship with third-party providers and any disruption of or interference with our use of such third-party providers would adversely affect our business, results of operations and financial condition*” below.

Scaling our business is heavily dependent on our ability to build and maintain relationships with consulting and service partners and assist them in establishing or expanding their business by developing solutions that utilize our products and services. Solutions that utilize our products and services may compete with other quantum or classical-computing based solutions developed and/or marketed by other suppliers and our solutions may lose favor with our partners. Our current distribution partners may cease or reduce marketing our solutions with limited or no notice and with little or no penalty. Our distribution partners will generally have no obligation to maintain or renew their contractual arrangements with us and generally may terminate such arrangements with limited notice and/or transition periods. New distribution partners require extensive training and could take extended periods to achieve productivity. If any of our current or potential partners elect to not utilize our products or services, or reduce their current or potential use of our technology in favor of competing products, we may have to change our product strategies, which could have a material and adverse effect on our business, operating results and financial condition.

Currency exchange rate fluctuations may negatively affect our results of operations.

Our revenues are denominated in U.S. dollars, while some of our operating expenses, including relating to employees, are incurred in Canadian dollars. As a result, our results of operations will be adversely impacted by an increase in the value of the Canadian dollar relative to the U.S. dollar. Exchange rate fluctuations may also affect our revenue growth rates as some of our customer agreements are priced in the local currency of the country in which the customer is located and is also expected to be denominated in that currency. As a result, we will be further exposed to currency fluctuations to the extent non-U.S. dollar revenues from our platform increase. The value of the Canadian dollar relative to the U.S. dollar has varied significantly and investors are cautioned that past and current exchange rates are not indicative of future exchange rates.

Risks Related to D-Wave Quantum's Business and Industry

The immature market for quantum computing may lead to us misread market demand and the timeframes it will take to close customer contracts and grow revenue, which would adversely affect our business, results of operations and financial condition.

In order to grow our business, we will need to continually evolve and scale our business and operations to meet customer and market demand. Quantum computing technology has a limited history of being sold at large-scale commercial levels. Evolving and scaling our business and operations places increased demands on our management as well as our financial and operational resources to:

- effectively manage organizational change;
- design scalable processes;
- accelerate and/or refocus research and development activities;
- expand supply chain and distribution capacity, and ultimately expand manufacturing capacity;
- increase sales and marketing efforts;
- scale and manage our professional services;
- broaden customer-support and services capabilities;
- maintain or increase operational efficiencies;
- scale support operations in a cost-effective manner;
- implement appropriate operational and financial systems; and
- maintain effective financial disclosure controls and procedures.

We may not be able to scale our products and services as necessary to meet market demand. We have no experience in scaling our cloud services infrastructure or professional services globally. We may not be able to cost-effectively manage the scale of our cloud services infrastructure or professional services at a scale or quality consistent with customer demand in a timely or economical manner.

We are currently constructing advanced generations of our products. As noted above, there are significant technological and logistical challenges associated with developing, producing, marketing, selling and distributing products in the advanced technology industry, including our products, and we may not be able to resolve all of the difficulties that may arise in a timely or cost-effective manner, or at all.

Our technical roadmap and plans for commercialization involve technology that is not yet available for customers and may never become available or meet desired technical specifications.

Our current and planned products are inherently complex and incorporate technology and components that have not been used for other applications and that may contain defects and errors, particularly when first introduced. We have a limited frame of reference from which to evaluate the long-term performance of our products and services and we may be unable to detect and fix any defects in our quantum computers or cloud services infrastructure prior to the sale of products or services to potential consumers. Our products may contain defects in design, manufacturing and/or delivery that may cause them to fail to perform as expected or may require repair, recalls and/or design changes. We also cannot guarantee the consistency of our cloud services offerings. These could be affected by infrastructure downtime either within our own service or because of third-party service providers on which we are dependent. If our products or services fail to perform as expected, customers may delay orders or terminate further orders, each of which could adversely affect our sales and brand and could adversely affect our business, prospects and results of operations.

If we cannot evolve and scale our business and operations effectively, we may not be able to execute our business strategies in a cost-effective manner and our business, financial condition, profitability and results of operations could be adversely affected.

Building quantum computers requires advances in both science and engineering, and we may not have the ability to deliver those advances. The markets in which we operate are still rapidly evolving and highly competitive and the impact of rapidly changing science and engineering technologies could have an impact on the delivery of our technical roadmap which means that future generations of products both in quantum annealing and in gate model may be delayed or may never be delivered. We could also face the same challenges in our ability to scale our hybrid solvers to effectively meet commercial requirements. If this happens, our technical roadmap may be delayed or may never be achieved, either of which would have a material impact on our business, financial condition or results of operations.

Our business model includes a relatively new phased engagement model, with customers transitioning through the phases. If we cannot successfully convert customers through the phases to the extent or at the rate that we expect, our business will be negatively impacted and could fail.

Our success depends, in significant part, on our ability to engage our customers through all phases of our engagement model (discovery, proof of concept, pilot deployment and full production) and collaboratively work with our customers and demonstrate the value of our technology. If our customers do not dedicate sufficient resources to each phase of our engagement model or their challenges or technology are not addressable by or compatible with our products and services, then our anticipated projections and revenues would be impacted. In addition, our products and services may not meet our customers' functional, performance, technical or other requirements, which would have a negative impact on revenues. The market for our technology is still rapidly evolving and we may be required to change the duration, pricing, or structure of any or all of the phases of our model as we continue to develop our technology and deliver more engagement.

If our customers do not perceive the benefits of our technology, or if our technology does not drive continued progression of customers through the phases, then our market may not develop as we anticipate, or at all, or it may develop slower than we expect. If any of these events occur, it could have a material adverse effect on our business, financial condition or results of operations.

Our industry is competitive on a global scale, from both quantum and classical competitors, and we may not be successful in competing in this industry or establishing and maintaining confidence in our long-term business prospects among current and future partners and customers, which would materially harm our reputation, business, results of operations and financial condition.

The markets in which we operate are rapidly evolving and highly competitive. As these markets continue to mature and new technologies and competitors enter such markets, we expect competition to intensify. Our current competitors include:

- large, well-established tech companies that generally compete in all of our markets, including Google, Quantinuum, IBM, Microsoft, Intel and AWS;
- companies based in countries such as China, Russia, Canada, the United States, Australia and the United Kingdom, and those in the European Union as of the date of this Form 10-K and we believe additional countries in the future;
- less-established public and private companies with competing technology, including companies located outside the United States;
- existing or new entrants seeking to enter the quantum annealing space; and
- new or emerging entrants seeking to develop competing technologies.

We compete based on various factors, including technology, performance, platform availability, price, brand recognition and reputation, customer support and differentiated capabilities, including ease of administration and use, scalability and reliability, data governance and security. Many of our competitors have substantially greater brand recognition, customer relationships, and financial, technical and other resources, including an experienced sales force and sophisticated supply chain management. They may be able to respond more effectively than us to new or changing opportunities, technologies, standards, customer requirements and buying practices. In addition, many countries are focused on developing quantum computing solutions either in the private or public sector and may subsidize quantum computers which may make it difficult for us to compete. Many of these competitors do not face the same challenges we do in growing our business. In addition, other competitors might be able to compete with us by bundling their other products and services in a way that does not allow us to offer a competitive solution.

Additionally, we must be able to achieve our objectives in a timely manner lest quantum computing lose ground to competitors, including competing technologies. Because there are a large number of market participants, including certain sovereign nations, focused on developing quantum computing technology, we must dedicate significant resources to achieving any technical objectives on the timelines established by our management team. Any failure to achieve objectives in a timely manner could adversely affect our business, operating results and financial condition.

For all of these reasons, competition may negatively impact our ability to maintain and grow consumption of our platform or put downward pressure on our prices and gross margins, any of which could materially harm our reputation, business, results of operations, and financial condition.

Our products and services are dependent upon our relationship with third-party providers and any disruption of or interference with our use of such third-party providers would adversely affect our business, results of operations and financial condition.

We rely upon third parties to operate our platform, third party facilities to house some of our systems and third parties to provide our services. Any disruption of or interference with our use of such third-party providers or locations would adversely affect our business, results of operations and financial condition. If these services provided by third parties become unavailable due to extended outages, interruptions, or because they are no longer available on commercially reasonable terms, we could experience delays in our ability to provide our solutions or run our business and our expenses could increase, our ability to manage finances could be interrupted, and our processes for managing sales of our platform and supporting our customers could be impaired until equivalent services, if available, are identified, obtained, and implemented.

We have experienced, and expect that in the future we may experience, interruptions, delays and outages in service and availability from time to time due to a variety of factors, including infrastructure changes, human or software errors, website hosting disruptions and capacity constraints. Capacity constraints could be due to a number of potential causes including technical failures, natural disasters, fraud or security attacks. In addition, if our security, or that of our hosting provider, is compromised, our platform or products are unavailable or our users are unable to use our products within a reasonable amount of time or at all, then our business, results of operations and financial condition could be adversely affected. Our ability to conduct security audits on our hosting provider is limited and our contracts do not contain strong indemnification terms in our favor. In some instances, we may not be able to identify and/or remedy the cause or causes of these performance problems within a period of time acceptable to our customers. It may become increasingly difficult to maintain and improve our platform performance, especially during peak usage times, as our products become more complex and the usage of our products increases. To the extent that we do not effectively address capacity constraints, either through our hosting provider or an alternative provider of cloud infrastructure, our business, results of operations and financial condition may be adversely affected. In addition, any changes in service levels from our hosting provider may adversely affect our ability to meet our customers' requirements.

Any of the above circumstances or events may harm our reputation, cause customers to stop using our products, impair our ability to attract new customers and increase revenue from existing customers, subject us to financial penalties and liabilities under our service level agreements and otherwise harm our revenue, business, results of operations and financial condition.

The design and manufacturing of our quantum computers are dependent on a number of critical suppliers and unknown supply chain issues that could delay the introduction of our products and services or cause a significant disruption in our supplier base could have a material adverse effect on our business, financial condition and results of operations.

We are reliant on our own manufacturing of components as well as on third-party suppliers for components necessary to develop and manufacture our quantum computing solutions. Factors that could have an adverse impact on the availability of these components include:

- our inability to enter into agreements with suppliers on commercially reasonable terms, or at all;
- difficulties of suppliers ramping up their supply of materials to meet our requirements;
- a significant increase in the price of one or more components, including due to industry consolidation occurring within one or more component supplier markets or as a result of decreased production capacity at manufacturers;
- any reductions or interruption in supply, including due to technological problems, equipment malfunctions, regulatory actions or disruptions on our global supply chain as a result of large scale public health restrictions or geopolitical factors, which we have experienced, and may in the future experience;

- financial problems of either contract manufacturers or component suppliers;
- significantly increased freight charges, or raw material costs and other expenses associated with our business;
- a failure to develop our supply chain management capabilities and recruit and retain qualified professionals;
- a failure to adequately authorize procurement of inventory;
- a failure to adequately maintain our or our suppliers' manufacturing equipment; or
- a failure to appropriately cancel, reschedule, or adjust our requirements based on our business needs.

If any of the aforementioned factors were to materialize, it could cause us to halt production of our quantum computing solutions and/or entail higher manufacturing costs, any of which could materially adversely affect our business, operating results, and financial condition and could materially damage customer relationships. Additionally, other factors beyond our control or which we do not presently anticipate could also affect our suppliers' ability to deliver components to us on a timely basis.

We do not have the history with our solutions or pricing models necessary to accurately predict optimal pricing necessary to attract new customers and retain existing customers.

We may need to change our pricing model from time to time. As the market for our platform matures, or as competitors introduce new solutions that compete with ours, we may be unable to attract new customers at the same prices or based on the same pricing models that we have used historically. Our assessments of competitive pricing may not be accurate and we could be underpricing or overpricing our platform and services. Further, in the past we concentrated on selling the hardware needed for customers to run dedicated systems. We have now transitioned from selling systems to selling cloud services and have added professional services as well. Our limited history of selling cloud and professional services means we do not have long-term market data on the optimal method of pricing our services and maximizing the opportunities they represent. If we do not implement a services-based business well, our financial results may suffer. In addition, if the offerings on our platform or our services change, we may need to revise our pricing strategies. Any such changes to our pricing strategies or our ability to efficiently price our offerings could adversely affect our business, results of operations and financial condition. In addition, as we continue to expand internationally, we also must determine the appropriate pricing strategy to enable us to compete effectively internationally. Pricing pressures and decisions could result in reduced sales, reduced margins, losses or the failure of our platform to achieve or maintain more widespread market acceptance, any of which could negatively impact our overall business, results of operations and financial condition. Moreover, larger organizations, which are a primary focus of our direct sales efforts, may demand substantial price concessions. As a result, we may be required to price below our targets in the future, which could adversely affect our revenue, gross margin, profitability, cash flows and financial condition.

Competitive pressures may put pressure on our pricing, which may require us to reduce our pricing in order to provide competitively priced access to our products and services.

We face competition in various aspects of our business and expect that such competition to intensify in the future as existing and new companies introduce and enhance existing services or create new services. The markets for our services in general are competitive. Competition in these markets may increase further if economic conditions or other circumstances cause customer bases and client spending to decrease and service providers to compete for fewer client resources. Our competitors may be able to undertake more effective marketing campaigns, obtain more data, adopt more aggressive pricing policies, make more attractive offers to potential employees, clients and advertisers, or may be able to respond more quickly to new or emerging technologies or changes in user requirements. If we are unable to retain clients or obtain new clients, our revenues could decline. Increased competition could result in lower revenues and higher expenses, which would reduce our profitability.

The quantum computing industry is in its early stages and is volatile, and if it does not develop, if it develops slower than we expect, if it develops in a manner that does not require use of our products and services, if it encounters negative publicity or if our solution does not drive commercial engagement, the growth of our business will be harmed.

The nascent market for quantum computers is still rapidly evolving, characterized by rapidly changing technologies, competitive pricing and competitive factors, evolving government regulation and industry standards, and changing customer demands and behaviors. If the market for quantum computers in general does not develop as expected, or develops more slowly than expected, our business, prospects, financial condition and operating results could be harmed.

We have focused our efforts on the optimization market with our annealing quantum computers, and in the near term expect our business to grow from this market. If optimization does not require quantum computing or if other classical or quantum solutions perform better than our products and services, we could see a decrease in customer uptake and revenue.

In addition, our growth and future demand for our products is highly dependent upon the adoption by developers and customers of quantum computing, as well as on our ability to demonstrate the value of quantum computing to our customers. Delays in future generations of our quantum computers or technical failures at other quantum computing companies could limit market acceptance of our solution. Negative publicity concerning our solution or the quantum computing industry as a whole could limit market acceptance of our solution. While we believe quantum computing will solve many large-scale problems, we do not yet have evidence that quantum computers will be able to do so and such problems may never be solvable by quantum computing technology. If our customers do not perceive the benefits of our solution, or if our solution does not drive customer engagement, then our market may not develop at all, or it may develop more slowly than we expect. If any of these events occur, it could have a material adverse effect on our business, financial condition or results of operations. If progress towards “quantum advantage” (as described below) slows relative to expectations, it could adversely impact revenues and customer confidence to continue to pay for testing, access and “quantum readiness.” This would harm or even eliminate revenues in the period before quantum advantage.

If our products and services fail to deliver customer value to a broader range of customers than classical approaches, our business, financial condition and future prospects may be harmed.

“Quantum advantage” refers to the moment when a quantum computer can compute faster than existing classical computers, while quantum supremacy is achieved once quantum computers are powerful enough to complete calculations that traditional supercomputers cannot perform at all. Broad quantum advantage is when quantum advantage is seen in many applications and developers prefer quantum computers to a traditional computer. No current quantum computers, including the D-Wave quantum hardware, have reached a broad quantum advantage, and they may never reach such advantage. Achieving a broad quantum advantage will be critical to the success of any quantum computing company, including us. However, achieving quantum advantage would not necessarily lead to commercial viability of the technology that accomplished such advantage, nor would it mean that such system could outperform classical computers in tasks other than the one used to determine a quantum advantage. Other companies, including some of our customers, are working on classical approaches that target similar use cases, increasing competition and risk of not capturing market share. As quantum computing technology continues to mature, broad quantum advantage may take decades to be realized, if ever. If we cannot develop quantum computers that have quantum advantage, customers may not continue to purchase our products and services. If customers decide to wait until broad quantum advantage is reached, this could impair the growth of our business. If other companies’ quantum computers reach a broad quantum advantage prior to the time ours reaches such capabilities, it could lead to a loss of customers. If any of these events occur, it could have a material adverse effect on our business, financial condition or results of operations. This is also true for our quantum-hybrid solvers in that they must also continue to deliver value compared to classical approaches.

We use quantum-classical hybrid solutions to get the customer the optimal answer to their particular problem. Since quantum computing is a new form of computing, some customers may want to understand the details of how our products operate. However, because this is proprietary and trade secret information we cannot or may not want to share, we may lose customers as a result.

Real or perceived errors, failures or bugs in our products and services could materially and adversely affect our operating results, financial condition and growth prospects.

The hardware and software underlying our platform and products is highly technical and complex. Our hardware and software have previously contained, and may now or in the future contain, undetected errors, bugs or vulnerabilities. In addition, errors, failures and bugs may be contained in our software utilized in building and operating our products or may result from errors in the deployment or configuration of QCaaS software. Some errors in our products may only be discovered after a product has been deployed or may never be generally known. In some instances, despite internal testing, we may not be able to identify the cause or causes of these problems or risks within an acceptable period of time. Any errors, bugs or vulnerabilities discovered in our products after it has been deployed, or never generally discovered, could result in interruptions in platform availability, product malfunctioning or data breaches. Since our customers may use our services for processes that are critical to their businesses, errors, and defects, security vulnerability, service interruptions or software bugs in our platform could result in losses to our customers and thereby result in damage to our reputation, adverse effects upon customers and users, loss of customers and relationships with third parties, significant expenditures of capital, a delay or loss in market acceptance, loss of revenue or liability for damages. In addition, provisions typically included in our agreements with our customers that attempt to limit our exposure to claims may not be enforceable or adequate and may not otherwise protect us from liabilities or damages with respect to any particular claim. Even if not successful, a claim brought against us by any of our customers would likely be time-consuming and costly to defend and could seriously damage our reputation and brand, making it harder for us to sell our solutions and retain our customers.

If we cannot successfully execute on our strategy, including changing customer needs and new technologies and other market requirements, or achieve our objectives in a timely manner, our business, financial condition and results of operations could be harmed.

The quantum computing market is characterized by rapid technological change, changing user requirements, uncertain product lifecycles and evolving industry standards. We believe that the pace of innovation will continue to accelerate as technology changes and different approaches to quantum computing mature on a broad range of factors, including system architecture, error correction, performance and scale, ease of programming, user experience, markets addressed, types of data processed, and data governance and regulatory compliance. Our future success depends on our ability to continue to innovate and increase customer adoption of our products and services. If we are unable to enhance our products and services to keep pace with these rapidly evolving customer requirements, or if new technologies emerge that are able to deliver competitive products at lower prices, more efficiently, with better functionality, more conveniently, or more securely than our platform, our business, financial condition and results of operations could be adversely affected.

A key application of our technology is for optimization problems which, while a very broad market, requires continued research and development in order for our products and services to fully address the optimization market, and if that research and development is not successful this may limit its adoption to a narrow range of customers. If we cannot successfully attract a broader range of customers to our quantum annealing technology, our business will be negatively impacted and could fail.

In addition, our planned quantum gate system, which is a strategic milestone for our technical roadmap and commercialization, is not yet available for customers and may not become available on the timelines we expect or at all.

Even if we are successful in executing on our product roadmap and strategy and delivering increasingly more powerful quantum computing systems and services, competitors in the industry may achieve technological breakthroughs which render our products and services obsolete or inferior to other products and services.

Our continued growth and success depend on our ability to innovate and develop quantum computing technology in a timely manner and effectively market these products. Without the timely introduction of new products, services and enhancements that comply with changing laws and standards, including through the use of new and emerging technologies (e.g., artificial intelligence and machine learning), we could be at a competitive disadvantage and our offerings could become technologically or commercially obsolete over time, in which case our revenue and operating results would suffer. Any technological breakthroughs which render our technology obsolete or inferior to other products could have a material effect on our business, financial condition or results of operations.

Any cybersecurity-related attack, significant data breach or disruption of the information technology systems, infrastructure, network, third-party processors or platforms on which we rely could damage our reputation and adversely affect our business and financial results.

Our operations rely on information technology systems for the use, storage and transmission of sensitive and confidential information with respect to our customers, our customers' customers, our employees and other third parties. Cyberattacks and other malicious internet-based activity continue to increase, and cloud-based platform providers of products and services have been and are expected to continue to be targeted. Sophisticated hackers and cybercriminals, including, nation-state and nation-state supported actors, employ advanced techniques, including social engineering (phishing), automated attacks (such as denial-of-service attacks), malicious code (such as viruses and worms), ransomware, and employee theft or misuse, which may evade detection for extended periods. In addition to our own security measures, due to our use of third-party cloud infrastructure, we depend in part on third-party security measures to protect against cybersecurity-related attacks. Despite efforts to create security barriers to such threats, it is not feasible, as a practical matter, for us to entirely mitigate these risks, as the techniques used to obtain unauthorized access to or compromise of our systems change frequently. A breach of our networks, or those of our service providers or vendors, could result in unauthorized access to, use of, loss of, or unauthorized disclosure of, sensitive and confidential information, including personal information of customers or employees, and disruption of business operations. Such incidents could materially adversely affect our business through impaired customer relationships, loss of sales and customers, potential fines and lawsuits, significant legal and remediation costs, and damage to our brand.

We include limitation of liability provisions in our standard subscription and services agreements; however, such provisions may not be enforceable or adequate and may not otherwise protect us from any such liabilities or damages with respect to any claim related to a cybersecurity incident or other potential claim referred to above. In addition, our existing general liability insurance coverage and coverage for cyber liability or errors or omissions may not continue to be available on acceptable terms or may not be available in sufficient amounts to cover one or more large claims and our insurer may deny coverage with respect to future claims. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, would harm our business.

Many governments have enacted laws requiring companies to provide notice of data security incidents involving certain types of personal data. In addition, some of our customers require us to notify them of data security breaches. Security compromises experienced by our competitors, by our customers or by us may lead to public disclosures, which may lead to widespread negative publicity. Any security compromise in our industry, whether actual or perceived, could harm our reputation, erode confidence in the effectiveness of our security measures, negatively affect our ability to attract new customers, encourage consumers to restrict use of our platform, cause existing customers to elect not to renew their subscriptions or subject us to third-party lawsuits, regulatory fines or other action or liability, which could harm our business.

Market adoption of cloud-based online quantum computing platform solutions is relatively new and unproven and may not grow as we expect and, even if market demand increases, the demand for our QCaaS may not increase, or certain customers may be reluctant to use a cloud-based QCaaS for applications, all of which may harm our business and results of operations.

We derive much of our revenue from our cloud-based quantum computing platform and professional services, which we expect to continue for the foreseeable future. As such, the market acceptance of our platform is critical to our continued success. It is difficult to predict customer adoption rates and demand for our solutions and professional services, the entry of competitive platforms and service providers, or the future growth rate and size of our markets.

In addition, in order for cloud-based solutions to be widely accepted, organizations must overcome any concerns with moving sensitive information to a cloud-based platform. In addition, demand for our platform in particular is affected by a number of other factors, some of which are beyond our control. These factors include continued market acceptance of our cloud-based quantum computing platform and cloud-based QCaaS, the pace at which existing customers realize benefits from the use of our platform and decide to expand deployment of our platform across their business, the timing of development and release of new products by our competitors, technological change, reliability and security, the pace at which enterprises undergo digital transformation, and developments in data privacy regulations. In addition, we expect that the needs of our customers will continue to rapidly change and increase in complexity. We will need to improve the functionality and performance of our platform continually to meet those rapidly changing, complex demands. If we are unable to continue to meet customer demands or to achieve more widespread market acceptance of relevant solutions in general or our platform in particular, our business operations, financial results, and growth prospects will be materially and adversely affected.

Contracts with government entities subject us to risks, including early termination, audits, investigations, sanctions and penalties.

As part of our business strategy, we have entered into and may enter into additional contracts with state and/or federal government entities, which subjects our business to statutes and regulations applicable to companies doing business with the government, including the Federal Acquisition Regulation. These government contracts customarily contain provisions that give the government substantial rights and remedies, many of which are not typically found in commercial contracts and which are unfavorable to contractors. For instance, most U.S. government agencies include provisions that allow the government to unilaterally terminate or modify contracts for convenience, and in that event, the counterparty to the contract may generally recover only its incurred or committed costs and settlement expenses and profit on work completed prior to the termination. If the government terminates a contract for default, the defaulting party may be liable for any extra costs incurred by the government in procuring undelivered items from another source.

In addition, government contracts normally contain additional requirements that may increase our costs of doing business, reduce our profits, and expose us to liability for failure to comply with these terms and conditions. These requirements could include, for example:

- specialized disclosure and accounting requirements unique to government contracts;
- financial and compliance audits of our cost structure, accounting controls and procedures and adequacy of our policies and systems to meet Federal Acquisition Regulation requirements. These audits may result in potential liability for price adjustments, recoupment of government funds after such funds have been spent, civil and criminal penalties, or administrative sanctions such as suspension or debarment from doing business with the U.S. government;
- granting the U.S. government certain rights to inventions, data, software codes and related material that we develop under government-funded contracts and subcontracts, which may permit the U.S. government to disclose or license this information to third parties, including, in some instances, our competitors;
- requirements to fulfill government contracts assigned ratings under the Defense Priorities and Allocations System Program ahead of our commercial contracts, which could prevent us from meeting our commercial customer contracts' requirements or schedules;
- public disclosures of certain contract and company information;
- mandatory security and privacy framework compliance requirements, including the handling of controlled unclassified information; and
- mandatory socioeconomic compliance requirements, including labor requirements, non discrimination and affirmative action programs and environmental compliance requirements.

Government contracts are also generally subject to greater scrutiny by the government than commercial contracts are by commercial customers. For example, government agencies can initiate reviews, audits and investigations regarding our compliance with government contract requirements. In addition, if we fail to comply with government contracting laws, regulations and contract requirements, our contracts may be subject to termination, and we may be subject to financial and/or other liability under our contracts, the Federal Civil False Claims Act (including treble damages and other penalties), or criminal law. In particular, the False Claims Act's "whistleblower" provisions also allow private individuals, including present and former employees, to sue on behalf of the U.S. government. Any penalties, fines, suspension, or damages could adversely affect our ability to operate our business and our financial results. Responding to any investigation or action relating to government contracts could result in a significant diversion of management's attention and resources and significant defense costs and other professional fees.

Our customers also include non-U.S. governments. Similar procurement, budgetary, contract, and audit risks that apply in the context of U.S. government contracting may also apply to our doing business with these entities. In addition, compliance with complex regulations and contracting provisions in a variety of jurisdictions can be expensive and consume significant management resources.

Government actions and regulations, such as tariffs and trade protection measures, may limit our ability to provide products and services to our customers and obtain products from our suppliers, which could have a material adverse impact on our business operations, financial results and growth plans.

We currently offer our platform in 42 countries and our international sales are a substantial and critical part of our current business and future growth plans. Our international sales and the use of our platform in various countries subject us to risks that we do not generally face with respect to domestic sales within North America. For example, we may face additional risks relating to:

- lack of familiarity and burdens and complexity involved with complying with multiple, conflicting and changing foreign laws, standards, regulatory requirements, tariffs, export controls and other barriers;
- difficulties in ensuring compliance with countries' multiple, conflicting and changing privacy, data security, international trade, customs and sanctions laws;
- differing technology standards; and
- new and uncertain protection for intellectual property rights in some countries.

We may be unsuccessful in navigating such risks, which could have a material adverse impact on our business operations, financial results and growth plans. In addition, the implementation of more restrictive trade policies, including the recent imposition of further tariffs in the U.S. and retaliatory tariffs in response thereto, or the renegotiation of existing international trade agreements could have a material adverse effect on our business operations, financial results and growth plans.

If we engage in acquisitions, divestitures, strategic investments or strategic partnerships and fail to achieve favorable results, our business, financial condition and operating results could be harmed.

We may in the future make acquisitions, divestitures or certain investments. Any transactions that we enter into could be material to our financial condition and results of operations. The process of acquiring and integrating another company or technology could create unforeseen operating difficulties and expenditures. Acquisitions and investments involve a number of risks, such as:

- use of resources that are needed in other areas of our business;
- in the case of an acquisition, implementation or remediation of controls, procedures and policies of the acquired company;
- in the case of an acquisition, difficulty integrating the accounting systems and operations of the acquired company, including potential risks to our corporate culture;
- in the case of an acquisition, coordination of product, engineering and selling and marketing functions, including difficulties and additional expenses associated with supporting legacy services and products and hosting infrastructure of the acquired company, as applicable, difficulties associated with supporting new products or services, difficulty converting the customers of the acquired company onto our platform and difficulties associated with contract terms, including disparities in the revenues, licensing, support or professional services model of the acquired company;
- in the case of an acquisition, retention and integration of employees from the acquired company;
- in the case of an acquisition, past intellectual property infringement or data security issues arising from the acquired company;
- unforeseen costs or liabilities;
- adverse effects on our existing business relationships with customers as a result of the acquisition or investment;
- the possibility of adverse tax consequences;
- litigation or other claims arising in connection with the acquired company or investment; and
- in the case of foreign acquisitions, the need to integrate operations across different cultures and languages and to address the particular economic, currency, political and regulatory risks associated with specific countries.

In addition, a significant portion of the purchase price of companies we acquire may be allocated to acquired goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results based on this impairment assessment process, which could adversely affect our results of operations. Acquisitions and investments may also result in dilutive issuances of equity securities, which could adversely affect our share price, or result in issuances of securities with superior rights and preferences to our common shares or the incurrence of debt with restrictive covenants that limit our future uses of capital in pursuit of business opportunities.

We may not be able to identify acquisition or investment opportunities that meet our strategic objectives, or to the extent such opportunities are identified, we may not be able to negotiate terms with respect to the acquisition or investment that are acceptable to us. At this time, we have made no commitments or agreements with respect to any such material transactions.

We may in the future be adversely affected by future global public health crises such as epidemics or pandemics.

Public health crises such as epidemics or pandemics could materially and adversely impact our business.

An epidemic or pandemic (such as COVID-19) may cause prolonged global, national, or regional recessionary economic conditions or longer lasting effects on economic conditions than currently exist, which could have a material adverse effect on our business, results of operations and financial condition.

As a result, the demand for our products and services may be significantly impacted, which could adversely affect our revenue and results of operations. Our business operations may also be disrupted if significant portions of our workforce are unable to work effectively, including because of illness, quarantines, government actions, or other restrictions in connection with the pandemic. The extent to which an epidemic or pandemic impacts our business, results of operations, and financial conditions, will depend on factors which are highly uncertain and cannot be predicted, including the scope and duration of an epidemic or pandemic and actions taken by governmental authorities and other third parties in response to the epidemic or pandemic.

System failures, interruptions, delays in service, catastrophic events, inadequate infrastructure and resulting interruptions in the availability or functionality of our products and services could harm our reputation or subject us to significant liability, and adversely affect our business, financial condition and operating results.

Our brand, reputation and ability to attract, retain and serve our customers are also dependent upon the reliable performance of our platform, including our underlying technical infrastructure. Our systems and those of our third-party data center facilities may experience service interruptions, human error, earthquakes, hurricanes, floods, fires, natural disasters, power losses, disruptions in telecommunications services, fraud, military or political conflicts, terrorist attacks and other geopolitical unrest, computer viruses, or other events. Our systems are also subject to break-ins, sabotage, and acts of vandalism. Our platform and technical infrastructure may not be adequately designed with sufficient reliability and redundancy and our disaster recovery planning, which includes using geographically distinct and multi-region data centers, may not be sufficient to avoid performance delays or outages that could be harmful to the businesses of our customers and our business. Our disaster recovery plan stores some of our electronic data to a cloud back up system center in the event of a catastrophe, but such program may not be sufficient to recover all information or for all eventualities.

We have in the past experienced and may in the future experience service interruptions which disrupt the availability or reduce the speed or functionality of our platform. These events have resulted and likely will result in loss of revenue and could result in significant expense to remedy resultant data loss or corruption and/or recover from the interruption. A prolonged interruption in the availability or reduction in the speed or other functionality of our platform could materially harm our reputation and business. Frequent or persistent interruptions in access to functionality of our platform could cause our customers to believe that our platform is unreliable. If our platform is unavailable when our customers attempt to access it, or if it does not perform to expected levels, our customers may cease to use our platform entirely. Moreover, to the extent that any system failure or similar event results in damages to customers or their businesses, these customers could seek compensation from us for their losses, and those claims, even if unsuccessful, would likely be time-consuming and costly to address. While we have implemented measures intended to prevent or mitigate such interruptions, such measures may not be successful in preventing service interruptions in the future.

Unfavorable conditions in our industry or the global economy, including uncertain geopolitical conditions such as inflation, recessions and war, among others, could limit our ability to grow our business and negatively affect our results of operations.

Our results of operations may vary based on the impact of changes in our industry or the global economy on us or our customers and potential customers. Negative conditions in the general economy in Canada, the U.S. and foreign jurisdictions, including conditions resulting from changes in gross domestic product growth, financial and credit market fluctuations, inflation, tightening of the credit markets, including as a result of bank failures and any resulting issues in the broader U.S. financial system, any higher interest rates, recessions, international trade relations, pandemics (such as the COVID-19 pandemic), political turmoil, uncertain geopolitical conditions, natural catastrophes, warfare, and terrorist attacks could negatively impact our business, financial condition, results of operation, and liquidity or cause a decrease in business investments, including the progress on development of quantum technologies, and negatively affect the growth of our business. Similarly, geopolitical tensions in and around Ukraine, Israel and other areas of the world have created extreme volatility in the global capital markets and are expected to have further global economic consequences, including disruptions of the global supply chain and energy markets, and further acts of war, terror, or responses to each could result in similar or increased impacts on the global economy. In addition, in challenging economic times, our current or potential future customers may experience cash flow problems and as a result may modify, delay or cancel plans to purchase our products and services. Many of our customers invest in quantum computing products and services as part of their medium to longer-term strategies to optimize aspects of their business, and significant global disruptions such as the COVID-19 pandemic or geopolitical conflicts may result in potential customers focusing on short-term challenges, resulting in a reduction in their investments in quantum computing. Additionally, if our customers are not successful in generating sufficient revenue or are unable to secure financing, they may not be able to pay, or may delay payment of, accounts receivable due to us. Moreover, our key suppliers may reduce their output or become insolvent, thereby adversely impacting our ability to manufacture our products. Furthermore, uncertain economic conditions may make it more difficult for us to raise funds through borrowings or private or public sales of debt or equity securities. We cannot predict the timing, strength or duration of any economic slowdown, instability or recovery, generally or within any particular industry.

Our operations, business, customers and partners could be adversely affected by climate change.

There are increasing and rapidly evolving concerns over the risks of climate change and related environmental sustainability matters. Our operations, business, customers and partners could be adversely affected by climate change. The physical risks of climate change include rising average global temperatures, rising sea levels and an increase in the frequency and severity of extreme weather events and natural disasters. Such events and disasters could disrupt our operations or the operations of customers or third parties on which we rely and could result in market volatility. Additionally, we may face risks related to the transition to a low-carbon economy. We could experience increased expenses resulting from strategic planning, litigation and changes to our technology, operations, products and services, access to energy and water, as well as reputational harm as a result of negative public sentiment, regulatory scrutiny and reduced stakeholder confidence, due to our response to climate change or real or perceived vulnerability to climate change-related risks. Changes in consumer preferences, travel patterns and legal requirements could increase expenses or otherwise adversely impact our business, customers and partners.

Rising inflation may result in increased costs of operations and negatively impact the credit and securities markets generally and rising interest rates may result in increased costs of capital for us, each of which could have a material adverse effect on our results of operations and the market price of the Common Shares.

Inflation has accelerated in the U.S., Canada and globally due in part to global supply chain issues, the Ukraine-Russia war, the Israel-Hamas war, a rise in energy prices, and strong consumer demand as economies continue to reopen from restrictions related to the COVID-19 pandemic. An inflationary environment can increase our cost of labor, as well as our other operating costs, which may have a material adverse impact on our financial results. In addition, economic conditions could impact and reduce the number of customers who purchase our products or services as credit becomes more expensive or unavailable. Although interest rates have increased and are expected to increase further, inflation may continue. Further, increased interest rates could have a negative effect on the securities markets generally and increase the cost of capital to us, in particular, which may, in turn, have a material adverse effect on the market price of the Common Shares.

If we fail to offer high-quality customer support, or if the cost of such support is not consistent with corresponding levels of revenue, our business, results of operations and reputation may be harmed.

Due to our innovative technology and our planned technical roadmap, our customers will require particular support and service functions, some of which are not currently available, and may never be available. If we experience delays in adding such support capacity or servicing our customers efficiently, or experience unforeseen issues with the reliability of our technology, it could overburden our servicing and support capabilities. Similarly, increasing the number of our products and services would require us to rapidly increase the availability of these services. Failure to adequately support and service our customers may inhibit our growth and ability to expand.

Our current customers rely on our customer support organization to respond to inquiries and resolve issues related to their use of our platform quickly and effectively. Our customer support relies on third-party technology platforms, which may become unavailable or otherwise prevent our customers and customer support team from interacting on a timely basis. Our response times to customers and prospects may be impacted for reasons outside our control, such as changes to software and computing services, which may interrupt aspects of our service to our customers. From time to time, we experience spikes in the number of customer support tickets that we receive, which may result in an increase in customer requests and significant delays in responding to our customers' requests. Customer demand for support may also increase as we expand and enhance our operations and product offerings. Increased customer demand for our support services, without corresponding revenue increases, could increase our costs and harm our operating results. As we continue to grow our operations and support our global user base, we need to continue to provide efficient and high-quality support that meets our customers' needs globally at scale. Our sales process is highly dependent on the ease of use of our platform and products, our business reputation and positive recommendations from our existing customers. Any failure to maintain a high-quality customer support organization, or a market perception that we do not maintain such levels of support, could harm our reputation, our ability to sell to existing and prospective customers and our business, results of operation and financial condition.

Risks Related to Litigation and Government Regulation

Changing laws and regulations related to privacy, information security, and data protection could adversely impact our results, operations, or brand.

We are subject to an increasingly complex, and sometimes conflicting, set of legal obligations related to privacy, data protection, information security in the United States, Europe, Canada, and other countries where we do business, and there will continue to be new proposed laws and regulations and changes to existing legal frameworks that could have a significant impact on our current and planned privacy, data protection and information security-related practices, our collection, use, sharing, retention and safeguarding of customer, consumer, employee, and other third-party information we receive, as well as some of our current or planned business activities. New and changing laws, regulations, and industry standards concerning privacy, data protection and information security may also impact the computing services and software industry platforms and data providers we utilize, and thereby indirectly impact our business. We are also subject to contractual obligations from our customers and other third parties related to privacy, data protection and information security, and disclosures and commitments made in our privacy policies.

In the United States, eighteen (18) states have enacted comprehensive consumer privacy laws, with another state law going into effect in 2026, and eleven (11) states with privacy laws under consideration. The California Consumer Privacy Act ("CCPA"), the most stringent state privacy law, grants California residents data privacy rights that include, among other things, the right to request a copy from a covered company of the personal information collected about them, the right to request deletion of such personal information, the right to request to opt-out of certain sales of such personal information, as well as a private right of action for certain data breaches. The European Union adopted the General Data Protection Regulation (the "GDPR") and the United Kingdom enacted the UK General Data Protection Regulation (which implements the GDPR into UK law); both of which impose significant compliance requirements, including extensive documentation requirements and granting certain rights to individuals to control how businesses collect, use, disclose, retain and leverage information about them or how they obtain consent from them. In Canada, the Personal Information Protection and Electronic Documents Act ("PIPEDA"), and various provincial laws require companies to give detailed privacy notices to consumers; obtain consent to use personal information, with limited exceptions; allow individuals to access and correct their personal information; and report certain data breaches.

