



Quantum City Report to Community A year in review 2023-24



A message from Quantum City leadership



This year, Quantum City has achieved significant milestones in quantum science and technology, reinforcing Alberta's position as a leader in quantum technology development. Our commitment to innovation and talent development in the ecosystem is reflected in our support for quantum and quantum-adjacent research through the Quantum City Consortia Awards, the Scientist-in-Residence program, and the establishment of the Quantum City Trainee Community. As we look ahead, we remain focused on strengthening our partnerships, expanding our educational programs, and accelerating the translation of quantum research into practical applications. Thank you for your continued support and collaboration in making this vision a reality.

Barry C Sanders PhD DIC DSc FOSA FInstP FAPS FRSC
Scientific Director



As we reflect on the past year's achievements and look ahead to the future, I am proud to highlight Quantum City's pivotal role in building an ecosystem for quantum science and technology in Alberta and beyond. Over the past year, Quantum City has made significant strides in bringing together researchers, developers, and adopters of quantum technology and solutions, fostering collaboration and innovation in this rapidly evolving field.

Our commitment to creating a vibrant quantum ecosystem has been unwavering, and we are grateful for the invaluable support of the University of Calgary, the Government of Alberta, and our first industry partner, Mphasis. Their vision and collaboration have been instrumental in advancing our mission and propelling Alberta to the forefront of quantum innovation.

Looking ahead, Quantum City remains dedicated to driving progress and unlocking the transformative potential of quantum technologies. Together with our partners and stakeholders, we will continue to cultivate an environment where groundbreaking ideas thrive and where quantum innovation accelerates.

Thank you for your continued support and partnership as we continue on this exciting journey toward building a quantum solutions hub.

Megan Lee PhD MBA
Managing Director

Building a global quantum solutions hub

Quantum City is building an ecosystem for quantum science and technology in Alberta bringing together researchers, developers and adopters of quantum technology and services.

Quantum City's mission is to capture the benefit of quantum technology by creating adoption pathways. Quantum City is establishing quantum technology enabling infrastructure, creating a pipeline for talent and experts and narrowing the gap between quantum technology and solutions to support the development of a vibrant economic and scientific hub based in Calgary.

WHAT WE DO

1 Establish quantum technology enabling infrastructure

2 Create a pipeline for talent and experts

3 Narrow the gap between quantum technology and solutions



QUANTUM DEVELOPMENT

Alberta's quantum ecosystem is rapidly growing, with distinct participants playing crucial roles in this important economic area.



Powering industry innovation

ACCELERATOR TO DRIVE QUANTUM SOLUTIONS FOR REAL-WORLD IMPACT

QAI Ventures and Quantum City announced their collaboration to launch the QAI Ventures Accelerator (powered by Quantum City) in early 2024, leveraging Quantum City's expertise in quantum ecosystem building and QAI Ventures' resources in accelerating global quantum technology startups. The Calgary-based accelerator will support early-stage organizations developing quantum technology applications.





Quantum City's vision is to be the place where quantum technology becomes quantum solutions

QUANTUM CITY'S GLOBAL CHALLENGE

The Quantum City Challenge is a global competition series designed to address complex industry challenges through quantum computing solutions. In early 2024, the Challenge aimed to harness the potential of quantum technologies to optimize energy industry operations. With over 85 profiles from around the world created, two international winners were announced in May. Alberta-based ATCO and Canadian Natural (CNRL) participated as Challenge sponsors, providing the specific challenge tracks and showcasing their commitment to innovation. With additional funding and support, Quantum City will continue its Challenge series, creating opportunities to produce use cases for quantum technologies in various industries and sectors.

qCONNECT SUMMIT

In 2023, Quantum City's industry-focused summit, qConnect brought business leaders, government representatives, quantum creators and experts together to discuss the benefits and risks of quantum. With 320 participants, 40 per cent of which were non-academic, qConnect positioned Quantum City as the most industry-focused hub in Canada. Industry leaders from energy, logistics, financial, and telecommunications collaborated with quantum experts on how quantum technology has the potential to solve challenges they are facing. At qConnect 2023, Quantum City showcased eight of the top startups from across North America and welcomed decision-makers from leaders in the quantum technology industry.



