



From the Desk of the Chief Executive Officer

From:

August 1, 2024

William McGann, Ph.D.
Office of the Chief Executive

Dear Shareholders,

Having been the CEO at Quantum Computing Inc. (QCi) since February, I believe it is important to share our progress and some of the changes that we have implemented over the past six months. Our objective is to unlock the true value of QCi's technology and to maintain the passionate focus of the business team. I am increasingly enthusiastic about QCi's opportunity to disrupt the high-performance computing market with technology advantages that are available in our products today. We are driving a robust technology platform development program that will leverage new optical integrated circuits that should dramatically improve the speed and reduce the energy consumption of our products.

It is our firm belief that this will enable us to compete in the high-performance computing and artificial intelligence/machine learning (AI/ML) market segments given their ever-increasing demand for speed and energy efficiency. We are focused on creating an early mover advantage in some of the fastest growing market segments in technology today, including high-performance computing, AI/ML, and remote sensing. I am excited to share our team's increasing confidence that our strategy will provide sustainable growth and establish us as a true leader in the emerging markets that will demand quantum technology.

Proactively Evolving Our Go-To-Market Strategy

To begin, I would like to share our approach for continuously evolving our business while maintaining a singular focus. Fundamentally, it is a stepwise approach to implement our strategy without distraction. Inside the business, I refer to this as our "From **X**...to **Y**...by **Z** approach." In other words, since February of this year, we have taken stock in our current position, being **X**. We then have mapped out our desired future state, defined as **Y**, and plotted a strategic stepwise path in time, defined by **Z**, to get there.

Our current position **X** was set in mid-2022, with the strategic acquisition of QPhoton, where QCi transformed its business from a platform-agnostic software company to a hardware company focused on delivering powerful quantum products to commercial and government markets. Then, the first major step was to ensure that the company had a sustainable roadmap of core technology and product development to drive growth in highly volatile emerging technology markets. One critical challenge recognized early was the need to evolve our system designs away from using discrete components and toward optical chip-based nanophotonic systems. We took the important first step toward addressing this challenge in early 2023 with a strategic decision to establish a semiconductor fabrication facility in Tempe, AZ to produce optical integrated circuits, which are also referred to as Photonic Integrated Circuits (PIC) or photonics chips, based on wafers using a crystalline material called Thin Film Lithium Niobate (TFLN). This critical step expanded our planned product offerings to include both quantum and non-quantum PICs.



This new semiconductor material (TFLN) is the principle enabling technology for next generation nanophotonic system designs and PICs. The TFLN market is expected to grow rapidly, from \$200 million in 2023 to \$2 billion in 2028 (39% CAGR) according to a report by the QYR Research Center (Market Research Reports: Document ID: LPI108232779, Published August 8, 2023).

TFLN-based optical chips offer advantages such as miniaturization, higher speed, extremely low power consumption, and high environmental stability. These benefits allow for optical chip designs with broad applications that include data communications, energy management, remote sensing, transportation, and spaceborne requirements.

The investment in QCI's Arizona optical chip fabrication facility is key to the scalability and performance of QCI's current core technologies and products. In addition, because we anticipate that the TFLN production facility will be fully operational in late 2024, we will then be able to utilize some of our optical chip manufacturing capabilities to produce chips that can be sold to other markets with an existing demand for optical chips based on TFLN, such as data centers and telecommunications. We believe that our ability to provide TFLN chips to existing markets will give QCI a source of early and consistent revenue while we continue to develop and market quantum products.

To the best of our knowledge, QCI's TFLN facility will be the first U.S.-based TFLN facility to support the demand for TFLN components and chips (PICs). This past quarter, we have begun to market our TFLN devices and technology to potential partners and customers, including government and commercial entities, such as the Defense Advanced Research Projects Agency (DARPA). In fact, we have already signed a letter of intent with Comtech Telecommunications, one of the world's leading satellite and terrestrial communications companies, to purchase TFLN optical chips when available.

Moreover, we have submitted a proposal under the U.S. Department of Energy's (DOE) Title 17 Loan Program to obtain funding for the TFLN chip production project. DOE's review of our loan application will likely take several months and there is no assurance that QCI will receive any funding.