Any significant change to applicable privacy, data protection, and/or information security laws, regulations or industry practices could increase our costs and require us to modify our services and features, possibly in a material manner, which we may be unable to complete and may limit our ability to store and process user data or develop new services and features. All of these implications could adversely affect our revenue, results of operations, business and financial condition.

We are subject to United States, Canadian and foreign anti-corruption, anti-bribery and similar laws, and non-compliance with such laws may subject us to criminal or civil liability and harm our business.

We are subject to a variety of laws and regulations in the United States, Canada and foreign jurisdictions related to anti-corruption, anti-bribery and similar laws, including governing cross-border and domestic money transmission, gift cards and other prepaid access instruments, electronic fund transfers, taxation reporting requirements, foreign exchange, privacy and data protection, banking and import and export restrictions. We are also subject to various anti-corruption and anti-money laundering laws, including the *Foreign Corrupt Practices Act* (U.S.), the United States domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA Patriot Act, the U.K. Bribery Act 2010 and Proceeds of Crime Act 2002, the *Proceeds of Crime (Money Laundering) and Terrorist Financing Act (Canada)* and its regulations, and other anti-bribery and anti-money laundering laws in countries in which we conduct activities. Concerns about the use of payment processing platforms for illegal conduct, such as money laundering or to support terrorist activities, may result in legislation or other governmental action that could require changes to our platform. In addition, depending on how our customer base evolves, and as we expand into new geographies, we expect to become subject to additional laws in the United States, Canada, Europe and elsewhere. Any non-compliance with such laws may subject us to criminal or civil liability and harm our business.

We are subject to export and import controls and economic sanctions laws that could impair our ability to offer our products or make our platform available in some jurisdictions, or subject us to liability if we are not in compliance with applicable laws.

As a result of our international operations, we are subject to a number of United States, Canadian and foreign laws relating to economic sanctions and to export and import controls which presently limit and could further limit our ability to offer our platform in certain jurisdictions or to certain customers. In addition, the export of our software in certain jurisdictions may require governmental authorizations. Various jurisdictions also regulate the import of certain technology, including imposing import permitting and licensing requirements, and have enacted laws that could limit our ability to offer our platform in those countries. Complying with export or import controls and economic sanctions may be time-consuming and result in the delay or loss of business opportunities.

Any change in export or import controls, economic sanctions or related legislation, or change in the countries, governments, persons, or technologies targeted by such restrictions or legislation, could result in decreased use of our platform by customers or in our decreased ability to offer our platform internationally, which would harm our business, operating results and financial condition. Furthermore, failure to comply with export or import controls or with economic sanctions may expose us to government investigations and penalties, which could harm our business, operating results and financial condition.

Governmental decisions with respect to perceived national security risks associated with quantum computing technology could impede the selling of our products and services.

Political challenges between the United States and countries in which our suppliers are located, including China, and changes to trade policies, including tariff rates and customs duties, trade relations between the United States and China and other macroeconomic issues could adversely impact our business. Specifically, United States-China trade relations remain uncertain and quantum computing has been designated as a technology with national security implications in many countries, including the United States and Canada. The United States administration has announced tariffs on certain products imported into the United States with China as the country of origin, and China has imposed tariffs in response to the actions of the United States. In addition, the new administration in the U.S. has indicated that it will impose tariffs against U.S. trading partners, including Canada, and there may be retaliatory tariffs against the U.S. as a result. These tariffs could adversely impact trade relations and result in higher costs. International trade conflict has contributed to (i) increased pressure on the supply chain and could further result in increased energy costs; (ii) inflation, which could result in increases in the cost of manufacturing products, reduced purchasing power, increased price pressure and reduce or cancelled orders; (iii) increased risk of cybersecurity attacks; and (iv) general market instability, all of which could adversely impact our business, operating results and financial condition.

There is also a possibility of future tariffs, trade protection measures or other restrictions imposed on our products or on our customers by the United States, China or other countries that could have a material adverse effect on our business. To the extent our technology is deemed a matter of national security, our business could be subject to increased restrictions or regulations, our customer and supplier base may be restricted, our TAM may be reduced and our business, operating results and financial condition could be harmed.

We are subject to requirements relating to environmental and safety regulations which could adversely affect our business, results of operation and reputation.

We are subject to numerous federal, state and local environmental laws and regulations governing, among other things, solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. There are significant capital, operating and other costs associated with compliance with these environmental laws and regulations. Environmental laws and regulations may become more stringent in the future, which could increase costs of compliance or require us to manufacture with alternative technologies and materials.

Federal, state and local authorities also regulate a variety of matters, including, but not limited to, health, safety and permitting in addition to the environmental matters discussed above. New legislation and regulations may require us to make material changes to our operations, resulting in significant increases to the cost of production.

Our hardware has operational hazards such as but not limited to hazardous operating temperatures and high voltage and/or high current electrical systems typical of large computer processing equipment and related safety incidents.

There may be environmental or safety incidents that damage machinery or product, slow or stop production, or harm employees or third parties. Consequences may include litigation, regulation, fines, increased insurance premiums, mandates to temporarily halt production, workers' compensation claims, or other actions that impact our brand, finances, or ability to operate.

Future investments in D-Wave Quantum Common Shares may be subject to U.S. foreign investment regulations.

Investments that involve the acquisition of, or investment in, a U.S. business by a non-U.S. investor may be subject to U.S. laws that regulate foreign investments in certain U.S. businesses. These laws include Section 721 of the Defense Production Act of 1950, as amended by the Foreign Investment Risk Review Modernization Act of 2018, and the regulations at 31 C.F.R. Parts 800 and 802, as amended, administered by the Committee on Foreign Investment in the United States ("CFIUS").

Whether CFIUS has jurisdiction to review an acquisition or investment transaction depends on, among other factors, the nature and structure of the transaction, the nature of the U.S. business, and the foreign person and its

level of interest or governance rights. For example, investments that result in "control" of a "U.S. business" by a "foreign person" (in each case, as such terms are defined in 31 C.F.R. Part 800) that pose a national security concern may be subject to CFIUS jurisdiction. CFIUS also has excepted investor rules and excepted foreign states, including Canada, exempting certain investments from certain investors from CFIUS jurisdiction. There are certain transactions that trigger mandatory CFIUS filings and others that are voluntary.

The Transaction has resulted in investments in our U.S. subsidiary by non-U.S. persons. Where CFIUS safe harbor has not been obtained, CFIUS may choose to review past transactions if it believes that it resulted in a covered control transaction presenting national security concern. Proposed transactions may also be reviewed, either at the request of the parties or upon CFIUS' demand. CFIUS may grant a safe harbor, propose mitigation or block an investment or require divestiture if it presents national security concerns that cannot be mitigated.

Risks Related to D-Wave Quantum's Intellectual Property

We may be unable to obtain, maintain and protect our intellectual property rights and proprietary information or prevent third parties from making unauthorized use of our technology, which could cause it to lose its competitive advantage.

Our intellectual property is important to our business. We rely on a combination of confidentiality clauses, assignment agreements and license agreements with employees and third parties, patents, trade secrets, copyrights, and trademarks to protect our intellectual property and competitive advantage, all of which offer only limited protection. The steps we take to protect our intellectual property require significant resources and may be inadequate. We will not be able to protect our intellectual property if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property. We may be required to use significant resources to obtain, monitor and protect our intellectual property. Despite our precautions, it may be possible for unauthorized third parties to copy our platform and our products and use information that we regard as proprietary to create products and services that compete with ours. Some license provisions protecting against unauthorized use, copying, transfer and disclosure of our proprietary information may be unenforceable under the laws of certain jurisdictions and foreign countries. In addition, we may not be able to acquire or maintain appropriate domain names in all countries in which we do business or prevent third parties from acquiring domain names that are similar to, infringe upon, or diminish the value of our trademarks, and other intellectual property. Furthermore, regulations governing domain names may not protect our trademarks or similar proprietary rights.

We enter into confidentiality and intellectual property agreements with our employees and consultants and enter into confidentiality agreements with the parties with whom we have strategic relationships and business alliances. These agreements may not be effective in securing ownership of our intellectual property or controlling access to our proprietary information and trade secrets. The confidentiality agreements on which we rely to protect certain technologies may be breached, may not be adequate to protect our confidential information, trade secrets and proprietary technologies and may not provide an adequate remedy in the event of unauthorized use or disclosure of our confidential information, trade secrets or proprietary technology. Further, these agreements do not prevent our competitors or others from independently developing technology that is substantially equivalent or superior to our technology. In addition, others may independently discover our trade secrets and confidential information, and in such cases, we likely would not be able to assert any trade secret rights against such parties. Additionally, we may from time to time be subject to opposition or similar proceedings with respect to applications for registrations of our intellectual property, including our trademarks. While we aim to acquire adequate protection of our brand through trademark registrations in key markets, occasionally third parties may have already registered or otherwise acquired rights to identical or similar marks for services that also address our market. We rely on our brand and trademarks to identify our platform and to differentiate our platform and services from those of our competitors, and if we are unable to adequately protect our trademarks third parties may use our brand names or trademarks similar to ours in a manner that may cause confusion in the market, which could decrease the value of our brand and adversely affect our business and competitive advantages.

Policing unauthorized use of our intellectual property and misappropriation of our technology and trade secrets is difficult and we may not always be aware of such unauthorized use or misappropriation. Despite our efforts to protect our intellectual property rights, unauthorized third parties may attempt to use, copy or otherwise obtain and market or distribute our intellectual property rights or technology or otherwise develop services with the same or similar functionality as our platform and products. If our competitors infringe, misappropriate or otherwise misuse our intellectual property rights and we are not adequately protected, or if our competitors are able to develop a platform or product with the same or similar functionality as ours without infringing our intellectual property, our competitive advantage and results of operations could be harmed. Litigation brought to protect and enforce our intellectual property rights could be costly, time consuming and distracting to management and could result in the impairment or loss of portions of our intellectual property. As a result, we may be aware of infringement by our competitors, but may choose not to bring litigation to enforce our intellectual property rights due to the cost, time and distraction of bringing such litigation. Furthermore, if we do decide to bring litigation, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims and countersuits challenging or opposing our right to use and otherwise exploit particular intellectual property, services and technology or the enforceability of our intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay further sales or the implementation of our solutions, impair the functionality of our platform, prevent or delay introductions of new or enhanced solutions, result in our substituting inferior or more costly technologies into our platform or injure our reputation. Furthermore, many of our current and potential competitors have the ability to dedicate substantially greater resources to developing and protecting their technology or intellectual property rights than we do.

Our patent applications may not result in issued patents or our patent rights may be contested, circumvented, invalidated or limited in scope, any of which could have a material adverse effect on our ability to prevent others from interfering with the commercialization of our products.

Our patent applications may not result in issued patents, which may have a material adverse effect on our ability to prevent others from commercially exploiting products similar to ours. The status of patents involves complex legal and factual questions and the breadth of claims allowed is uncertain. As a result, we cannot be certain that any patent applications we have or will file will result in patents being issued, or that our patents and any patents that may be issued to us will afford protection against competitors with similar technology. Numerous patents and pending patent applications owned by others exist in the fields in which we have developed and are developing our technology. In addition to those who may have patents or patent applications directed to relevant technology with an effective filing date earlier than any of our existing patents or pending patent applications, any of our existing or pending patents may also be challenged by others on the basis that they are otherwise invalid or unenforceable. Furthermore, patent applications filed in foreign countries are subject to laws, rules and procedures that differ from those of the United States, and thus we cannot be certain that foreign patent applications related to issued United States patents will be issued.

Even if our patent applications succeed and we are issued patents in accordance with them, it is still uncertain whether these patents will be contested, circumvented, invalidated or limited in scope in the future. The rights granted under any issued patents may not provide us with meaningful protection or competitive advantages, and some foreign countries provide significantly less effective patent enforcement than in the United States. In addition, the claims under any patents that issue from our patent applications may not be broad enough to prevent others from developing technologies that are similar or that achieve results similar to ours. The intellectual property rights of others could also bar us from licensing and exploiting any patents that issue from our pending applications. In addition, patents issued to us may be infringed upon or designed around by others and others may obtain patents that they need to license or design around, either of which would increase costs and may adversely affect our business, prospects, financial condition and operating results.

We may face patent infringement and other intellectual property claims that could be costly to defend, result in injunctions and significant damage awards or other costs. If third parties claim that we infringe upon or otherwise violate their intellectual property rights, our business could be adversely affected.

The computing and software industries are characterized by the existence of a large number of patents and frequent claims and related litigation regarding patents, copyright and other intellectual property rights. Third parties may assert that our platform, solutions, technology, methods or practices infringe, misappropriate or otherwise violate their intellectual property. We face the risk of claims that we have infringed upon or otherwise violated third parties' intellectual property rights. Our future success depends in part on not infringing upon or otherwise violating the intellectual property rights of others. From time to time, our competitors or other third parties may claim that we are infringing upon or otherwise violating their intellectual property rights, and we may be found to be infringing upon or otherwise violating such rights. We may be unaware of the intellectual property rights of others that may cover some or all of our technology or conflict with our trademark rights. Any claims of intellectual property infringement or other intellectual property violations, even those without merit, could:

- be expensive and time consuming to defend;
- cause us to cease making, licensing or using our platform or products that incorporate the challenged intellectual property;
- require us to modify, redesign, reengineer or rebrand our platform or products, if feasible;
- cause significant delays in introducing new or enhanced services or technology;
- divert management's attention and resources; or
- require us to enter into royalty or licensing agreements in order to obtain the right to use a third party's intellectual property.

Any royalty or licensing agreements, if required, may not be available to us on acceptable terms or at all. A successful claim of infringement against us could result in our being required to pay significant damages, enter into costly settlement agreements, or prevent us from offering our platform or products, any of which could have a negative impact on our operating profits and harm our future prospects. We may also be obligated to indemnify our customers or business partners in connection with any such litigation and to obtain licenses, modify our platform or products, or refund subscription fees, which could further exhaust our resources. Such disputes could also disrupt our platform or products, adversely affecting our customer satisfaction and ability to attract customers.

Some of our intellectual property has been conceived or developed pursuant to government-funding agreements which impose certain obligations on us. Compliance with such obligations may limit our ability to freely transfer our assets without incurring substantial additional repayment obligations.

Our government-funding agreements may contain certain restrictive covenants that either limit our ability to, or require a prepayment, in the event we incur additional indebtedness or liens, merge with other companies or consummate certain changes of control, acquire other companies, engage in new lines of business, add new offices or business locations, make certain investments, pay dividends, transfer or dispose of certain assets, liquidate or dissolve, amend certain material agreements and enter into various specified transactions. We, therefore, may not be able to engage in any of the foregoing transactions unless we obtain the consent required by these agreements. Furthermore, our future working capital, borrowings or equity financing could be unavailable to repay or refinance the amounts outstanding under any of these agreements.

In addition, we may also incur additional indebtedness in the future. The instruments governing such indebtedness could contain provisions that are as, or more, restrictive than those to which we are presently subject. Any such present or future restrictions may limit our ability to meet our business, financing or other goals which could have a material adverse effect on our business and results of operations.

Risks Related to Being a Public Company

Our management has limited experience operating a public company, and thus its success in such endeavors cannot be guaranteed.

Our executive officers have limited experience in the management of a publicly traded company. Our management team may not successfully or effectively manage D-Wave Quantum's transition to a public company that is subject to significant regulatory oversight and reporting obligations under U.S. securities laws. Their limited experience in dealing with the increasingly complex laws pertaining to public companies could be a significant disadvantage in that it is likely that an increasing amount of their time may be devoted to these activities which will result in less time being devoted to the management and growth of the company. It is possible that we will be required to expand our employee base and hire additional employees to support our operations as a public company, which will increase our operating costs in future periods.

If we are unable for any reason to meet the continued listing requirements of the NYSE, such action or inaction could result in a delisting of our securities.

On October 2, 2024, we were notified by the NYSE that we are not in compliance with Section 802.01C of the NYSE Listed Company Manual because the average closing price of our Common Shares was less than \$1.00 over a consecutive 30 trading-day period. The notice had no immediate impact on the listing of our Common Shares, which will continue to be listed and traded on the NYSE during the period allowed to regain compliance, subject to our compliance with other listing standards. On October 4, 2024, we notified the NYSE that we intend to cure the stock price deficiency and to return to compliance with the NYSE continued listing standard. On November 1, 2024, the NYSE notified us that we had regained compliance based on a calculation of the Company's average closing share price for the 30 trading days ended October 31, 2024, which reflected an average closing share price above the NYSE's \$1.00 minimum requirement. This was the first time in 2024 and the third time since the Company became a publicly traded company that the Company was notified of its non-compliance with NYSE listing requirements due to the average closing price of its Common Shares falling below the \$1.00 threshold. While we were able to bring the Company back in compliance with the NYSE listing requirements within the six-month window for recompliance on all occasions, it is possible that this may occur again and we will not be able to bring the Company back in compliance within such window or at all.

If we cannot remain in compliance with the NYSE listing requirements, or cannot regain compliance after becoming non-compliant in the future, our Common Shares will be delisted from the NYSE. The delisting of our Common Shares from the NYSE will likely make it more difficult for us to raise capital on favorable terms in the future. Such a delisting would likely have a negative effect on the price of our securities and would impair your ability to sell or purchase our securities when you wish to do so. In the event of a delisting, actions taken by us to restore compliance with listing requirements may not allow our securities to become listed again, stabilize the market price or improve the liquidity of our securities, prevent such securities from dropping below any minimum bid price requirement or prevent future non-compliance with the NYSE listing requirements.

There is a risk that we will fail to maintain an effective system of internal controls and our ability to produce timely and accurate financial statements or comply with applicable regulations could be adversely affected. We may identify more material weaknesses, in addition to the material weakness identified below, in our internal controls over financing reporting which we may not be able to remedy in a timely manner.

As a public company, we operate in an increasingly demanding regulatory environment, which requires us to comply with the Sarbanes-Oxley Act, the regulations of the NYSE, the rules and regulations of the SEC, expanded disclosure requirements, accelerated reporting requirements and more complex accounting rules. Responsibilities required by the Sarbanes-Oxley Act include establishing corporate oversight and adequate internal control over financial reporting and disclosure controls and procedures. Effective internal controls are necessary for us to produce reliable financial reports and are important to help prevent financial fraud. Prior to the Transaction, we had never been required to test our internal controls within a specified period and, as a result, we may experience difficulty in meeting these reporting requirements in a timely manner.

The process of building our accounting and financial functions and infrastructure has, and will continue to, require significant additional professional fees, internal costs and management efforts. We may need to further enhance and/or implement a new internal system to combine and streamline the management of our financial, accounting, human resources and other functions. However, the enhancement and/or implementation of a system have and may continue to result in substantial costs. Any disruptions or difficulties in implementing or using such a system could adversely affect our controls and harm our business. Moreover, such disruption or difficulties could result in unanticipated costs and diversion of management's attention. In addition to the material weakness identified below, we may discover additional weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements. If we cannot provide reliable financial reports or prevent fraud, our business and results of operations could be harmed, investors could lose confidence in our reported financial information and we could be subject to sanctions or investigations by the NYSE, the SEC or other regulatory authorities.

If we experience additional material weaknesses or deficiencies in the future or otherwise fail to maintain an effective system of internal controls, then our ability to produce timely and accurate financial statements or comply with applicable regulations could be adversely affected. We may identify additional material weaknesses in our internal controls over financing reporting which we may not be able to remedy in a timely manner.

In connection with the preparation and audit of D-Wave's financial statements as of and for the fiscal year ended December 31, 2023 and 2022, material weaknesses were identified in our internal control over financial reporting. This material weakness resulted in errors in the unaudited condensed consolidated financial statements for the quarterly and year to date periods ended September 30, 2023, June 30, 2023, and March 31, 2023 and the consolidated financial statements for the years ended December 2022, 2021, and 2020. These periods were restated on Forms 10-Q/A and 10-K/A, as applicable, filed with the SEC on March 15, 2024. Separately, the unaudited condensed consolidated financial statements for the nine months ended September 30, 2022 were previously restated on Form 10-Q/A filed with the SEC on April 17, 2023 (collectively, the "Restatements"). We have implemented measures designed to improve our internal control over financial reporting to remediate future material weaknesses including adding additional qualified accounting personnel with experience with complex GAAP and SEC rules, engaging consultants to assist with the financial statement close process, and segregating duties among accounting personnel to enable adequate review controls. The primary costs associated with such measures are corresponding recruiting and additional salary and consulting costs, which are difficult to estimate at this time but which may be significant. These additional resources and procedures are intended to enable us to broaden the scope and quality of our internal review of underlying information related to financial reporting and to formalize and enhance our internal control procedures.

As of December 31, 2024, the material weakness has been remediated, however, a failure to implement and maintain effective internal control over financial reporting could result in errors in our consolidated financial statements that could result in a restatement of our financial statements, and could cause us to fail to meet our reporting obligations, any of which could diminish investor confidence in us and cause a decline in the price of our common stock.

Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting until after we are no longer an "emerging growth company," as defined in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed or operating.

We will incur increased costs as a result of our operation as a public company, and our management will be required to devote substantial time and resources to employing new compliance initiatives in order to comply with the regulatory requirements applicable to public companies.

Following the completion of the Transaction, we became a public company and, as a result, we will incur significant legal, accounting and other expenses that we did not incur as a private company. As a public company, we are and will continue to be subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules adopted, and to be adopted, by the SEC and the NYSE. Our management and other personnel have devoted and will need to continue to devote a substantial amount of time to these compliance initiatives. Moreover, we expect these rules and regulations to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be forced to accept reduced policy limits or incur substantially higher costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

Risks Related to Ownership of the Common Shares

D-Wave will have broad discretion in the use of its cash, cash equivalents and investments, and it may invest or spend such amounts in ways with which you may not agree or in ways which may not yield a return.

D-Wave Quantum's management will have considerable discretion in the application of its cash, cash equivalents and investments, and its stockholders will not have the opportunity to approve how such funds are being used. If such funds are used for corporate purposes that do not result in an increase to the value of its business, D-Wave Quantum's stock price could decline. Pending their use, D-Wave Quantum may invest its cash, cash equivalents and investments in a manner that does not produce income or that loses value.

D-Wave may be required to take write-downs or write-offs, or D-Wave may be subject to restructuring, impairment or other charges that could have a significant negative effect on D-Wave's financial condition, results of operations and the price of D-Wave's securities, which could cause you to lose some or all of your investment.

Factors outside of D-Wave's control may, at any time, arise. As a result of these factors, D-Wave may be forced to write-down or write-off assets, restructure its operations, or incur impairment or other charges that could result in D-Wave reporting losses, as other companies that have recently consummated business combinations with special purpose acquisition companies have been required to do. Even if certain risks were identified in the past, unexpected risks may arise, and previously known risks may materialize in a manner not consistent with prior expectation. Even though these charges may be non-cash items and therefore not have an immediate impact on D-Wave's liquidity, the fact that D-Wave reports charges of this nature could contribute to negative market perceptions about D-Wave or its securities. In addition, charges of this nature may cause D-Wave to be unable to obtain future financing on favorable terms or at all.

D-Wave may be subject to securities litigation, which is expensive and could divert management attention.

The price of the Common Shares has been and may continue to be volatile. For example, the price per Common Share peaked at a high price of \$13.23 on August 10, 2022, shortly following the completion of the Transaction, and has since declined significantly. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities litigation, including class action litigation. D-Wave may be the target of this type of litigation in the future. Litigation of this type could result in substantial costs and diversion of management's attention and resources, which could have a material adverse effect on D-Wave's business, financial condition, and results of operations. Any adverse determination in litigation could also subject D-Wave to significant liabilities.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about D-Wave Quantum's business, the price and trading volume of D-Wave Quantum's securities could decline.

The trading market for D-Wave Quantum's securities will be influenced by the research and reports that industry or securities analysts may publish about D-Wave Quantum, its business, market or competitors. Securities and industry analysts currently publishing research on D-Wave Quantum may not continue to, and additional securities and industry analysts may never, publish research on D-Wave Quantum. If the number of securities or industry analysts is reduced or coverage is eliminated, D-Wave Quantum's share price and trading volume would likely be negatively impacted. If any of the analysts who currently or may in future cover D-Wave Quantum change their recommendation regarding the Common Shares adversely, or provide more favorable relative recommendations about D-Wave Quantum's competitors, the price of the Common Shares would likely decline. If any analyst who may cover D-Wave Quantum were to cease coverage of D-Wave Quantum or fail to regularly publish reports on it, D-Wave Quantum could lose visibility in the financial markets, which in turn could cause its share price or trading volume to decline.

The price of our Common Shares has been and may continue to be volatile or may decline regardless of our operating performance.

The market price of Common Shares has fluctuated significantly and may continue to do so in response to numerous factors, many of which are beyond its control, including:

- actual or anticipated fluctuations in its revenue or other operating metrics;
- changes in the financial guidance provided to the public or D-Wave Quantum's failure to meet this guidance;
- failure of securities analysts to initiate or maintain coverage of D-Wave Quantum, changes in financial estimates by any securities analysts who follow D-Wave Quantum, or its failure to meet the estimates or the expectations of investors;
- changes in accounting standards, policies, guidelines, interpretations, or principles;
- the economy as a whole and market conditions in its industry;
- rumors and market speculation involving D-Wave Quantum or other companies in its industry;
- announcements by D-Wave Quantum or its competitors of significant innovations, acquisitions, strategic partnerships, joint ventures, or capital commitments;
- new laws or regulations or new interpretations of existing laws or regulations applicable to its business;
- lawsuits threatened or filed against us;
- other events or factors, including those resulting from war, incidents of terrorism, or responses to these events;
- the expiration of contractual lock-up or market standoff agreements; and
- sales of additional Common Shares by D-Wave Quantum or its stockholders.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. Stock prices of many companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. For example, the price per Common Share peaked at a high price of \$13.23 on August 10, 2022, shortly following the completion of the Transaction, and has since declined significantly. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If D-Wave Quantum were to become involved in securities litigation, it could be subjected to substantial costs, divert resources and the attention of management from its business, and harm its business.

The Warrants may have an adverse effect on the market price of the Common Shares.

As of December 31, 2024, there were 17,916,462 Warrants outstanding, with each Warrant exercisable for 1.4541326 Common Shares, subject to adjustment, at \$11.50 per Warrant or approximately \$7.91 per Common Share. Such Warrants, if exercised, would increase the number of issued and outstanding Common Shares and be dilutive to the Common Shares then outstanding.

The D-Wave Quantum Charter contains anti-takeover provisions that could adversely affect the rights of its stockholders.

The D-Wave Quantum Charter contains provisions to limit the ability of others to acquire control of D-Wave Quantum or cause it to engage in change-of-control transactions, including, among other things:

- provisions that authorize its board of directors, without action by its stockholders, to issue additional Common Shares and preferred stock with preferential rights determined by its board of directors;
- provisions that permit only a majority of its board of directors, the chairperson of the board of directors or the chief executive officer to call stockholder meetings and therefore do not permit stockholders to call special meetings of the stockholders;
- provisions generally eliminating stockholders' ability to act by written consent;
- provisions requiring a two-thirds super majority vote to remove a director; and
- provisions requiring certain amendments to our governing documents be made by a two-thirds super majority vote.

These provisions could have the effect of depriving holders of our Common Shares of an opportunity to sell their Common Shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control of D-Wave Quantum in a tender offer or similar transaction.

The D-Wave Quantum Charter provides, subject to limited exceptions, that the Court of Chancery of the State of Delaware is the sole and exclusive forum for certain stockholder litigation matters, which could limit D-Wave Quantum's stockholders' ability to obtain a favorable judicial forum for disputes with D-Wave Quantum or D-Wave Quantum's directors, officers, employees or stockholders.

The D-Wave Quantum Charter requires, to the fullest extent permitted by law, that, unless D-Wave Quantum consents in writing to the selection of an alternative forum, (a) any derivative action or proceeding brought on behalf of D-Wave Quantum; (b) any claim or cause of action for breach of a fiduciary duty owed by any current or former director, officer, employee, agent or stockholder of D-Wave Quantum to D-Wave Quantum or D-Wave Quantum's stockholders; (c) any claim or cause of action against D-Wave Quantum or any current or former director, officer or other employee of D-Wave Quantum, arising out of or pursuant to any provision of the DGCL, the D-Wave Quantum Charter or the amended and restated bylaws of D-Wave Quantum (the "*D-Wave Quantum Bylaws*") (as each may be amended from time to time); (d) any claim or cause of action seeking to interpret, apply, enforce or determine the validity of the D-Wave Quantum Charter or the D-Wave Quantum Bylaws (as each may be amended from time to time, including any right, obligation or remedy thereunder); (e) any claim or cause of action as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware; and (f) any claim or cause of action against D-Wave Quantum or any current or former director, officer or other employee of the corporation, governed by the internal-affairs doctrine or otherwise related to the corporation's internal affairs, in all cases to the fullest extent permitted by law and subject to the court having personal jurisdiction over the indispensable parties named as defendants. Subject to the preceding sentence, the federal district courts of the United States of America are to be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. However, such forum selection provisions do not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts of the United States have exclusive jurisdiction or for which there is concurrent federal and state jurisdiction.

The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with D-Wave Quantum or its directors, officers, or other employees, which may discourage such lawsuits against D-Wave Quantum and its directors, officers, and other employees. Alternatively, if a court were to find the choice of forum provision contained in the D-Wave Quantum Charter to be inapplicable or unenforceable in an action, D-Wave Quantum may incur additional costs associated with resolving such action in other jurisdictions, which could harm D-Wave Quantum's business, results of operations, and financial condition.

Because D-Wave Quantum has no current plans to pay cash dividends on Common Shares for the foreseeable future, you may not receive any return on investment unless you sell Common Shares for a price greater than that which you paid for it.

D-Wave Quantum has not paid any dividends to its stockholders and has no intention to pay dividends on Common Shares for the foreseeable future. D-Wave Quantum's board of directors will consider whether or not to institute a dividend policy. The determination to pay dividends will depend on many factors, including, among others, D-Wave Quantum's financial condition, current and anticipated cash requirements, contractual restrictions and financing agreement covenants, solvency tests imposed by applicable corporate law and other factors that D-Wave Quantum's board of directors may deem relevant. In addition, D-Wave Quantum's ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness it or its subsidiaries incur. As a result, you may not receive any return on an investment in Common Shares unless you sell Common Shares for a price greater than that which you paid for it. See Item 5, "Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities."

General Risk Factors

Our business is exposed to risks associated with litigation and may become subject to litigation, investigations and regulatory proceedings including product liability claims, which could harm our financial condition and liquidity if we are not able to successfully defend or insure against such claims.

From time to time in the ordinary course of our business, we may become involved in various legal proceedings, including commercial, product liability, employment, class action and other litigation and claims, as well as governmental and regulatory investigations and proceedings. Such matters can be time-consuming, divert management's attention and resources and cause us to incur significant expenses. In addition, our insurance or indemnities may not cover all claims that may be asserted against us, and any claims asserted against us, regardless of merit or eventual outcome, may harm our reputation. Furthermore, because litigation is inherently unpredictable, the results of such actions may have a material adverse effect on our business, operating results or financial condition.

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our results of operations and financial condition.

We may be subject to taxes by the U.S. federal, state, local and foreign tax authorities. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- allocation of expenses to and among different jurisdictions;
- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings;
- changes in tax laws, tax treaties, regulations or interpretations thereof; or
- lower than anticipated future earnings in jurisdictions where we have lower statutory tax rates and higher than anticipated future earnings in jurisdictions where we have higher statutory tax rates.

In addition, we may be subject to audits of our income, sales and other taxes by U.S. federal, state, and local and foreign taxing authorities. Outcomes from these audits could have an adverse effect on our operating results and financial condition.

Changes in tax laws or regulations that are applied adversely to us may materially adversely affect our business, prospects, financial condition and operating results.

New income, sales, use or other tax laws, statutes, rules, regulation or ordinances could be enacted at any time, or interpreted, changed, modified or applied adversely to us, any of which could adversely affect our business, prospects, financial performance and operating results. In particular, presidential, congressional, state and local elections in the United States could result in significant changes in, and uncertainty with respect to, tax legislation, regulation and government policy directly affecting our business or indirectly affecting us because of impacts on our customers, suppliers and manufacturers. For example, the United States government has recently enacted the Inflation Reduction Act of 2022 which, among other things, significantly changes the taxation of business entities including by imposing an alternative minimum tax on certain corporations, and may, from time to time, enact other changes to the taxation of business entities, the likelihood of which is unclear. We are currently unable to predict whether such changes will occur and, if so, the ultimate impact on our business. To the extent that such changes have a negative impact on us, including as a result of related uncertainty, these changes may materially and adversely affect our business, prospects, financial condition and operating results.

If we do not meet the expectations of investors or securities analysts, the market price of our securities may decline.

If we do not meet the expectations of investors or securities analysts, the market price of our securities may decline. In addition, fluctuations in the price of our securities could contribute to the loss of all or part of your investment. The trading price of our securities could be volatile and subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect on your investment in our securities and our securities may trade at prices significantly below the price you paid for them. In such circumstances, the trading price of our securities may not recover and may experience a further decline.

Factors affecting the trading price of our securities may include:

- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to it;
- changes in the market's expectations about our operating results;
- success of competitors;
- our operating results failing to meet the expectation of securities analysts or investors in a particular period;
- changes in financial estimates and recommendations by securities analysts concerning D-Wave Quantum or the industries in which D-Wave Quantum operates;
- operating and share price performance of other companies that investors deem comparable to D-Wave Quantum;
- D-Wave Quantum's ability to market new and enhanced products and technologies on a timely basis;
- changes in laws and regulations affecting our business;
- our ability to meet compliance requirements;
- commencement of, or involvement in, litigation involving D-Wave Quantum;
- changes in D-Wave Quantum's capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of Common Shares available for public sale;
- any changes in our board of directors or management;
- sales of substantial amounts of Common Shares by our directors, executive officers or significant stockholders or the perception that such sales could occur; and
- general economic and political conditions such as recessions, interest rates, international currency fluctuations and acts of war or terrorism. See "*—Risks Related to D-Wave Quantum's Business and Industry*"

Broad market and industry factors may materially harm the market price of our securities irrespective of our operating performance. The stock market in general, and the NYSE in particular, have experienced price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of the particular companies affected. The trading prices and valuations of these stocks, and of our securities, may not be predictable. A loss of investor confidence in the market for retail stocks or the stocks of other companies which investors perceive to be similar to D-Wave Quantum could depress D-Wave Quantum's share price regardless of D-Wave Quantum's business, prospects, financial conditions or results of operations. A decline in the market price of our securities also could adversely affect our ability to issue additional securities and our ability to obtain additional financing in the future.

D-Wave Quantum qualifies as an “emerging growth company” within the meaning of the Securities Act, and if D-Wave Quantum takes advantage of certain exemptions from disclosure requirements available to emerging growth companies, it could make D-Wave Quantum’s securities less attractive to investors and may make it more difficult to compare D-Wave Quantum’s performance to the performance of other public companies.

D-Wave Quantum qualifies as an “emerging growth company” as defined in Section 2(a)(19) of the Securities Act, as modified by the JOBS Act. As such, D-Wave Quantum is eligible for, and intends to take advantage of, certain exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies for as long as it continues to be an emerging growth company, including (a) the exemption from the auditor attestation requirements with respect to internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act, (b) the exemptions from say-on-pay, say-on-frequency and say-on-golden parachute voting requirements and (c) reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements. D-Wave Quantum will remain an emerging growth company until the earliest of (1) the last day of the fiscal year (a) following the fifth anniversary of the date of the first sale of common equity securities pursuant to an effective registration statement, (b) in which D-Wave Quantum has total annual gross revenue of at least \$1.235 billion, or (c) in which D-Wave Quantum is deemed to be a large accelerated filer, which means the market value of Common Shares that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (2) the date on which D-Wave Quantum has issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the exemption from complying with new or revised accounting standards provided in Section 7(a)(2)(B) of the Securities Act as long as D-Wave Quantum is an emerging growth company. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period and, therefore, D-Wave Quantum may not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. Investors may find our securities less attractive because we will rely on these exemptions, which may result in a less active trading market for the Common Shares and the price of the Common Shares may be more volatile.

Item 1B. Unresolved Staff Comments

Not Applicable.

Item 1C. Cybersecurity

Risk management and strategy

We have implemented policies and procedures to evaluate, identify, and handle material risks associated with cybersecurity threats. These protocols are integrated into a comprehensive risk register dedicated to our cloud-based platform and internal systems access. The register undergoes an annual review conducted by the internal information technology (IT) department, overseeing cybersecurity protection for our on-premises systems, and the DevOps department, responsible for cybersecurity protection in the cloud. We also conduct regular risk assessments to identify threats to our information security systems. These risk assessments include identification of reasonably foreseeable internal and external risks, the likelihood and potential damage that could result from such risks, and the sufficiency of existing policies, procedures, systems, and safeguards in place to manage such risks. We assess the risks facing the Company after our controls are accounted for, and then determine mitigation measures for each such risk. Our risk management processes also assess third party risks, and we perform third-party risk management to identify and mitigate risks from third parties such as vendors, suppliers, and other business partners.

Following these risk assessments, we re-examine our systems and processes to ensure that reasonable safeguards are in place to minimize identified risks and address any issues that arise. The head of our IT department, who reports to our Chief Financial Officer, works with management to continuously evaluate and address cybersecurity risks in alignment with our business objectives and operational needs.

As part of our overall risk management system, we monitor and test our safeguards and train our employees on these safeguards, in collaboration with IT and management. Personnel at all levels receive regular mandatory training on our cybersecurity policies and practices, no less than once per quarter. Key safeguards include, but are not limited to, access controls, authentication, third-party security obligations, and other technical and organizational measures. In addition, the Company maintains policies and procedures for backups, business continuity, and disaster recovery, and regularly tests its policies and procedures to ensure they allow for timely recovery and restoration of backups and the availability of critical resources..

We enlist third-party service providers to support us in conducting information security reviews of our infrastructure, and the evaluation of our company policies. These providers undertake comprehensive evaluations that delineate potential risks, categorized by criticality and associated level of effort. Subsequently, the Company will undertake a meticulous examination of the internal risk register to potentially recalibrate the likelihood of identified risks, taking into consideration the vulnerabilities unearthed by the third-party assessment.

Depending on the type of services required, the sensitivity of the relevant IT systems and data, and the identity of the provider, our vendor management process may involve different levels of assessment designed to help identify cybersecurity risks associated with a provider and impose contractual obligations related to cybersecurity on the provider. The Company conducts due diligence prior to engaging a vendor to provide services and requires the vendor to contractually commit to appropriate data protection measures, depending on the nature of the services provided. As part of the software request and vendor evaluation process, we ensure there is a secure method for transmitting data. This includes verifying that encryption is in place both in transit and at rest. Additionally, we require vendors to provide a SOC 2 Type 2 report, which we review to confirm that security controls have been audited and validated. These measures help ensure that third-party vendors maintain appropriate safeguards for handling and sharing confidential information.

Upon identifying vulnerabilities, we commit to addressing them promptly, prioritizing based on their criticality. High-priority remediation efforts will be coordinated with the collaboration of Enterprise IT and DevOps teams to ensure swift and effective resolution. While the Company's Leap™ quantum cloud system holds SOC 2 Type 2 compliance, it's noteworthy that the correlation extends to all our IT systems, even though they are not explicitly within the defined scope. As a result, these interconnected IT systems align with SOC 2 Type 2 standards. Similarly, our policies regarding cybersecurity and IT systems are relevant for SOC 2 Type 2 compliance, but also apply to everyone in the entire organization.