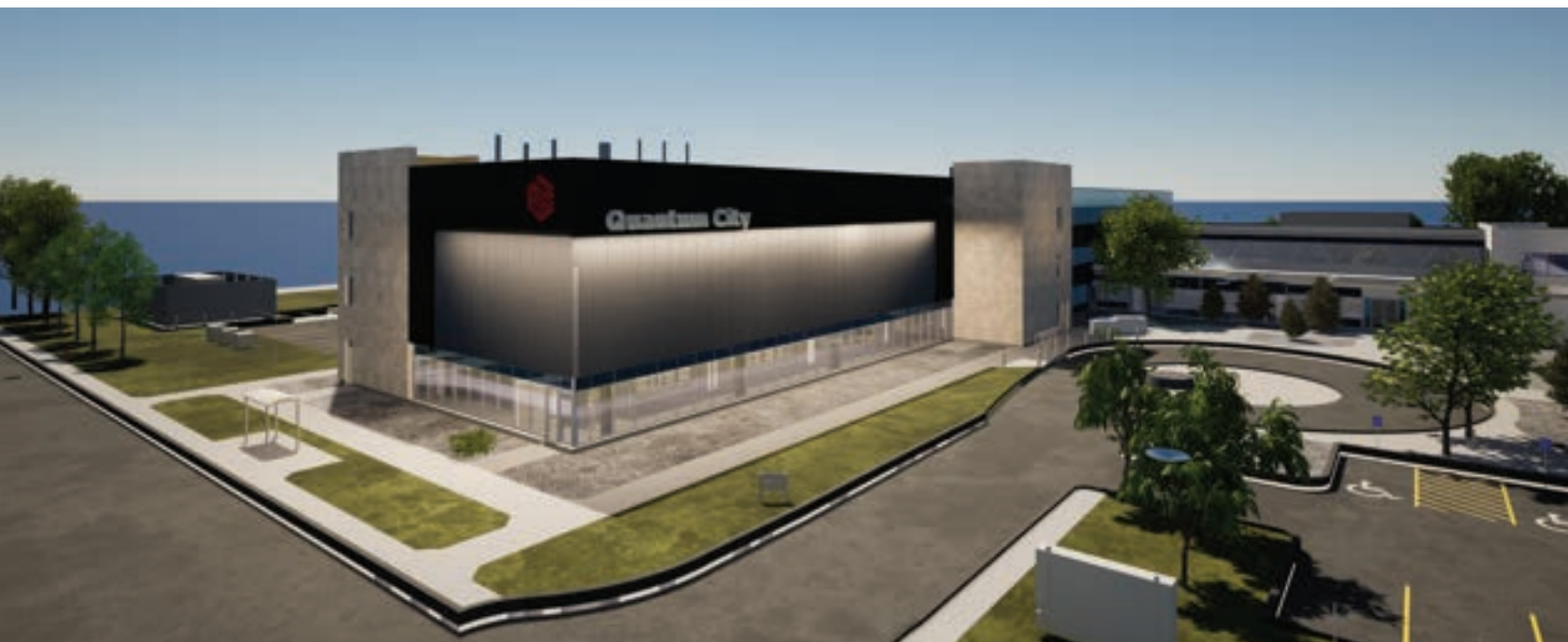
Supporting tomorrow's innovators

Quantum City introduced the Quantum City Consortia Awards through a funding call aimed at forming groups which support the objectives of the National Quantum Strategy. The Consortia Awards built upon the success of the inaugural research funding call launched in 2022, which saw \$425,000 invested into the Alberta quantum research community to drive quantum innovations. In late 2023, Quantum City hosted the Venturing Beyond Limits Networking event, providing a platform for quantum trainees and researchers to come together, thus creating the foundation for the Quantum City Trainee Community (QCTC) initiative. The QCTC aims to unite postdoctoral fellows, graduate, and undergraduate students across Canada in quantum and quantum-adjacent research areas to enhance learning experiences.

Quantum City continues to support UCalgary's Professional Master of Quantum Computing program, aiding recruitment efforts and establishing quantum computing access. In 2023-24, Quantum City organized workshops to promote exploring the applications of quantum technology in various industries.

Infrastructure to enable quantum solutions

In 2023, Quantum City advanced its infrastructure plans with government support, focusing on two key projects: the construction of qLab, a state-of-the-art cleanroom fabrication facility and qHub, a 17,400 sq. ft. collision space. This space will include offices, meeting spaces, computing labs, and a café bistro to foster collaboration and community building. qLab's main facility, set to start construction in late 2024, will provide 4,000 sq. ft. of cleanroom space for advanced fabrication tools for quantum development. Quantum City's qLab Satellite space features 1,300 sq. ft. of cleanrooms, equipment for industrial and academic partners, with renovations underway.





Quantum City by the numbers



320+

Attendees, 31 Speakers & Moderators, 8 Showcase presenters at qConnect 2023



85+

Profiles created, \$20,000 in prize dollars, 2 winners at Quantum City Challenge



2,700+

Followers on LinkedIn



1

Quantum technology accelerator, the QAI Ventures Accelerator (powered by Quantum City)



16+

Employees working to build the quantum ecosystem in Alberta and beyond



60+

Members of the Quantum City Trainee Community across Canada



\$100 M

In private and public investments to support Quantum City, a partnership of the University of Calgary, Government of Alberta and the first industry partner, Mphasis



17,400 SQ FT

Of collision space for quantum creators and users planned for qHub

Thank you from Quantum City

When Quantum City talks about building an ecosystem for quantum science in Alberta, it's more than just bringing together researchers, developers and adopters of quantum technology. We are finding novel paths to turn quantum technology into impactful solutions. We are creating pipelines for talent and experts. We are taking innovative approaches to narrow the gap between quantum technology and solutions. And we are partnering with visionaries to create a new quantum economy.

As we embark on the next phase of this exciting journey, we are eager to continue working closely with our valued partners in building the quantum ecosystem.

The University of Calgary formed a strategic partnership with the Government of Alberta, and Mphasis, its first industry partner, to create Quantum City.





Quantum City

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