Invest Vancouver
Industry Overview:

Quantum Technology

The Metro Vancouver region has an established 25-year history of leadership and expertise in quantum technologies and continues to be a leading hub in Canada. With the region's unique ecosystem driving advancements, the field is attracting significant investments, fostering groundbreaking quantum innovation, and advancing research commercialization.

~500 employees in British Columbia's quantum sector (QAI)

404 patents in British Columbia (QAI)

$730M+ USD invested in quantum firms in the Metro Vancouver region from 2018-2023 (PITCHBOOK)

Metro Vancouver is home to companies pioneering cutting-edge quantum solutions

D-wave	Photonic Inc.	Crosslight	Airadar	SandboxAQ[1]
1Qbit	BTQ	AbaQus	Ergo Quantum	Dream Photonics

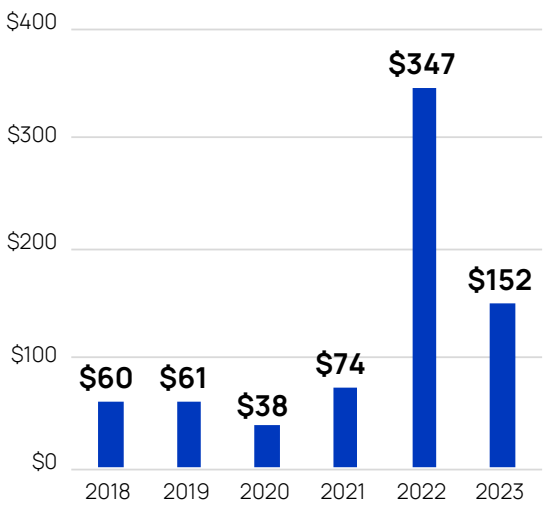
Company highlights

- **D-Wave** launched the world's first commercially available quantum processor in 2011.
- **1Qbit** is the world's first dedicated quantum computing software company, founded in 2012.
- **Photonic** is currently building one of the world's first scalable and fault-tolerant quantum computing and networking platforms, in collaboration with Microsoft.

The region has a supportive quantum ecosystem

- **Quantum BC** is a joint collaboration of the University of British Columbia (UBC), Simon Fraser University (SFU), and University of Victoria (UVic) in quantum research, training, and innovation.
- **Quantum Algorithms Institute** (QAI) fosters quantum research and development, quantum technology workforce, and cluster of quantum leadership.
- **UBC Stewart Blusson Quantum Matter Institute** (QMI) focuses on developing new materials, measurement techniques, and specialized equipment for studying quantum materials.
- **SFU 4D LABS** offers fabrication and prototyping of sensors, MEMS, and photonics. The lab will also establish the Quantum Fabrication Centre.
- **SFU Silicon Quantum Technology Lab** focuses on building quantum technologies using silicon to advance manufacturing techniques and allow for higher temperature operations.
- **TRIUMF** is a subatomic physics laboratory and particle accelerator located at UBC.
- **UBC Nanofabrication Facility** is a multidisciplinary lab supporting microfabrication of photonics and nano-electronics.

Investments in Quantum firms, headquartered in Metro Vancouver region (USD, millions)



SOURCE: PITCHBOOK, 2024

1 SandboxAQ acquired Vancouver-based Good Chemistry in January, 2024.

"I could really envision BC becoming a center of gravity for the commercialization of quantum technologies."

Lisa Lambert, CEO, Quantum Industry Canada

Talent and Programs

- The region has a strong foundation of quantum talent developed through its **top research universities**, including UBC and SFU.
- The **CREATE Program** (Crystalize Eminence in Quantum Computing) is a UBC, SFU, and UVic collaboration that equips students with skills in building quantum computing hardware and software.
- The Quantum Algorithm Institute also offers **training opportunities** in collaboration with firms, including D-wave and IBM.

Ongoing Developments in the Regional Ecosystem

- The Government of Canada announced **over $11 million in funding** to support the growth and innovation of quantum technology in BC. (May 2024)
- The new **Quantum Materials Electron Microscopy Centre** (QMEMC) opened at UBC, offering a multi-user electron microscopy facility with the highest spatial and energy resolution in Canada. (June 2024)
- Vancouver-based BTQ Technologies and ID Quantique signed an MOU to advance cybersecurity using **quantum authentication systems** (August 2024)

Incentives and Supports

- The **National Quantum Strategy** includes a $360 million investment over seven years to grow the country's quantum technologies, companies, and talent.
- **Regional Quantum Initiative** is a federal funding stream through Pacific Economic Development Canada, supporting the advancement and commercialization of quantum technologies.
- **Strategic Innovation Fund** is a federal funding stream through Innovation Science and Economic Development Canada that funds large-scale, transformative projects that promote the long-term competitiveness of Canadian industries, support clean growth, and have a minimum budget of at $20 million.
- **CMC Microsystems** supports made-in-Canada innovation design, prototyping, and commercialization.
- **MITACS** facilitates collaboration between companies, organizations, expert-advisors, and researchers working on quantum technologies.

The region offers higher quality tech talent compared to other major Canadian cities at significantly lower costs compared to major tech hubs in the US.

SOURCE: CBRE, SCORING TECH TALENT 2024