We have not currently identified any cybersecurity challenges that have materially impaired our operations or financial standing. For additional information regarding risks from cybersecurity threats, please refer to Item 1A, "Risk Factors," in this Form 10-K.

Governance

Our board of directors addresses the Company's cybersecurity risk management as part of its general oversight function. While the board of directors' audit committee is responsible for overseeing management's risk assessment and risk management policies generally, to enhance oversight and governance in this area, the board of directors has recently established a standing committee (the "Cybersecurity Committee"), that will advise on cybersecurity matters and provide strategic guidance and direction for our cybersecurity program. The Cybersecurity Committee will convene as necessary to address critical or emerging cybersecurity concerns and to ensure alignment on approach. In the event of an incident, the Company has developed an incident response plan, which sets forth the steps to be followed from incident detection and assessment to mitigation, recovery and notification and reporting, including notifying functional areas (e.g. legal), as well as senior leadership and the Board, as appropriate.

Our Chief Financial Officer and the head of our IT department, both of whom are primarily responsible for managing our cybersecurity risks, mitigation strategies and responses to any such issues that may arise, collaborate with the Cybersecurity Committee and report to the entire Board on a quarterly basis, or more frequently as needed. Our Chief Financial Officer oversees the Company's IT department and has extensive experience in managing IT organizations and securing cybersecurity insurance coverages, which we currently maintain. The head of our IT department drives our strategic IT initiatives and cybersecurity risks assessments, drawing upon over two decades of enterprise technology management expertise.

Our Chief Financial Officer and the head of our IT department oversee our cybersecurity policies and processes, including those described above. The Company's overall risks and assessments are monitored by a cross functional team composed of members of senior management, security, legal, information technology and financial reporting, which evaluates risks associated with assets such as infrastructure, software, people, processes, and data. A partnership exists between these aforementioned individuals and departments so that identified issues are addressed in a timely manner and incidents are escalated to the appropriate parties as required. The Company's incident response plan is tested and adjusted regularly or in response to a particular incident or significant threats where appropriate.

Item 2. Properties

We operate three facilities in North America. Our Canadian operations and the Quantum Engineering Center of Excellence is located in Burnaby, B.C., outside of Vancouver, where we lease approximately 42,000 square feet of space under an agreement that expires in December 2033. Most of the facility is used for research and development and manufacturing. We also lease approximately 7,000 square feet of space in Richmond, B.C., outside of Vancouver, under an agreement that expires in December 2028. That facility is used to develop and manufacture proprietary superconducting circuit boards for internal consumption, and for customer sales. Our in-house fabrication activities are performed in a facility in Palo Alto, California, where we lease approximately 6,000 square feet of space under an agreement that expires in June 2026. We believe our current and planned facilities are adequate for the foreseeable future.

Item 3. Legal Proceedings

From time to time, we may become involved in legal proceedings arising in the ordinary course of business. There are currently no pending or threatened legal proceedings or claims against us that, in our opinion, are likely to have a material adverse effect on our business, operating results, financial condition or cash flows. Defending such proceedings is costly and can impose a significant burden on management and team members. The results of any future litigation cannot be predicted with certainty, but regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our Common Shares and Warrants began trading on the NYSE under the symbols “QBTS” and “QBTS.WT”, respectively, on August 8, 2022. Prior to that, there was no public trading market for our Common Shares and Warrants.

Holders of Record

On March 12, 2025, the last reported sales prices of the Common Shares and Warrants were \$5.82 and \$2.44, respectively. As of March 12, 2025, there were approximately 89 holders of record of our Common Shares, approximately 23 holders of record of our Exchangeable Shares and 1 holders of record of our Warrants. Such numbers do not include beneficial owners holding our securities through nominee names.

Dividend Policy

We have never declared or paid any cash dividends on our Common Shares to our stockholders and we do not currently intend to pay any cash dividends on Common Shares for the foreseeable future. We currently intend to retain all available funds and any future earnings to support operations and to finance the growth and development of our business. Any future determination to pay dividends will be made at the discretion of our board of directors, subject to applicable laws and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements.

Issuer Purchases of Equity Securities

None.

Stock Performance Graph

Not applicable.

Unregistered Sales of Equity Securities

During the year ended December 31, 2024, we have sold an aggregate number of 34,860,416 Common Shares to Lincoln Park pursuant to the Purchase Agreement (excluding the Common Shares paid in respect of the Commitment Fee) for aggregate consideration of \$44.3 million. The issuances under the Lincoln Park Purchase Agreement were exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, as transactions by an issuer not involving a public offering.

There were no other unregistered sales of equity securities which have not been previously disclosed in a Quarterly Report on Form 10-Q or a Current Report on Form 8-K during the fiscal year ended December 31, 2024.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations together with the consolidated financial statements and related notes included elsewhere in this Form 10-K. The following discussion contains forward-looking statements based upon current expectations that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those risk factors applicable to D-Wave and its business referenced under the section titled "Risk Factors" elsewhere in this Form 10-K. Our historical results are not necessarily indicative of the results that may be expected for any period in the future. In this section, unless otherwise specified, the terms "we", "our", "us", "D-Wave" or the "Company" refer to D-Wave Quantum Inc. and its subsidiaries following the Closing while "D-Wave Systems" refers to D-Wave Systems Inc. prior to the Closing. All other capitalized terms have the meanings ascribed thereto elsewhere in this Form 10-K. All dollar amounts are expressed in thousands of United States dollars ("\$\$"), unless otherwise indicated.

Overview

We are a commercial quantum computing company that provides customers with a full suite of professional services and web-based access to our superconducting quantum computer systems and integrated software environment through our LeapTM quantum cloud service. Historically, we have developed our own annealing superconducting quantum computer and associated software, and our current generation quantum system is the D-Wave AdvantageTM system. We are a leader in the development and delivery of quantum computing systems, software and services, and we are the world's first commercial supplier of quantum computers—and the only company developing both annealing quantum computers and gate-model quantum computers.

Our business model is focused primarily on generating revenue from providing customers access to our quantum computing systems via the cloud in the form of quantum computing as a service ("QCaaS") products, and from providing professional services wherein we assist our customers in identifying and implementing quantum computing applications. We have three operating facilities, which we lease, in North America. These facilities are located in Burnaby, British Columbia, Richmond, British Columbia, and Palo Alto, California.

During the years ended December 31, 2024 and 2023, we generated revenue totaling \$8.8 million and \$8.8 million, respectively. We have incurred significant operating losses since inception. For the years ended December 31, 2024 and 2023, our net losses were \$143.9 million and \$82.7 million, respectively. We expect to continue to incur significant losses for the foreseeable future as we continue to invest in a number of research and development programs as well as a variety of go-to-market initiatives. As of December 31, 2024, we had an accumulated deficit of \$626.9 million.

Macroeconomic Environment

Unfavorable conditions in the economy in the United States, Canada and abroad, including conditions resulting from changes in inflationary pressure, gross domestic product growth, financial and credit market fluctuations, banking collapses and related uncertainty, international trade relations, political turmoil, natural catastrophes, outbreaks of contagious diseases, warfare and terrorist attacks on the United States, Europe or elsewhere, including military actions affecting Russia, Ukraine, Israel or elsewhere, could cause a decrease in business investments on our products and negatively affect the growth of our business and our results of operations. However, to date, these unfavorable conditions have not affected our business.

Key Components of Results of Operations

Revenue

We currently generate our revenue primarily through subscription sales to access our QCaaS cloud platform and professional services related to the development and implementation of quantum computing applications and delivery of quantum computing application training. QCaaS revenue is recognized on a ratable basis over the contract term, which generally ranges from one month to two years. Professional services revenue is recognized over time on a percentage of completion basis using the costs incurred input measure of progress.

Revenue from quantum computing system is recognized at a point in time when control transfers to the customer, typically upon delivery or installation, based on the terms of the sales contract.

We expect that QCaaS revenue, as a percentage of total revenue, will increase due to an increasing number of QCaaS agreements being driven by the completion of professional services engagements yielding production applications that require QCaaS services, as well as by customers that choose to access our Leap™ cloud service without utilizing our professional services organization. However, quantum computing system revenue may have an outsized impact on our revenue and shift our product mix during the period when such revenue is recognized, though this revenue is expected to be irregular and intermittent.

Cost of Revenue

Our cost of revenue consists of all direct and indirect expenses related to providing our QCaaS offering and delivering our professional services, such as personnel-related expenses, including stock-based compensation, costs associated with maintaining the cloud platform on which we provide the QCaaS product and depreciation and amortization related to our quantum computing systems and related software.

Cost of revenue for quantum computing systems includes direct manufacturing costs, such as materials and labor for system production, as well as expenses related to installation, warranty, and support. Additionally, it includes shipping and handling costs associated with delivering the systems. These costs are also expensed as incurred.

We expect our total cost of revenue to trend upward in absolute dollars in future periods, corresponding to our anticipated growth in revenue and the higher costs that are necessary to support our customers, maintain the QCaaS cloud offering, operate our quantum computing systems, and deliver our professional services. We expect our cost of revenue as a percentage of total revenue to trend downward over time due to a higher mix of QCaaS revenue that has a lower cost to deliver compared to professional service revenue.

Operating Expenses

Our operating expenses consist of research and development, general and administrative, and sales and marketing expenses.

Research and Development

Research and development expenses consist primarily of personnel-related expenses, including salaries, benefits and stock-based compensation for personnel, fabrication costs, lab supplies, and cloud computing resources and allocated facility costs for our research and development functions. Unlike a standard computer, design and development efforts continue throughout the useful life of our quantum computing systems to ensure proper calibration and optimal functionality. Research and development expenses also include purchased hardware components, fabrication and software costs related to quantum computing systems constructed for research purposes that do not have a high probability of providing near-term future economic benefits, and may have no alternate future use. We currently do not capitalize any research and development expenses.

We expect our research and development expenses will trend upward on an absolute dollar basis for the foreseeable future as we continue to invest in research and development efforts to enhance the performance of our annealing quantum computers, to complete the development of our gate model quantum computer, and to broaden the functionality, improve the reliability, availability and scalability of our QCaaS cloud platform. If in the future we receive government grants and research incentives, which have historically offset a portion of research and development costs, these costs could decrease in absolute dollars. Also, non-cash share based compensation expenses may cause downward fluctuations in these costs from time to time.

General and Administrative

General and administrative expenses consist primarily of personnel-related expenses, including salaries, benefits and stock-based compensation for personnel and outside professional services expenses including legal, audit and accounting services, insurance, other administrative expenses and allocated facility costs for our administrative functions.

We expect our general and administrative expenses to increase in absolute dollars for the foreseeable future as we continue to invest in more comprehensive compliance and governance functions, increased IT security and compliance, and expanded internal controls over financial reporting in accordance with the Sarbanes-Oxley Act of 2002. However, non-cash stock-based compensation expenses may cause upward and downward fluctuations in these costs from time to time.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel-related expenses, including salaries, benefits and stock-based compensation for personnel, direct advertising, marketing and promotional material costs, sales commission expense, consulting fees and allocated facility costs for our sales and marketing functions. We intend to continue to make significant investments in our sales and marketing organization to drive additional revenue, expand our global customer base, and broaden our brand awareness. We expect our sales and marketing expenses to continue to increase in absolute dollars for the foreseeable future. However, non-cash stock-based compensation expenses may cause upward and downward fluctuations in these costs from time to time.

Results of Operations

The following table sets forth our results of operations for the periods indicated (in thousands):

(In thousands, except share and per share data)	Year Ended December 31,		Variance	
	2024	2023	Amount	%
Revenue	\$ 8,827	\$ 8,758	\$ 69	1 %
Cost of revenue	3,264	4,136	(872)	(21)%
Total gross profit	5,563	4,622	941	20 %
Operating expenses:				
Research and development	35,300	37,878	(2,578)	(7)%
General and administrative	32,422	37,014	(4,592)	(12)%
Sales and marketing	15,064	10,276	4,788	47 %
Total operating expenses	82,786	85,168	(2,382)	(3)%
Loss from operations	(77,223)	(80,546)	3,323	(4)%
Other income (expense), net:				
Interest expense	(3,897)	(37)	(3,860)	10,432 %
Change in fair value of Term Loan	(645)	640	(1,285)	(201)%
Term Loan debt issuance costs	—	(2,118)	2,118	(100)%
Gain on investment in marketable securities	1,495	—	1,495	100%
Change in fair value of warrant liabilities	(68,245)	262	(68,507)	(26,148)%
Other income (expense), net	4,636	(916)	5,552	(606)%
Total other income (expense), net	(66,656)	(2,169)	(64,487)	2,973 %
Net loss	\$ (143,879)	\$ (82,715)	\$ (61,164)	74 %
Foreign currency translation adjustment	7	(115)	122	(106)%
Net comprehensive loss	<u>\$ (143,872)</u>	<u>\$ (82,830)</u>	<u>\$ (61,042)</u>	<u>74 %</u>

Revenue

Revenue for the year ended December 31, 2024 remained consistent to the prior year. QCaaS revenue increased by \$1.9 million, primarily due to an increase in the average revenue per QCaaS customer. This was offset by a decrease of \$1.9 million in professional service revenue, as a result of the timing of closing new professional services engagements.

Cost of Revenue

Cost of revenue decreased by \$0.9 million, or 21%, to \$3.3 million for the year ended December 31, 2024 as compared to \$4.1 million for the year ended December 31, 2023. The decrease in cost of revenue was primarily driven by a decrease in non-cash stock-based compensation of \$0.6 million and personnel costs of \$0.2 million.

Operating Expenses

Research and Development Expenses

Research and development expenses decreased by \$2.6 million, or 7%, to \$35.3 million for the year ended December 31, 2024 compared to \$37.9 million for the year ended December 31, 2023. The decrease was primarily driven by a decrease in stock-based compensation expenses of \$3.2 million, partially offset by an increase in personnel costs of \$0.4 million and professional fees of \$0.4 million.

General and Administrative Expenses

General and administrative expenses decreased by \$4.6 million, or 12%, to \$32.4 million for the year ended December 31, 2024 as compared to \$37.0 million for the year ended December 31, 2023. The decrease was primarily driven by decreases in professional fees of \$3.8 million, stock-based compensation expense of \$3.2 million and insurance costs of \$1.0 million, partially offset by an increase in personnel expenses of \$2.3 million and credit loss expenses of \$1.3 million.

Sales and Marketing Expenses

Sales and marketing expenses increased by \$4.8 million, or 47%, to \$15.1 million for the year ended December 31, 2024 as compared to \$10.3 million for the year ended December 31, 2023. The increase was primarily driven by increases in personnel costs of \$3.3 million, stock-based compensation expense of \$0.8 million, travel expenses of \$0.4 million and marketing expenses of \$0.3 million.

Other Income (Expense), net

Interest Expense

Interest expense increased by \$3.9 million, or 10,432%, to \$3.9 million for the year ended December 31, 2024 as compared to \$37.0 thousand for the year ended December 31, 2023. The increase is primarily due to interest expenses related to the Term Loan and the SIF Loan. The Company fully repaid and extinguished the Term Loan on October 22, 2024, including \$30.0 million in principal and \$4.3 million in accrued payable in kind ("PIK") interest. Additionally, the increase in interest expense reflects a decrease in the interest expense benefit from the catch-up method adjustment recorded in 2023 on the SIF Loan, which amounted to \$2.9 million in the prior year. Refer to Note 7 to the accompanying consolidated financial statements for further details.

Change in fair value of Term Loan

The fair value of Term Loan increased by \$0.6 million for the year ended December 31, 2024 as compared to a decrease of \$0.6 million for the year ended December 31, 2023. On April 13, 2023, the Company entered into a Term Loan with PSPIB. The Company opted for the fair value option for accounting for the Term Loan (see Note 2 to the accompanying consolidated financial statements). Changes in the fair value of the Term Loan, excluding changes due to the Company's own credit risk, were recorded as gains or losses in the Company's consolidated statements of operations and comprehensive loss in each reporting period. The fair value of the Term Loan varied primarily based on the market yield rate, market yield volatility, and the probabilities of various settlement scenarios. The Company fully repaid and extinguished the Term Loan on October 22, 2024.

Term Loan debt issuance costs

Term Loan debt issuance costs decreased by \$2.1 million for the year ended December 31, 2024 as compared to the year ended December 31, 2023, as there were no advances on the Term Loan during the year ended December 31, 2024.

Gain (loss) on investment in marketable equity securities

Gain (loss) on investment in marketable equity securities increased by \$1.5 million for the year ended December 31, 2024 as compared to zero for the year ended December 31, 2023. On January 5, 2024, an investee of the Company was acquired for a combination of cash and stock in an observable orderly transaction. Consequently, the carrying value of the Company's investment was adjusted based on the consideration received, resulting in a net gain of \$1.7 million, partially offset by a loss associated with the fair value of the conversion feature of the Zapata Note.

Change in fair value of warrant liabilities

The fair value of warrant liabilities increased by \$68.5 million for the year ended December 31, 2024 as compared to a decrease of \$0.3 million for the year ended December 31, 2023. The fair value of the warrant liabilities varies primarily with the trading price of the Public Warrants listed on the New York Stock Exchange (see Note 2 and Note 10 to the accompanying condensed consolidated financial statements). As the trading price of the Public Warrants appreciates, generally in correlation with the trading price of the Company's common stock, the fair value of the warrant liabilities increases.

Other income (expense), net

Other income (expense), net increased by \$5.6 million or 606%, to a net other income of \$4.6 million for the year ended December 31, 2024 as compared to net other expense of \$0.9 million for the year ended December 31, 2023. The increase was primarily driven by the impact of net foreign exchange gains driven by appreciation of the U.S. Dollar against the Canadian Dollar of \$4.0 million, and an increase in interest income of \$1.4 million due primarily to interest earned on higher cash and cash equivalent balances.

Liquidity and Capital Resources

In our Annual Report on Form 10-K for the year ended December 31, 2023 and our Quarterly Report on Form 10-Q for the three and nine months ended September 30, 2024, we disclosed that there was substantial doubt about our ability to continue as a going concern due to recurring losses, liquidity concerns, debt covenant uncertainties, and reliance on external financing. Since its inception, the Company has incurred net losses and negative cash flows from operations. As of December 31, 2024 and 2023, the Company had an accumulated deficit of \$626.9 million and \$483.1 million, respectively. For the years ended December 31, 2024 and 2023, the Company incurred a net loss of \$143.9 million and \$82.7 million, respectively, and the Company had net cash outflows from operating activities of \$42.6 million and \$60.6 million, respectively. The Company expects to incur additional operating losses and negative cash flows from operating activities as it continues to expand its commercial operations and research and development programs.

As part of management's evaluation of whether there was substantial doubt about our ability to continue as a going concern as of the date of this filing, management considered the results of fundraising activities completed in the fourth fiscal quarter of 2024 and subsequent to the balance sheet date in addition to the factors discussed above. During the year ended December 31, 2024, the Company received \$214.2 million in net proceeds from the issuance of 100,249,331 Common Shares under various equity offerings described more fully in Note 15 to the accompanying consolidated financial statements. As of December 31, 2024 and 2023, the Company had cash and cash equivalents of \$178.0 million and \$41.3 million, respectively, and working capital (current assets less current liabilities) of \$154.9 million and \$35.8 million, respectively. Additionally, as of December 31, 2024, total assets exceeded total liabilities by \$62.6 million, whereas as of December 31, 2023, total liabilities exceeded total assets by \$24.5 million. In January 2025, the Company raised an additional \$146.2 million in net cash proceeds from an additional equity offering.

As a result of these considerations, management has assessed the Company's liquidity under Financial Accounting Standards Board's ASC Topic 205-40, "Basis of Presentation—Going Concern," and determined that it has sufficient capital resources to meet its obligations for at least the next 12 months and does not anticipate any conditions that would raise substantial doubt about the Company's ability to continue as a going concern.

Lincoln Park Purchase Agreement

In conjunction with the Merger with DPCM, the Company and D-Wave Systems entered into a purchase agreement with Lincoln Park Capital Fund, LLC on June 16, 2022 (the "Purchase Agreement") which provides D-Wave the sole right, but not the obligation, to direct Lincoln Park to buy specified dollar amounts up to \$150 million of D-Wave's common stock, par value \$0.0001 per share through November 1, 2025. The Purchase Agreement may provide the Company and D-Wave with additional liquidity to fund the business, subject to the conditions set forth in the agreement, including volume limitations tied to periodic market prices, ownership limitations restricting Lincoln Park from owning more than 9.9% of the then total outstanding share of common stock of the Company, par value \$0.0001, (the "Common Shares") and a floor price of \$1.00 at or below which the Company may not sell to Lincoln Park any Common Shares. When the Company sells shares to Lincoln Park, Lincoln Park may resell all, some, or none of those Common Shares at any time or from time to time in its discretion. During the year ended December 31, 2024, the Company has received \$44.3 million in proceeds through the issuance of 34,860,416 Common Shares to Lincoln Park under the Purchase Agreement. In order for the Company to issue Common Shares under the Purchase Agreement, the Company's share price must be above the floor price of \$1.00. There is no assurance that the floor price will not fall below \$1.00 preventing the Company from being able to make sales to Lincoln Park in the future. As of December 31, 2024, D-Wave had \$37.8 million of issuance capacity under the Purchase Agreement.

At-the-Market Offerings

On May 24, 2024, the Company entered into an at-the-market sales agreement (the "\$100M ATM") with Needham & Company, LLC, B. Riley Securities, Inc., and Roth Capital Partners, LLC (the "\$100M ATM Agents"). Under this agreement, the Company could sell shares of its common stock with an aggregate offering price of up to \$100.0 million through or to the Agents. During the year ended December 31, 2024, the Company has received \$97.2 million in net proceeds through the issuance of 49,812,287 Common Shares under the Sales Agreement. As of December 31, 2024, D-Wave had zero issuance capacity under the ATM Agreement.

On December 9, 2024, the Company entered into a new sales agreement (the "\$75M ATM") with Needham & Company, LLC, Roth Capital Partners, LLC, B. Riley Securities, Inc., and Craig-Hallum Capital Group, LLC (the "\$75M ATM Agents"). Under this agreement, the Company could sell shares of its common stock with an aggregate offering price of up to \$75.0 million through or to the Agents. During the year ended December 31, 2024, the Company has received \$72.9 million in net proceeds through the issuance of 15,576,628 Common Shares under the Sales Agreement. As of December 31, 2024, D-Wave had zero issuance capacity under the ATM Agreement.

On January 10, 2025, the Company entered into another at-the-market sales agreement (the "\$150M ATM") with Needham & Company, LLC, Stifel, Nicolaus & Company, Incorporated, B. Riley Securities, Inc., Roth Capital Partners, LLC, The Benchmark Company, LLC, and Craig-Hallum Capital Group, LLC (the "\$150M ATM Agents"). Under this agreement, the Company could sell shares of its common stock with an aggregate offering price of up to \$150.0 million through or to the Agents. As of March 14, 2025, the Company has received \$146.2 million in net proceeds through the issuance of 24,604,021 Common Shares under the Sales Agreement. As of March 14, 2025, D-Wave had zero issuance capacity under the ATM Agreement.

Sales under these agreements are classified as "at-the-market" equity offerings under Rule 415(a)(4) of the Securities Act and may be conducted on the NYSE or other trading platforms. The Agents will use commercially reasonable efforts to sell shares based on the Company's instructions. The compensation to the Agents is up to 3.0% of the gross sales price, along with expense reimbursements. The Company has also agreed to provide indemnification against certain liabilities under the Securities Act.

The Company is not obligated to sell shares under these agreements. Each agreement may be terminated by: (a) the election of the Agents upon the occurrence of certain adverse events, (b) five business days' advance notice from the Company to the Agents or five days' advance notice from any of the Agents to the Company or (c) otherwise by mutual agreement of the parties pursuant to the terms of the Sales Agreement.

Repayment of the Term Loan

In addition, we successfully repaid a significant portion of our outstanding debt obligations, including the Term Loan and Security Agreement ("Term Loan") with PSPIB Unitas Investments II Inc. ("PSPIB" or the "Lender"), a related party to the Company's largest shareholder as of December 31, 2024, that was initially entered into on April 13, 2023 (the "Closing Date"). The Term Loan, outlined in *Note 7 - Loans payable, net* to the consolidated financial statements, provided for \$50.0 million in three tranches, subject to certain terms and conditions. The Company drew down two tranches totaling \$30.0 million and, on October 22, 2024, the Company had prepaid the entire the Term Loan, including \$30.0 million in principal and \$4.3 million in accrued PIK interest.

Cash Flows

The following table sets forth our cash flows for the periods indicated (in thousands):

	Year Ended December 31,	
	2024	2023
Net cash provided by (used in):		
Operating Activities	\$ (42,643)	\$ (60,649)
Investing Activities	(3,141)	(630)
Financing Activities	182,450	95,636
Effect of exchange rate changes on cash and cash equivalents	7	(115)
Net increase in cash and cash equivalents	\$ 136,673	\$ 34,242

Cash Flows Used in Operating Activities

Our cash flows from operating activities are significantly affected by the growth of our business, and are primarily related to research and development, sales and marketing and general and administrative activities. Our operating cash flows are also affected by our working capital needs to support growth in personnel-related expenditures and fluctuations in accounts payable, accounts receivable and other current assets and liabilities.

For the year ended December 31, 2024, net cash used in operating activities was \$42.6 million, a decrease of \$18.0 million from \$60.6 million for the year ended December 31, 2023. The change is primarily due to an increase in noncash items added back to net loss of \$55.6 million and an increase in cash released from working capital of \$23.6 million, offset by an increase in net loss of \$61.2 million. The increase in noncash items was primarily due to an increase in change in fair value of warrant liabilities of \$68.5 million, partially offset by a decrease in stock-based compensation of \$6.3 million, an increase in unrealized foreign exchange gain of \$4.3 million, and a gain on marketable securities of \$1.5 million. The decrease in working capital was primarily driven by an increased change in deferred revenue of \$15.7 million and an increased change in accrued expenses and other current liabilities of \$6.9 million.

Cash Flows Used in Investing Activities

Net cash used in investing activities during the year ended December 31, 2024 was \$3.1 million, an increase of \$2.5 million from \$0.6 million for the year ended December 31, 2023. The increase is primarily due to an increase in purchase of property and equipment of \$1.5 million and a purchase of a convertible note of \$1.0 million.

Cash Flows Provided by Financing Activities

Net cash provided by financing activities during the year ended December 31, 2024 was \$182.5 million, an increase of \$86.8 million from \$95.6 million for the year ended December 31, 2023. The increase is primarily due to an increase in proceeds from the issuance of common stock pursuant to the ATM Agreements of \$169.9 million, partially offset by an increase in debt repayments of \$30.0 million, a decrease in debt financing proceeds of \$29.0 million, a decrease in proceeds from the issuance of common stock pursuant to the Purchase Agreement of \$19.4 million, a decrease in proceeds of government assistance of \$3.0 million and an increase in the payment of tax withheld for common stock issued under stock-based compensation settlements of \$2.7 million.

Contractual Obligations and Commitments

The Company has various operating leases of real estate and equipment. See *Note 8 - Leases* to the accompanying consolidated financial statements for further discussion of the nature and timing of cash obligations due under these leases.

Critical Accounting Estimates

Our consolidated financial statements included in this Form 10-K have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities. We also make estimates and assumptions that affect the reported amounts and related disclosures for the periods presented. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances. The results of these estimates form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ significantly. Additionally, changes in assumptions, estimates or assessments due to unforeseen events or otherwise could have a material impact on our financial position or results of operations.

The critical accounting estimates, assumptions and judgements we believe to have the most significant impact on our audited annual consolidated financial statements are described below. See *Note 2 - Basis of Presentation and Summary of Significant Accounting Policies* to the audited consolidated financial statements included elsewhere in this Form 10-K for additional information related to critical accounting estimates and significant accounting policies.

Revenue recognition

We recognize revenue from the sale of our services and products. Our contracts with customers often include multiple performance obligations. Our performance obligations are as follows:

- Subscription sales to access our QCaaS cloud platform;
- Professional services related to the development and implementation of quantum computing applications;
- Quantum computing systems;
- Quantum computing application training;
- Application support and maintenance; and
- Printed circuit boards.

Our contracts with customers may include renewals or other options at fixed prices, which typically do not represent a significant discount. Based on our assessment of standalone selling prices, we determined that there were no significant material rights provided to our customers requiring separate recognition.

When we determine that our contracts with customers contain multiple performance obligations, for these arrangements, we allocate the transaction price based on the relative standalone selling price ("SSP") method by comparing the SSP of each distinct performance obligation to the total value of the contract. We use the SSP for products and services sold together in a contract to determine whether there is variable consideration (e.g. discount) to be allocated based on the relative SSP of the various products and services. In instances where SSP is not directly observable, such as when we don't sell the product or service separately, we determine the SSP by considering overall pricing objectives and market conditions, including cost plus a reasonable margin. Significant pricing practices taken into consideration include our discounting practices, the customer demographic, price lists, our go-to-market strategy, historical and current sales and contract prices. In instances where we do not sell or price a product or service separately, we maximize the use of observable inputs by using information that may include market conditions.

Sales of future revenues

On November 20, 2020, the Company entered into an agreement with the Canada Strategic Innovation Fund ("SIF"), wherein SIF committed to providing a conditionally repayable loan to the Company in the amount of up to C\$40.0 million ("the SIF Loan"). The SIF Loan is conditionally repayable according to a revenue-based formula. See Note 7 to the accompanying consolidated financial statements for additional information concerning the SIF Loan.

The accounting treatment for the SIF Loan considers the "sale of future revenues" guidance outlined in ASC 470-10-25. The debt arising from the SIF Loan was recorded at face value and will be amortized using the effective interest method, leading to the accrual of interest expenses over the estimated term of the SIF Loan. The amortization schedule is based on projected cash flows derived from the Company's long-term revenue forecast. Subsequent changes in forecasted cash flows will be accounted for under the catch-up method, which entails adjusting the accrued interest portion of the principal balance through earnings to reflect the effective interest rate. For the year ended December 31, 2024 and 2023, the Company recognized gains related to catch-up method adjustments to the accrued interest portion of the loans payable, net balance of \$0.2 million and \$2.9 million, respectively, which are included in interest expense on the consolidated statements of operations and comprehensive loss. The liability is classified as non-current, as the current forecast indicates that repayments will not commence within the 12 months following the balance sheet date.

As the SIF Loan is originated through a government program, a market rate of interest is not imputed in accordance with the scope limitations of ASC 835.

Recently Issued and Adopted Accounting Standards

A discussion of recent accounting pronouncements is included in Note 2 to our audited consolidated financial statements included elsewhere in this Form 10-K.

JOBS Act Accounting Election

In April 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an "emerging growth company" may take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Therefore, as an emerging growth company we can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to avail ourselves of this extended transition period and, as a result, we will not adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies. In addition, as an emerging growth company, we may take advantage of certain reduced disclosure and other requirements that are otherwise applicable generally to public companies. D-Wave Quantum will take advantage of these exemptions until such time that it is no longer an emerging growth company. D-Wave Quantum will cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year following the fifth anniversary of the date of the first sale of common equity securities pursuant to an effective registration statement; (ii) the last day of the fiscal year in which its total annual gross revenue is equal to or more than \$1.235 billion; (iii) the date on which it has issued more than \$1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which it is deemed to be a large accelerated filer under the rules of the SEC.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable to Smaller Reporting Companies.

Item 8. Financial Statements and Supplementary Data

Reference is made to the financial statements, the notes thereto, and the report thereon, commencing on page 112 of this report, which financial statements, notes, and report are incorporated herein by reference.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

On June 7, 2023, PricewaterhouseCoopers LLP (Canada) (“PwC”) notified the Company of its decision to decline to stand for re-election as the independent registered public accounting firm of the Company. Although PwC declined to stand for re-election, it maintained its relationship with the Company for the review of the Company’s Quarterly Report on Form 10-Q for the quarterly period ending June 30, 2023 (the “Form 10-Q”). On August 10, 2023, the Company filed the Form 10-Q. As a result, PwC’s term as the Company’s independent registered public accounting firm ended.

PwC’s reports on the financial statements for the fiscal years ended December 31, 2022 and 2021 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles, except that PwC’s report for the fiscal years ended December 31, 2022 and 2021 contained a separate paragraph that stated the Company has incurred net losses and negative cash flows from operating activities and has a negative working capital that raise substantial doubt about the Company’s ability to continue as a going concern. During the fiscal years ended December 31, 2022 and 2021, and in the subsequent interim period through August 10, 2023, there were no disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which if not resolved to PwC’s satisfaction, would have caused PwC to make reference to the subject matter of the disagreement in connection with PwC’s report. Aside from the identification of a material weakness in the Company’s internal controls over financial reporting during the fiscal year ended December 31, 2022 pertaining to the Company’s design and operation of controls related to its financial statement close process, there were no reportable events of the type described in Item 304(a)(1)(v) of Regulation S-K during the fiscal years ended December 31, 2022 and 2021 or in the subsequent interim period through August 10, 2023.

On August 24, 2023, the Company engaged Grant Thornton LLP (“Grant Thornton”) to serve as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2023 beginning with the fiscal third quarter ending September 30, 2023. The Audit Committee of the Board of Directors of the Company approved the selection of Grant Thornton as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2023 on August 23, 2023.

During the two fiscal years ended December 31, 2022 and 2021, and the subsequent interim period through the date of the filing of this Current Report on Form 8-K, the Company has not consulted with Grant Thornton regarding either (i) the application of accounting principles to a specified transaction, either completed or proposed; or the type of audit opinion that might be rendered on the Company’s consolidated financial statements, and neither a written report was provided to the Company nor was oral advice provided that Grant Thornton concluded was an important factor considered by the Company in reaching a decision as to the accounting, auditing or financial reporting issue; or (ii) any matter that was either the subject of a “disagreement,” as that term is defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K, or a “reportable event,” as that term is defined in Item 304(a)(i)(v) of Regulation S-K.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms and (2) accumulated and communicated to our management, including our principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of the end of the period covered by this Annual Report. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of December 31, 2024, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed in our reports filed under the Exchange Act was recorded, processed, summarized and reported within the time periods prescribed by SEC rules and regulations, and that such information was accumulated and communicated to our management to allow timely decisions regarding required disclosure. Accordingly, we believe that the consolidated financial statements included in this Annual Report do fairly present, in all material respects, our financial position, results of operations and cash flows for the periods presented.

Management’s Annual Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. We conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2013. This evaluation included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. Based on our evaluation, we have concluded that our internal control over financial reporting was effective as of December 31, 2024.

Remediation Efforts on Previously Reported Material Weakness

As previously disclosed in Item 9A of our Annual Report on Form 10-K for the year ended December 31, 2023, management concluded that there was a material weakness in our internal control over financial reporting, specifically related to our financial statement close process. In response to the material weakness identified, management developed and implemented a remediation plan to address the underlying causes of the material weakness, which was subject to senior management review and oversight of the audit committee of the Board (the “Audit Committee”).

The remediation plan included the following steps:

- The Company hired experienced finance and accounting executives in the positions of SVP Finance, VP Corporate Controller, and Senior Manager of Financial Reporting and Technical Accounting.
- The Company implemented programs to develop accounting personnel with a level of accounting knowledge and experience in the application of US GAAP commensurate with our financial reporting requirements and the complexity of our operations and transactions, including providing adequate training and supervision to our staff.
- The Company engaged external specialists as needed to provide assistance in accounting for significant, non-routine or complex transactions.
- The Company engaged external consultants to assist the Company in designing, implementing, and monitoring an appropriate system of internal control.

Implementation of the remediation plan described above and the resulting improvements in controls have strengthened our internal control over financial reporting and have addressed the related material weakness that was identified as of December 31, 2023. As part of our assessment of internal control over financial reporting, management tested and evaluated all internal controls to assess whether they were designed and operating effectively as of December 31, 2024. Management determined that its internal controls over financial reporting were designed and operating effectively to prevent and detect a material misstatement due to error or fraud and therefore concluded that the material weakness was remediated.

Changes in Internal Control Over Financial Reporting

Except as described above under “Remediation of Previously Identified Material Weakness”, there was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act), during the year ended December 31, 2024 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None of our directors or officers adopted, modified or terminated a "Rule 10b5-1 trading arrangement" or a "non-rule 10b5-1 trading arrangement," as each item is defined in Item 408(a) of Regulation S-K, during the fourth quarter ended December 31, 2024. None of our directors or officers adopted, modified or terminated a "Rule 10b5-1 trading arrangement" or a "non-rule 10b5-1 trading arrangement," as each item is defined in Item 408(a) of Regulation S-K, during the fourth quarter ended December 31, 2024.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Part III

Item 10. Directors, Executive Officers, and Corporate Governance.

Identification of Directors

The following tables set forth information on our directors as of the filing of this Annual Report on Form 10-K. Our Board of Directors (“Board”) is divided into three separate classes, as nearly equal in number as possible, with one class being elected each year to serve a staggered three year-term. Class I directors are serving until the 2026 Annual Meeting of Stockholders, Class II directors are serving until the 2027 Annual Meeting of Stockholders and Class III directors are serving until the 2025 Annual Meeting of Stockholders.”

Name	Age(*)	Position with D-Wave Quantum	Served as a Director Since	Class
Alan Baratz	70	President, Chief Executive Officer and Director	January 14, 2020	I
Sharon Holt ⁽¹⁾⁽⁴⁾	60	Director	November 22, 2024	I
John DiLullo ⁽²⁾	58	Director	October 28, 2024	II
Rohit Ghai ⁽²⁾⁽³⁾⁽⁴⁾	55	Director	October 28, 2024	II
Steven M. West ^{(1), (3)}	69	Chair	June 29, 2009	III
Kirstjen Nielsen ⁽²⁾⁽³⁾⁽⁴⁾	52	Director	January 10, 2024	III
Roger Biscay ⁽¹⁾	57	Director	August 5, 2022	III

(*) Age as of March 13, 2025.

(1) Member of the Audit Committee.

(2) Member of the Compensation Committee.

(3) Member of the Nominating and Governance Committee.

(4) Member of the Cybersecurity Committee.

Business Experience of Our Directors

Alan Baratz

Dr. Baratz became the CEO of D-Wave Systems in January 2020 and the Company in August 2022. Previously, as Executive Vice President of R&D and Chief Product Officer of D-Wave Systems from August 2018 to December 2019, he drove the development, delivery, and support of all of the company’s products, technologies, and applications. Dr. Baratz also acted as Senior Vice President of Software & Applications of D-Wave Systems from August 2017 to August 2018. He has over 25 years of experience in product development and bringing new products to market at leading technology companies and software startups. As the first president of JavaSoft at Sun Microsystems, Dr. Baratz oversaw the growth and adoption of the Java platform from its infancy to a robust platform supporting mission-critical applications in nearly 80 percent of Fortune 1000 companies. He has also held executive positions at Symphony, Avaya, Cisco, and IBM. He served as CEO and president of Versata, Zaplet, and NeoPath Networks, and as a managing director at Warburg Pincus LLC. Dr. Baratz also served on the board of Versata from 2003 to 2005 and the board of TRW Inc. in 2002. Dr. Baratz holds a doctorate in computer science from the Massachusetts Institute of Technology.

We believe Dr. Baratz is qualified to serve on our Board of Directors because of his extensive knowledge of the Company; past public company board experience; and significant experience in product development and, specifically, bringing new products to market.