New Products and Proof of Concept

Over the past six months, QCI has finalized the development of two new platforms in high-performance computing and one broad remote sensing platform focusing on the use of LiDAR-based applications. In high-performance computing, QCI has developed and launched two new product platforms: our Dirac-3 platform purpose built for solving highly complex optimization problems and our Reservoir Computing platform with a first-to-market portable reservoir computing hardware device that can perform complex computational tasks "at the edge" that directly connects to existing computer resources.

An important advantage of our photonic technology over most competing quantum computing companies is that it operates at room temperature (requires no cryogenic cooling) and requires no external electromagnetic shielding support equipment to function. Our Dirac-3 machine is designed to operate with the power equivalence of two ordinary LED light bulbs (about 25W). With these intrinsic capabilities, QCI can claim that we offer the best Size, Weight, Power, and Cost (SWaP-c) capabilities of any high-performance computer in the world today.



This fact also enables the company to offer these powerful machines at very low cost, making our "accessible and affordable" strategy become a reality.

The Accessible and Affordable Campaign

To introduce potential customers to our new products, QCi has launched what we call the "Accessible and Affordable" campaign. The marketing campaign focuses on the practical advantages of our optical technology: (a) it operates at room temperature and can be mounted in a standard nineteen-inch rack in any data center, (b) it does not require specialized cryogenic cooling or electromagnetic shielding, which is bulky and expensive, and (c) it requires very little power to operate, less than a 50-watt light bulb. The campaign is centered on the launch of the Dirac-3, QCi's Entropy Quantum Computer that we believe has the potential to empower optimization solutions across multiple industries. With its affordable price (\$300,000 compared to multiple millions of dollars for most competing systems), small, stackable size, and low energy consumption, we believe that the Dirac-3 computer offers unsurpassed price and performance.

We are proud to have received four research grants to date from the National Aeronautics and Space Administration (NASA), including one underway that is using QCi's Entropy Quantum Computing as a potentially superior and affordable alternative for filtering out the background noise ("denoising") from LiDAR imagery. If the denoising demonstration project is successful, the technology could eventually be incorporated into LIDAR satellite missions in the future. Using quantum optimization to predict and eliminate spectral noise in general can have enormous far-reaching improvements in optical spectroscopy and imaging in general and has potential for significant improvements in these fields.

To lead our new sales strategy, we have hired an experienced technology sales executive, Richard Nelson as Senior Vice President of Business Development and Pouya Dianet as Director for our TFLN Optical Chip Sales. In addition, we are working closely with several universities on studies to benchmark the performance of our new products with the goal of publishing a series of papers in technical journals.

The campaign is entering its fourth month, and our team has made very good progress in growing a pipeline of commercial and government opportunities. We have met with multiple national labs since my tenure as CEO, and we recently renewed our CRADA with Los Alamos National Laboratory, so that they will be able to test our Dirac-3. Our focus is to now convert these engagements to sales.

New Independent Auditor

This May, we were required to terminate our independent auditor BF Borgers CPA PC, as a result of an SEC sanction. The announcement came while we were finalizing our first quarter financial results. Given the SEC's sanction, the Company was immediately no longer able to rely on BF Borgers CPA PC's prior audit or then current review work. We mobilized to appoint a new Auditor, BPM LLP, who is well into the process of reauditing our financial statements for the last two years and reviewing our financial statements for the first and second quarters of 2024. We anticipate successful completion of the new auditor's work and returning to full compliance with our SEC filing obligations in August.

New Investor Relations Advisor



Finally, I am pleased to report that we engaged IMS Investor Relations in May as our new investor relations firm. They have integrated smoothly into the QCi team and have become a valuable resource in communicating with our many investors. One thing we intend to focus on is a more normal and regular cadence of communication with investors, employees, government agencies, and commercial customers.

In closing, I want to personally thank you, our shareholders, for your support. We are focused on the long term and have solidified our company so that we can deliver powerful results. I have appreciated hearing direct feedback from investors and will continue to make myself, my investor relations team, and QCi's Chief Financial Officer, Chris Boehmler, available to hear your feedback and ideas. We invite each of you to share with us your business expertise and solutions as we tackle the market this year.