Sharon Holt

Ms. Holt is the co-founder and has served as a principal at Fraser Stuart Ventures, LLC, a private investment and advisory firm since February 2016. Since June 2019, she has served as a director on the board of directors of Infinera Corporation (Nasdaq: INFN), an industry-leading supplier of intelligent transport network solutions ("Infinera"). Ms. Holt also serves as the chair of Infinera's compensation committee and previously served as the chair of Infinera's nominating and governance committee. From August 2016 to May 2021, Ms. Holt served on the board of directors of Immersion Corporation (Nasdaq: IMMR), a developer of haptics technology for cellphones and other devices, having served as the chairman of the board, lead independent director, the chair of the nominating and governance committee, the chair of the compensation committee and a member of the audit committee. Since 2012, she has served as an advisor to several technology companies. From 2004 to 2012, Ms. Holt was a senior executive at Rambus Inc., a leading technology development and licensing company, where she served as Senior Vice President of Sales, Licensing and Marketing and Senior Vice President and General Manager of the Semiconductor Business Group. From 1999 to 2004, Ms. Holt served as an executive at Agilent Technologies in the Semiconductor Products Group (now Broadcom), where her last position was Vice President & General Manager of Americas Field Operations, overseeing sales and technical support operations for the semiconductor business, including ASICs, ASSPs, optical and wireless ICs. Prior to that, she ran sales operations focused on Agilent's largest global customers. From 1986 to 1999, Ms. Holt held various positions at HP in Applications Engineering, Sales, and Distribution Channel Management for the Semiconductor Products Group. Ms. Holt received a BS in Electrical Engineering from Virginia Polytechnic Institute and State University (Virginia Tech).

We believe Ms. Holt is qualified to serve on our Board of Directors because of her significant investment, technology, operational, go-to-market and marketing experience, and service as a public company board member.

John DiLullo

Mr. DiLullo has served as the chief executive officer at Deepwatch, a leading managed security platform for cyber resilient enterprises, since July 2024. With a track record spanning more than 30 years in technology, including more than 15 years in networking and cybersecurity, Mr. DiLullo brings leadership expertise in growth and profitability transformation. A long-time customer advocate, Mr. DiLullo is focused on improving a customer's technology adoption experience, championing customer success and ROI, and embracing specialized routes to market for significant growth. Prior to his role at Deepwatch, Mr. DiLullo served as Operating Advisor of STG - Symphony Technology Group (March 2024 - May 2024), Chief Executive Officer of LiveVox Holdings ("LiveVox") (November 2022 - March 2024), Chief Revenue Officer of Forcepoint (January 2021 - October 2022), Operating Partner of Francisco Partners (November 2020 - February 2021), and Chief Executive Officer of Lastline, Inc. (July 2018 - July 2020). Mr. DiLullo has also served in senior executive level positions with F5 Networks, HP/Aruba Networks, Avaya, Cisco Systems, and Sonicwall. Mr. DiLullo has also served as a Board advisor for Tetrate, since 2020 and as a director for LiveVox from November 2022 to January 2024. Mr. DiLullo holds a bachelor's degree in science in electrical engineering from Villanova University.

We believe that Mr. DiLullo is qualified to serve on our Board of Directors due to his significant corporate operational experience, extensive experience in the technology industry, including cybersecurity, and prior public company experience.

Rohit Ghai

Mr. Ghai has served as the chief executive officer of RSA Security ("RSA"), a global leader in identity and access management solutions for security-first organizations, since 2017, and a director of RSA since 2020. Mr. Ghai has experience in both startups and large enterprises, with expertise in digital transformation in highly regulated markets and knowledge across software, systems and security. Mr. Ghai was president of RSA during its tenure as a Dell Technologies business. Prior to that, he served as president of Dell EMC's Enterprise Content Division and held senior engineering and management roles at Symantec, Computer Associates and Cheyenne Software. Mr. Ghai currently serves as a director for Pega Systems (Nasdaq: PEGA) since January 2025 and has also served as a director for Everbridge from January 2023 to July 2024 while it was a public company. Mr. Ghai holds a master's degree in computer science from the University of South Carolina and a bachelor's degree in computer science from the Indian Institute of Technology (IIT), Roorkee.

We believe Mr. Ghai is qualified to serve on our Board of Directors due to his significant corporate operational experience, his expertise across software, systems and cybersecurity, and prior public company experience as a board member.

Steven M. West

Mr. West is a 40-year veteran of the information technology and media marketplace. He is the founder and has been a managing partner of Emerging Company Partners LLC, a technology-consulting firm located in Incline Village, Nevada, since February 2004. Mr. West has held executive leadership positions in both large and early-stage information technology companies located in North America, Asia and Europe. His leadership positions have included CEO of Entera, an Internet content delivery firm (acquired by Blue Coat Systems, Inc.), President and CEO of Hitachi Data Systems in Santa Clara, California and Group Executive of EDS in Plano, Texas. As a partner in Emerging Company Partners LLC, Mr. West has completed consulting engagements with numerous companies specializing in early-stage firms. Mr. West's public board experience includes Cisco Systems from 1996 to 2019. As a board director of Cisco, he was audit committee chair and a member of the finance committee. He also served as a board member of Autodesk from 2008 to 2018 and was a member of the audit committee and chair of their compensation committee. He has also served on the boards of Delta-Q Technologies and Bycast Inc. Currently, Mr. West is a licensed Broadcast Engineer by the Federal Communications Commission. He also is an active member in the Society of Broadcast Engineers (SBE) and the Institute of Electrical and Electronics Engineers (IEEE).

We believe that Mr. West is qualified to serve on our Board of Directors due to his extensive experience leading technology companies and service as a public company board member.

Kirstjen Nielsen

Sec. Nielsen is a seasoned expert in homeland and national security. She has served as President and Founder of Lighthouse Strategies, a national security consultancy focused on emerging technology and emerging threats, since 2019. From 2017 to 2019, Sec. Nielsen served as the sixth Secretary of the U.S. Department of Homeland Security to lead the 240,000 law enforcement, civilian, and military employees of the third largest cabinet agency and oversee development and expenditure of its \$70 billion in total annual budget authority. As an attorney, public servant, successful entrepreneur, subject matter expert, and regular public speaker, she brings over two decades of domestic and international experience in the homeland and national security sectors and has advised governments, private sector companies, international organizations, and NGOs throughout her impressive career. She continues to promote government, nonprofit, and private sector security collaboration. Sec. Nielsen serves on the Board of Advisors for the Global and National Security Institute at the University of South Florida, as a Board Member of the Global Resilience Federation and the National Defense University Foundation Board, and as an Editorial Board member of Homeland Security Today. She has co-chaired working groups on cyber and critical infrastructure security for the bipartisan Homeland Security Experts Group. Sec. Nielsen also sits on the Advisory Boards of several emerging technology companies and charities. She holds a B.S. in Foreign Service from Georgetown University and a J.D. from the University of Virginia School of Law.

We believe Sec. Nielsen is qualified to serve on our Board of Directors because of her significant experience in the homeland and national security sectors and role as a key advisor to governments, private sector companies, international organizations, and NGOs.

Roger Biscay

Mr. Biscay holds over 20 years of diverse leadership experience driving strategy, organizational planning, financial management, and compliance across high-tech public and private companies and non-profit organizations. Mr. Biscay has served as Senior Vice President and Treasurer of Cisco Systems, which designs and sells a broad range of technologies, since April 2017 where his responsibilities include corporate finance, investments, cash management, foreign exchange, risk transfer, safety, security and business resiliency. Mr. Biscay has also served on the board of directors of Wasabi Technologies since August 2021, including as a member of the Audit Committee and Chair of the Nomination, Governance & Sustainability Committee. Mr. Biscay has also held senior financial markets positions in the areas of fixed income, equity capital markets and foreign exchange with major global financial institutions including the Royal Bank of Canada, Banque Paribas and Lehman Brothers in New York, London, Paris and San Francisco. Mr. Biscay is a graduate of the University of San Francisco where he received both his MBA and BS in Finance.

We believe Mr. Biscay is qualified to serve on our Board of Directors because of his significant financial management and organizational planning experience across numerous high-tech companies.

Identification of Executive Officers

Name	Age ^(*)	Current Position
Alan Baratz	70	President, Chief Executive Officer and Director
John M. Markovich	68	Chief Financial Officer
Diane Nguyen	40	General Counsel

*Age as of March 13, 2025

Business Experience of Our Executive Officers

Alan Baratz

See biography on page 71 of this Annual Report on Form 10-K.

John M. Markovich

Mr. Markovich has served as the Company's Chief Financial Officer since August 2022 and previously served as D-Wave Systems' Chief Financial Officer since August 2021. Mr. Markovich is a strategic financial leader with nearly thirty years of executive financial management experience working with rapidly growing private and public technology companies across all stages of development. He has directed the finance, accounting, tax, treasury, M&A, legal, operations, customer service, IR, HR, and IT functions for companies ranging from privately held pre-revenue startups to a NYSE-listed Fortune 500 multi-national company with over \$1.2 billion in annual revenue. During his career, he has negotiated and closed over 150 debt, equity, M&A, and joint venture transactions exceeding \$3.0 billion in value; over a dozen private placements; nearly a dozen M&A transactions; and several international joint ventures. From August 2020 to July 2021, Mr. Markovich had his own consulting firm where he advised early-stage technology companies on various financial and strategic matters. From June 2019 to July 2020, Mr. Markovich served as Chief Financial Officer of XANT, Inc., a privately held SaaS company with an AI-powered sales enablement platform. From August 2016 to May 2019, he served as Chief Financial Officer of OmniGuide Holdings, Inc. a private equity-backed multinational medical device manufacturer. Previously, Mr. Markovich held Chief Financial positions at three public companies including Optical Coating Laboratories, Inc., Tickets.com Inc., and Emcore Corp., and several private technology companies including Auto-By-Tel.com, Inc., Energy Innovations, Inc., Veritone, Inc. and XANT, Inc. Mr. Markovich holds a BS in Business from Miami University and an MBA from the Michigan State Graduate School of Business.

Diane Nguyen

Diane Nguyen has served as the Company's General Counsel and Corporate Secretary since May 1, 2023 and previously served as Vice-President, Legal from July 2021 through April 2023. Ms. Nguyen oversees all legal aspects of D-Wave's day-to-day operations and the proper governance of the company, and leads the Intellectual Property team in the development and protection of D-Wave's world-class patent portfolio. Ms. Nguyen holds over 10 years of broad-based legal experience, including negotiating commercial agreements, corporate governance, business financing, intellectual property, and risk assessment. She joined D-Wave in 2018. From 2012 to 2017, she practiced corporate, commercial and intellectual property law at Morency, Société d'avocats, LLP. She also served on the Board of the BC SPCA. Ms. Nguyen is a member of the bars of British Columbia and Quebec, an Authorized House Counsel with the Florida Bar and is a registered trademark agent. She holds a Master's degree in Business Law from the University of Montreal.

Identification of Certain Significant Employees

Not applicable.

Family Relationships

There are no family relationships among our executive officers and directors.

Other Directorships

The directorships currently held, and held during the past five years, by each of our directors in any company with a class of securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, or subject to Section 15 of such Act or any company registered as an investment company under the Investment Company Act of 1940, as amended, are set forth in Part III, Item 10(a), "Identification of Directors" of this Annual Report on Form 10-K.

Involvement in Certain Legal Proceedings

To the best of our knowledge, none of our directors or executive officers that served during the year ended December 31, 2024 or currently has been involved during the past ten years in any legal proceedings required to be disclosed pursuant to Item 401(f) of Regulation S-K.

Committees of the Board

Audit Committee

The primary purpose of the Audit Committee is to discharge the responsibilities of the Board of Directors with respect to the corporate accounting and financial reporting processes, systems of internal control and financial statement audits, and to oversee the independent registered public accounting firm. Specific responsibilities of the Audit Committee include but are not limited to:

- helping the Board of Directors oversee corporate accounting and financial reporting processes;
- overseeing compliance with legal and regulatory requirements;
- managing the selection, engagement, qualifications, independence and performance of a qualified firm to serve as the independent registered public accounting firm to audit the financial statements;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, the interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing related person transactions;
- obtaining and reviewing a report by the independent registered public accounting firm at least annually that describes internal quality control procedures, any material issues with such procedures and any steps taken to deal with such issues when required by applicable law;
- approving or, as permitted, pre-approving, audit and permissible non-audit services to be performed by the independent registered public accounting firm;
- retaining or terminating independent legal counsel, accounting advisors or any other advisors, consultants or professionals (collectively, the “Audit Advisors”) to assist the Audit Committee in its responsibilities and is directly responsible for overseeing the work of such Audit Advisors; and
- reviewing and advising the Board with respect to the approval of (a) any amendment to or waiver from the Company’s Code of Conduct for the executive officers, directors and senior financial officers and (b) any public disclosure made regarding such change or waiver, and advise the Board with respect to the Company’s policies and procedures regarding compliance with the Company’s Code of Conduct.

The Audit Committee charter is available on our website at <https://ir.dwavesys.com>. Our Audit Committee consists of Roger Biscay, Sharon Holt, and Steven M. West. Our Board of Directors has determined that all members are independent under NYSE listing standards and Rule 10A-3(b)(1) of the Exchange Act. The Chair of the Audit Committee is Roger Biscay. Our Board of Directors has determined that Roger Biscay is an “audit committee financial expert” within the meaning of SEC regulations and NYSE listing standards. Our Board of Directors has also determined that each member of the Audit Committee can read and understand fundamental financial statements, in accordance with applicable requirements, and all members of the Audit Committee are “financially literate” in accordance with NYSE’s listing standards.

The Audit Committee met 8 times in 2024.

Compensation Committee

The primary purpose of the Compensation Committee is to discharge the responsibilities of the Board of Directors in overseeing the compensation policies, plans and programs and to review and determine the compensation to be paid to executive officers and other senior management, as appropriate. To the extent permitted by applicable law, the Compensation Committee may also delegate administrative authority under any incentive compensation, equity-based and retirement and/or pension plans to one or more executive officers consistent with any limitation set forth in the applicable plan. Specific responsibilities of the compensation committee include but are not limited to:

- annually reviewing and approving the compensation of the chief executive officer, other executive officers and senior management, including reviewing and approving compensation increases and promotions for the chief executive officer and other executive officers;
- administering the equity incentive plans and other benefit programs;
- periodically reviewing, adopting, amending and terminating all incentive compensation and equity plans, bonus plans, change-of-control protections and any other compensatory arrangements for the executive officers and other senior management;
- periodically reviewing and establishing general policies relating to compensation and benefits of the employees, including the overall compensation philosophy;
- periodically reviewing and recommending to the Board stock ownership guidelines for the chief executive officer and other executive officers and monitor compliance with such guidelines;
- establishing and periodically reviewing the Company's compensation recoupment, clawback or similar policy allowing or requiring the Company to recoup compensation paid to executive officers and/or other employees and recommend to the Board any changes;
- periodically reviewing and making recommendations to the Board with respect to executive officer and director indemnification and insurance matters; and
- retaining or terminating compensation consultants, independent legal counsel or any other advisors, consultants or professionals (collectively, the "Compensation Advisors") to assist the Compensation Committee in its responsibilities and is directly responsible for overseeing the work of such Compensation Advisors.

Pursuant to the Compensation Committee's charter, which is available on our website at <https://ir.dwavesys.com>, the Compensation Committee has the authority, in its sole discretion, to retain or terminate compensation consultants, independent legal counsel and other advisors to assist in carrying out its responsibilities and is directly responsible for overseeing the work of such advisors.

During 2024, management engaged Compensia, Inc. ("*Compensia*") as its independent compensation consultant. As requested by management, Compensia's services included executive compensation advice.

The Compensation Committee may form and delegate authority under its charter to subcommittees from time to time as it sees fit, provided that the subcommittees are composed entirely of directors who satisfy the applicable independence requirements of the NYSE.

Our Compensation Committee consists of John DiLullo, Rohit Ghai and Kirstjen Nielsen. The Chair of our Compensation Committee is John DiLullo. Our Board of Directors has determined that each member of the Compensation Committee is independent under the NYSE listing standards and a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act.

The Compensation Committee met 5 times in 2024.

Nominating and Governance Committee

The specific responsibilities of our Nominating and Governance Committee include but are not limited to:

- identifying and evaluating candidates, including the nomination of incumbent directors for reelection and nominees recommended by stockholders, to serve on the Board of Directors;
- periodically considering reviewing and making recommendations to the Board of Directors regarding the composition and chairpersons of the committees of the Board of Directors;

- developing, annually reviewing and making recommendations to the Board of Directors regarding corporate governance principles and guidelines and matters, including in relation to corporate social responsibility;
- with the assistance of an independent compensation consultant, periodically reviewing and recommending to the Board of Directors for approval the compensation to be paid to non-executive directors, including the amount and type of compensation;
- periodically reviewing and recommending to the Board of Directors stock ownership guidelines for non-employee directors and monitor compliance with such guidelines; and
- overseeing periodic annual evaluations of the performance of the Board of Directors, including its individual directors and committees.

The Nominating and Governance Committee charter is available on our website at <https://ir.dwavesys.com>. Our Nominating and Governance Committee consists of Rohit Ghai, Kirstjen Nielsen, and Steven M. West. The Chair of the Nominating and Governance Committee is Steven M. West. Our Board of Directors has determined that each member of the Nominating and Governance Committee is independent under NYSE listing standards. The Nominating and Governance Committee has the authority, at its sole discretion, to retain and terminate search firms to identify director candidates, consultants and any other advisors to assist it in carrying out its duties.

The Nominating and Governance Committee met 5 times in 2024.

Procedures for Stockholder Nominations to the Board of Directors

No material changes to the procedures for nominating directors by our stockholders were made since our disclosure in the 2024 definitive proxy statement for our 2024 annual meeting of stockholders filed with the Securities and Exchange Commission on April 23, 2024.

Code of Conduct and Committee Charters

We have adopted a Code of Conduct, applicable to all of the Company's employees, executive officers and directors. The Code of Conduct is available at the investors section of the Company's website at <https://ir.dwavesys.com>. Any amendments to the Code of Conduct, or any waivers of its requirements, are expected to be disclosed on the Company's website to the extent required by applicable rules and exchange requirements. The reference to the Company's website address does not constitute incorporation by reference of the information contained at or available through the Company's website, and you should not consider it to be a part of this proxy statement.

Our Board adopted charters for the Audit Committee, Compensation Committee, and Nominating and Governance Committee of the Board describing the authority and responsibilities delegated to each committee.

We post on our website <https://ir.dwavesys.com> the charters of each of our board committees and our Code of Conduct, and all disclosures that are required by law concerning any amendments or waivers thereto applicable to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions; and any other corporate governance materials contemplated by the NYSE listing requirements and SEC regulations. These documents are also available in print, without charge, to any stockholder requesting a copy in writing from our Secretary at our executive offices set forth in this Annual Report on Form 10-K.

Insider Trading, Anti-Hedging and Anti-Pledging Policies

We have an insider trading policy, which governs the purchase, sale, and other dispositions of our securities by directors, officers and employees, and is designed to promote compliance with insider trading laws, rules and regulations, and the NYSE listing standards. Our insider trading policy prohibits directors, officers and employees, and their designees, from purchasing any financial instruments (including prepaid variable forward contracts, equity swaps, collars and exchange funds) or otherwise engaging in transactions that are designed to or have the effect of hedging or offsetting any decrease in the market value of the Company's equity securities whether they are (1) granted to such individual by the Company as part of his or her compensation; or (2) otherwise held, directly or indirectly, by such individual. The insider trading policy also prohibits directors, officers and employees and their related parties from purchasing Company securities on margin or pledge, or otherwise granting a security interest in, securities of the Company in margin accounts. A copy of our insider trading policy is filed as Exhibit 19.1 to this Form 10-K.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act and the rules of the SEC require our directors, executive officers and persons who own more than 10% of our Common Shares to file reports of their ownership and changes in ownership of our Common Shares with the SEC. As a practical matter, we assist our directors and executive officers by monitoring transactions and completing and filing Section 16 reports on their behalf. Based solely on our review of the reports filed during 2024 and related written representations, we determined that no director, executive officer, or beneficial owner of more than 10% of our Common Shares failed to file a report on a timely basis during 2024, except for one late Form 4 filing filed by the Company on behalf of Sharon Holt to report one transaction, one late Form 4 filing filed by the Public Sector Pension Investment Board ("PSP"), a 10% holder of the Company, filed by PSP to report one transaction, and two late Form 4 filings filed by the Company on behalf of each of Alan Baratz, John Markovich and Diane Nguyen, reporting a total of 3 transactions each.

Item 11. Executive Compensation

Summary Compensation Table

The following table provides the compensation paid to our principal executive officer and other executive officers whose total compensation exceeded \$100,000 for the fiscal years ended December 31, 2024 and 2023 (the “NEOs”).

Name and Principal Position	Year	Salary (\$)	Stock Awards (\$) ⁽¹⁾	Option Awards (\$) ⁽²⁾	Non-Equity Incentive Plan Compensation (\$) ⁽³⁾	All Other Compensation (\$)	Total (\$)
Alan E. Baratz <i>President & Chief Executive Officer, Director</i>	2024	575,000	630,000	—	517,500	—	1,722,500
	2023	575,000	153,900	—	316,250	—	1,045,150
John M. Markovich <i>Chief Financial Officer</i>	2024	430,000	315,000	—	283,360	—	1,028,360
	2023	400,000	102,600	—	179,200	—	681,800
Diane Nguyen <i>General Counsel</i>	2024	310,000	378,000	162,000	151,800	—	1,001,800
	2023	255,000	43,790	—	86,400	—	385,190

- (1) The amounts reported in this column reflect the grant date fair value of restricted share unit awards made under the 2022 Plan to the NEOs listed in this table, computed in accordance with FASB ASC Topic 718 for stock-based compensation transactions. Assumptions used in the calculation of these amounts are included in Note 11 to the accompanying audited consolidated financial statements.
- (2) The amounts reported in this column reflect the grant date fair value of stock option awards made under the 2022 Plan and 2020 Plan to the NEOs, computed in accordance with ASC 718 for stock-based compensation transactions. Assumptions used in the calculation of these amounts are included in Note 11 to the accompanying audited consolidated financial statements. These amounts do not reflect the actual economic value that will be realized by the NEO upon the vesting of the stock options, the exercise of the stock options, or the sale of the Common Shares underlying such stock options.
- (3) For 2024 and 2023, the amounts reported in this column reflect annual cash incentive earned by each NEO determined by the Company’s Compensation Committee.

Policies and Practices Related to the Grant of Certain Equity Awards.

We do not grant equity awards in anticipation of the release of material nonpublic information, and we do not time the release of material nonpublic information based on equity award grant dates or for the purpose of affecting the value of executive compensation. While we do not have a formal policy with respect to the timing of awards of stock options, stock appreciation rights, or similar option-like instruments to our NEOs, historically, including during fiscal 2024, our Compensation Committee has not granted such awards.

Name	Grant date	Number of securities underlying the award	Exercise price of the award (\$/Sh)	Grant date fair value of the award ⁽¹⁾	Percentage change in the closing market price of the securities underlying the award between the trading day ending immediately prior to the disclosure of material nonpublic information and the trading day beginning immediately following the disclosure of material nonpublic information
Alan E. Baratz	—	—	—	—	—
John M. Markovich	—	—	—	—	—
Diane Nguyen	3/27/2024	100,000	\$2.10	\$1.62	(2.5)%

- (1) The amounts reported in this column reflect the grant date fair value of restricted share unit awards made under the 2022 Plan to the NEOs listed in this table, computed in accordance with FASB ASC Topic 718 for stock-based compensation transactions. Assumptions used in the calculation of these amounts are included in Note 11 to the accompanying audited consolidated financial statements.

Outstanding Equity Awards at Fiscal Year End

The following table presents information regarding outstanding equity awards held by our NEOs as of December 31, 2024. All awards were granted pursuant to the 2020 Plan or the 2022 Plan. See the section titled “—Equity Compensation Plan Information – 2020 Plan and 2022 Plan” below for additional information.

Name	Option Awards			Stock Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable ⁽¹⁾	Number of Securities Underlying Unexercised Options (#)		Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$) ⁽⁷⁾
Alan E. Baratz	2,920,208	—		0.91	5/5/2030	843,750	(4) 7,087,500
	213,232	—		0.8455	1/10/2034		
John M. Markovich	1,251,170	250,216	(1)	0.92	8/20/2031	481,250	(5) 4,042,500
	120,826	—		0.8455	1/10/2034		
Diane Nguyen	44,260	—		0.91	5/5/2030	237,171	(6) 1,992,236
	9,118	—		0.91	11/17/2030		
	45,595	7,784	(2)	0.92	8/20/2031		
	58,255	—		0.8455	1/10/2034		
	39,583	60,417	(3)	2.10	3/27/2034		

(1) The remaining portion of the option vests in equal monthly installments on the 20th of each month through August 20, 2025.

(2) The remaining portion of the option vests in equal monthly installments on the 16th of each month through July 16, 2025.

(3) The remaining portion of the option vests in equal monthly installments on the 1st of each month through May 1, 2027.

(4) Of the 843,750 unvested restricted share units, 375,000 vest on October 27, 2025 and 168,750 vest in equal quarterly installments ending on March 27, 2027. Of the remaining 300,000 restricted share units, 25% vest on March 27, 2025, with the remainder vesting in equal quarterly installments ending on March 27, 2028.

(5) Of the 481,250 unvested restricted share units, 218,750 vest on October 27, 2025 and 112,500 vest in equal quarterly installments ending on March 27, 2027. Of the remaining 150,000 restricted share units, 25% vest on March 27, 2025, with the remainder vesting in equal quarterly installments ending on March 27, 2028.

(6) Of the 237,171 unvested restricted share units, 46,656 vest on October 13, 2025 and 48,015 vest in equal quarterly installments ending on March 27, 2027. A further 62,500 restricted share units vest in equal quarterly installments ending on May 1, 2027. Of the remaining 80,000 restricted share units, 25% vest on March 27, 2025, with the remainder vesting in equal quarterly installments ending on March 27, 2028.

(7) The market value of these shares is based on the closing price of D-Wave Quantum, Inc. Common Shares on December 31, 2024 (\$8.40 per share).

Employment Arrangements with Named Executive Officers

Alan E. Baratz. In January 2020, D-Wave Commercial Inc. (“*D-Wave Commercial*”), a wholly-owned subsidiary of D-Wave, entered into an amended and restated employment agreement with Dr. Baratz which governs the current terms of his employment as D-Wave’s President and Chief Executive Officer. Dr. Baratz is eligible to participate in our management bonus plan, with a target bonus percentage of 50% of his base salary, based on achievement of corporate objectives under our corporate bonus plan and personal objectives set by our Board of Directors. For 2021, D-Wave Systems’ bonus plan achievement was based on objectives directed at providing stockholder value, with elements including product and technology development, financial metrics and customer sales, and taking into account both individual and company-wide performance. Dr. Baratz is also eligible to participate in D-Wave’s standard employee benefit plans and programs for D-Wave’s US-based employees, and is entitled to reimbursement of up to \$7,500 per year for reasonable tax accounting expenses. Dr. Baratz’s employment agreement also provided for a grant of options, which are no longer outstanding as a result of the D-Wave Systems 2020 recapitalization. Pursuant to his employment agreement, if Dr. Baratz’s employment is terminated by D-Wave Commercial without cause, he is entitled to receive 12 months’ base salary as a severance payment. In addition, pursuant to Dr. Baratz’s option award agreements, (i) in the event of a change in control (as defined in the 2020 Plan), the portion of the option that is scheduled to vest in the immediately succeeding 24 months shall immediately vest, and the vesting date for the remaining unvested tranches of each outstanding option shall accelerate by 24 months, and (ii) in the event of his termination by D-Wave Systems without cause within the 12 month period following a change in control, the remaining unvested portion of his outstanding options shall fully vest. The completion of the Merger constituted a change in control for purposes of the 2020 Plan. The restrictive covenants in Dr. Baratz’s employment agreement include confidentiality, invention assignment and a one-year non-solicitation of employees.

On October 27, 2022, D-Wave Commercial and Dr. Baratz entered into an amendment (the “*Amendment*”) to the amended and restated employment agreement discussed above, to reflect updates to Dr. Baratz’s compensation arrangements as approved by the Board of Directors upon the recommendation of the Compensation Committee of the Board of Directors. Pursuant to the Amendment, D-Wave increased Dr. Baratz’s annual base salary to \$575,000 per annum, effective as of September 1, 2022, and granted Dr. Baratz’s eligibility to participate in the D-Wave 2022 Bonus Plan and any future performance-based bonus plans that apply to D-Wave’s Chief Executive Officer. Effective as of September 1, 2022, Dr. Baratz’s on-target bonus under the D-Wave 2022 Bonus Plan is 100% of Dr. Baratz’s base salary, based on achievement of the corporate objectives under the plan, and personal objectives set by the Board of Directors. Certain changes were also made to the termination provisions of the amended and restated employment agreement to provide that, upon a termination without cause, D-Wave will provide twelve months’ base salary as a lump sum payment, twelve months base salary continuance, or a combination of the two, plus a lump sum target bonus payment, which will be equal to 100% of base salary, subject to certain conditions. In addition, subsequent to the close of the Merger, on October 27, 2022, Dr. Baratz was awarded a Long-Term Retention Award of 1,500,000 restricted stock units (“*RSUs*”), of which 50% vested on the first anniversary of the grant date, with the remainder vesting in two, equal annual tranches over the remaining two years of the three-year vesting period. On October 27, 2022, Dr. Baratz was also awarded a Special Recognition Award of 1,000,000 RSUs, of which 50% vested on the first anniversary of the grant date and 50% vested on the second anniversary of the grant date. As part of the Company’s 2023 annual equity refresh program, Dr. Baratz was issued a grant of 300,000 RSUs, effective March 27, 2023, of which 25% of these RSUs vested on the first anniversary of the grant date on March 27, 2024, with the remaining RSUs vesting in twelve, equal quarterly installments through March 27, 2027. Pursuant to these RSU award agreements, in the event of Dr. Baratz’s termination without cause, the portion of the award that would have vested in the next 12 months will vest immediately. On October 23, 2023, Dr. Baratz acknowledged and accepted the Company’s Clawback Policy (as defined below under “*Clawback Policy*”). In consideration of this acknowledgement, the Company offered, and Dr. Baratz accepted, to have all stock option award agreements previously entered into between Dr. Baratz and the Company, as well as all future stock option award agreements, amended to amend the exercise period applicable after the termination of his employment with D-Wave Commercial from a 90-day period to a one-year period after the termination date. On January 10, 2024, as payment of Dr. Baratz’s bonus under the D-Wave 2022 Bonus Plan for the year ended December 31, 2023, Dr. Baratz was awarded 213,232 stock options at an exercise price of \$0.846 and 170,469 RSUs. Both grants were issued as fully vested as of the date of the grants. As part of the Company’s 2024 annual equity refresh program, Dr. Baratz was issued a grant of 300,000 RSUs, effective March 27, 2024, of which 25% of these RSUs vest on the first anniversary of the grant date on March 27, 2025, with the remaining RSUs vesting in twelve, equal quarterly installments through March 27, 2028. On February 14, 2025, as payment of Dr. Baratz’s bonus under the D-Wave 2022 Bonus Plan for the year ended December 31, 2024, Dr. Baratz received \$517,500.

John M. Markovich. In August 2021, D-Wave Commercial entered into an employment agreement with Mr. Markovich which governs the current terms of his employment as D-Wave's Chief Financial Officer, as amended in September 2022 and April 1, 2024. Mr. Markovich's annual base salary for 2024 was \$400,000, and was increased to \$440,000, effective April 1, 2024. Mr. Markovich is eligible to participate in any bonus plan that may be established for executive officers, with a target bonus percentage of 70% (effective September 1, 2022) of base salary, based on achievement of corporate objectives under our corporate bonus plan and personal objectives set by our Chief Executive Officer. For 2022, D-Wave's bonus plan achievement was based on objectives directed at providing stockholder value, with elements including product and technology development, financial metrics and customer sales, and taking into account both individual and company-wide performance. Mr. Markovich's employment agreement provides for a grant of 1,687,602 options (pursuant to the 2020 Plan), with vesting terms as described above in the Outstanding Equity Awards Table. In addition, subsequent to the close of the Merger, on October 27, 2022, Mr. Markovich was awarded an equity award of 875,000 RSUs, of which 50% vested on the first anniversary of the grant date, with the remainder vesting in two, equal annual tranches over the remaining two years of the three-year vesting period. As part of the Company's annual equity refresh program, Mr. Markovich was issued a grant of 200,000 RSUs effective March 27, 2023, of which 25% of these RSUs vested on the first anniversary of the grant date on March 27, 2024, and the remaining RSUs vesting in twelve, equal quarterly installments through March 27, 2027. Mr. Markovich is eligible to participate in D-Wave's standard employee benefit plans and programs for D-Wave's U.S.-based employees. Pursuant to his employment agreement, if Mr. Markovich's employment is terminated by D-Wave without cause (as defined in his employment agreement), he is entitled to receive 12 months' base salary as a severance payment. In addition, pursuant to Mr. Markovich's equity award agreements, in the event of his termination by D-Wave without cause within the 12-month period following a change in control, the portion of his outstanding equity that would have vested in the next 24 months shall fully vest. On October 23, 2023, Mr. Markovich acknowledged and accepted the Company's Clawback Policy. In consideration of this acknowledgement, the Company offered, and Mr. Markovich accepted, to have all stock option award agreements previously entered into between Mr. Markovich and the Company, as well as all future stock option award agreements, amended to amend the exercise period applicable after the termination of his employment with D-Wave Commercial from a 90-day period to a one-year period after the termination date. On January 10, 2024, as payment of Mr. Markovich's bonus under the D-Wave 2022 Bonus Plan for the year ended December 31, 2023, Mr. Markovich was awarded 120,826 stock options and 96,661 RSUs. Both grants were issued as fully vested as of the date of the grants. The restrictive covenants in Mr. Markovich's employment agreement include confidentiality, invention assignment and a one-year non-solicitation of employees. As part of the Company's 2024 annual equity refresh program, Mr. Markovich was issued a grant of 150,000 RSUs, effective March 27, 2024, of which 25% of these RSUs vest on the first anniversary of the grant date on March 27, 2025, with the remaining RSUs vesting in twelve, equal quarterly installments through March 27, 2028. On February 14, 2025, as payment of Mr. Markovich's bonus under the D-Wave 2022 Bonus Plan for the year ended December 31, 2024, Mr. Markovich received \$283,360. As part of the Company's 2025 annual equity refresh program, Mr. Markovich was issued a grant of 430,360 RSUs, effective March 6, 2025, vesting in sixteen, equal quarterly installments through March 6, 2029.

Diane Nguyen. In June 2018, D-Wave Systems entered into an employment agreement with Ms. Nguyen which was subsequently terminated in March 2022 when Ms. Nguyen was transferred to D-Wave Systems' affiliate, D-Wave Commercial, with which she entered into a subsequent employment agreement. This employment agreement was subsequently amended on September 20, 2022 and on July 10, 2023 in connection with her promotion to General Counsel. On April 17, 2024, Ms. Nguyen entered into an additional amendment to her employment agreement. Ms. Nguyen's annual base salary for 2024 was \$270,000 and was increased to \$330,000 effective April 1, 2024. Ms. Nguyen was eligible to participate in any bonus plan established for executive officers, with a target bonus percentage of 30% of base salary, based on the achievement of corporate objectives under our corporate bonus plan and personal objectives set by our Chief Executive Officer, until April 30, 2023. On May 1, 2023, Ms. Nguyen became eligible to participate in the new D-Wave Annual Incentive Plan (the "AIP") and any performance-based incentive plan in a future year that applies to permanent full-time employees of the Company who are at the level of SVP. Ms. Nguyen's on-target bonus under the AIP is 50% of her base salary pro-rated, based on achievement of the corporate objectives under the AIP and personal objectives as set by the CEO in relation to the AIP. For 2023, D-Wave's bonus achievement was based on individual and company-wide performance. Ms. Nguyen's employment agreement provided for a grant of options, which are no longer outstanding as a result of the D-Wave Systems 2020 recapitalization. In addition, subsequent to the close of the Merger, on October 13, 2022, Ms. Nguyen was awarded an equity award of 186,624 RSUs, of which 50% vested on the first anniversary of the grant date, with the remainder vesting in two, equal annual tranches over the remaining two years of the three-year vesting period. As part of the Company's annual equity refresh program, Ms. Nguyen was issued a grant of 85,360 RSUs effective March 27, 2023, of which 25% of these RSUs vest on the first anniversary of the grant date on March 27, 2024, and the remaining RSUs vesting in twelve, equal quarterly installments through March 27, 2027. Ms. Nguyen is eligible to participate in D-Wave's standard employee benefit plans and programs for D-Wave's US-based employees. Pursuant to her employment agreement, if Ms. Nguyen's employment is terminated by D-Wave without cause (as defined in her employment agreement), she is entitled to receive 6 months' base salary as a severance payment. In addition, pursuant to Ms. Nguyen's equity award agreements, in the event of her termination by D-Wave without cause within the 12-month period following a change in control, the portion of her outstanding equity that would have vested in the next 12 months shall fully vest. On October 23, 2023, Ms. Nguyen acknowledged and accepted the Company's Clawback Policy. In consideration of this acknowledgement, the Company offered, and Ms. Nguyen accepted, to have all stock option award agreements previously entered into between Ms. Nguyen and the Company, as well as all future stock option award agreements, amended to amend the exercise period applicable after the termination of her employment with D-Wave Commercial from a 90-day period to a one-year period after the termination date. On January 10, 2024, as payment of Ms. Nguyen's bonus under the D-Wave 2022 Bonus Plan for the year ended December 31, 2023, Ms. Nguyen was awarded 58,255 stock options at an exercise price of \$0.846 and 46,604 RSUs. Both grants were issued as fully vested as of the date of the grants. The restrictive covenants in Ms. Nguyen's employment agreement include confidentiality, invention assignment and a one-year non-solicitation of employees. As part of the Company's 2024 annual equity refresh program, Ms. Nguyen was issued a grant of 80,000 RSUs, effective March 27, 2024, of which 25% vest of these RSUs on the first anniversary of the grant date on March 27, 2025, with the remaining RSUs vesting in twelve, equal quarterly installments through March 27, 2028. Also on March 27, 2024, Ms. Nguyen was issued a special award consisting of 100,000 RSUs and 100,000 options. The RSU award vested 25% on May 1, 2024, with the remaining RSUs vesting in twelve equal quarterly installments through May 1, 2027. The option award vested 25% on May 1, 2024, with the remaining options vesting in thirty-six equal monthly installments through May 1, 2027. On February 14, 2025, as payment of Ms. Nguyen's bonus under the D-Wave 2022 Bonus Plan for the year ended December 31, 2024, Mr. Nguyen received \$151,800. As part of the Company's 2025 annual equity refresh program, Ms. Nguyen was issued a grant of 101,721 RSUs, effective March 6, 2025, vesting in sixteen, equal quarterly installments through March 6, 2029.

Health and Welfare and Retirement Benefits; Perquisites

Each of the executive officers is eligible to participate in D-Wave's employee benefit plans offered in their respective country of employment, including medical, dental, vision, disability and life insurance plans, in each case on the same basis as all of D-Wave's other full-time employees. D-Wave generally does not provide perquisites or personal benefits to its NEOs, except in limited circumstances, and except for annual tax preparation assistance provided to Dr. Baratz (described above), it did not provide any perquisites or personal benefits to its NEOs in 2024.

Eligible US-based employees, including D-Wave's U.S.-based executive officers, are eligible to participate in a defined contribution retirement plan that provides such employees with an opportunity to save for retirement on a tax advantaged basis. Eligible US-based employees may defer eligible compensation on a pre-tax or after-tax (Roth) basis, up to the statutorily prescribed annual limits on contributions under the Internal Revenue Code (the "Code"). Contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. D-Wave currently does not make any matching contributions into the 401(k) plan on behalf of participants. Participants are always vested in their contributions to the plan. The 401(k) plan is intended to be qualified under Section 401(a) of the Code with the 401(k) plan's related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan (except for Roth contributions) and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan. D-Wave currently does not offer a retirement savings plan structure to any of its Canada-based employees.

Non-Employee Director Compensation

The annual director compensation is determined by the Board of Directors of the Company at its first meeting following each annual meeting of stockholders and covers the period starting from such annual meeting and ending at the next annual meeting. Unless a director is restricted from receiving any director compensation, our director compensation policy provides that each of our non-employee directors receives an annual cash retainer of \$35,000, with our Chair of the Board of Directors, and the chairs of our Audit Committee, Compensation Committee and Cybersecurity Committee each also receiving an additional annual cash retainer of \$30,000, \$20,000, \$15,000 and \$15,000 respectively. In addition, each member of the Audit Committee, Compensation Committee, Nominating & Governance Committee and Cybersecurity Committee, other than the chair of each such committee, receives an additional annual cash retainer of \$8,000. We do not pay any meeting attendance fees. The annual cash retainer is paid to each eligible director in four equal quarterly installments. Each of our eligible non-employee directors also receives an annual equity-based grant of RSUs valued at \$140,000 (computed based on a trailing average share price), which generally vests annually. The value of grants to new directors are prorated according to the number of days served during their initial annual term. New eligible non-employee directors also receive an initial grant of 7,500 RSUs, which will vest on May 31, 2025. During 2024, D-Wave granted equity to its eligible non-employee directors as described below, such grants vesting on May 31 2025. Vesting is subject to continued service on the Board of Directors through the relevant vesting date. Commencing with compensation earned in respect of service following our Annual Meeting, our eligible non-employee directors will be permitted to elect to receive RSUs in lieu of cash compensation.

The following table sets forth information concerning the compensation of D-Wave's non-employee directors for the year ended December 31, 2024.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)⁽¹⁾	All Other Compensation (\$)	Total (\$)
Kirstjen Nielsen ⁽²⁾	43,420	187,676	—	231,096
Steven M. West	54,750	127,951	—	182,701
Roger Biscay	41,250	127,951	—	169,201
John D. DiLullo	—	90,516	—	90,516
Rohit Ghai	—	90,516	—	90,516
Sharon Holt	—	178,961	—	178,961
Ziv Ehrenfeld ⁽³⁾	—	—	—	—
Phillip Adam Smalley III ⁽³⁾	—	—	—	—
Emil Michael ⁽³⁾	39,000	127,951	—	166,951
Amy Cappellanti-Wolf ⁽³⁾	37,500	127,951	—	165,451

(1) RSUs awarded and vest 100% on May 31, 2025. Grant date fair value calculated in accordance with FASB ASC 718.

(2) Stock awards include \$59,725 arising from a prorated award pertaining to the previous annual term.

(3) Resigned prior to December 31, 2024, thereby forfeiting unvested stock awards.

The table below shows for each non-employee director who was serving, and held outstanding equity awards, as of December 31, 2024, the aggregate number of equity awards held by each such non-employee director as of such date.

Name	Shares Underlying Options Outstanding at Fiscal Year End (#)	Stock Awards Outstanding at Fiscal Year End (#) (1)
Kirstjen Nielsen	—	106,626
Steven M. West	311,973	106,626
Roger Biscay	—	106,626
John D. DiLullo	—	87,035
Rohit Ghai	—	87,035
Sharon Holt	—	61,079
Ziv Ehrenfeld ⁽²⁾	—	—
Philip Adam Smalley III ⁽²⁾	—	—
Amy Cappellanti-Wolf ⁽²⁾	—	—
Emil Michael ⁽²⁾	—	—

(1) RSUs awarded and vest 100% on May 31, 2025.

(2) Resigned prior to December 31, 2024, thereby forfeiting unvested stock awards.

The Board of Directors and Nominating and Governance Committee expect to review director compensation periodically to ensure that director compensation remains competitive such that D-Wave is able to recruit and retain qualified directors.

Clawback Policy

The Board adopted a clawback policy (the “Clawback Policy”) in compliance with NYSE requirements. In general, the Clawback Policy requires the Company to recover, in a reasonably prompt manner, covered compensation erroneously awarded to a covered officer in the event of an accounting restatement, without regard to any taxes paid. “Erroneously Awarded Compensation” is generally the amount of incentive-based compensation received by the covered officer, during an applicable three fiscal year recovery period immediately preceding an accounting restatement trigger date (but on or after October 2, 2023), that exceeds the amount of incentive-based compensation that otherwise would have been received during such period had it been determined based on the relevant restated amounts. “Incentive-Based Compensation” is generally compensation that is granted, earned, or vested based wholly or in part upon the attainment of a financial reporting measure, and “financial reporting measure” includes stock price and total shareholder return. “Accounting Restatement” means any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

Under the Clawback Policy, the Company generally is not required to recover such excess compensation if the Compensation Committee has made a determination that recovery would be impracticable and (i) the Company has already attempted to recover such amount but the direct expense paid to a third party to assist in enforcing the Clawback Policy would exceed the amount to be recovered, (ii) recovery would violate applicable home country law that was adopted prior to November 28, 2022, or (iii) recovery would likely cause an otherwise tax-qualified retirement plan to fail to meet the requirements of the Internal Revenue Code of 1986, as amended (the “Internal Revenue Code” or “Code”). The Company may not indemnify any such covered officer against the loss of such recovered compensation.

Recovery of Erroneously Awarded Compensation

On January 30, 2024, the Audit Committee of the Board of Directors of the Company, after discussions with the Company's management and its current and former independent registered public accounting firms, determined that the Company's (i) audited financial statements included in the Company's Annual Reports on Form 10-K for the periods ended December 31, 2022, 2021, and 2020 (the "Audited Financial Statements"), filed with the SEC on April 18, 2023 and (ii) unaudited financial statements included in each of the Company's Quarterly Reports on Form 10-Q for the periods ending September 30, 2023, June 30, 2023, and March 31, 2023 (the "unaudited Financial Statements," and together with the Audited Financial Statements, the "Financial Statements"), filed with the SEC on November 9, 2023, August 10, 2023, and May 10, 2023, respectively, as well as the Registration Statements on Forms S-1 and S-4 (Registration Nos. 333-269732, 333-267126, 333-267124 and 333-263573) initially filed with the SEC on February 13, 2023, August 29, 2022, August 29, 2022, and March 15, 2022, respectively which include the Financial Statements (collectively, the "Affected Periods"), as well as the relevant portions of any communication which describe or are based on the Financial Statements, should no longer be relied upon. The Company has restated the Financial Statements for the Affected periods in amendments to the Form 10-K, the Q1 2023 Form 10-Q, the Q2 2023 Form 10-Q, and the Q3 2023 Form 10-Q, respectively (collectively, the "2023 Restatement"). The 2023 Restatement mainly impacts non-cash and non-operating components of other income (expense) and net loss on the consolidated statements of operations and research incentives receivable and loans payable on the consolidated balance sheets. The 2023 Restatement does not affect any of the Company's key business metrics or compliance with any financial covenants.

The 2023 Restatement does not have any impact on management's or other employees' compensation, as incentive compensation plans were based on the attainment of certain operating metrics and operational goals unaffected by the adjustments. Accordingly, the Company concluded that recovery of erroneously awarded compensation was not required pursuant to the Clawback Policy.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Beneficial Security Ownership Table

The following sets forth the beneficial ownership of the Company's Common Shares as of March 12, 2025 by:

- each person who is known to be the beneficial owner of more than 5% of the outstanding Common Shares;
- each of the Company's current named executive officers, directors and director nominees; and
- all current executive officers and directors of the Company as a group.

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security, including options and warrants that are currently exercisable or exercisable within 60 days of March 12, 2025.

The beneficial ownership of the Company is based on 291,348,324 Common Shares issued and outstanding as of March 12, 2025. In computing the number of Common Shares beneficially owned by a person and the percentage ownership of such person, all Common Shares issuable pursuant to (i) Warrants, (ii) D-Wave Options and (iii) D-Wave Warrants, in each case that are currently exercisable or exercisable within 60 days of March 12, 2025, are included. However, such shares are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. Other than Warrants, D-Wave Options and D-Wave Warrants exercisable within 60 days of March 12, 2025 by a particular holder, which are reflected as described above, the beneficial ownership information below assumes no exercises of such securities.

Unless otherwise indicated, we believe that all persons named in the table below have sole voting and investment power with respect to all Common Shares beneficially owned by them. To our knowledge, no Common Shares beneficially owned by any executive officer or director have been pledged as security.

The beneficial ownership information below excludes Common Shares reserved for issuance under the 2022 Plan or the ESPP, any Common Shares that may be sold under the Purchase Agreement subsequent to March 12, 2025, assumes that all Exchangeable Shares in the capital of D-Wave Quantum Technologies have been exchanged for Common Shares and assumes no exercise of the underwriters' option to purchase additional Common Shares.

Beneficial Owner	Number of Shares Beneficially Owned	Beneficial Ownership Percentage
<i>Directors and Executive Officers of D-Wave Quantum⁽¹⁾</i>		
Alan Baratz ⁽²⁾	4,725,648	1.6%
John M. Markovich ⁽²⁾	2,130,410	*
Diane Nguyen ⁽²⁾	457,711	*
Steven M. West ⁽³⁾	441,329	*
Roger Biscay	112,196	*
Kirstjen Nielsen	70,431	*
Rohit Ghai	—	*
John DiLullo	—	*
Sharon Holt	—	*
All Directors and Executive Officers of D-Wave Quantum as a Group (10 individuals)⁽²⁾	7,937,725	2.7%

* Less than one percent.

(1) Unless otherwise noted, the business address of each of the following entities or individuals is D-Wave Quantum Inc., 3033 Beta Avenue, Burnaby, British Columbia V5G 4M9, Canada.

(2) Includes Common Shares underlying D-Wave Options.

(3) Includes Common Shares held by Emerging Company Partners LLC, an entity controlled by Steven M. West and Common Shares underlying D-Wave Options.

Equity Compensation Plan Information

Equity-based compensation has been and will continue to be an important foundation in executive compensation packages as D-Wave believes it is important to maintain a strong link between executive incentives and the creation of stockholder value. D-Wave believes that performance and equity-based compensation can be an important component of the total executive compensation package for maximizing stockholder value while, at the same time, attracting, motivating and retaining high-quality executives. Following the Merger, the 2022 Plan, which is described below, became an important element of our compensation arrangements for our executives and directors. Our executives (including our NEOs) are also eligible to participate in the ESPP described below. Prior to the Merger, D-Wave Systems granted equity-based compensation pursuant to its 2020 Plan, described below.

2022 Equity Incentive Plan ("2022 Plan")

The following summary describes the material terms of the 2022 Plan, which was adopted by the Company in connection with the Merger.

Administration. The Compensation Committee of our Board of Directors (or subcommittee thereof) administers the 2022 Plan. The Compensation Committee has the authority to determine the terms and conditions of any agreements evidencing any awards granted under the 2022 Plan and to adopt, alter and repeal rules, guidelines and practices relating to the 2022 Plan. The Compensation Committee has full discretion to administer and interpret the 2022 Plan and to adopt such rules, regulations and procedures as it deems necessary or advisable and to determine, among other things, the time or times at which the awards may be exercised and whether and under what circumstances an award may be exercised.

Eligibility. Any current or prospective employees, directors, officers, consultants or advisors of the Company who are selected by the compensation committee are eligible for awards under the 2022 Plan. The Compensation Committee has the sole and complete authority to determine who will be granted an award under the 2022 Plan.

Number of Shares Authorized. Pursuant to the 2022 Plan, we have reserved 16,965,849 Common Shares for issuance of awards to be granted thereunder, subject to an annual increase on January 1st of each year for a period of ten years commencing on January 1, 2023 and ending on (and including) January 1, 2032, in an amount equal to the lesser of (a) 5% of the fully-diluted number of Common Shares outstanding on December 31st of the immediately preceding calendar year (inclusive of the share reserve under the ESPP and the 2022 Plan (or any successor to either of the foregoing)) and (b) such smaller number of shares as is determined by our Board of Directors (the "*Share Pool*"). The number of shares that may be issued with respect to incentive stock options under the 2022 Plan is equal to three times the number of shares initially reserved in the Share Pool. The maximum grant date fair value of cash and equity awards that may be awarded to a non-employee director under the 2022 Plan during any one fiscal year, taken together with any cash fees paid to such non-employee director during such fiscal year, in respect of service as a member of the Board of Directors during such year will be \$750,000 (or, \$1,000,000 in the event such non-employee director is first appointed or elected to the Board of Directors during such fiscal year); provided that the foregoing limitation shall not apply to compensation approved by the other non-employee members of the Board of Directors to be provided to a non-employee member of the Board of Directors in respect of their service as an employee or consultant (including as an interim officer). Shares may be issued in connection with a merger or acquisition as permitted by, as applicable, the NYSE and its applicable rules and guidance, and such issuance will not reduce the number of shares available for issuance under the 2022 Plan. The following actions do not reduce the number of shares available for issuance under the 2022 Plan: (1) the expiration or termination of any portion of an award without the shares covered by such portion of the award having been issued, (2) the settlement of any portion of an award in cash, (3) the withholding of shares that would otherwise be issued by the Company to satisfy the exercise, strike or purchase price of an award; or (4) the withholding of shares that would otherwise be issued by the Company to satisfy a tax withholding obligation in connection with an award. The following shares will be added back and again become available for issuance under the 2022 Plan: (1) any shares that are forfeited back to or repurchased by the Company because of a failure to meet a contingency or condition required for the vesting of such shares; (2) any shares that are reacquired by the Company to satisfy the exercise, strike or purchase price of an award; and (3) any shares that are reacquired by the Company to satisfy a tax withholding obligation in connection with an award.

Change in Capitalization. If there is a change in our capitalization in the event of a stock or extraordinary cash dividend, recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, split-off, spin-off, combination, repurchase or exchange of Common Shares or other relevant change in capitalization (including a change in control, as defined in 2022 Plan) or applicable law or circumstances, such that the Compensation Committee determines that an adjustment to the terms of the 2022 Plan (or awards thereunder) is necessary or appropriate, then the Compensation Committee shall make adjustments in a manner that it deems equitable, including by: (i) adjusting the number of shares reserved for issuance under the 2022 Plan, the number of shares covered by awards then outstanding under the 2022 Plan, the limitations on awards under the 2022 Plan, the exercise price of outstanding options, the strike price of outstanding stock appreciation rights or any applicable performance measures or criteria; (ii) providing for a substitution or assumption of awards under the 2022 Plan; (iii) accelerating the delivery, vesting and/or exercisability of, lapse of restrictions and/or other conditions on, or termination of, awards under the 2022 Plan; (iv) providing for a period of time not exceeding ten (10) days for the exercise of awards under the 2022 Plan prior to the occurrence of such event; (v) cancelling any awards under the 2022 Plan in exchange for consideration equal to value of the underlying award; or (vi) such other equitable substitution or adjustments as the compensation committee may determine appropriate.

Awards Available for Grant. The Compensation Committee may grant awards of nonqualified stock options, incentive (qualified) stock options, stock appreciation rights (“SARs”), restricted stock awards, RSUs, other stock-based awards, other cash-based awards, deferred awards or any combination of the foregoing. Awards may be granted under the 2022 Plan in assumption of, or in substitution for, outstanding awards previously granted by an entity acquired by the Company or with which the Company combines, which are referred to herein as “Substitute Awards.”

Stock Options. The Compensation Committee is authorized to grant options to purchase Common Shares that are either “qualified,” meaning they are intended to satisfy the requirements of Section 422 of the Code for incentive stock options, or “nonqualified,” meaning they are not intended to satisfy the requirements of Section 422 of the Code. All options granted under the 2022 Plan shall be nonqualified unless the applicable award agreement expressly states that the option is intended to be an incentive stock option. Options granted under the 2022 Plan will be subject to the terms and conditions established by the Compensation Committee. Under the terms of the 2022 Plan, the exercise price of the options will not be less than the fair market value (or 110% of the fair market value in the case of a qualified option granted to a 10% shareholder) of our Common Shares at the time of grant (except with respect to Substitute Awards). Options granted under the 2022 Plan will be subject to such terms, including the exercise price and the conditions and timing of exercise, as may be determined by the Compensation Committee and specified in the applicable award agreement. The maximum term of an option granted under the 2022 Plan will be 10 years from the date of grant (or five years in the case of a qualified option granted to a 10% shareholder), provided that if the term of a nonqualified option would expire at a time when trading in Common Shares is prohibited by the Company’s insider trading policy, the option’s term may be extended automatically until the 30th day following the expiration of such prohibition (as long as such extension shall not violate Section 409A of the Code). Payment in respect of the exercise of an option may be made in cash, by check, by cash equivalent, or by such other method as the compensation committee may permit in its sole discretion, including: (i) by delivery of other property (including previously owned shares that are not subject to any pledge or other security interest) having a fair market value equal to the exercise price and all applicable required withholding taxes; (ii) if there is a public market for Common Shares at such time, by means of a broker-assisted cashless exercise mechanism; or (iii) by means of a “net exercise” procedure effected by withholding the minimum number of shares otherwise deliverable in respect of an option that are needed to pay the exercise price and all applicable required withholding taxes, based upon the fair market value of the withheld shares on the date of exercise. In all events of cashless or net exercise, any fractional Common Shares will be settled in cash.

Stock Appreciation Rights. The Compensation Committee is authorized to award SARs under the 2022 Plan. SARs will be subject to the terms and conditions established by the Compensation Committee. A SAR is a contractual right that allows a participant to receive, in the form of either cash, shares or any combination of cash and shares, the appreciation, if any, in the value of a share over a certain period of time. An option granted under the 2022 Plan may include SARs, and SARs may also be awarded to a participant independent of the grant of an option. SARs granted in connection with an option shall be subject to terms similar to the option corresponding to such SARs, including with respect to vesting and expiration. Except as otherwise provided by the Compensation Committee (in the case of Substitute Awards or SARs granted in tandem with previously granted options), the strike price per Common Share underlying each SAR shall not be less than 100% of the fair market value of such share, determined as of the date of grant and the maximum term of a SAR granted under the 2022 Plan will be 10 years from the date of grant; provided that if the term of a SAR would expire at a time when trading in Common Shares is prohibited by the Company’s insider trading policy, the SAR’s term may be extended automatically until the 30th day following the expiration of such prohibition (as long as such extension shall not violate Section 409A of the Code).

Restricted Stock. The Compensation Committee is authorized to grant restricted stock under the 2022 Plan, which will be subject to the terms and conditions established by the Compensation Committee. Restricted stock is Common Shares that are generally non-transferable and are subject to other restrictions determined by the Compensation Committee for a specified period. Any accumulated dividends will be payable at the same time that the underlying restricted stock vests.

Restricted Stock Unit Awards. The Compensation Committee is authorized to grant RSU awards, which will be subject to the terms and conditions established by the Compensation Committee. An RSU award, once vested, may be settled in a number of our Common Shares equal to the number of units earned, in cash equal to the fair market value of the number of Common Shares earned in respect of such RSU award or in a combination of the foregoing, at the election of the Compensation Committee. RSUs may be settled at the expiration of the period over which the units are to be earned or at a later date selected by the Compensation Committee. To the extent provided in an award agreement, the holder of outstanding RSUs shall be entitled to be credited with dividend equivalent payments upon the payment by us of dividends on Common Shares, which accumulated dividend equivalents shall be payable at the same time that the underlying RSUs are settled.

Other Stock-Based Awards and Other Cash-Based Awards. The Compensation Committee is authorized to grant awards of unrestricted shares of Common Shares, rights to receive grants of awards at a future date, other awards denominated in Common Shares, or awards that provide for cash payments based in whole or in part on the value of Common Shares under such terms and conditions as the Compensation Committee may determine and as set forth in the applicable award agreement.

Deferred Awards. The Compensation Committee is authorized, subject to limitations under applicable law, to grant to participants deferred awards, which may be a right to receive shares or cash under the 2022 Plan (either independently or as an element of or supplement to any other award under the 2022 Plan), including, as may be required by any applicable law or regulations or determined by the Compensation Committee, in lieu of any annual bonus, commission or retainer that may be payable to a participant under any applicable, bonus, commission or retainer plan or arrangement, under such terms and conditions as the Compensation Committee may determine and as set forth in the applicable award agreement.

Effect of a Change in Control. The following provisions shall apply only in the case an award agreement specifically provided that they will apply. Unless otherwise provided in an award agreement, or any applicable employment, consulting, change in control, severance or other agreement between us and a participant, in the event of a change in control (as defined in the 2022 Plan): (i) if the acquirer or successor company in such change in control has agreed to provide for the substitution, assumption, exchange or other continuation of awards, then, if the participant's employment with or service to the Company is terminated by the Company without cause (and other than due to death or disability) on or within 12 months following a change in control, then unless otherwise provided by the Committee, all options and SARs held by such participant shall become immediately exercisable with respect to 100% of the shares subject to such options and SARs, and the restricted period (and any other conditions) shall expire immediately with respect to 100% of the shares of restricted stock and RSUs and any other awards (other than another cash-based award) held by such participant (including a waiver of any applicable performance conditions); provided that if the vesting or exercisability of any award would otherwise be subject to the achievement of performance conditions, the portion of such award that shall become fully vested and immediately exercisable shall be based on the assumed achievement of actual or target performance as determined by the Compensation Committee; (ii) if the acquirer or successor company in such change in control has not agreed to provide for the substitution, assumption, exchange or other continuation of awards, then unless otherwise provided by the Compensation Committee, all options and SARs held by such participant shall become immediately exercisable with respect to 100% of the shares subject to such options and SARs, and the restricted period (and any other conditions) shall expire immediately with respect to 100% of the shares of restricted stock and RSUs and any other awards (other than another cash-based award) held by such participant (including a waiver of any applicable performance conditions); provided that if the vesting or exercisability of any award would otherwise be subject to the achievement of performance conditions, the portion of such award that shall become fully vested and immediately exercisable shall be based on the assumed achievement of actual or target performance as determined by the compensation committee; and (iii) in addition, the Compensation Committee may upon at least ten (10) days' advance notice to the affected participants, cancel any outstanding award and pay to the holders thereof, in cash, securities or other property (including of the acquiring or successor company), or any combination thereof, the value of such awards based upon the price per share received or to be received by other stockholders of the Company in the event (it being understood that any option or SAR having a per-share exercise or hurdle price equal to, or in excess of, the fair market value (as of the date specified by the compensation committee) of a share subject thereto may be canceled and terminated without any payment or consideration therefor).

Nontransferability. Each award may be exercised during the participant's lifetime by the participant or, if permissible under applicable law, by the participant's guardian or legal representative. No award may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by a participant other than by will or by the laws of descent and distribution unless the Compensation Committee permits the award to be transferred to a permitted transferee (as defined in the 2022 Plan).

Amendment. The 2022 Plan will have a term of 10 years. The Board of Directors may amend, suspend or terminate the 2022 Plan at any time, subject to shareholder approval if necessary to comply with any tax, exchange rules, or other applicable regulatory requirement. No amendment, suspension or termination will materially and adversely affect the rights of any participant or recipient of any award without the consent of the participant or recipient. The Compensation Committee may, to the extent consistent with the terms of any applicable award agreement, waive any conditions or rights under, amend any terms of, or alter, suspend, discontinue, cancel or terminate, any award theretofore granted or the associated award agreement, prospectively or retroactively; provided that any such waiver, amendment, alteration, suspension, discontinuance, cancellation or termination that would materially and adversely affect the rights of any participant with respect to any award theretofore granted will not to that extent be effective without the consent of the affected participant. Unless otherwise required by applicable law, no shareholder approval will be required for any of the following amendments: (i) reducing the exercise price of any option or the strike price of any SAR; (ii) cancelling any outstanding option and replacing it with a new option (with a lower exercise price) or cancelling any SAR and replacing with a new SAR (with a lower strike price) or, in each case, with another award or cash in a manner that would be treated as a repricing (for compensation disclosure or accounting purposes); (iii) taking any other action considered a repricing for purposes of the shareholder approval rules of the applicable securities exchange on which our Common Shares are listed; and (iv) cancelling any outstanding option or SAR that has a per-share exercise price or strike price (as applicable) at or above the fair market value of a Common Share on the date of cancellation and paying any consideration to the holder thereof.

Clawback/Forfeiture. Awards may be subject to clawback or forfeiture to the extent (i) the participant engaged in or engages in activity that is in conflict with or adverse to the interests of the Company, including fraud or conduct contributing to any financial restatements or irregularities; (ii) the participant violates a non-competition, non-solicitation, non-disparagement or non-disclosure covenant or agreement with the Company; (iii) the participant is terminated for Cause (as defined in the 2022 Plan); (iv) required by applicable law (including, without limitation, Section 304 of the Sarbanes-Oxley Act and Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act) and/or the rules and regulations of NYSE or other applicable securities exchange; or (v) if so required pursuant to a written policy adopted by the Company or the provisions of an award agreement. In addition, the Compensation Committee will have full authority to implement any policies and procedures necessary to comply with Section 10D of the Exchange Act and any rules promulgated thereunder and any other regulatory regimes.

2022 Employee Stock Purchase Plan ("ESPP")

The following summary describes the material terms of the ESPP, which was adopted by the Company in connection with the Merger.

Administration. The Compensation Committee of our Board of Directors (or any person or institution selected by the Compensation Committee) will administer the ESPP. The ESPP is implemented through a series of offerings under which eligible employees are granted purchase rights to purchase Common Shares on specified dates during such offerings. Under the ESPP, the plan administrator has full discretion to administer and interpret the ESPP and to adopt such rules, regulations and procedures as it deems necessary or advisable and to determine, among other things, the duration, frequency, start date and end dates of offering periods. The ESPP includes two components: a 423 Component and a Non-423 Component. The Company intends that the 423 Component will qualify as options issued under an "employee stock purchase plan" as that term is defined in Section 423(b) of the Code. Except as otherwise provided in the ESPP or determined by our Board of Directors, the Non-423 Component will operate and be administered in the same manner as the 423 Component.

Eligibility. Generally, all regular employees, including executive officers, employed by the Company or one of the Company's designated subsidiaries, will be eligible to participate in the ESPP and may contribute, normally through payroll deductions, an aggregate amount equal to their contribution for the purchase Common Shares under the ESPP. Unless otherwise determined by the plan administrator, Common Shares will be purchased for the accounts of employees participating in the ESPP at a price per share equal to not less than the lesser of (i) 85% of the fair market value of a Common Share on the first trading date of an offering or (ii) 85% of the fair market value of a Common Share on the date of purchase. The administrator may impose different eligibility requirements with respect to the Non-423 Component.

Number of Shares Authorized. Pursuant to the ESPP, we have reserved 8,036,455 Common Shares, subject to an annual increase on January 1st of each year for a period of ten years commencing on January 1, 2023 and ending on (and including) January 1, 2032, in an amount equal to the lesser of (a) 1% of the fully-diluted number of Common Shares outstanding on December 31st of the immediately preceding calendar year (inclusive of the share reserve under the ESPP and the 2022 Plan (or any successor to either of the foregoing)), (b) 1,607,291 shares and (c) such smaller number of shares as is determined by our board of directors. For the avoidance of doubt, up to the maximum number of shares reserve under the ESPP may be used to satisfy purchases of shares under the 423 Component of the ESPP and any remaining portion may be used to satisfy purchases of shares under the Non-423 Component.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the 423 Component of the ESPP, as determined by the plan administrator, including: (i) being customarily employed for more than 20 hours per week; (ii) being customarily employed for more than five months per calendar year; or (iii) classified as an employee for tax purposes. No employee will be eligible for the grant of any purchase rights under the 423 Component of the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our capital stock measured by vote or value pursuant to Section 424(d) of the Code.

Changes to Capital Structure. In the event that there occurs a change in the Company's capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar equity restructuring transactions, the plan administrator will make appropriate adjustments to (i) the class(es) and maximum number of shares reserved under the ESPP, (ii) the class(es) and maximum number of shares by which the share reserve may increase automatically each year, (iii) the class(es) and maximum number of shares and purchase price applicable to all outstanding offerings and purchase rights and (iv) the class(es) and number of shares that are subject to purchase limits under ongoing offerings.

Corporate Transactions. In the event of a corporate transaction, as defined in the ESPP, any then-outstanding rights to purchase shares under the ESPP may be assumed, continued or substituted by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute such purchase rights, then each offering period in progress will be shortened and a new purchase date will be set by the Compensation Committee, and such purchase rights will terminate immediately.

ESPP Amendment or Termination. Our Board of Directors has the authority to amend or terminate the ESPP, provided that, except in certain circumstances, such amendment or termination may not materially and adversely affect any outstanding purchase rights without the holder's consent. The Company must obtain shareholder approval of any amendment to the ESPP to the extent required by applicable law or listing rules.

2020 Equity Incentive Plan ("2020 Plan")

The following summary describes the material terms of the 2020 Plan, which was adopted by the D-Wave Systems board of directors in 2020.

Purpose. The purpose of the 2020 Plan was to provide eligible participants an opportunity from time to time to acquire a proprietary interest in D-Wave Systems and to develop the interest of eligible participants in the growth and development of D-Wave Systems, providing an incentive to eligible participants to further the success of D-Wave Systems, attracting and retaining eligible participants, and rewarding eligible participants with the benefits associated with having a proprietary interest in D-Wave Systems. Employees, officers, directors and consultants of D-Wave Systems or its affiliates were eligible to participate in the 2020 Plan to the extent approved by the Compensation Committee of D-Wave or the Board of Directors of D-Wave.

Administration. The 2020 Plan is administered by the Board of Directors or the Compensation Committee. The Board of Directors or the Compensation Committee may issue rules and regulations for administration of the 2020 Plan. The Board of Directors or Compensation Committee, as applicable, has the authority to implement and carry out the 2020 Plan, including without limitation, the authority to determine the participants to whom awards will be granted; determine the type or types of awards to be granted under the 2020 Plan; determine the number of shares to be issuable pursuant to (or with respect to which payments, rights or other matters are to be calculated in connection with) awards; determine the terms and conditions of any award, determine whether, to what extent and under what circumstances awards may be settled or exercised in cash, shares, other awards, other property, net settlement, cashless exercise, broker-assisted cashless exercise or any combination thereof, or cancelled, forfeited or suspended, and the method or methods by which awards may be settled, exercised, cancelled, forfeited or suspended; determine whether, to what extent and under what circumstances cash, shares, other awards, other property and other amounts payable with respect to an award under the 2020 Plan shall be deferred either automatically or at the election of the holder thereof or of the Compensation Committee; interpret and administer the 2020 Plan; establish, amend, suspend or waive such rules and regulations and appoint such agents as it shall deem appropriate for the proper administration of the 2020 Plan; grant waivers, amend or modify an award, and correct any defect or reconcile any inconsistency with the 2020 Plan or an award; and make any other determination and take any other action that the Compensation Committee deems necessary or desirable for the administration of the 2020 Plan.

Grants of Awards. The Board of Directors may, at any time, subject to the terms of the 2020 Plan, grant to a participant an award or awards in respect of the number of shares the Board of Directors determines and the Board may specify the grant date, exercise price, vesting timing and conditions, expiration date and such other terms and conditions of the award. The exercise price per share purchasable under an award is determined by the Board of Directors at the time of grant, provided, that, except in the case of substitute awards, such exercise price shall not be less than the fair market value of a share on the date of grant of such award.

Share Reserve. Subject to adjustments for changes in capitalization, the maximum number of shares available for grant under the 2020 Plan and all other plans of a similar nature will not exceed 15% of the aggregate D-Wave Systems shares, on a fully diluted basis. If an award expires, terminates, is surrendered, is cancelled or otherwise becomes unexercisable without having been exercised in full (a “Surrendering Event”), such shares will be available for future grant, the maximum number of shares that may be issued upon the exercise of awards as well as the maximum number of shares that may be issued upon the exercise of incentive stock options will not exceed 15% of the aggregate D-Wave Systems shares, on a fully diluted basis on the date of adoption of the plan, plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any shares that become available for issuance under the 2020 Plan as a result of a Surrendering Event. Any shares delivered pursuant to an award may consist, in whole or in part, of authorized and unissued shares or shares acquired by D-Wave Systems.

Options. The term of an option may be determined by the Board of Directors, but in any event, subject to accelerated termination of an option and other early termination as provided for in the 2020 Plan or an award agreement, each option will expire on the earlier of the expiration date; and the tenth anniversary of the date that the shares become publicly listed for trading on a securities exchange, provided that the Board of Directors may (but shall not be required to) provide in an award agreement for an extension of the expiration date of the award in the event the exercise of the option would be prohibited by law at the time of expiration pursuant to the terms of the award agreement or this

Vesting and Exercise. Each option will vest in accordance with the vesting schedule as determined by the Board of Directors. The Board of Directors has the discretion to accelerate the date upon which any portion of any option may vest. The consideration to be paid for the shares to be issued upon exercise of an option, including the method of payment, shall be determined by the Compensation Committee. Such consideration may be paid by: (i) cash or certified check or combination thereof; (ii) net settlement or broker-assisted cashless exercise; or (iii) to the extent expressly permitted by the Compensation Committee, (A) except for an award holder that is resident in Canada, other shares which have a fair market value on the date of surrender equal to the aggregate exercise price of the shares as to which said option shall be exercised; or (B) such other consideration and method of payment for the issuance of shares to the extent permitted by applicable laws. Following the Merger, each option previously granted under the 2020 plan became exercisable for 0.8896570 Common Shares.

Share Appreciation Rights (“SARs”). The exercise price or hurdle price per share under a SAR shall be determined by the Compensation Committee; provided, however, that, except in the case of substitute awards, such exercise price or hurdle price shall not be less than the fair market value of a share on the date of grant of such SAR. The term of each SAR shall be fixed by the Compensation Committee but shall not exceed 10 years from the date of grant of such SAR. The Compensation Committee shall determine the time or times at which a SAR may vest and/or be exercised or settled in whole or in part. The Compensation Committee may specify in an award agreement that an “in-the-money” SAR shall be automatically exercised on its expiration date.

Restricted Shares. D-Wave may grant restricted shares in such number and at such times as the Committee may, in its sole discretion, determine, as a bonus or similar payment in respect of services rendered by the participant for a fiscal year of D-Wave or otherwise as compensation, including as an incentive for future performance by the participant. The award agreement for awards of restricted shares shall specify the vesting schedule; the exercise price, which, to the extent required by applicable law, will not be less than the par value of a share; the consideration permissible for the payment of the purchase price of the restricted shares, which shall be satisfied in one of the following ways: (i) in cash at the time of purchase; (ii) by services rendered or to be rendered to D-Wave; or (iii) in any other form of legal consideration that may be acceptable to the Board of Directors; and transferability. Restricted shares shall be subject to such restrictions as the Compensation Committee may impose (including any limitation on the right to vote a share of restricted shares or the right to receive any dividend, dividend equivalent or other right), which restrictions may lapse separately or in combination at such time or times, in such installments or otherwise, as the Compensation Committee may deem appropriate.

Restricted Share Units. The Compensation Committee may grant RSUs in such number and at such times as the Compensation Committee may, in its sole discretion, determine, as a bonus or similar payment in respect of services rendered by a participant for a fiscal year of D-Wave or otherwise as compensation, including as an incentive for future performance by a participant. The award agreement shall specify the vesting schedule and the delivery schedule (which may include deferred delivery later than the vesting date). RSUs shall be subject to such restrictions as the Compensation Committee may impose, which restrictions may lapse separately or in combination at such time or times, in such installments or otherwise, as the Compensation Committee may deem appropriate. Dividend equivalents may be credited in respect of RSUs, as the Compensation Committee deems appropriate. Such dividend equivalents may be converted into additional RSUs by dividing (1) the aggregate amount or value of the dividends paid with respect to that number of shares equal to the number of RSUs then credited by (2) the fair market value per share on the payment date for such dividend. The additional RSUs credited by reason of such dividend equivalents will be subject to all the terms and conditions of the underlying RSUs to which they relate. A director that is not an employee and is subject to Canadian taxation shall not be entitled to receive RSUs.

Performance Awards. The Compensation Committee is authorized to grant performance awards in such number and at such times as the Compensation Committee may, in its sole discretion, determine, as a bonus or similar payment in respect of services rendered by the participant for a fiscal year of D-Wave or otherwise as compensation, including as an incentive for future performance by the participant. Performance awards may be denominated as a cash amount, number of shares or a combination thereof and are awards which may be earned upon achievement or satisfaction of performance conditions specified by the Compensation Committee. In addition, the Compensation Committee may specify that any other award shall constitute a performance award by conditioning the right of an award holder to exercise the award or have it settled or vest, and the timing thereof, upon achievement or satisfaction of such performance conditions as may be specified by the Compensation Committee. The Compensation Committee may use such business criteria and other measures of performance as it may deem appropriate in establishing any performance conditions. Subject to the terms of the 2020 Plan, the performance goals to be achieved during any performance period, the length of any performance period, the termination provisions, the amount of any performance award granted and the amount of any payment or transfer to be made pursuant to any performance award shall be determined by the Compensation Committee. Performance awards will be settled only after the end of the relevant performance period. The Compensation Committee shall specify the circumstances in which, and the extent to which, performance awards shall be paid or forfeited in the event of an award holder's termination.

Other Share-Based Awards. The Compensation Committee is authorized, subject to limitations under applicable law, to grant to participants such other awards that may be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, shares or factors that may influence the value of shares, including convertible or exchangeable debt securities, other rights convertible or exchangeable into shares, purchase rights for shares, awards with value and payment contingent upon performance of D-Wave or business units thereof or any other factors designated by the Compensation Committee. The Compensation Committee shall determine the terms and conditions of such awards. shares delivered pursuant to an award in the nature of a purchase right granted shall be purchased for such consideration, paid for at such times, by such methods and in such forms, including cash, shares, other awards, other property, or any combination thereof, as the Compensation Committee shall determine. Cash awards, as an element of or supplement to any other award under the 2020 Plan, may also be granted.

Treatment on Termination. If an award holder's employment or service as a director or a consultant terminates for any reason, voluntarily or involuntarily, any part of an award that has not vested will immediately cease vesting on the termination date and the award holder will not be entitled to any compensation in respect of any part of an award that has not vested. In the case of employees: upon termination of their employment for cause, the award will expire immediately; upon termination of their employment generally for any other reason other than death, any vested but unexercised part of the award may be exercised until the earlier of ninety (90) days following the termination date and the date its term expires, as applicable; upon termination of employment due to death, any vested but unexercised part of an award may be exercised until the earlier of one hundred eighty (180) days following the termination date and the date its term expires. In the case of directors: if the director ceases to hold office due to removal in accordance with section 129 of the Business Corporations Act (British Columbia) ("BCBCA") or due to becoming otherwise disqualified to hold office as a director, the award will expire immediately upon the termination date; otherwise if the director ceases to hold office as a director for any other, all non-vested awards will expire upon the termination date and any vested but unexercised part of the award may be exercised until the earlier of 90 days (180 days in the case of death or disability) following the date the award holder ceases to be a director and the date its term expires, as applicable. If a participant's services as a consultant are terminated for any reason, all non-vested awards will expire upon the termination date and any vested but unexercised part of the award may be exercised until the earlier of 90 days following the termination date and the date its term expires.

Transferability. In general, awards are not transferable or assignable, and may not be made subject to any other alienation, sale, pledge, hypothecation, disposal, encumbrance, execution, attachment or similar process, otherwise than by will or by the operation of laws. During the lifetime of the award holder, an award is exercisable only by the award holder, and any elections with respect to an award, may be made only by the award holder.

Adjustments Upon Changes in Capitalization, Amalgamation, Dissolution, etc. The number of shares subject to an outstanding award, and the number of shares which have been authorized and reserved for issuance under the 2020 Plan but as to which no awards have yet been granted or which have been returned to the 2020 Plan upon cancellation or expiration of an award, as well as the exercise price for each such outstanding award, will be proportionately adjusted for any increase or decrease in the number of issued shares resulting from a share split, reverse share split, share dividend, recapitalization, reorganization, subdivision, consolidation, combination or reclassification of the shares, or any other increase or decrease in the number of issued shares effected without receipt of consideration by D-Wave, and if the adjustment would result in fractional number of shares, the number of shares will be rounded down to the nearest whole number. In the event of an amalgamation or merger of D-Wave Systems with or into any other company or companies (other than an amalgamation or merger with a wholly-owned subsidiary or a transaction in which there is no substantial change in shareholders of D-Wave Systems) or the sale of all or substantially all of the assets of D-Wave Systems (and the right to do so is hereby expressly reserved), whether by way of statutory amalgamation, plan of arrangement, sale of assets and undertaking, or otherwise howsoever, then the successor corporation may assume, convert, replace or substitute any or all outstanding awards, which assumption, conversion, replacement or substitution will be binding on the holder of the award, with (i) equivalent awards or (ii) substantially similar consideration to the holder of the award as was provided to shareholders of D-Wave Systems (after taking into account the existing provisions, restrictions and terms of the award). In the event that the successor corporation refuses to assume, convert, replace or substitute an award, the award will fully vest and D-Wave Systems will notify the holder of the award in writing in advance of the amalgamation, merger or sale that the award will be fully exercisable for a period of fifteen (15) days from the date of such notice, and the award will terminate upon the expiration of such period. To the extent it has not been previously exercised, an award will terminate immediately prior to the consummation of the dissolution or liquidation of D-Wave Systems. In the event of the proposed dissolution or liquidation of D-Wave Systems, D-Wave Systems will notify each award holder as soon as practicable prior to the effective date of such proposed transaction. The D-Wave Systems board of directors, in its sole discretion, may provide for an award holder to have the right to exercise his or her award until fifteen (15) days prior to such transaction as to all of the shares covered by the award, including shares as to which the award would not otherwise be exercisable.

Amendment and Termination. The Board of Directors shall have the power to, at any time and from time to time, either prospectively or retrospectively, and without shareholder approval, amend, suspend or terminate the 2020 Plan or any award granted under the 2020 Plan; provided however that: (i) such amendment, suspension or termination is in accordance with applicable laws and the rules of any securities exchange on which the shares are listed; (ii) no such amendment, suspension or termination shall be made at any time to the extent such action would adversely affect the existing rights of an award holder with respect to any then outstanding award held by such award holder, as determined by the Board of Directors acting in good faith, without the award holder's consent; and (iii) the Board of Directors shall obtain shareholder approval of the following: (x) such approval as may be required pursuant to D-Wave Systems' organizational documents and applicable law, including securities laws and the rules and policies of a securities exchange upon which the shares of D-Wave are listed; and (y) any amendment that would reduce the exercise price or hurdle price of an outstanding award (other than as provided above). If the 2020 Plan is terminated, the provisions of the 2020 Plan and any administrative guidelines and other rules and regulations adopted by the Board of Directors and in force on the date of termination will continue in effect as long as any award or any rights pursuant thereto remain outstanding and, notwithstanding the termination of the 2020 Plan, the Board of Directors shall remain able to make such amendments to the 2020 Plan or the award as they would have been entitled to make if the 2020 Plan were still in effect. The 2020 Plan is scheduled to terminate on April 14, 2030. The termination of the 2020 Plan will have no effect on outstanding awards, which will continue in effect in accordance with their terms and conditions and the terms and conditions of the 2020 Plan and award agreements.

The following table gives information as of December 31, 2024, with respect to the company's compensation plans, under which equity securities are authorized for issuance.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders	19,953,376 ⁽¹⁾	1.67	17,853,094 ⁽²⁾
Equity compensation plans not approved by security holders	—	—	—
Total	19,953,376	\$ 1.67	17,853,094

⁽¹⁾ Consists of 8,968,638 RSUs granted under the 2022 Plan and 10,984,738 stock options granted under the 2022 Plan and 2020 Plan.

⁽²⁾ Includes 7,388,177 available for issuance under the 2022 Plan and 10,464,917 available for issuance under the ESPP.

Item 13. Certain Relationships and Related Transactions and Director Independence

Related Party Transactions Policy

Our Board of Directors maintains a written related person transactions policy that sets forth the Company's policies and procedures regarding the identification, review, consideration and oversight of "related person transactions." For purposes of the Company's policy only, a "related person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which the Company or any of its subsidiaries was, is or will be a participant involving an amount that exceeds \$120,000, in which any "related person" has or will have a direct or indirect interest.

Under the policy, prior to entering into any related person transaction, (i) the related person, (ii) the director, executive officer, nominee or beneficial owner who is an immediate family member of the related person or (iii) the business unit or function/department head responsible for the potential related person transaction shall provide notice to the Company's legal department of the facts and circumstances of the proposed related person transaction. The legal department will assess whether the proposed transaction is a related person transaction for purposes of the policy. If the legal department determines that the proposed transaction is a related person transaction for purposes of the policy, the proposed related person transaction shall be submitted to the Audit Committee for consideration at the next Audit Committee meeting. Any potential related person transaction involving the Company's General Counsel (or, in the absence of a General Counsel, the senior most member of the legal department) shall be submitted directly to the Audit Committee for its review. In considering related person transactions, the Audit Committee, or where submitted to the Chair of the Audit Committee, the Chair, will take into account the relevant available facts and circumstances, which may include, but are not limited to:

- the benefits to the Company;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity in which a director is a partner, shareholder or executive officer;
- the availability of other sources for comparable products or services;
- the terms of the transaction; and
- the terms available to unrelated third parties or to employees generally.

The Audit Committee (or the Chair of the Audit Committee) will approve only those transactions that are in, or are not inconsistent with, the best interests of the Company, as the Audit Committee (or the Chair of the Audit Committee) determines in good faith. All of the transactions described below were entered into prior to the adoption of such policy.

Related Party Transactions

DPCM Founder Shares

As of immediately prior to the Merger, there were 7,500,000 Founder Shares issued and outstanding, 7,252,500 of which were held by the Sponsor and the remaining 247,500 Founder Shares were held by other Initial Stockholders. Immediately prior to Closing, the Sponsor forfeited 4,484,425 of its 7,252,500 Founder Shares, as a result of which, upon Closing and as a result of the Merger, the remaining 3,015,575 Founder Shares were converted into 3,015,575 Common Shares on a one for one basis. The Initial Stockholders, subject to limited exceptions, agreed not to transfer, assign or sell any of the Common Shares received in exchange for their Founder Shares until August 5, 2023, the date that is one year after the completion of the Merger.

On August 22, 2023, the Sponsor distributed the Private Warrants to its members on a pro rata basis.

Registration Rights and Lock-Up Agreement

At the Closing, the Registration Rights Holders, pursuant to the Plan of Arrangement, became parties to the Registration Rights and Lock-Up Agreement, pursuant to which, among other things, the Company is obligated to file a registration statement to register the resale of certain equity securities of the Company held by the Registration Rights Holders. The Registration Rights and Lock-Up Agreement also provides the Registration Rights Holders with demand registration rights and "piggy-back" registration rights, in each case, subject to certain requirements and customary conditions. Subject to certain exceptions, the Registration Rights and Lock-Up Agreement further provides for the securities of the Company held by the Registration Rights Holders to be locked-up for a period of time.

Below is a description of transactions since January 1, 2023 to which the Company was a party, in which:

- the amounts involved exceeded or will exceed \$120,000; and

- any of the Company's current directors, executive officers or holders of more than 5% of the Company's capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

Promissory Notes

On February 28, 2022, an affiliate of DPCM entered into an unsecured promissory note of up to \$1.0 million with the Sponsor (the "*Affiliate Note*"). The purpose of the Affiliate Note was to provide DPCM with additional working capital. All amounts drawn on the Affiliate Note were provided directly to DPCM. The Affiliate Note was not convertible and bore no interest. The principal balance of the Affiliate Note was originally due and payable upon the earlier of the date on which DPCM consummates its initial business combination, or the date that the winding up of DPCM is effective.

In connection with the Merger, the Affiliate Note was assumed by the Company. Pursuant to the Affiliate Note's most recent amendment, effective as of February 24, 2023, the principal balance was payable in four equal installments on April 30, 2023, June 30, 2023, August 31, 2023, and October 31, 2023. As of December 31, 2023, the Affiliate Note had been repaid in full.

On April 13, 2022, DPCM entered into an unsecured promissory note of up to \$1.0 million with the Sponsor (the "*DPCM Note*"). The purpose of the DPCM Note was to provide DPCM with additional working capital. All amounts drawn on the DPCM Note were provided directly to DPCM. In connection with the Merger, the DPCM Note was assumed by the Company. The DPCM Note was not convertible and bore no interest. Pursuant to the DPCM Note's most recent amendment, effective as of February 22, 2023, the principal balance was payable in four equal installments of \$55,000 each on April 30, 2023, June 30, 2023, August 31, 2023, and October 31, 2023. As of December 31, 2023, the DPCM Note had been repaid in full.

The execution of the amended and restated Affiliate Note and the amended and restated DPCM Note were related party transactions as these notes were payable to affiliates of the Company.

Loan and Security Agreement

On April 13, 2023 (the "*Loan Closing Date*"), the Company, as borrower, and certain Company's subsidiaries as Guarantors (as defined in the Loan Agreement) (collectively, the "*Loan Parties*"), entered into a \$50 million Loan and Security Agreement with PSPIB, as lender and collateral agent (the "*Term Loan*"). The first two tranches of the Term Loan, each amounting to \$15.0 million in principal, were advanced to D-Wave on April 14, 2023 and July 13, 2023, respectively. The third tranche, amounting to \$20.0 million in principal, had not yet been advanced and remained subject to certain terms and conditions.

The Term Loan was secured by a first-priority security interest in substantially all of the Loan Parties' assets, contains certain operational and financial covenants, and was set to mature on March 31, 2027.

Each advance under the Term Loan was subject to a 2.0% drawdown fee and bore interest on a monthly basis, at the discretion of the Company, at either (i) 10% payable in cash, or (ii) 11% payable in kind.

Upon the repayment or prepayment of all or a portion of the Term Loan, there was a premium payment due that was equal to 3% of the amount of the Term Loan repaid/prepaid prior to the first anniversary of the Loan Closing Date, 2% of the amount of the Term Loan repaid/prepaid after the first anniversary of the Loan Closing Date and on or prior to the second anniversary of the Loan Closing Date, 1% of the amount of the Term Loan repaid/prepaid after the second anniversary of the Loan Closing Date but on or prior to the third anniversary of the Loan Closing Date, with no premium payment due after the third anniversary of the Loan Closing Date.

As of October 22, 2024, the Company had repaid the entire the Term Loan, including \$30.0 million in principal, \$4.5 million in interest and \$0.7 million in prepayment fees.

Executive Officer and Director Compensation

Please see the section titled "Executive and Director Compensation" for information regarding the compensation of our directors and executive officers.

Employment Agreements

The Company has entered into agreements with our executive officers that, among other things, provide for certain compensatory and change of control benefits, as well as severance benefits. For a description of these agreements with our named executive officers, see the section titled "Executive and Director Compensation—Employment Arrangements with Named Executive Officers."

Indemnification Agreements

The Company's Amended and Restated Certificate of Incorporation contains provisions limiting the liability of executive officers and directors and the Company's Amended and Restated Bylaws provides that the Company will indemnify each of its executive officers and directors to the fullest extent permitted under Delaware law. The Company's Amended and Restated Certificate of Incorporation and its Amended and Restated Bylaws also provide the Board of Directors with discretion to indemnify certain key employees when determined appropriate by the Company's Board of Directors.

The Company entered into indemnification agreements with each of its officers and directors to indemnify such individuals, to the fullest extent permitted by law and subject to certain limitations, against all liabilities, costs, charges and expenses reasonably incurred by such individuals in an action or proceeding to which any such individual was made a party by reason of being an officer or director of the Company or an organization of which the Company is a shareholder or creditor if such individual serves such organization at the Company's request.

Director Independence

Our Board of Directors has undertaken a review of the independence of each director. Based on information provided by each director concerning their background, employment and affiliations, our Board of Directors has determined that Sharon Holt, John DiLullo, Rohit Ghai, Steven M. West, Kirstjen Nielsen and Roger Biscay do not have any relationships that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of the individuals is "independent" as defined under the NYSE listing standards. John DiLullo was identified as director candidate by a third party search firm. In making the determination of independence for Mr. DiLullo, the Board considered Mr. DiLullo's acquaintance with our CEO, Alan Baratz, who he has known for over 15 years and with whom he has socialized with outside a professional setting on a few occasions. The Board evaluated this relationship and concluded that it does not impair Mr. DiLullo's ability to act independently. In making the determinations for the other independent directors, our Board of Directors considered the current and prior relationships that each individual has with the Company and all other facts and circumstances our Board of Directors deemed relevant in determining their independence, including the beneficial ownership of securities of the Company by each non-employee director and the transactions described in the section titled "*Certain Relationships and Related Person Transactions.*" There are no family relationships among any of our directors, director nominees or executive officers.

Item 14. Principal Accountant Fees and Services

On June 7, 2023, PricewaterhouseCoopers LLP (Canada) ("PwC") notified the Company of its decision to decline to stand for re-election as the independent registered public accounting firm of the Company. Although PwC declined to stand for re-election, it maintained its relationship with the Company for the review of the Company's Quarterly Report on Form 10-Q for the quarterly period ending June 30, 2023 (the "10-Q"). On August 10, 2023, the Company filed the 10-Q. As a result, PwC's term as the Company's independent registered public accounting firm ended.

PwC's reports on the financial statements for the fiscal years ended December 31, 2022 and 2021 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles, except that PwC's report for the fiscal years ended December 31, 2022 and 2021 contained a separate paragraph that stated the Company has incurred net losses and negative cash flows from operating activities and has a negative working capital that raise substantial doubt about the Company's ability to continue as a going concern. During the fiscal years ended December 31, 2022 and 2021, and in the subsequent interim period through August 10, 2023, there were no disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which if not resolved to PwC's satisfaction, would have caused PwC to make reference to the subject matter of the disagreement in connection with PwC's report. Aside from the identification of a material weakness in the Company's internal controls over financial reporting during the fiscal year ended December 31, 2022 pertaining to the Company's design and operation of controls related to its financial statement close process, there were no reportable events of the type described in Item 304(a)(1)(v) of Regulation S-K during the fiscal years ended December 31, 2022 and 2021 or in the subsequent interim period through August 10, 2023.

On August 24, 2023, the Company engaged Grant Thornton to serve as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2023 beginning with the fiscal third quarter ending September 30, 2023. The Audit Committee of the Board of Directors of the Company approved the selection of Grant Thornton as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2023 on August 23, 2023.

During the two fiscal years ended December 31, 2022 and 2021, and the subsequent interim period through the date of the Current Report on Form 8-K filed on August 24, 2023, the Company has not consulted with Grant Thornton regarding either (i) the application of accounting principles to a specified transaction, either completed or proposed; or the type of audit opinion that might be rendered on the Company's consolidated financial statements, and neither a written report was provided to the Company nor was oral advice provided that Grant Thornton concluded was an important factor considered by the Company in reaching a decision as to the accounting, auditing or financial reporting issue; or (ii) any matter that was either the subject of a "disagreement," as that term is defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K, or a "reportable event," as that term is defined in Item 304(a)(i)(v) of Regulation S-K.

The following table summarizes the fees of Grant Thornton LLP ("Grant Thornton"), our current independent registered public accounting firm, for 2024 and 2023 and PricewaterhouseCoopers LLP (Canada) ("PwC"), our prior independent registered public accounting firm, for 2023 billed to us for each of the last two fiscal years for audit services and billed to us in each of the last two fiscal years for other services:

Fee Category	2024 (USD)	2023 (USD)	2023 (USD)
	Grant Thornton	Grant Thornton	PwC
Audit Fees	\$ 714,000	\$ 475,000	\$ 536,000
Audit Related Fees	—	—	8,000
Tax Fees	—	—	255,000
All Other Fees	—	—	—
Total Fees	\$ 714,000	\$ 475,000	\$ 799,000

Audit Fees

Audit fees for the fiscal year ended December 31, 2024 and 2023 include fees invoiced for professional services rendered for the audit of our annual consolidated financial statements; for reviews of our financial statements included in our SEC filings and Quarterly Reports on Form 10-Q; and fees related to consents, comfort letters and assistance with the review of our SEC filings.

Audit Related Fees

Audit related fees for the fiscal year ended December 31, 2023 include fees for professional services provided in connection with our Merger, including consents and review of documents filed with the SEC and with our registration statements.

Tax Fees

Tax fees consist of fees billed for professional services relating to tax compliance and tax advisory services.

Audit Committee Pre-Approval Policy and Procedures

Our Audit Committee's policy is to review in advance and pre-approve all audit or non-audit services to be provided by the Company's independent auditor or other auditors and to approve all related fees and terms thereof. Pre-approval will be given either as part of our Audit Committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual, explicit, case-by-case basis before the independent registered public accounting firm is engaged to provide each service. All of the services relating to the fees in the table above were approved by our Audit Committee.

Part IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statements and Financial Statement Schedules

(1) **Financial Statements.** Financial Statements are listed in the Index to Consolidated Financial Statements on page F-1 of this report.

(2) **Financial Statement Schedules.** No financial statement schedules are included because such schedules are not applicable, are not required, or because required information is included in the consolidated financial statements or notes thereto.

(3) **Exhibits.** See Item 15(b) below.

(b) Exhibits

Exhibit No.	Description	Incorporated by Reference Exhibits			
		Filer	Form	Exhibit	Filing Date
2.1	Transaction Agreement, dated February 7, 2022, by and among DPCM Capital, Inc., D-Wave Quantum Inc., DWSI Holdings Inc., DWSI Canada Holdings ULC, D-Wave Quantum Technologies Inc. and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	2.1	March 15, 2022
2.2	Amendment to Transaction Agreement, dated June 16, 2022, by and among DPCM Capital, Inc., D-Wave Quantum Inc., DWSI Holdings Inc., DWSI Canada Holdings ULC, D-Wave Quantum Technologies Inc. and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4/A	2.2	June 23, 2022
3.1	Amended and Restated Certificate of Incorporation of D-Wave Quantum Inc.	D-Wave Quantum Inc.	S-4	3.4	March 15, 2022
3.2	Amended and Restated Bylaws of D-Wave Quantum Inc.	D-Wave Quantum Inc.	S-4	3.5	March 15, 2022
3.3	Certificate of Designations of Special Voting Preferred Stock of D-Wave Quantum Inc.	D-Wave Quantum Inc.	S-4/A	3.6	May 27, 2022
4.1	Specimen Common Stock Certificate of D-Wave Quantum Inc.	D-Wave Quantum Inc.	S-4/A	4.1	May 27, 2022
4.2	Description of Securities of D-Wave Quantum Inc.	D-Wave Quantum Inc.	10-K	4.2	April 18, 2023
4.3	Warrant Agreement, dated October 20, 2020, between Continental Stock Transfer & Trust Company and DPCM Capital, Inc.	DPCM Capital, Inc.	8-K	4.1	October 2, 2020
4.4	Assignment, Assumption and Amendment Agreement, dated August 5, 2022, among DPCM Capital, Inc., D-Wave Quantum Inc., Continental Stock Transfer & Trust Company, Computer share Inc., and Computer share Trust Company, N.A.	D-Wave Quantum Inc.	8-K	4.3	August 10, 2022

4.5	Exchangeable Share Provisions.	D-Wave Quantum Inc.	S-4/A	4.7	May 27, 2022
10.1	Plan of Arrangement.	DPCM Capital, Inc.	8-K	10.1	February 11, 2022
10.2	Registration Rights and Lock-Up Agreement.	D-Wave Quantum Inc.	8-K	10.2	August 10, 2022
10.3	Form of PIPE Subscription Agreement.	DPCM Capital, Inc.	8-k	10.5	February 11, 2022
10.4	Exchangeable Share Support Agreement.	D-Wave Quantum Inc.	8-K	10.4	August 10, 2022
10.5	Voting and Exchange Trust Agreement.	D-Wave Quantum Inc.	8-K	10.5	August 10, 2022
10.6	Amended and Restated Sponsor Support Agreement.	D-Wave Quantum Inc.	S-4/A	10.10	June 23, 2022
10.7†	Agreement, dated as of September 22, 2005, between Her Majesty the Queen in Right of Canada as represented by the Minister of Industry and D-Wave Systems Inc., as amended.	D-Wave Quantum Inc.	S-4	10.16	March 15, 2022
10.8	Contribution Agreement, dated as of July 10, 2018, between Canada Foundation for Sustainable Development Technology and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	10.17	March 15, 2022
10.9†	Amendment No. 1 to Contribution Agreement, dated as of May 25, 2020, between Canada Foundation for Sustainable Development Technology and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4/A	10.18	May 27, 2022
10.10†	Agreement, dated as of November 20, 2020, among D-Wave Systems Inc., DWSI Holdings Inc., each as recipients, and Her Majesty the Queen in Right of Canada as represented by the Minister of Industry.	D-Wave Quantum Inc.	S-4/A	10.19	May 27, 2022
10.11	Amendment Agreement No. 1 to Agreement, dated as of August 24, 2021, between D-Wave Systems Inc., (resulting from the amalgamation of D-Wave Systems Inc. with its parent company DWSI Holdings Inc.) and Her Majesty the Queen in Right of Canada as represented by the Minister of Industry.	D-Wave Quantum Inc.	S-4	10.20	March 15, 2022
10.12	Triple Net Lease, dated as of January 15, 2013, between Embarcadero Joint Venture and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	10.21	March 15, 2022
10.13	First Amendment to Lease, dated as of January 29, 2018, between Embarcadero Joint Venture and D-Wave Commercial Inc.	D-Wave Quantum Inc.	S-4	10.22	March 15, 2022
10.14	Second Amendment to the Lease, dated as of September 9, 2022, between Embarcadero Joint Venture and D-Wave Commercial Inc.	D-Wave Quantum Inc.	8-K	10.1	December 28, 2022
10.15	Lease Agreement, dated as of July 25, 2012, among 0727219 Ltd., PCI Beta Holdings Inc. and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	10.23	March 15, 2022
10.16	Amendment of Lease, dated as of October 11, 2012, among 0727219 Ltd., PCI Canada Way Limited Partnership and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	10.24	March 15, 2022

10.17	Lease Extension and Modification Agreement, dated as of November 8, 2021, between Redstone Enterprises Ltd. and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	10.25	March 15, 2022
10.18†	Lease Agreement, dated as of December 15, 2017, between 0937847 B.C. Ltd. and Omni Circuit Boards Ltd.	D-Wave Quantum Inc.	S-4	10.26	March 15, 2022
10.19†	Lease Renewal Agreement, dated as of October 14, 2022, to the Lease Agreement, dated as of December 15, 2017, between 0937847 B.C. Ltd. and Omni Circuit Boards Ltd.	D-Wave Quantum Inc.	8-K	10.1	December 21, 2022
10.20†	Agreement for Pilot Line Operation, dated as of July 31, 2006, by and between Cypress Semiconductor Corporation and D-Wave Systems Inc., as amended.	D-Wave Quantum Inc.	S-4	10.27	March 15, 2022
10.21†	Agreement for Semiconductor Line Operation, dated as of December 23, 2012, by and between Cypress Semiconductor Corporation and D-Wave Systems Inc., as amended.	D-Wave Quantum Inc.	S-4	10.28	March 15, 2022
10.22#†	Full-Time Amended and Restated Employment Agreement, dated as of January 1, 2020, between D-Wave Commercial Inc. and Alan Baratz.	D-Wave Quantum Inc.	S-4	10.29	March 15, 2022
10.23#†	Form of DWSI Holdings Inc. 2020 Equity Incentive Plan Award Agreement-Option between Alan Baratz and DWSI Holdings Inc.	D-Wave Quantum Inc.	S-4	10.30	March 15, 2022
10.24#†	Full-time Employment Agreement dated as of August 20, 2021, between D-Wave Commercial Inc. and John Markovich.	D-Wave Quantum Inc.	S-4	10.31	March 15, 2022
10.25#†	Form of D-Wave Systems Inc. 2020 Equity Incentive Plan Award Agreement-Option between John Markovich and D-Wave Systems Inc.	D-Wave Quantum Inc.	S-4	10.32	March 15, 2022
10.26#	DWSI Holdings Inc. 2020 Equity Incentive Plan.	D-Wave Quantum Inc.	S-4	10.35	March 15, 2022
10.27	Form of Indemnification Agreement of D-Wave Quantum Inc.	D-Wave Quantum Inc.	S-4/A	10.36	May 27, 2022
10.28#	2022 Equity Incentive Plan.	D-Wave Quantum Inc.	8-K	10.29	August 10, 2022
10.29#	2022 Employee Stock Purchase Plan.	D-Wave Quantum Inc.	8-K	10.30	August 10, 2022
10.30	Venture Loan and Security Agreement, dated as of March 3, 2022, between D-Wave, D-Wave US Inc., D-Wave Government Inc., D-Wave Commercial Inc., D-Wave International Inc., D-Wave Quantum Solutions Inc. and Omni Circuit Boards Ltd., as Borrower, and PSPIB Unitas Investments II Inc., as Lender.	D-Wave Quantum Inc.	S-4/A	10.39	March 15, 2022
10.31	DWSI Holdings Inc. Warrant Certificate for Purchase of Preferred Shares dated as of November 24, 2020 held by Amazon.com NV Investment Holdings LLC.	D-Wave Quantum Inc.	S-4/A	10.40	March 15, 2022
10.32	Form of Performance Guarantee of D-Wave Quantum Inc. to Her Majesty the Queen in Right of Canada as represented by the Minister of Industry.	D-Wave Quantum Inc.	S-4/A	10.41	May 27, 2022

10.33	Purchase Agreement, dated as of June 16, 2022, among D-Wave Quantum Inc., D-Wave Systems Inc., DPCM Capital, Inc. and Lincoln Park Fund, LLC.	D-Wave Quantum Inc.	S-4/A	10.43	June 23, 2022
10.34	Registration Rights Agreement, dated as of June 16, 2022, among D-Wave Quantum Inc., D-Wave Systems Inc., DPCM Capital, Inc. and Lincoln Park Fund, LLC.	D-Wave Quantum Inc.	S-4/A	10.44	June 23, 2022
10.35	Amended and Restated Side Letter Agreement, dated as of September 26, 2022, among D-Wave Quantum Inc. and Public Sector Pension Investment Board.	D-Wave Quantum Inc.	8-K	10.1	September 27, 2022
10.36#†	Amendment No. 1 to the Full-Time Amended and Restated Employment Agreement, dated as of January 1, 2020, between D-Wave Commercial Inc. and Alan Baratz, dated October 27, 2022.	D-Wave Quantum Inc.	8-K	10.2	November 2, 2022
10.37*#†	Form of D-Wave Quantum Inc. 2022 Equity Incentive Plan Restricted Stock Unit Award Agreement (Executive Officer)	D-Wave Quantum Inc.	8-K	10.3	November 2, 2022
10.38#	Form of D-Wave Quantum Inc. 2022 Equity Incentive Plan Option Award Agreement.	D-Wave Quantum Inc.	S-1	10.38	February 13, 2023
10.39#†	Full-time Employment Agreement dated as of February 20, 2015, between D-Wave Systems Inc. and Victoria Brydon, as amended.	D-Wave Quantum Inc.	S-1	10.39	February 13, 2023
10.40#†	Form of DWSI Holdings Inc. 2020 Equity Incentive Plan Award Agreement-Option between Victoria Brydon and DWSI Holdings Inc.	D-Wave Quantum Inc.	S-1	10.4	February 13, 2023
10.41†	Thirteenth Amendment, dated March 1, 2023, between D-Wave Systems Inc. and SkyWater Technology Foundry, Inc. to the Agreement for Semiconductor Line Operation, dated as of December 23, 2012, by and between Cypress Semiconductor Corporation and D-Wave Systems Inc., as amended and assigned to SkyWater Technology Foundry, Inc.	D-Wave Quantum Inc.	8-K	10.1	March 3, 2023
10.42#†	Amendment No. 1 to the Full-Time Employment Agreement, dated as of August 20, 2021, between D-Wave Commercial Inc. and John Markovich, dated September 20, 2022	D-Wave Quantum Inc.	10-K	10.42	April 18, 2023
10.43#	Form of D-Wave Quantum Inc. 2022 Equity Incentive Plan Restricted Stock Unit Award Agreement (CEO)	D-Wave Quantum Inc.	10-K	10.43	April 18, 2023
10.44#†	D-Wave Quantum Inc. 2022 Equity Incentive Plan Restricted Stock Unit Award Agreement - John Markovich	D-Wave Quantum Inc.	10-K	10.44	April 18, 2023
10.45#†	D-Wave Quantum Inc. 2022 Equity Incentive Plan Restricted Stock Unit Award Agreement - Alan Baratz 2022(1)	D-Wave Quantum Inc.	10-K	10.45	April 18, 2023
10.46#†	D-Wave Quantum Inc. 2022 Equity Incentive Plan Restricted Stock Unit Award Agreement - Alan Baratz 2022(2)	D-Wave Quantum Inc.	10-K	10.46	April 18, 2023
10.47#†	D-Wave Quantum Inc. 2022 Equity Incentive Plan Restricted Stock Unit Award Agreement - Victoria Brydon 2022(2)	D-Wave Quantum Inc.	10-K	10.47	April 18, 2023

10.48†	Loan and Security Agreement, dated as of April 13, 2023, by and among PSPIB Unitas Investments II, Inc., D-Wave Quantum Inc., and its subsidiaries.	D-Wave Quantum Inc.	8-K	10.1	April 19, 2023
10.49	Amendment No. 2 to Agreement, dated as of April 19, 2023, between D-Wave Quantum Inc., D-Wave Systems Inc., and His Majesty the King in Right of Canada as represented by the Minister of Industry.	D-Wave Quantum Inc.	8-K	10.1	April 24, 2023
10.50	Consent and Waiver Agreement, dated as of May 26, 2023, by and among PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc. and its subsidiaries.	D-Wave Quantum Inc.	8-K	10.1	June 2, 2023
10.51	First Amendment to Loan and Security Agreement, dated as of June 16, 2023, by and among PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	10-Q	10.4	August 10, 2023
10.52	Limited Waiver and Second Amendment to Loan and Security Agreement, dated as of July 13, 2023, by and among PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	8-K	10.1	July 20, 2023
10.53	Third Amendment to Loan and Security Agreement, dated as of July 20, 2023, by and among PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	8-K	10.1	July 21, 2023
10.54	Limited Waiver to Loan and Security Agreement, dated as of July 28, 2023, by and between D-Wave Quantum Inc. and PSPIB Unitas Investments II Inc.	D-Wave Quantum Inc.	10-Q	10.7	August 10, 2023
10.55†	DWSI Holdings Inc. 2020 Equity Incentive Plan Award Agreement - Option, between Diane Nguyen and DWSI Holdings Inc., dated May 8, 2020.	D-Wave Quantum Inc.	10-Q	10.9	August 10, 2023
10.56†	D-Wave Systems Inc. 2020 Equity Incentive Plan Award Agreement - Option, between Diane Nguyen and D-Wave Systems Inc., dated March 29, 2021.	D-Wave Quantum Inc.	10-Q	10.10	August 10, 2023
10.57†	D-Wave Systems Inc. 2020 Equity Incentive Plan Award Agreement - Option, between Diane Nguyen and D-Wave Systems Inc., dated September 30, 2021.	D-Wave Quantum Inc.	10-Q	10.11	August 10, 2023
10.58†	Full-Time Employment Agreement, between Diane Nguyen and D-Wave Commercial Inc., dated March 4, 2022, as amended.	D-Wave Quantum Inc.	10-Q	10.12	August 10, 2023
10.59†	Promotion Letter between Diane Nguyen and D-Wave Commercial Inc., dated July 10, 2023.	D-Wave Quantum Inc.	10-Q	10.13	August 10, 2023
10.60†	Amendment to Full-Time Employment Agreement, between Victoria Brydon and D-Wave Systems Inc., dated July 10, 2023	D-Wave Quantum Inc.	10-Q	10.14	August 10, 2023
10.61	Fourth Amendment to Loan and Security Agreement, dated as of October 6, 2023, by and between PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	8-K	10.1	October 11, 2023
10.62†	Limited Waiver to Loan and Security Agreement dated as of November 7, 2023, by and between PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	10-K	10.63	March 29, 2024
10.63†	Amendment No. 3 to Agreement, dated as of November 20, 2023, between D-Wave Quantum Inc., D-Wave Systems Inc., and His Majesty the King in Right of Canada as represented by the Minister of Industry.	D-Wave Quantum Inc.	10-K	10.64	March 29, 2024

10.64†	Fourteenth Amendment, dated December 26, 2023, between D-Wave Systems Inc. and SkyWater Technology Foundry, Inc. to the Agreement for Semiconductor Line Operation, dated as of December 23, 2012, by and between Cypress Semiconductor Corporation and D-Wave Systems Inc., as amended and assigned to SkyWater Technology Foundry, Inc.	D-Wave Quantum Inc.	10-K	10.65	March 29, 2024
10.65†	Fifth Amendment to Loan and Security Agreement, dated as of February 7, 2024, by and between PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	10-K	10.66	March 29, 2024
10.66†	Third Amendment to the Lease, dated as of February 14, 2024, between Embarcadero Joint Venture and D-Wave Commercial Inc.	D-Wave Quantum Inc.	10-K	10.67	March 29, 2024
10.67	Sixth Amendment to Loan and Security Agreement, dated as of April 16, 2024, by and between PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	8-K	10.1	April 19, 2024
10.68	Amendment to the Full-Time Employment Agreement, dated as of August 20, 2021, between D-Wave Commercial Inc. and John Markovich, dated April 19, 2024.	D-Wave Quantum Inc.	8-K	10.2	April 19, 2024
10.69	Amendment to the Full-Time Employment Agreement, dated as of August 20, 2021, between D-Wave Commercial Inc. and Diane Nguyen, dated April 17, 2024.	D-Wave Quantum Inc.	8-K	10.3	April 19, 2024
10.70	Limited Waiver Agreement, dated as of August 7, 2024, by and among PSPIB Unitas Investments II Inc. and D-Wave Quantum Inc.	D-Wave Quantum Inc.	10-Q	10.2	August 7, 2024
10.71†	Lease Renewal Agreement, dated as of July 23, 2024, by and between Omni Circuit Boards Ltd. and 0937847 B.C. Ltd.	D-Wave Quantum Inc.	10-Q	10.1	November 14, 2024
19.1*	Amended & Restated Securities Trading Policy				
21.1	List of subsidiaries of D-Wave Quantum Inc.	D-Wave Quantum Inc.	10-K		April 18, 2023
23.1*	Consent of Grant Thornton LLP, independent registered public accounting firm of D-Wave Systems Inc.				
31.1*	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a), promulgated under the Securities Exchange Act of 1934, as amended.				
31.2*	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a), promulgated under the Securities Exchange Act of 1934, as amended.				
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
97	<u>D-Wave Quantum Inc.'s Clawback Policy</u>	D-Wave Quantum Inc.	10-K	97	March 29, 2024
101.INS*	Inline XBRL Instance Document.				
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.				

101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB*	Inline XBRL Taxonomy Extension Labels Linkbase Document.				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.				
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).				

* Filed herewith.

** Furnished with this report in accordance with Item 601(b)(32) of Regulation S-K, this exhibit is not deemed “filed” for purposes of Section 18 of the Exchange Act or otherwise subject to the liabilities of that section. Such certifications will not be deemed incorporated by reference into any filing under the Securities Act, except to the extent that the registrant specifically incorporates it by reference.

Indicates management contract or compensatory plan or arrangement.

† Certain portions of this exhibit (indicated by “[*****]”) have been redacted pursuant to Regulation S-K, Item 601(a)(6).

Item 16. Form 10-K Summary

The Company has elected not to provide summary information.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

D-Wave Quantum Inc.

March 14, 2025

By: /s/ Alan Baratz

Alan Baratz

Chief Executive Officer and President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Capacity</u>	<u>Date</u>
<u>/s/ Alan Baratz</u> Alan Baratz	Chief Executive Officer and President (Principal Executive Officer) and Director	March 14, 2025
<u>/s/ John M. Markovich</u> John M. Markovich	Chief Financial Officer (Principal Financial and Accounting Officer)	March 14, 2025
<u>/s/ Steven M. West</u> Steven M. West	Chairman of the Board, Director	March 14, 2025
<u>/s/ Roger Biscay</u> Roger Biscay	Director	March 14, 2025
<u>/s/ Kirstjen Nielsen</u> Kirstjen Nielsen	Director	March 14, 2025
<u>/s/ Rohit Ghai</u> Rohit Ghai	Director	March 14, 2025
<u>/s/ John DiLullo</u> John DiLullo	Director	March 14, 2025
<u>/s/ Sharon Holt</u> Sharon Holt	Director	March 14, 2025

Part I - Financial Statements

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
D-Wave Quantum Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of D-Wave Quantum Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2024 and 2023, the related consolidated statements of operations and comprehensive loss, stockholders’ equity (deficit), and cash flows for each of the two years in the period ended December 31, 2024, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2023.

Bellevue, Washington
March 14, 2025

D-Wave Quantum Inc.
Consolidated Balance Sheets

	December 31, 2024	December 31, 2023
<i>(In thousands, except share and per share data)</i>		
Assets		
Current assets:		
Cash and cash equivalents	\$ 177,980	\$ 41,307
Trade accounts receivable, net of allowance for doubtful accounts of \$176 and zero	1,420	1,652
Inventories	1,686	2,078
Prepaid expenses and other current assets	3,954	2,009
Total current assets	185,040	47,046
Property and equipment, net	4,133	2,551
Operating lease right-of-use assets	7,261	8,223
Intangible assets, net	490	179
Other non-current assets, net	2,929	1,357
Total assets	\$ 199,853	\$ 59,356
Liabilities and stockholders' deficit		
Current liabilities:		
Trade accounts payable	\$ 815	\$ 1,465
Accrued expenses and other current liabilities	8,784	5,343
Current portion of operating lease liabilities	1,512	1,374
Loans payable, net, current	348	399
Deferred revenue, current	18,686	2,669
Total current liabilities	30,145	11,250
Warrant liabilities	69,875	1,630
Operating lease liabilities, net of current portion	6,389	7,028
Loans payable, net, non-current (including \$— and \$31,400 as of December 31, 2024 and December 31, 2023, respectively, at fair value)	30,128	63,850
Deferred revenue, non-current	670	79
Total liabilities	\$ 137,207	\$ 83,837
Commitments and contingencies (Note 13)		
Stockholders' equity (deficit):		
Common stock, par value \$0.0001 per share; 675,000,000 shares authorized at both December 31, 2024 and December 31, 2023; 266,595,867 shares and 161,113,744 shares issued and outstanding as of December 31, 2024 and December 31, 2023, respectively.	27	16
Additional paid-in capital	700,069	469,081
Accumulated deficit	(626,940)	(483,061)
Accumulated other comprehensive loss	(10,510)	(10,517)
Total stockholders' equity (deficit)	62,646	(24,481)
Total liabilities and stockholders' equity (deficit)	\$ 199,853	\$ 59,356

The accompanying notes are an integral part of these consolidated financial statements.

D-Wave Quantum Inc.
Consolidated Statements of Operations and Comprehensive Loss

	Year Ended December 31,	
	2024	2023
<i>(In thousands, except share and per share data)</i>		
Revenue	\$ 8,827	\$ 8,758
Cost of revenue	3,264	4,136
Total gross profit	5,563	4,622
Operating expenses:		
Research and development	35,300	37,878
General and administrative	32,422	37,014
Sales and marketing	15,064	10,276
Total operating expenses	82,786	85,168
Loss from operations	(77,223)	(80,546)
Other income (expense), net:		
Interest expense	(3,897)	(37)
Change in fair value of Term Loan	(645)	640
Term Loan debt issuance costs	—	(2,118)
Gain on investment in marketable securities	1,495	—
Change in fair value of warrant liabilities	(68,245)	262
Other income (expense), net	4,636	(916)
Total other income (expense), net	(66,656)	(2,169)
Net loss	\$ (143,879)	\$ (82,715)
Net loss per share, basic and diluted	\$ (0.75)	\$ (0.60)
Weighted-average shares used in computing net loss per share, basic and diluted	192,129,049	137,993,736
Comprehensive loss:		
Net loss	\$ (143,879)	\$ (82,715)
Foreign currency translation adjustment	7	(115)
Net comprehensive loss	\$ (143,872)	\$ (82,830)

The accompanying notes are an integral part of these consolidated financial statements.

D-Wave Quantum Inc.
Consolidated Statements of Stockholders' Equity (Deficit)

	Common stock		Additional paid-in capital		Accumulated deficit	Accumulated other comprehensive loss	Total stockholders' equity (deficit)
	Shares	Amount					
Balances at December 31, 2022	113,335,530	\$ 11	\$ 381,274	\$	(400,346)	\$ (10,402)	\$ (29,463)
Exercise of stock options	5,162,988	1	1,897	—	—	—	1,898
Issuance of common stock in connection with the Purchase Agreement	42,147,838	4	63,672	—	—	—	63,676
Issuance of common stock in connection with the Employee Stock Purchase Plan	467,388	—	491	—	—	—	491
Stock-based compensation	—	—	21,919	—	—	—	21,919
Tax withholding related to vesting of restricted stock units	—	—	(416)	—	—	—	(416)
Short-swing profit settlement	—	—	244	—	—	—	244
Foreign currency translation adjustment, net of tax	—	—	—	—	—	(115)	(115)
Net loss	—	—	—	(82,715)	—	—	(82,715)
Balances at December 31, 2023	161,113,744	\$ 16	\$ 469,081	\$	(483,061)	\$ (10,517)	\$ (24,481)
Issuance of common stock in connection with the Purchase Agreement	34,860,416	3	44,282	—	—	—	44,285
Issuance of common stock in connection with the ATM Agreements, net of issuance costs of \$278	65,388,915	7	169,899	—	—	—	169,906
Issuance of common stock in connection with the Employee Stock Purchase Plan	487,782	1	424	—	—	—	425
Issuance of common stock in connection with exercise of stock options and vesting of RSUs	4,745,010	—	1,724	—	—	—	1,724
Stock-based compensation	—	—	17,801	—	—	—	17,801
Tax withholding related to vesting of restricted stock units	—	—	(3,142)	—	—	—	(3,142)
Foreign currency translation adjustment, net of tax	—	—	—	—	—	7	7
Net loss	—	—	—	(143,879)	—	—	(143,879)
Balances at December 31, 2024	266,595,867	\$ 27	\$ 700,069	\$	(626,940)	\$ (10,510)	\$ 62,646

The accompanying notes are an integral part of these consolidated financial statements.

D-Wave Quantum Inc.
Consolidated Statements of Cash Flows

<i>(in thousands)</i>	Year Ended December 31,	
	2024	2023
Cash flows from operating activities:		
Net loss	\$ (143,879)	\$ (82,715)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	1,109	1,054
Stock-based compensation	15,661	21,919
Amortization of operating right-of-use assets	823	791
Provision for excess and obsolete inventory	134	32
Non-cash interest expense, net of cash paid for PIK interest	(1,441)	(78)
Change in fair value of Warrant liabilities	68,245	(262)
Change in fair value of Term Loan	645	(640)
Debt issuance costs netted from Term Loan proceeds	—	993
Gain on marketable securities	(1,495)	—
Unrealized foreign exchange loss (gain)	(3,307)	955
Change in operating assets and liabilities:		
Trade accounts receivable	137	(818)
Research incentives receivable	—	264
Inventories	(215)	(237)
Prepaid expenses and other current assets	(1,580)	1,636
Trade accounts payable	(570)	(2,614)
Accrued expenses and other current liabilities	5,520	(1,374)
Deferred revenue	16,608	958
Operating lease liability	293	(510)
Other non-current assets, net	669	(3)
Net cash used in operating activities	(42,643)	(60,649)
Cash flows from investing activities:		
Purchase of property and equipment	(2,106)	(583)
Purchase of convertible note (Note 4)	(1,000)	—
Sales of marketable equity securities (Note 4)	254	—
Expenditures for internal-use software	(289)	(47)
Net cash used in investing activities	(3,141)	(630)
Cash flows from financing activities:		
Proceeds from the issuance of common stock pursuant to the Lincoln Park Purchase Agreement	44,285	63,676
Proceeds from the issuance of common stock in at-the-market offerings, net of issuance costs of \$278	169,906	—
Proceeds from the issuance of common stock upon exercise of stock options	1,347	1,897
Proceeds from common stock issued under the Employee Stock Purchase Plan	424	491
Proceeds from Term Loan	—	29,007
Proceeds from government assistance	—	2,996
Payment of tax withheld pursuant to stock-based compensation settlements	(3,142)	(416)
Short swing profit settlement	—	244
Repayments on Term Loan	(30,000)	—
Repayments on TPC Loan	(370)	(374)
Repayment of promissory notes - related party	—	(420)
Other debt payments	—	(1,465)

Net cash provided by financing activities	182,450	95,636
Effect of exchange rate changes on cash and cash equivalents	7	(115)
Net increase in cash and cash equivalents	136,673	34,242
Cash and cash equivalents at beginning of period	41,307	7,065
Cash and cash equivalents at end of period	<u>\$ 177,980</u>	<u>\$ 41,307</u>

Supplemental disclosures of cash flow information:

Cash Paid for Interest	\$ 5,183	\$ —
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Supplemental disclosure of non-cash investing and financing activities:

Inventory applied to capital projects	\$ 473	\$ 323
Capitalized stock-based compensation	\$ 134	\$ —
Operating lease right-of-use assets exchanged for new operating lease obligations	\$ 796	\$ 88
Purchases of property and equipment included in accounts payable	\$ —	\$ 310
Bonus settled in vested share based compensation awards	\$ 2,006	\$ —
Stock option exercise proceeds in transit	\$ 377	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

D-Wave Quantum Inc.
Notes to Consolidated Financial Statements

1. DESCRIPTION OF BUSINESS

D-Wave Quantum Inc. ("D-Wave" or the "Company") was incorporated as a corporation organized and existing under the General Corporation Law of the State of Delaware on January 24, 2022. The Company was formed for the purpose of effecting a merger between DPCM Capital, Inc. ("DPCM"), D-Wave Systems Inc. ("D-Wave Systems"), and certain other affiliated entities through a series of transactions (the "Merger") pursuant to the definitive agreement entered into on February 7, 2022 (the "Transaction Agreement"). On August 5, 2022, in conjunction with the Merger, DPCM and D-Wave Systems became wholly-owned subsidiaries of, and are operated by, the Company. Upon the completion of the Merger, the Company succeeded to all of the operations of its predecessor, D-Wave Systems.

The company specializes in commercializing annealing quantum computing systems and offers real-time quantum computing as a service (QCaaS) available in 42 countries. The Company possess deep scientific and technical capabilities in hardware and software, enabling it to support business applications at production scale. A significant portion of the Company's revenue comes from commercial customers across various industries such as financial services, manufacturing, automotive, pharmaceutical, information technology, retail, and professional services. The Company is also enabling research center, academic institution, and government customers with quantum-fueled experimentation, development and usage through its cloud based QCaaS services or by purchasing on-premises Advantage™ quantum computing systems.

2. BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The Company has prepared the accompanying consolidated financial statements in accordance with the accounting principles generally accepted in the United States of America ("U.S. GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASUs") of the Financial Accounting Standards Board ("FASB") and pursuant to the regulations of the U.S. Securities and Exchange Commission ("SEC").

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in the consolidated financial statements upon consolidation.

Liquidity and Going Concern

In our Annual Report on Form 10-K for the year ended December 31, 2023 and our Quarterly Report on Form 10-Q for the three and nine months ended September 30, 2024, we disclosed that there was substantial doubt about our ability to continue as a going concern due to recurring losses, liquidity concerns, debt covenant uncertainties, and reliance on external financing. Since its inception, the Company has incurred net losses and negative cash flows from operations. As of December 31, 2024 and 2023, the Company had an accumulated deficit of \$626.9 million and \$483.1 million, respectively. For the years ended December 31, 2024 and 2023, the Company incurred a net loss of \$143.9 million and \$82.7 million, respectively, and the Company had net cash outflows from operating activities of \$42.6 million and \$60.6 million, respectively. As of December 31, 2024 and 2023, the Company had cash and cash equivalents of \$178.0 million and \$41.3 million, respectively, and working capital (current assets less current liabilities) of \$154.9 million and \$35.8 million, respectively. Additionally, as of December 31, 2024, total assets exceeded total liabilities by \$62.6 million, whereas as of December 31, 2023, total liabilities exceeded total assets by \$24.5 million. The Company expects to incur additional operating losses and negative cash flows from operating activities as it continues to expand its commercial operations and research and development programs.

As part of management's evaluation of whether there was substantial doubt about our ability to continue as a going concern as of the date of this filing, management considered the results of fundraising activities completed in the fourth fiscal quarter of 2024 and subsequent to the balance sheet date in addition to the factors discussed above. During the year ended December 31, 2024, the Company received \$214.2 million in net proceeds from the issuance of 100,249,331 Common Shares under various equity offerings described more fully in Note 15. As of December 31, 2024, the Company had cash of \$178.0 million and working capital (current assets less current liabilities) of \$154.9 million. In January 2025, the Company raised an additional \$146.2 million in net cash proceeds from an additional equity offering.

As a result of these considerations, management has assessed the Company's liquidity under Financial Accounting Standards Board's ASC Topic 205-40, "Basis of Presentation—Going Concern," and determined that it has sufficient capital resources to meet its obligations for at least the next 12 months and does not anticipate any conditions that would raise substantial doubt about the Company's ability to continue as a going concern.

Use of estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in the Company's consolidated financial statements and accompanying notes as of the date of the consolidated financial statements. The most significant estimates and assumptions are used in determining: (i) inputs used to recognize revenue over time relating to hours estimated to complete the remaining performance obligations, (ii) fair value of financial instruments, and (iii) long term revenue forecasts used in the accounting for the SIF Loan (see below and Note 7 for further information). These estimates and assumptions are based on current facts, historical experience and various other factors believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the recording of expenses that are not readily apparent from other sources. On an ongoing basis, management evaluates its estimates as there are changes in circumstances, facts, and experience.

The Company's accounting estimates and assumptions may change over time in response to risks and uncertainties, including uncertainty in the current economic environment due to inflation, increased interest rates, Ukraine/Russia conflict, the Israel-Hamas War, and any evolutions thereof. The change could be material in future periods. As of the date of issuance of these consolidated financial statements, the Company is not aware of any specific event or circumstances that would require the Company to update estimates, judgments or revise the carrying value of any assets or liabilities. Actual results may differ from those estimates or assumptions.

Public Warrants and Private Warrants

The Company evaluated its outstanding warrants which were issued in exchange for (i) the warrants initially included in the DPCM Units (the "Units") issued in DPCM's initial public offering (the "Public Warrants"), and (ii) the warrants of DPCM held by CDPM Sponsor Group, LLC (the "Sponsor") that were issued to the Sponsor at the closing of DPCM's initial public offering (the "Private Warrants," and together with the Public Warrants, the "Warrants"), which are discussed in *Note 10 - Warrant liabilities*, in accordance with ASC 815-40, "*Derivatives and Hedging - Contracts in Entity's Own Equity*."

The Private Warrants do not meet the derivative scope exception and are accounted for as derivative liabilities. Specifically, the Private Warrants contain provisions that cause the settlement amounts to be dependent upon the characteristics of the holder of the warrant which is not an input into the pricing of a fixed-for-fixed option on equity shares. Therefore, the Private Warrants are not considered indexed to the Company's stock and should be classified as a liability. Since the Private Warrants meet the definition of a derivative, the Company recorded the Private Warrants as liabilities on the consolidated balance sheet at fair value upon the Closing, with subsequent changes in the fair value recognized in the consolidated statements of operations and comprehensive loss at each reporting date. The measurements of the Private Warrants after the detachment of the Public Warrants from the Units are classified as Level 2 fair value measurements due to the use of an observable market quote for the Public Warrants, which are considered to be a similar asset in an active market.

The Public Warrants also do not meet the indexation guidance in ASC 815-40 and are accounted for as liabilities as the Public Warrants include a provision whereby in a scenario on which there is not an effective registration statement, the warrant holders have a cap, 0.361 Common Shares per warrant (subject to adjustment), on the issuable number of shares in a cashless exercise. The measurements of the Public Warrants after the detachment of the Public Warrants from the Units are classified as Level 1 fair value measurements due to the use of an observable market quote in an active market.

The Company determines the accounting classification of warrants that are issued, as either liability or equity, by first assessing whether the warrants meet liability classification in accordance with ASC 480, *Distinguishing Liabilities from Equity* ("ASC 480"), and then in accordance with ASC 815, *Derivatives and Hedging* ("ASC 815"), depending on the specific terms of the warrant agreement. Under ASC 480, warrants are considered liability classified if the warrants are mandatorily redeemable, obligate the issuer to settle the warrants or the underlying shares by paying cash or other assets, or must or may require settlement by issuing variable number of shares.

If warrants do not meet liability classification under ASC 480, the Company assesses the requirements under ASC 815, which states that contracts that require or may require the issuer to settle the contract for cash are liabilities recorded at fair value, irrespective of the likelihood of the transaction occurring that triggers the net cash settlement feature. If the warrants do not require liability classification under ASC 815, in order to conclude equity classification, the Company assesses whether the warrants are indexed to its common stock and whether the warrants are classified as equity under ASC 815 or other applicable GAAP. After all relevant assessments are made, the Company concludes whether the warrants are classified as liability or equity. Liability classified warrants are required to be accounted for at fair value both on the date of issuance and on subsequent accounting period ending dates, with all changes in fair value after the issuance date recorded in the statements of operations as a gain or loss. For equity classified warrants, no changes in fair value are recognized after the issuance date.

Operating segments

Operating segments are defined as components of an enterprise for which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company's Chief Executive Officer, who is the chief operating decision maker ("CODM"), reviews financial information on an aggregate basis for allocating resources and evaluating financial performance. As such, the Company views its operations and manages its business in one operating and reportable segment. See *Note 16 - Segment and geographic information* for additional information.

Foreign currency translation and transactions

The Company's reporting currency is the U.S. Dollar. The functional currency of the Company's international subsidiaries is the currency of their primary economic environment. All balance sheet accounts of subsidiaries where the functional currency is not the U.S. dollar have been translated into U.S. dollars using the rate of exchange at the respective balance sheet date. Components of the consolidated statements of operation and comprehensive loss have been translated at the average exchange rate for the year or the corresponding period. Translation gains and losses are recorded in accumulated other comprehensive loss as a component of stockholders' equity. Gains or losses arising from currency exchange rate fluctuations on transactions denominated in a currency other than the local functional currency are included in the consolidated statements of operations and comprehensive loss. For the years ended December 31, 2024 and 2023, the Company recorded a foreign currency transaction gain of \$3.0 million and a loss of \$1.0 million, respectively, in other income in its consolidated statements of operations and comprehensive loss.

Comprehensive loss

Comprehensive loss consists of two components, net loss and other comprehensive loss. The Company's other comprehensive loss consists of foreign currency translation adjustments that result from consolidation of its foreign entities.

Cash and cash equivalents

The Company considers all highly liquid investments purchased with an original maturity of 3 months or less to be cash equivalents. As of December 31, 2024 and 2023, cash consisted of demand deposits and money market funds with no fixed term.

The Company regularly maintains deposits and money market funds with large and reputable financial institutions in excess of amounts insured by the U.S. Federal Deposit Insurance Corporation and the Canadian Deposit Insurance Corporation. These deposits and money market funds may be redeemed upon demand. The Company performs periodic evaluations of the relative credit standing of the financial institutions.

Trade accounts receivable, net

The Company's accounts receivable consists principally of billed and currently due from customers and represents our unconditional rights to consideration arising from our performance under our customer contracts. These receivables are generally due within 30 days of the period in which the corresponding sales occur and do not bear interest are classified as trade accounts receivable, net on the consolidated balance sheets. Trade accounts receivable are reported at their estimated net realizable value.

The Company maintains an allowance for doubtful accounts that is calculated under the current expected credit loss (“CECL”) model. The CECL model applies to financial assets measured at amortized cost, and requires the Company to reflect expected credit losses over the remaining contractual term of the asset. As the large majority of the Company’s receivables settle within 30 days, the forecast period under the CECL model is a relatively short horizon. The Company uses an aging method to estimate allowances for doubtful accounts under the CECL model as the Company has determined that the aging method adequately reflects expected credit losses, as corroborated by historical loss rates. Past due trade accounts receivable balances are written off when collection efforts have been exhausted.

Investment in securities

The Company holds investments in the equity securities of privately held companies, which are valued based on their original cost. Adjustments are made for observable price changes in orderly transactions involving identical or similar securities of the same issuer, as there are no quoted market prices available.

The Company also holds an investment in a convertible note (the “Note”) of Zapata Computing, Inc. (“Zapata”). The Company accounted for the Note as a loan receivable pursuant to ASC 310, as the Note did not meet the definition of a security. On April 1, 2024, Zapata stock began trading on the Nasdaq and as such became readily convertible to cash. The Company then bifurcated the conversion feature at fair value.

On October 11, 2024, Zapata announced that it was insolvent and would cease operations. Considering this and other financial information available prior to the balance sheet date, the Note was provisionally determined to be uncollectible, and the Company has recognized a credit loss provision for the entire balance owed of \$1.0 million as of December 31, 2024. The charge was recorded within general and administrative expenses in the consolidated statements of operations and comprehensive loss.

The Company is one of two senior-most secured creditors to Zapata. The Note is secured by substantially all of Zapata's assets, including cash accounts, accounts receivables, inventory, contract rights and general intangibles, intellectual property, and equipment, as set forth in the security agreements pertaining to the Note. A collateral agent is acting on behalf of the Company to manage, hold, and enforce any liens on the collateral granted by Zapata in favor of the Company to secure its obligations or liabilities under the Note and related security agreements. Any recoveries will be recognized when the fair value of the collateral accruing to the Company becomes determinable.

Inventories

Inventories are stated at the lower of cost, determined using the weighted average cost method, or net realizable value. Inventory that is obsolete or in excess of forecasted usage is written down to its estimated net realizable value based on the assumptions about future demand and market conditions. Inventory write-downs are charged to cost of revenue and establish a new cost basis for the inventory. Inventories include raw materials, which consist of parts and supplies used in the Company’s manufacturing process and research and development activities as well as service parts for the Company’s quantum computer systems, work-in-process and finished goods.

Property and equipment, net

Property and equipment are stated at cost less accumulated depreciation and impairment. Depreciation is recognized using the straight-line method over the estimated useful lives of the depreciable property, or for leasehold improvements, the remaining term of the lease, whichever is shorter. Costs for capital assets not yet placed into service are capitalized as construction-in-progress and depreciated once placed into service. The Company’s estimated useful lives of its property and equipment are as follows.

Quantum computer systems	5 years
Lab equipment	5 years
Computer equipment	3 years
Furniture and fixtures	5 years
Leasehold improvements	Shorter of expected lease term or estimated useful life

Upon sale or retirement of the assets, the cost and related accumulated depreciation are removed from the accounts and the resulting gain or loss is recognized in the statement of operations and comprehensive loss. Expenditures for general maintenance and repairs are expensed as incurred.

Intangible assets, net

The Company's intangible assets consist of acquired computer software, including off-the-shelf software applications as well as costs associated with systems' implementations. Computer software is stated at cost less accumulated amortization and impairment. Off-the-shelf software is amortized on a straight-line basis over three years while the costs of implementing systems are amortized over the initial license term. Annual license fees for off-the-shelf software are expensed as incurred.

Internally developed software

The Company capitalizes costs associated with customized internal-use software systems that have reached the application development stage. Such capitalized costs include external direct costs utilized in developing or obtaining the applications and payroll and payroll-related expenses for employees who are directly associated with applications development. Capitalization of such costs begins when the preliminary project stage is complete and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalization ceases at the point in which the project is substantially complete and ready for its intended purpose. Amortization is computed using the straight-line method, generally over three years.

Costs related to the development of software for internal use in research and development activities are expensed as incurred to research and development on the consolidated statements of operations and comprehensive loss.

Impairment of long-lived assets

Long-lived assets, such as property and equipment and other long-term assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group to be tested for possible impairment, the Company first compares undiscounted cash flows expected to be generated by that asset or asset group to its carrying amount. If the carrying amount of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent the carrying amount of the underlying asset exceeds its fair value.

The Company did not record any impairment loss on long-lived assets during the years ended December 31, 2024 and 2023.

Sales of future revenues

On November 20, 2020, the Company entered into an agreement with the Canada Strategic Innovation Fund ("SIF"), wherein SIF committed to providing a conditionally repayable loan to the Company in the amount of up to C\$40.0 million (the "SIF Loan"). The SIF Loan is conditionally repayable according to a revenue-based formula. See Note 7 for additional information concerning the SIF Loan.

The accounting treatment for the SIF Loan considers the "sale of future revenues" guidance promulgated by ASC 470-10-25. The debt arising from the SIF Loan was recorded at face value and will be amortized using the effective interest method, leading to the accrual of interest expenses over the estimated term of the SIF Loan. The amortization schedule is based on projected cash flows derived from the Company's long-term revenue forecast. Subsequent changes in forecasted cash flows will be accounted for under the catch-up method, which entails adjusting the accrued interest portion of the principal balance through earnings to reflect the currently projected effective interest rate. The liability is classified as non-current, as the current forecast indicates that repayments will not commence within the 12 months following the balance sheet date.

As the SIF Loan is originated through a government program, a market rate of interest is not imputed in accordance with the scope limitation provisions of ASC 835.

Term Loan fair value option election

- On April 13, 2023 (the "Closing Date"), the Company finalized a Term Loan and Security Agreement ("Term Loan") with PSPIB Unitas Investments II Inc. ("PSPIB" or the "Lender"), a related party to the Company's largest shareholder. The Company determined that it is eligible for the fair value option election in connection with the Term Loan. The Term Loan meets the definition of a "recognized financial liability" which is an acceptable financial instrument eligible for the fair value option under ASC 825. At the date of issuance, the fair value of the Term Loan was derived from the instrument's implied discount rate at inception. The fair value option election was made to enhance the relevance and transparency of information presented related to the features embedded in the Term Loan.

Changes in the fair value of the Term Loan, other than changes associated with the Company's own credit risk, are recorded as gains or losses in the Company's consolidated statements of operations and comprehensive loss in each reporting period. Changes in fair value attributable to the Company's own credit risk are recorded in other comprehensive income or loss in the Company's consolidated statements of operations and comprehensive loss in each reporting period; there have been no such changes for the year ended December 31, 2024. Under the fair value option, debt issuance costs are recorded in other expense in the Company's consolidated statements of operations and comprehensive loss.

As of December 31, 2024, the Term Loan had been repaid in full.

Fair value of financial instruments

Certain assets and liabilities are carried at fair value under U.S. GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The categorization of a financial instrument within the valuation hierarchy is based on the lowest level of input that is significant to the fair value measurement. The Company recognizes transfers between levels of the fair value hierarchy on the date of the event or change in circumstances that caused the transfer. The Company did not transfer any assets or liabilities in or out of Level 3 during the year ended December 31, 2024 or 2023.

The following table presents information about the Company's liabilities that are measured at fair value on a recurring basis as of December 31, 2024 and indicates the place in the fair value hierarchy of the valuation inputs the Company utilized to determine each such fair value (in thousands):

Description	Level	As of December 31, 2024
Liabilities:		
Warrant Liabilities – Public Warrants	1	\$ 38,675
Warrant Liabilities – Private Placement Warrants	2	\$ 31,200

The Warrants are accounted for as liabilities in accordance with ASC 815-40 and are presented within warrant liabilities in the consolidated balance sheets. The warrant liabilities are measured at fair value at inception and on a recurring basis, with changes in fair value presented within change in fair value of warrant liabilities in the consolidated statements of operations and comprehensive loss.

For periods subsequent to the detachment of the Public Warrants from the Units, the close price of the Public Warrants was used as the fair value of the Warrants as of each relevant date. The subsequent measurements of the Public Warrants after the detachment of the Public Warrants from the Units are classified as Level 1 fair value measurements due to the use of an observable market quote in an active market. The subsequent measurements of the Private Warrants after the detachment of the Public Warrants from the Units are classified as Level 2 fair value measurements due to the use of an observable market quote for the Public Warrants, which are considered to be a similar asset in an active market.

Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets and current operating lease liabilities and operating lease liabilities, net of current portion on the Company's consolidated balance sheets. As of December 31, 2024 and 2023, the Company had no financing lease arrangements. The Company recognizes lease expense for its operating leases on a straight line basis over the term of the lease.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from a lease. ROU assets and operating lease liabilities are recognized at the commencement date based on the present value of the future minimum lease payments over the lease term. Operating lease ROU assets also include the impact of any lease incentives. Amendments to a lease are assessed to determine if it represents a lease modification or a separate contract. Lease modifications are reassessed as of the effective date of the modification using an incremental borrowing rate based on the information available at the commencement date. For modified leases, the Company also reassesses the lease classification as of the effective date of the modification.

The interest rate used to determine the present value of the future lease payments is generally the Company's incremental borrowing rate, because the interest rate implicit in the Company's leases is usually not readily determinable. The incremental borrowing rate is estimated to approximate the Company's cost of borrowing on a collateralized basis with similar terms and payments, and in the economic environments where the leased assets are located.

The Company's lease terms include periods under options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option in the measurement of its ROU assets and liabilities. The Company considers contractual factors such as the nature and terms of the renewal or termination, asset-based factors such as physical location of the asset and entity-based factors such as the importance of the leased asset to the Company's operations to determine the lease term. The right-of-use assets are tested for impairment at least annually.

Revenue recognition

The Company recognizes revenue in accordance with Accounting Standards Update No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* and accounts for certain contract costs in accordance with FASB's Accounting Standards Codification ("ASC") 340-40, *Other Assets and Deferred Costs-Contracts with Customers*.

The core principle of ASC 606 is that an entity shall recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

To support this core principle, the Company applies the following five step approach:

Step 1: Identify the contract with the customer

The Company executes signed contracts with customers for services sold through either its direct sales force or various reseller channels. Payment terms on invoiced amounts are typically net 30 days or less. The Company does not offer rights of return for its services in the normal course of business.

In arrangements with re-sellers of the Company's services, the re-seller is considered the customer and the Company does not have any contractual relationships with the re-sellers' end users. For these arrangements, revenue is recognized at the amount charged to the re-seller.

Upon initiation of a customer contract, an assessment is conducted by the Company regarding the customer's ability to pay for the services rendered. This assessment encompasses various factors such as the customer's creditworthiness and past transaction history. Furthermore, periodic evaluations of customers' financial conditions are performed by the Company.

Step 2: Identify the performance obligations

The Company's contracts with customers often include multiple performance obligations. The Company's performance obligations are as follows:

- *Subscription access to its QCaaS cloud platform*
- *Professional services related to the development and implementation of quantum computing applications*
- *Quantum computing systems*
- *Quantum computing application training*
- *Application support and maintenance*
- *Printed circuit boards.*

Our contracts with customers may include renewals or other options at fixed prices, which typically do not represent a significant discount. Based on our assessment of standalone selling prices, we determined that there were no significant material rights provided to our customers requiring separate recognition.

Step 3: Determine the transaction price

The transaction price is the amount of consideration to which the Company expects to be entitled in exchange for transferring goods and services to the customer. The price for the Company's offerings is fixed and stated in the contract with the customer. The Company has elected the practical expedient terms that permit an entity not to recognize a significant financing component if the time between the transfer of a good or service and payment is one year or less. The Company excludes from revenue government-assessed and imposed taxes on goods and services that are invoiced to customers.

Step 4: Allocate the transaction price to the performance obligations

When the Company determines that its contracts with customers contain multiple performance obligations, for these arrangements, the Company allocates the transaction price based on the relative standalone selling price ("SSP") basis method by comparing the SSP of each distinct performance obligation to the total value of the contract. The Company uses SSP for products and services sold together in a contract to determine whether there is a variable consideration (e.g. discount) to be allocated based on the relative SSP of the various products and services. In instances where SSP is not directly observable, such as when the Company does not sell the product or service separately, the Company determines the SSP by considering its overall pricing objectives and market conditions, including cost plus a reasonable margin. Significant pricing practices taken into consideration include the Company's discounting practices, the customer demographic, price lists, the Company's go-to-market strategy, historical and current sales, and contract prices. In instances where the Company does not sell or price a product or service separately, the Company maximizes the use of observable inputs by using information that may include market conditions.

Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

The Company's QCaaS cloud platform and support and maintenance services are obligations that are satisfied over time by providing the customer with ongoing access to the Company's resources. The Company uses the straight-line measure of progress to recognize revenue as these performance obligations are satisfied evenly over the respective service periods. The Company's professional services constitute an activity that creates benefits that the customer receives as the work is being performed. Therefore, professional services revenue is recognized over time using the labor hours incurred as input measure of progress. Revenue from quantum computing systems is recognized at a point in time when control of the system transfers to the customer, typically upon delivery or installation, depending on the terms of the sales contract. The Company's training and circuit board performance obligations are satisfied at a point in time when control of the goods or service transfers from the Company to the customer.

Contract assets and contract liabilities

The timing of revenue recognition, billings and cash collections may result in accounts receivable, contract assets, and contract liabilities (deferred revenue) on the Company's consolidated balance sheets. A receivable is recorded in the period in which the Company provides services when it has an unconditional right to payment. Contract assets primarily relate to the value of services transferred to the customer for which the right to payment is not dependent only on the passage of time, such as when unbilled receivables are recorded for revenue recognized for work completed under professional services contracts for which the related milestone billing has not yet occurred. Contract assets are transferred to accounts receivable when rights to payment become unconditional.

Deferred revenue primarily consists of billings or payments received in advance of revenue recognition from subscription access to the QCaaS cloud platform and maintenance services and is reduced as the revenue recognition criteria are met. Deferred revenue is classified as current or non-current on the consolidated balance sheets based on the expected timing of revenue recognition. The deferred revenue that will be recognized as revenue within the next twelve months is classified as current, and the deferred revenue that will be recognized thereafter is classified as non-current.

Our contract acquisition costs represent incremental direct costs of obtaining a contract, primarily consisting of sales incentives paid to employees. When these costs are determined to be recoverable, we defer and amortize them over the contract term. Unamortized contract acquisition costs are included in other non-current assets, net on the consolidated balance sheets, with related amortization expense recorded in sales and marketing expenses on the consolidated statements of operations and comprehensive loss. The Company has elected to apply the practical expedient to expense contract acquisition costs as incurred when the expected amortization period is one year or less.

Cost of revenue

Cost of revenue for services consists of expenses related to delivering the Company's services, consisting of direct labor costs, including stock-based compensation, direct services costs and depreciation and amortization related to the Company's quantum computing systems and related software. These costs are expensed as incurred, as they relate to performance obligations that are being simultaneously satisfied as the work is performed.

Cost of revenue for quantum computing systems includes direct manufacturing costs, such as materials and labor for system production, as well as expenses related to installation, warranty, and support. Additionally, it includes shipping and handling costs associated with delivering the systems. These costs are also expensed as incurred.

Research and development

Research and development expenses consist of personnel costs, including stock-based compensation expense, and allocated shared resource costs for the Company's hardware, software and engineering personnel who design and develop the Company's quantum computing systems and research new quantum computing technologies. Research and development expenses also include purchased hardware and software costs related to quantum computing systems constructed for research purposes that are not probable of providing future economic benefit and have no alternate future use.

Advertising costs

Advertising costs are expensed as incurred and are included in sales and marketing expenses in the consolidated statements of operations. These costs totaled \$0.5 million and \$0.3 million for the years ended December 31, 2024 and 2023, respectively.

Stock-based compensation

The Company accounts for its stock-based compensation in accordance with ASC 718, Compensation—Stock Compensation (ASC 718). ASC 718 requires all stock-based payments to employees and directors to be recognized as expense based on the estimated fair value of the awards as of the grant date. The Company uses the Black-Scholes option-pricing model to estimate the grant date fair value of its stock option awards, and the Company uses the quoted market closing price of its common stock as reported on the New York Stock Exchange as the grant date fair value for Restricted Stock Units (RSUs). Stock-based compensation expense is recognized over the requisite service period using the straight-line method and is based on the value of the portion of stock-based payment awards that is ultimately expected to vest. As such, the Company's stock-based compensation is reduced for the estimated forfeitures at the grant date and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

The Black-Scholes option-pricing model requires the use of subjective assumptions, which determine the estimated fair value of share-based awards, including the option's expected term, the price volatility of the underlying Common Shares, risk-free interest rates, and the expected dividend yield of the Common Shares. The assumptions used to determine the fair value of the stock awards represent management's best estimates. As there is limited quoted price history for the Company's Common Shares, the Company has estimated the volatility of the Company's Common Shares using comparable publicly-traded peer companies. The Company's estimates involve inherent uncertainties and the application of judgment.

Income taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the estimated future tax consequences of events that have been included in the consolidated financial statements or in the Company's tax returns. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax bases of assets and liabilities using the enacted tax rates and laws in effect for the years in which the differences are expected to reverse. Deferred income taxes are classified as current or non-current, based on the classification of the related assets and liabilities giving rise to the temporary differences. A valuation allowance is provided when it is more likely than not that some portion or all of a deferred tax asset will not be realized. In assessing the need for a valuation allowance, the Company considers factors such as past operating results and expected future taxable income within each jurisdiction in which the Company operates.

To the extent that new information becomes available, which causes the Company to change its judgment regarding the adequacy of tax liabilities or valuation allowances, such changes will impact income tax expense in the period in which such determination is made. Interest and penalties, if any, related to accrued liabilities for potential tax assessments are included in income tax expense.

Tax benefits related to uncertain tax positions are recognized when it is more likely than not that a tax position will be sustained during an audit. Interest and penalties related to unrecognized tax benefits are included within the provision for income tax.

Net loss per share

Basic net loss per common share is computed by dividing the net loss available to common stockholders (the numerator) by the weighted-average number of common shares outstanding (the denominator) during the period. Diluted net loss per common share is computed by dividing the net loss available to common stockholders adjusted by any preferred stock dividends declared during the period by the weighted average number of common stock and potential common shares outstanding when the impact is not antidilutive. Contingently issuable shares are included in basic Earnings Per Share ("EPS") only when there is no circumstance under which those shares would not be issued. Shares issuable for little or no cash consideration shall be considered outstanding common shares and included in the computation of basic EPS.

Recent accounting pronouncements issued and adopted

Segment Reporting

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07, Segment Reporting--Improvements to Reportable Segment Disclosures, which requires incremental disclosures about a public entity's reportable segments but does not change the definition of a segment or the guidance for determining reportable segments. The new guidance requires disclosure of significant segment expenses that are (1) regularly provided to (or easily computed from information regularly provided to) the chief operating decision maker and (2) included in the reported measure of segment profit or loss. The new standard also allows companies to disclose multiple measures of segment profit or loss if those measures are used to assess performance and allocate resources. The Company adopted ASU 2023-07 for the year ended December 31, 2024. See *Note 16 - Segment and geographic information* in the accompanying notes to the consolidated financial statements for further detail.

Recent accounting pronouncements not yet adopted

Income Tax Disclosures

In December 2023, the FASB issued ASU 2023-09, Improvements to Income Tax Disclosures, which requires disaggregated information about our effective tax rate reconciliation as well as information on income taxes paid. The new guidance will first be effective in our annual disclosures for the year ending December 31, 2025, and should be applied on a prospective basis with the option to apply retrospectively. Early adoption is permitted. We are in the process of assessing the impact of ASU 2023-09 on our disclosures.

Expense Disaggregation Disclosures

In November 2024, the FASB issued ASU 2024-03, Income Statement-Reporting Comprehensive Income-Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses, requiring public entities to disclose additional information about specific expense categories in the notes to the financial statements on an interim and annual basis. ASU 2024-03 is effective for fiscal years beginning after December 15, 2026, and for interim periods beginning after December 15, 2027, with early adoption permitted. The Company is currently evaluating the impact of adopting ASU 2024-03.

Climate Disclosures

In March 2024, the SEC adopted new climate rules that require a wide range of climate-related disclosures, including material climate-related risks, information on climate-related targets or goals that are material to the registrant's business, results of operations or financial condition, Scope 1 and Scope 2 greenhouse gas emissions on a phased-in basis by large accelerated filers and accelerated filers when those emissions are material and the filing of an attestation report covering the same, and disclosure of the financial statement effects of severe weather events and other natural conditions including costs and losses. Compliance dates under the final rule are phased in by registrant category. Multiple lawsuits have been filed challenging the SEC's new climate rules, which have been consolidated and will be heard in the U.S. Court of Appeals for the Eighth Circuit. In April 2024, the SEC issued an order staying the final rules until judicial review is complete. The Company is currently evaluating the impact of the final rules on its disclosures.

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

Disaggregation of revenue

Nature of Products and Services

The following table depicts the disaggregation of revenue by type of products or services and timing of transfer of products or services (in thousands):

	Year Ended December 31,	
	2024	2023
Type of products or services		
QCaaS	\$ 6,745	\$ 4,895
Professional services	1,938	3,816
Other revenue*	144	47
Total revenue	<u>\$ 8,827</u>	<u>\$ 8,758</u>
Timing of revenue recognition		
Revenue recognized over time	\$ 8,773	\$ 8,569
Revenue recognized at a point in time	54	189
Total revenue	<u>\$ 8,827</u>	<u>\$ 8,758</u>

*Other revenue includes support and maintenance and printed circuit board sales.

Geographic Information

The following table presents a summary of revenue by geography for the years ended December 31, 2024 and 2023, based on customer location (in thousands):

	Year Ended December 31,	
	2024	2023
United States	\$ 2,151	\$ 3,325
Germany	1,894	1,268
Japan	1,133	909
Canada	1,101	432
Other	2,548	2,824
Total revenue	<u>\$ 8,827</u>	<u>\$ 8,758</u>

"Other" includes the rest of Europe, the Middle East, Asia and Australia where the revenue from a single country is not greater than 10% of total consolidated revenue. The Company has not had any sales in China, Russia or Ukraine.

Significant customers

A significant customer is defined as one that comprises up to ten percent or more of total revenues in a particular year or ten percent of outstanding accounts receivable balance as of the period end.

The tables below present the significant customers on a percentage of total revenue basis for the years ended December 31, 2024 and 2023.

	Year Ended December 31,	
	2024	2023
Customer A	17 %	12 %
Customer B	— %	11 %
Customer C	— %	11 %

As of each of December 31, 2024 and 2023, there were three significant customers that comprised ten percent or more of outstanding accounts receivable balances.

Contract balances

The following table provides information about account receivable, contract assets and liabilities as of December 31, 2024 and December 31, 2023 (in thousands):

	As of December 31,	
	2024	2023
Trade accounts receivable and contract assets, net:		
Trade accounts receivable, net of allowance for doubtful accounts and excluding unbilled receivables	\$ 867	\$ 644
Contract asset for unbilled receivables	553	1,008
Contract acquisition costs	174	—
Total contract assets	<u>\$ 1,594</u>	<u>\$ 1,652</u>
Contract liabilities:		
Deferred revenue, current	\$ 18,686	\$ 2,669
Deferred revenue, non-current	670	79
Customer deposit ¹	48	45
Total contract liabilities	<u>\$ 19,404</u>	<u>\$ 2,793</u>

¹Customer deposit is included in accrued expenses and other current liabilities on the consolidated balance sheets.

The balance of trade accounts receivable, net as of December 31, 2022 was \$0.8 million.

The allowance for credit losses related to trade accounts receivable was \$0.2 million and zero as of December 31, 2024 and December 31, 2023. During the years ended December 31, 2024 and 2023, the Company wrote off \$0.1 million and zero, respectively, in accounts receivable deemed uncollectible.

The revenue recognized in the consolidated statements of operations and comprehensive loss that was included in the contract liability balance at the beginning of each period was \$2.7 million and \$1.8 million for the year ended December 31, 2024 and 2023, respectively.

Changes in deferred revenue from contracts with customers were as follows (in thousands):

	Year Ended December 31,	
	2024	2023
Balance at beginning of period	\$ 2,748	\$ 1,790
Deferral of revenue	25,435	7,089
Recognition of deferred revenue	(8,827)	(6,131)
Balance at end of period	<u>\$ 19,356</u>	<u>\$ 2,748</u>

Remaining performance obligations

A significant number of the Company's product and service sales are short-term in nature with a contract term of one year or less. For those contracts, the Company has utilized the practical expedient in ASC 606-10-50-14 exempting the Company from disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of a contract that has an original expected duration of one year or less.

As of December 31, 2024, the aggregate amount of remaining performance obligations that were unsatisfied or partially unsatisfied related to customer contracts was \$19.4 million, of which approximately 93% is expected to be recognized to revenue in the next 12 months, 97% is expected to be recognized to revenue in the next two years, 99% is expected to be recognized within three years. Revenues allocated to remaining performance obligations represents the transaction price of noncancellable orders for which service has not been performed, which include deferred revenue and the amounts that will be invoiced and recognized as revenues in future periods from open contracts and excludes unexercised renewals.

4. BALANCE SHEET DETAILS

Inventories

Inventories consisted of the following (in thousands):

	As of December 31,	
	2024	2023
Raw materials	\$ 1,677	\$ 2,052
Work-in-process	9	26
Total inventories	<u>\$ 1,686</u>	<u>\$ 2,078</u>

Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	As of December 31,	
	2024	2023
Prepaid services	\$ 977	\$ 386
Prepaid software	845	543
Prepaid insurance	382	490
Prepaid rent	156	150
Other	1,594	440
Total prepaid expenses and other current assets	<u>\$ 3,954</u>	<u>\$ 2,009</u>

*Certain amounts presented in the table above as of December 31, 2023 have been reclassified to conform to the current period presentation.

Other non-current assets, net

Other non-current assets, net consisted of the following (in thousands):

	As of December 31,	
	2024	2023
Investment in equity securities	\$ 2,574	\$ 1,168
Long-term deposits	181	189
Contract acquisition costs, net	174	—
Total	<u>\$ 2,929</u>	<u>\$ 1,357</u>

On January 5, 2024, one of the Company's equity investments was acquired by another entity and the transaction was determined to result in an observable price change in the equity security. Consequently, the carrying value of the Company's investment was adjusted based on the consideration received, resulting in a net gain of approximately \$1.7 million, recorded in gain (loss) on investment in marketable equity securities on the consolidated statements of operations and comprehensive loss during the year ended December 31, 2024.

On February 8, 2024, the Company entered into a collaboration arrangement with Zapata to develop and bring to market commercial applications that combine generative AI and quantum computing technologies. As part of the collaboration, the Company purchased the Note with a principal amount of \$1.0 million from Zapata. The Note matures on December 15, 2026, and bears interest at 15% per annum. The Note is prepayable without penalty after December 15, 2025 or if the aggregate value of Zapata's convertible notes outstanding falls below \$3.0 million. The Note is convertible into Zapata common stock at the Company's option at a conversion price of \$8.50, subject to adjustment for stock splits, recapitalizations, and other similar corporate transactions.

On April 1, 2024 the conversion feature associated with the Note was bifurcated from the debt host instrument in connection with the underlying stock becoming readily convertible to cash as the result of a de-SPAC transaction. As a result, the fair value of the conversion feature of \$0.2 million was given separate recognition. As of December 31, 2024, the fair value of the conversion feature was immaterial, resulting in a loss of \$0.2 million recorded to gain (loss) on investment in marketable equity securities on the consolidated statements of operations and comprehensive loss.

On October 11, 2024, Zapata announced that it was insolvent and would cease operations. Considering this and other financial information available prior to the balance sheet date, the Note was provisionally determined to be uncollectible, and the Company has recognized a credit loss provision for the entire balance owed of \$1.0 million as of December 31, 2024. The charge was recorded within general and administrative expenses in the consolidated statements of operations and comprehensive loss. See Note 2 for additional discussion of the Note and the Company's collateral rights to substantially all of Zapata's assets.

Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	As of December 31,	
	2024	2023
Accrued compensation and related benefits	\$ 5,499	\$ 3,245
Accrued professional services	529	1,092
Other accruals	2,756	1,006
Total accrued expenses and other current liabilities	<u>\$ 8,784</u>	<u>\$ 5,343</u>

*Certain amounts presented in the table above as of December 31, 2023 have been reclassified to conform to the current period presentation.

5. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consisted of the following (in thousands):

	As of December 31,	
	2024	2023
Quantum computer systems	\$ 14,471	\$ 13,712
Lab equipment	6,862	6,839
Computer equipment	4,701	3,703
Leasehold improvements	1,889	1,075
Furniture and fixtures	381	381
Construction-in-progress	836	894
Total property and equipment	29,140	26,604
Less: Accumulated depreciation	(25,007)	(24,053)
Total property and equipment, net	\$ 4,133	\$ 2,551

Depreciation expense for the years ended December 31, 2024 and 2023 was \$1.0 million and \$0.9 million, respectively.

6. INTANGIBLE ASSETS, NET

Intangible assets, net consisted of the following (in thousands):

	As of December 31,	
	2024	2023
Acquired software	\$ 1,309	\$ 1,199
Internally developed software	332	—
Other intangible assets	46	46
Total intangible assets	1,687	1,245
Less: Accumulated amortization	(1,197)	(1,066)
Total intangible assets, net	\$ 490	\$ 179

Amortization expense for the years ended December 31, 2024 and 2023 was \$0.1 million and \$0.1 million, respectively.

7. LOANS PAYABLE, NET

As of December 31, 2024 and 2023, loans payable, net, consisted of the SIF Loan, the TPC loan (as defined below) and the Term Loan. The following tables show the component of loans payable (in thousands):

	Effective Interest Rate	As of December 31,	
		2024	2023
Loans payable, net, current:			
TPC Loan, current	Interest free	\$ 348	\$ 399
Total loans payable, net, current		\$ 348	\$ 399
Loans payable, net, non-current:			
SIF Loan	Variable ¹	\$ 30,128	\$ 32,072
Term Loan, due 2027	11.00%	—	31,400
TPC Loan, non-current	Interest free	—	378
Total loans payable, net, non-current		\$ 30,128	\$ 63,850

¹Refer below for additional information on the SIF Loan repayment period and effective interest rate.

The following table shows the component of the Company's indebtedness carried at fair value and amortized cost (in thousands):

	As of December 31,	
	2024	2023
SIF Loan	\$ 30,128	\$ 32,072
TPC Loan, non-current	—	378
Total loans payable, net, non-current, at amortized cost	30,128	32,450
Fair value option - Term Loan	—	31,400
Total loans payable, net, non-current	\$ 30,128	\$ 63,850

TPC loan

During the period spanning 2010 through 2021, the Company received funding totaling C\$12.5 million from Technology Partnerships Canada (the "TPC Loan"). On November 23, 2020, an amendment forgave C\$5.0 million of unpaid accrued debt principal and interest from prior years. Additionally, the amendment waived the interest charge on the remaining C\$2.5 million of principal and revised the repayment schedule to C\$0.5 million due annually on each April 30 through 2025.

The estimated fair value of the TPC Loan (Level 2) at December 31, 2024 was \$0.3 million. The fair value of the TPC Loan was valued using a discounted cash flow model, with key inputs relating to terms, discount rate and expectations for defaults and prepayments.

As the TPC Loan is originated through a government program, a market rate of interest is not imputed in accordance with the scope limitations of ASC 835.

SIF Loan

On November 20, 2020, the Company entered into the SIF Loan. As of December 31, 2023, the Company had received the full C\$40.0 million in eight tranches between November 2020 and December 2023. Funds from the SIF Loan were used for projects involving the adaptation of research findings for commercial applications that have the potential for market disruption; development of current product and services through the implementation of new or incremental technology that will enhance the Company's competitive capability; and development of process improvements which reduce the environmental footprint of current production through the use of new or improved technologies.

Principal and interest amounts to be repaid under the SIF Loan are determined using a revenue-based formula, and are capped at 150% of the principal amount (the "Repayment Cap"). Repayments are due in up to 15 annual installments, commencing on April 30 of the second fiscal year following the fiscal year in which the Company first reports annual revenue of at least \$70.0 million (the "Benchmark Year"). If the Company fails to reach \$70.0 million in annual revenue after 14 years from origination, or if the total of the 15 revenue-based annual installments is less than the principal amount, any remaining repayment obligation will be forgiven.

Repayments of the SIF Loan can also be triggered upon default of the agreement, termination of the agreement, or upon a change of control that has not been approved by the Canadian government. As of December 31, 2024, the Company is not aware of any events that would trigger default or termination of the agreement.

The gross proceeds of the SIF Loan were recorded as a liability related to the sale of future revenues (see *Note 2 - Basis of Presentation and Summary of Significant Accounting Policies*). As of December 31, 2024 and 2023, the Company calculated a weighted average effective interest rate for all tranches of 2.46% and 2.46%, respectively based on the most recent revenue projections at each reporting date. For the year ended December 31, 2024 and 2023, the Company recognized gains related to catch-up method adjustments to the accrued interest portion of the loans payable, net balance of \$0.2 million and \$2.9 million, respectively, which are included in interest expense on the consolidated statements of operations and comprehensive loss.

The estimated fair value of the SIF Loan (Level 3) at December 31, 2024 was \$10.7 million. The fair value of SIF Loan was valued using a discounted cash flow model, with significant assumptions relating to the amount and timing of future revenues and the appropriate discount rate.

Term Loan

On April 13, 2023, the Company entered into the Term Loan with PSPIB, a related party to the Company's largest shareholder. Under the Term Loan, term loans in aggregate principal amount of \$50.0 million were to be made available to the Company in three tranches, subject to certain terms and conditions.

The Company fully repaid and extinguished the Term Loan on October 22, 2024, including \$30.0 million in principal and \$4.3 million in accrued payable in kind ("PIK") interest. The Term Loan, originally set to mature on March 31, 2027, was secured by a first-priority security interest in substantially all of the Company's assets and included certain operational and financial covenants. It bore interest at either 10.0% payable in cash or 11.0% PIK, with the latter added to the principal balance. For the years ended December 31, 2024, and 2023, the Company recognized \$3.2 million and \$2.0 million, respectively, in interest expense.

Throughout 2023 and 2024, multiple amendments were made to the Term Loan, including covenant waivers, modifications to prepayment requirements, and exemptions for certain share issuance proceeds. The sixth and final amendment, entered on April 16, 2024, provided temporary prepayment exemptions for up to \$30.0 million in proceeds from share issuances, with an additional \$20.0 million exempt from the 10% prepayment premium.

With the full repayment of the Term Loan, the Company has no remaining obligations under this facility.

The following table summarizes the changes in the carrying value of the Term Loan (in thousands):

	Year ended December 31, 2024
Beginning balance	\$ 31,400
PIK interest expenses	2,281
Change in fair value	645
Payments	(34,326)
Ending balance	<u>\$ —</u>

8. LEASES

The Company leases real estate, including offices and manufacturing facilities and has entered into various other agreements with respect to assets used in conducting its business. The Company's leases have remaining lease terms ranging from 1.33 years to 9.01 years. Some of the lease agreements contain rent holidays and rent escalation clauses that were included in the calculation of the right of use of assets and lease liabilities.

The Company's building leases are subject to annual operating cost charges that may change from time to time during the lease term. The Company's lease liabilities are not remeasured as a result of changes to the operating costs; rather, these changes are treated as variable lease payments and recognized in the period in which the obligation for the payments was incurred. The annual operating costs are a non-lease component of the contracts; however, the Company has elected to adopt the practical expedient whereby such costs are not separated from the lease component.

The following table presents the components of lease cost (in thousands):

	Years ended December 31,	
	2024	2023
Operating lease cost	\$ 1,560	\$ 1,675
Variable lease cost	461	416
Sublease income	—	125

The following table presents the weighted-average lease terms and discount rates for operating leases:

	As of December 31,	
	2024	2023
Lease term and discount rate:		
Weighted average remaining lease term, in years		
Operating leases	8.4	9.7
Weighted average discount rate⁽¹⁾		
Operating leases	10.1 %	9.5 %

⁽¹⁾ For the lease contracts denominated in foreign currencies, the weighted average discount rate was calculated by converting the foreign currency amounts to equivalent amounts in USD.

Future minimum operating lease payment under non-cancelable leases as of December 31, 2024, were as follows (in thousands):

	Operating Leases	
Year Ending December 31,		
2025	\$	1,512
2026		1,392
2027		1,272
2028		1,293
2029		1,191
Thereafter		5,057
Total future minimum lease payments		11,717
Less: Interest		(3,816)
Total lease liabilities	\$	7,901

9. INCOME TAXES

Income tax expense

The following table presents domestic and foreign components of loss before income taxes for the years ended December 31, 2024 and 2023 (in thousands):

	Years ended December 31,	
	2024	2023
Domestic	\$ (113,553)	\$ (42,502)
Foreign	(30,326)	(40,213)
Total net loss before income taxes	\$ (143,879)	\$ (82,715)

Significant components of the Company's deferred income tax assets and liabilities as of December 31, 2024 and 2023 are as follows:

	Years ended December 31,	
	2024	2023
Deferred tax assets:		
Net operating loss carryforwards	\$ 64,583	\$ 54,625
Research and development credit carryforward	18,531	15,468
Scientific research and experimental development deductions	36,155	33,321
Depreciation and amortization	6,684	6,349
Start-up costs	809	873
Stock-based compensation	1,939	498
Other accruals and reserves	1,431	654
Total deferred tax assets	130,132	111,788
Valuation Allowance	(129,107)	(110,981)
Total deferred tax assets, net	<u>\$ 1,025</u>	<u>\$ 807</u>
Deferred tax liabilities:		
Marketable securities	(695)	(315)
Loan payable	(330)	(492)
Total deferred tax liabilities	<u>(1,025)</u>	<u>(807)</u>
Net deferred tax assets (liabilities)	<u>\$ —</u>	<u>\$ —</u>

The effective tax rate differs from the statutory rate, primarily due to the Company's history of incurring losses, which have not been utilized, the foreign rate differential related to subsidiary earnings, and other permanent differences.

A summary reconciliation of the effective tax rate calculated at the US federal rate for 2024 and 2023 is as follows:

	Years ended December 31,	
	2024	2023
US federal tax rate	21 %	21 %
Foreign losses taxed at different rates	1 %	3 %
Return to provision adjustments	1 %	(16)%
Stock-based compensation	(2)%	(6)%
Research and development credits	2 %	5 %
Permanent differences	(11)%	(2)%
Change in valuation allowance	(12)%	(5)%
Effective tax rate	<u>— %</u>	<u>— %</u>

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and the amount of which are uncertain.

As of December 31, 2024, the Company maintained a valuation allowance with respect to its subsidiaries' net operating losses that it believes is more likely than not that the deferred tax asset will not be realized. The Company will continue to reassess the valuation allowance annually and if future evidence allows for a partial or full release of the valuation allowance, a tax benefit will be recorded accordingly.

As of December 31, 2024, the Company has Canadian tax loss carryforwards of approximately \$115.7 million expiring between 2033 and 2044 as well as Scientific Research and Experimental Development expenditures of approximately \$134.0 million that can be carried forward indefinitely, which are available to be applied against future taxable income. In addition, the Company has investment tax credits of approximately \$19.4 million expiring between 2028 and 2044 that are available to be applied against future Canadian federal income taxes payable. The Company has provincial investment tax credits of approximately \$4.2 million expiring between 2032 and 2034 that are available to be applied against future Canadian provincial income taxes payable.

The Company also has US tax loss carryforwards of approximately \$98.4 million which may be applied against future taxable income, of which \$15.6 million will expire between 2033 and 2037, while \$82.8 million can be carried forward indefinitely. Future utilization of US tax loss carryforwards is subject to certain limitations under the Internal Revenue Code ("IRC"), including limitations under IRC section 382. The Company's US tax loss carryforwards may be limited by IRC section 382. However, those limitations do not have a significant impact to the financial statements since there is no utilization of the tax loss carryforwards and a full valuation allowance exists against the net operating losses.

The Company files income tax returns in the US, Canada, and various foreign and state jurisdictions. The 2013 to 2024 tax years remain subject to examination by the US federal and state tax authorities. The 2020 to 2024 tax years remain subject to examination by Canadian tax authorities.

The Company has unrecognized tax benefits of 0.7 million as of December 31, 2024. No amount of the unrecognized tax benefits would affect the effective tax rate because any tax benefits would result in adjustments to a related deferred tax asset that are offset by a valuation allowance. The Company has not accrued for any interest or penalties as of December 31, 2024.

The total gross unrecognized tax benefits remained unchanged throughout the year ended December 31, 2024.

10. WARRANT LIABILITIES

Public and Private Warrants

In conjunction with the Merger, the Company assumed 10,000,000 DPCM public warrants (the "Public Warrants") and 8,000,000 DPCM private warrants (the "Private Warrants", collectively the "Warrants"). During the year ended December 31, 2024, no DPCM public or private warrants were exercised.

As of December 31, 2024, the Company has 17,916,462 Warrants outstanding. As part of the Merger, each DPCM Public Warrant and Private Warrant that was issued and outstanding immediately prior to the Merger was automatically and irrevocably converted into one D-Wave Quantum warrant. The Warrants are subject to the terms and conditions of the warrant agreement entered into between DPCM, Continental Stock Transfer & Trust Company and the Company (the "Warrant Agreement Amendment" as specified in the Transaction Agreement).

Each such Warrant will be exercisable at an exercise price of \$11.50 for 1.4541326 Common Shares, or an approximate exercise price per Common Share of \$7.91, subject to adjustments. The Warrants may be exercised for a whole number of shares of the Company. No fractional shares will be issued upon exercise of the Warrants. The Warrants will expire on August 5, 2027, or earlier upon redemption or liquidation.

The Private Warrants are identical to the Public Warrants except that the Private Warrants are exercisable on a cashless basis and are non-redeemable so long as they are held by the initial purchasers or their permitted transferees. If the Private Warrants are held by someone other than the initial purchasers or their permitted transferees, the Private Warrants will be redeemable by the Company and exercisable by such holders on the same basis as the Public Warrants.

The Company may redeem the Public Warrants:

- in whole and not in part;
- at \$0.10 per warrant upon a minimum of 30 days' prior written notice of redemption; provided that holders will be able to exercise their warrants on a cashless basis prior to redemption and receive that number of shares based on the redemption date and the fair market value of the Common Shares;
- if, and only if, the last reported sales price of the shares of the Common Shares for any twenty (20) trading days within the thirty (30) trading-day period ending on the third trading day prior to the date on which a notice of redemption is given equals or exceeds \$10.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalization and the like) (the "Reference Value");
- if the Reference Value is less than \$18.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalization and the like), the Private Warrants must also be concurrently called for redemption on the same terms as the outstanding Public Warrants, as described above; and
- if, and only if, there is an effective registration statement covering the issuance of the Common Shares issuable upon exercise of the warrants and a current prospectus relating thereto available throughout the 30-day period after written notice of redemption is given, or an exemption from registration is available.

If the Company calls the Public Warrants for redemption, management will have the option to require all holders that wish to exercise the Public Warrants to do so on a “cashless basis,” as described in the warrant agreement. The exercise price and number of the Common Shares issuable upon exercise of the warrants may be adjusted in certain circumstances including in the event of a stock dividend, or recapitalization, reorganization, merger or consolidation. However, the warrants will not be adjusted for issuance of the Common Shares at a price below its exercise price. Additionally, in no event will the Company be required to net cash settle the warrants.

D-Wave Systems Warrant Transaction Agreements

In November 2020, contemporaneously with a revenue arrangement, D-Wave Systems entered into a contract pursuant to which D-Wave Systems agreed to cancel a previously issued warrant with a customer and replace it with a warrant to acquire up to 3,247,637 shares of its Class A Preferred Shares (the “Warrant Preferred Shares”), subject to certain vesting requirements. The warrant agreement was amended on August 5, 2022, contemporaneously with the closing of the Merger, to convert the Warrant Preferred Shares to a warrant to acquire up to 2,889,282 Common Shares of the Company in accordance with the Conversion Ratio of 0.889657 (the “Conversion Ratio”) established in the Merger. The warrants vest based on various contractual milestones. The warrant agreement was terminated on November 28, 2022. As of the termination date of the agreement, approximately 40% of the warrants had vested, resulting in warrants exercisable into 1,155,713 Common Shares remaining after the termination date. The vested warrants will remain exercisable for up to 1,155,713 Common Shares at an exercise price of \$2.16 per Common Share until November 29, 2026. As of December 31, 2024, no additional Warrant Preferred Shares were vested and or probable of vesting.

11. STOCK-BASED COMPENSATION

2020 Equity Incentive Plan

In April 2020, the Board of Directors of D-Wave Systems approved the 2020 Equity Incentive Plan (the “2020 Plan”) which provides for the grant of qualified ISO and NSO, restricted stock, RSU or other awards to the Company’s employees, officers, directors, advisors, and outside consultants. Following the Merger, awards outstanding under the 2020 Plan will continue to be governed by the 2020 Plan; however, the Company will not grant any further awards under the 2020 Plan.

2022 Equity Incentive Plan

In connection with the Merger, the shareholders approved the D-Wave Quantum Inc. 2022 Equity Incentive Plan (the “2022 Plan”) on August 5, 2022, which became effective immediately upon the closing of the Merger. The aggregate number of Common Shares reserved for future issuance under the 2022 Plan was 19,761,523 shares as of December 31, 2024, inclusive of outstanding awards. The number of shares reserved for issuance under the 2022 Plan automatically increases on January 1st of each year for a period of ten years commencing on January 1, 2023 and ending on (and including) January 1, 2032, in an amount equal to 5% of the fully-diluted Common Shares outstanding (as defined by the 2022 Plan) on December 31st of the preceding year; provided, however, that the Board of Directors of the Company may act prior to January 1st of a given year to provide that the increase for such year will be a lesser number of Common Shares. An automatic increase on the reserve of 16,570,847 shares became effective on January 1, 2025. While the 2022 Plan allows for the issuance of awards with a service condition, a performance condition, a market condition, or some combination of the three, to date, the Company has only issued awards subject to a service condition. Awards issued under the 2022 Plan have vesting periods ranging from under 1 year to 4 years from the original grant date, and all awards issued to date under the 2022 Plan will expire 10 years from the original grant date.

Share-based compensation awards are settled by issuing new shares.

Stock option valuation

The Company estimates the fair value of stock options on the date of grant using the Black-Scholes option-pricing model and has used this method during the years ended December 31, 2024 and 2023. The Black-Scholes option-pricing model requires estimates of highly subjective assumptions, which affect the fair value of each stock option.

Risk-Free Interest Rate. The Company estimates its risk-free interest rate by using the yield on actively traded non-inflation-indexed U.S. treasury securities with contract maturities equal to the expected term.

Expected Term. The expected term of the Company’s options represents the period that the stock-based awards are expected to be outstanding.

Expected Volatility. Given the limited quoted price history for the Common Shares, the expected volatility is based on the Company’s historical stock price volatility and that of comparable publicly-traded companies.

Expected Dividend Yield. The Company has not declared or paid dividends to date and does not anticipate declaring dividends.

No stock options were granted during the year ended December 31, 2023. The assumptions used to estimate the fair value of stock options granted during the year ended December 31, 2024 are as follows:

	Year ended December 31, 2024
Expected dividend yield	—
Expected volatility	103.0% - 107.0%
Expected term (years)	5.0 - 6.1
Risk free interest	4.0% - 4.2%

Common stock option activity

The following table summarizes the Company's stock option activity during the periods presented (in thousands except share and per share data):

	Number of options	Weighted average exercise price (\$)	Weighted average remaining contractual term (years)	Aggregate intrinsic value (\$)
Outstanding as of December 31, 2023*	10,300,567	1.73	6.81	—
Granted	2,921,082	1.30		
Exercised	(1,911,119)	0.90		
Forfeited and expired	(325,792)	4.76		
Outstanding as of December 31, 2024	10,984,738	1.67	6.64	75,270
Options exercisable as of December 31, 2024	9,145,652	1.46	6.25	64,379
Options unvested as of December 31, 2024	1,839,086	2.68	8.59	10,891

*As of December 31, 2023, a total of 10,547,844 options had been issued and remained outstanding under the 2020 Plan. The number of options, along with the weighted average exercise price and weighted average remaining contractual term shown in the table above, have been adjusted to the as-converted number of Commons Shares using the Conversion Ratio applied to these 10,547,844 options.

During the years ended December 31, 2024 and 2023, the total intrinsic value of options exercised was \$6.2 million and \$1.7 million, respectively.

During the year ended December 31, 2024, the weighted-average grant date fair value of stock options granted was \$1.05 per share. No stock options were granted during the year ended December 31, 2023.

The aggregate intrinsic value of stock options is calculated as the difference between the exercise price of the stock options and the fair value of the Common Shares for those stock options that had exercise prices lower than the fair value of the Common Shares as of December 31, 2024.

Restricted stock unit awards

The following table summarizes the RSU activity and related information under the 2022 Plan (in thousands except share and per share data):

	Number of RSUs	Weighted average Grant Date Fair Value (\$)
Unvested as of December 31, 2023	7,045,813	3.13
Granted	7,058,265	1.66
Forfeited and expired	(553,478)	2.14
Vested	(4,763,578)	2.69
Unvested as of December 31, 2024	8,787,022	2.25

During the years ended December 31, 2024 and 2023, the total fair value of RSUs vested was \$12.8 million and \$20.4 million, respectively.

Employee Stock Purchase Plan

In August 2022, the Company established the 2022 Employee Stock Purchase Plan (the "ESPP"), providing eligible employees of the Company and designated subsidiaries an opportunity to purchase the Company's common shares at discounted rates. An eligible employee is defined as someone who: (i) is regularly employed by the Company or its designated subsidiaries for at least 20 hours per week and more than five months in a calendar year, and (ii) is classified as an employee for tax purposes. Regarding the Non-423 Component, any employee of the Company or its affiliates, as determined by a committee appointed by the Board, is eligible.

Management computes compensation expense by combining three components: (i) a 15% discount offered, (ii) a call option on 0.85 share of stock with an exercise price equal to the fair market value, and (iii) a put option on 0.15 share of stock with an exercise price equal to the fair market value. The requisite service period is the six-month purchase period. Any reductions in withholding amounts (or percentages) will be disregarded for compensation cost recognition. If a participant or the plan is terminated, management will reverse any expense accrued for unvested shares. As of December 31, 2024, the maximum number of common shares remaining available to be issued under the ESPP is 10,464,917. During the year ended December 31, 2024, 487,782 shares of common shares were issued under the ESPP, and compensation cost recognized related to the ESPP was \$0.3 million.

Stock-based compensation expense

The following table summarizes the stock-based compensation expense classified in the consolidated statements of operations and comprehensive loss as follows (in thousands):

	Year Ended December 31,	
	2024	2023
Cost of revenue	\$ 647	\$ 1,272
Research and development	5,089	8,286
General and administrative	8,166	11,356
Sales and marketing	1,759	1,005
Total stock-based compensation	<u>\$ 15,661</u>	<u>\$ 21,919</u>

During the years ended December 31, 2024 and 2023, total compensation cost capitalized as part of property and equipment and intangible assets was \$0.1 million and zero, respectively.

As of December 31, 2024, total unrecognized stock-based compensation cost, net of estimated forfeitures, related to our unvested stock awards was \$41.1 million. This amount is based on an estimated future forfeiture rate of 2.7% per year and will be recognized over a weighted-average period of approximately 2.10 years.

12. RELATED PARTY TRANSACTIONS

Term Loan

On April 13, 2023, the Company entered into the Term Loan, by and between the Company and PSPIB, a related party to the Company's largest shareholder. Refer to *Note 7 - Loans payable, net* for further description of the Term Loan.

Promissory notes

On February 28, 2022, an affiliate of DPCM issued an unsecured promissory note of up to \$1.0 million to the Sponsor (the "Affiliate Note") for additional working capital. \$0.2 million was drawn on the Affiliate Note. As part of the Merger, the Company assumed and amended the Affiliate Note. The Affiliate Note had been fully repaid as of December 31, 2023.

Similarly, on April 13, 2022, DPCM obtained an unsecured promissory note of up to \$1.0 million from the Sponsor (the "DPCM Note") for additional working capital. \$0.2 million was drawn on the DPCM Note. The Company also assumed and amended this note. The Affiliate Note had been fully repaid as of December 31, 2023.

These transactions were considered related party transactions as they involved affiliates of the Company.

Short swing profit settlement

During the year ended December 31, 2023, the Company recorded approximately \$0.2 million related to a short swing profit settlement remitted by a shareholder of the Company under Section 16(b) of the Securities Exchange Act of 1934, as amended. The Company recognized the proceeds as an increase to additional paid-in-capital in the consolidated statements of stockholders' equity (deficit), as well as in financing activities in the consolidated statements of cash flows for the year ended December 31, 2023.

13. COMMITMENTS AND CONTINGENCIES

Lease obligations

Refer to *Note 8 - Leases* for a description of the Company's lease obligations as of December 31, 2024.

Litigation

From time to time, the Company may become involved in various legal proceedings in the ordinary course of its business and may be subject to third-party infringement claims.

In the normal course of business, the Company may agree to indemnify third parties with whom it enters into contractual relationships, including customers, lessors, and parties to other transactions with the Company, with respect to certain matters. The Company has agreed, under certain conditions, to hold these third parties harmless against specified losses, such as those arising from a breach of representations or covenants, other third-party claims that the Company's products, when used for their intended purposes, infringe the intellectual property rights of such other third parties, or other claims made against certain parties. It is not possible to determine the maximum potential amount of liability under these indemnification obligations due to the Company's limited history of prior indemnification claims and the unique facts and circumstances that are likely to be involved in each particular claim.

As of December 31, 2024 and 2023, the Company was not subject to any material litigation or pending litigation claims.

14. NET LOSS PER SHARE

The following table sets forth the computation of the basic and diluted net loss per share attributable to common stockholders for the years ended December 31, 2024 and 2023 (in thousands, except share and per share data):

	Year Ended December 31,	
	2024	2023
Numerator:		
Net loss attributable to common stockholders - basic and diluted	\$ (143,879)	\$ (82,715)
Denominator:		
Weighted-average common stock outstanding	192,129,049	137,993,736
Net loss per share attributable to common stockholders - basic and diluted	\$ (0.75)	\$ (0.60)

Since the Company was in a loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods as the inclusion of all potential common shares outstanding would have been anti-dilutive.

Potentially dilutive securities (upon conversion) that were not included in the diluted per share calculations because they would be anti-dilutive were as follows:

	Year Ended December 31,	
	2024	2023
Public Warrants as converted to Common Shares (Note 10)	14,419,918	14,420,065
Private Warrants as converted to Common Shares (Note 10)	11,633,060	11,633,060
D-Wave Systems Warrant Shares as converted to Common Shares (Note 10)	1,155,713	1,155,713
Stock options issued and outstanding	10,984,738	10,300,567
Unvested restricted stock unit awards	8,787,022	7,045,813
Total	46,980,451	44,555,218

15. STOCKHOLDERS' EQUITY

Preferred Stock

As of December 31, 2024, D-Wave Quantum Inc. is authorized to issue up to 20,000,000 shares of preferred stock. D-Wave Quantum Inc. has not issued any shares of preferred stock as of December 31, 2024 and 2023. As no shares have been issued, D-Wave Quantum Inc. preferred stock is not reflected on the consolidated balance sheet.

Equity Purchase Agreement

On June 16, 2022, the Company entered into a common stock purchase agreement with Lincoln Park (the "Purchase Agreement"). The Purchase Agreement provides that, subject to the terms and conditions, the Company has the right, but not the obligation, to sell to Lincoln Park up to \$150.0 million in Common Shares over a 36-month period commencing on October 26, 2022. As of December 31, 2024, the Company has cumulatively received \$112.2 million in proceeds through the issuance of 78,887,060 Common Shares to Lincoln Park under the Purchase Agreement, including \$44.3 million and \$63.7 million during years ended December 31, 2024 and 2023, respectively. As of March 14, 2025, D-Wave had a remaining issuance capacity of \$37.8 million under the Purchase Agreement. The purchase price per share of the shares sold is based on the market price prevailing immediately preceding the time of sale as computed under the Purchase Agreement. The Purchase Agreement prohibits the Company from directing Lincoln Park to purchase any Common Shares if the closing price of the Common Shares is less than \$1.00. The agreement may be terminated by the Company at any time, at its sole discretion, without any additional cost or penalty.

On May 24, 2024, the Company entered into an at-the-market sales agreement (the "\$100M ATM") with Needham & Company, LLC, B. Riley Securities, Inc., and Roth Capital Partners, LLC (the "\$100M ATM Agents"). Under this agreement, the Company could sell shares of its common stock with an aggregate offering price of up to \$100.0 million through or to the Agents. During the year ended December 31, 2024, the Company has received \$97.2 million in net proceeds through the issuance of 49,812,287 Common Shares under the Sales Agreement. As of December 31, 2024, D-Wave had no remaining issuance capacity under the \$100M ATM Agreement.

On December 9, 2024, the Company entered into a new sales agreement (the "\$75M ATM") with Needham & Company, LLC, Roth Capital Partners, LLC, B. Riley Securities, Inc., and Craig-Hallum Capital Group, LLC (the "\$75M ATM Agents"). Under this agreement, the Company could sell shares of its common stock with an aggregate offering price of up to \$75.0 million through or to the Agents. During the year ended December 31, 2024, the Company has received \$72.9 million in net proceeds through the issuance of 15,576,628 Common Shares under the Sales Agreement. As of December 31, 2024, D-Wave had no remaining issuance capacity under the \$75M ATM Agreement.

On January 10, 2025, the Company entered into another at-the-market sales agreement (the "\$150M ATM") with Needham & Company, LLC, Stifel, Nicolaus & Company, Incorporated, B. Riley Securities, Inc., Roth Capital Partners, LLC, The Benchmark Company, LLC, and Craig-Hallum Capital Group, LLC (the "\$150M ATM Agents"). Under this agreement, the Company could sell shares of its common stock with an aggregate offering price of up to \$150.0 million through or to the Agents. As of March 14, 2025, the Company has received \$146.2 million in net proceeds through the issuance of 24,604,021 Common Shares under the Sales Agreement. As of March 14, 2025, D-Wave had no remaining issuance capacity under the \$150M ATM Agreement.

Sales under these agreements are classified as "at-the-market" equity offerings under Rule 415(a)(4) of the Securities Act and may be conducted on the NYSE or other trading platforms. The Agents will use commercially reasonable efforts to sell shares based on the Company's instructions. The compensation to the Agents is up to 3.0% of the gross sales price, along with expense reimbursements. The Company has also agreed to provide indemnification against certain liabilities under the Securities Act.

The Company is not obligated to sell shares under these agreements. Each agreement may be terminated by: (a) the election of the Agents upon the occurrence of certain adverse events, (b) five business days' advance notice from the Company to the Agents or five days' advance notice from any of the Agents to the Company or (c) otherwise by mutual agreement of the parties pursuant to the terms of the Sales Agreement.

Common Stock

As of December 31, 2024, the Company had 266,595,867 shares of common stock outstanding, comprised of 43,762,188 Exchangeable Shares and 222,833,679 Common Shares. At any time and at their election, holders of Exchangeable Shares can exchange their shares for Common Shares on a one-for-one basis. In addition, holders of Exchangeable Shares have the same rights with respect to voting, dividends, and liquidation, dissolution, and winding up, as holders of Common Shares. As such, the Exchangeable Shares are identical in substance to Common Shares and, therefore, are treated as shares of common stock of the Company.

The rights pertaining to the Company's Common Shares are as follows:

Voting Rights

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of D-Wave Quantum Common Shares possess all voting power for the election of directors and all other matters requiring stockholder action. Holders of D-Wave Quantum Common Shares are entitled to one vote per share on matters to be voted on by stockholders.

Dividend Rights

Holders of D-Wave Quantum Common Shares will be entitled to receive dividends as and when declared by D-Wave Quantum's board of directors at its discretion out of funds properly applicable to the payment of dividends, subject to the rights, if any, of shareholders holding shares with special rights to dividends. The timing, declaration, amount and payment of future dividends will depend on D-Wave Quantum's financial condition, earnings, capital requirements and debt service obligations, as well as legal requirements, regulatory constraints, industry practice and other factors that D-Wave Quantum's board of directors deems relevant.

Rights Related to Liquidation, Dissolution and Winding Up

In the event of voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of D-Wave Quantum Common Shares will be entitled to receive an equal amount per share of all of the Company's assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock, if any, have been satisfied.

16. SEGMENT AND GEOGRAPHIC INFORMATION

The Company operates as one operating segment managed on a consolidated basis. The financial information regularly reviewed by the CODM is presented on the same basis as the Company's consolidated financial statements. The measure of profit or loss used by the CODM to allocate resources and assess performance is consolidated net loss. Significant expense categories are not presented, as the expense information regularly provided to the CODM is presented on the same basis as the consolidated statements of operations and comprehensive loss. The CODM relies on consolidated net loss as a comprehensive measure of the Company, considering all revenues and expenses, including cost of revenue, research and development expenses, general and administrative expenses and sales and marketing expenses, to assess the Company's overall performance and inform strategic decisions on cost control, pricing and investments. Additionally, the CODM also reviews total assets to assess the Company's financial position and resource allocation. The CODM also reviews forward-looking expense information contained in budgets and operating plans to manage operations and allocate resources.

See the consolidated financial statements and accompanying footnotes for consolidated net loss, total expenditures for additions to long-lived assets, total assets and other financial information regarding the Company's single operating segment. See *Note 3 - Revenue from contracts with customers* for additional information about revenue by geography.

The following table sets forth the long-lived assets, consisting of property and plant, net, and operating lease right-of-use assets, by geographic area as follows (in thousands):

	As of December 31,	
	2024	2023
Canada	\$ 11,005	\$ 10,562
United States	381	212
Other	8	—
Total long-lived assets	<u>\$ 11,394</u>	<u>\$ 10,774</u>

17. EMPLOYEE BENEFIT PLANS

We currently maintain a 401(k) retirement savings plan for our US employees, including our named executive officers, who satisfy certain eligibility requirements. The Internal Revenue Code allows eligible employees to defer a portion of their compensation, within prescribed limits, on a pre-tax basis through contributions to the 401(k) plan. The Company did not make any matching contributions for the years ended years ended December 31, 2024 and 2023.

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ANNUAL REPORT 2024

BOARD OF DIRECTORS

Alan E. Baratz

President and Chief Executive Officer
D-Wave Quantum Inc.

Roger Biscay

Senior Vice President and Treasurer
Cisco Systems

John DiLullo

Chief Executive Officer
Deepwatch

Rohit Ghai

Chief Executive Officer
RSA Security

Sharon Holt

Co-Founder and Principal
Fraser Stuart Ventures, LLC

Kirstjen Nielsen

President and Founder
Lighthouse Strategies

Steven M. West

Founder and Managing Partner
Emerging Company Partners LLC

EXECUTIVE OFFICERS

Alan E. Baratz

President and Chief Executive Officer

John M. Markovich

Chief Financial Officer

Diane Nguyen

General Counsel

STOCK EXCHANGE

D-Wave's Common Shares and Warrants are traded on the NYSE under the ticker symbols "QBTS" and "QBTS.WT," respectively.

FORM 10-K

A copy of our Form 10-K filed with the SEC will be made available to all stockholders at no charge. The Form 10-K can also be accessed through the SEC website at www.sec.gov, or through our Investor Relations website at <https://ir.dwavesys.com>.

To receive a copy by mail please contact:

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