

New Customers and Funding Fuel D-Wave's Growth

Industry leader has \$80 million of customer contracts and 50+ customer prototype applications

BURNABY, BC – (June 7, 2018) – D-Wave Systems Inc., the leader in quantum computing systems and software, announced significant growth of its customer base in Japan, Europe, and North America. These new customers have subscribed to D-Wave's remote access service and are developing prototype applications, adding to dozens of such applications previously developed. Roughly half of the more than 50 prototype applications developed using D-Wave computers are in optimization, about twenty percent are in machine learning, and the remainder are in a wide range of areas including quantum material science. Some of these results have shown that the D-Wave systems are approaching, and sometimes surpassing, conventional computing in terms of performance or solution quality, heralding the first examples of real customer application advantage on quantum computers.

The company also announced it has received CAD\$10M in funding and support from Sustainable Development Technology Canada (SDTC). SDTC helps Canadian entrepreneurs accelerate the development and deployment of globally competitive clean technology solutions. D-Wave received funding based on the low energy consumption of its next generation quantum computers as compared to classical computers. Separately, the company closed on US\$20M in previously-announced funding from Public Sector Pension Investment Board (PSP Investments), based on having met key technology and business milestones.

"D-Wave's leadership in quantum computing has expanded far beyond hardware systems. Our customer base is growing rapidly and the breadth of prototype applications being developed for our systems is far beyond other quantum architectures," said D-Wave CEO Vern Brownell. "While a diversity of approaches is helping to build this new industry, D-Wave's quantum annealing systems provide the only scalable platform that can be used to develop such applications today. Independent experts, such as researchers from the Jülich Supercomputing Centre, have [evaluated the maturity of quantum technology](#) and validated D-Wave's lead in the market."

2018 growth highlights include:

New customers and applications: With a growing customer base across Japan, Europe and North America, D-Wave provides quantum system access to many organizations developing prototype applications for real-world problems. Recent examples include:

- Optimization of traffic flows by [Volkswagen](#), [Toyota Tsusho](#) and [Denso](#)
- Optimization of web advertising by [Recruit Communications](#)
- Financial portfolio optimization by [Nomura Securities](#), [Tohoku University](#) and [Standard Chartered](#)
- Development of software for quantum machine learning to enable applications in finance, automotive and drug discovery by [MDR Corp](#)
- [A UK-funded project](#) with BT Group, University College London, University of Bristol, and led by Plantagenet Systems, applying quantum annealing to complex planning problems in a wide range of industries
- Scientific research using machine learning to solve a [Higgs-boson optimization problem](#) at the California Institute of Technology and USC, and to study [DNA binding applications](#) at USC

Funding for new quantum architecture: [The announcement of the funding](#) from the Sustainable Development Technology Canada was made last week by the Honourable Navdeep Bains, Minister of

Innovation, Science and Economic Development. The funding will be used for the development of D-Wave's next generation system.

Additional funding from PSP: The additional \$20 million in funding from PSP Investments has now closed. It was locked in in February when D-Wave satisfied all the key conditions — including fabrication and testing of a working prototype of its next-generation processor.

Promoting Collaboration Among Users: D-Wave hosted its first European "Qubits" users conference in Munich, Germany this past April. The conference included updates from Lockheed Martin, NASA/USRA, Los Alamos National Laboratory, Oak Ridge National Laboratory, and other users and customers. [Presentations](#) spanned the aerospace industry (Airbus), subsurface reservoir modeling (Los Alamos National Laboratory), tsunami evacuation (Tohoku University), materials simulation and traffic optimization (Volkswagen). The fourth D-Wave users conference will take place in Knoxville, TN, in September 2018.

Delivering Quantum Computing Education: As programming a quantum computer is very different from traditional programming, D-Wave offers in-person classes, covering everything from the physics of the system to programming with newly developed quantum software tools. In 2018, D-Wave held classes in the U.S., Europe, and Japan, at locations including NAVAIR, Stanford University, Warsaw University, Jülich Supercomputing Centre, Los Alamos National Laboratory, Oak Ridge National Laboratory, Tohoku University, and the Creative Destruction Lab in Toronto. D-Wave will soon launch additional online learning tools, and will deliver its annual quantum computing seminar at the International Supercomputing Conference (ISC) in Frankfurt, Germany on June 25.

Launch of Quadrant Business: D-Wave announced its new [Quadrant](#) business unit to provide quantum-inspired machine learning algorithms and services that make state-of-the-art deep learning accessible to companies across a wide range of industries and application areas. Leveraging generative machine learning algorithms, Quadrant delivers better results with less labeled data. Quadrant's algorithms provide benefits running on GPU-based systems today, and are designed to run on D-Wave's next-generation quantum technology.

About D-Wave Systems Inc.

D-Wave is the leader in the development and delivery of quantum computing systems and software, and the world's only commercial supplier of quantum computers. Our mission is to unlock the power of quantum computing for the world. We believe that quantum computing will enable solutions to the most challenging national defense, scientific, technical, and commercial problems. D-Wave's systems are being used by some of the world's most advanced organizations, including Lockheed Martin, Google, NASA Ames, USRA, USC, Los Alamos National Laboratory, and Oak Ridge National Laboratory. With headquarters near Vancouver, Canada, D-Wave's US operations are based in Palo Alto, CA and Hanover, MD. D-Wave has a blue-chip investor base including PSP Investments, Goldman Sachs, Bezos Expeditions, DFJ, In-Q-Tel, BDC Capital, Growthworks, 180 Degree Capital Corp., and Kensington Capital Partners Limited. For more information, visit: www.dwavesys.com.

About Sustainable Development Technology Canada

[Sustainable Development Technology Canada](#) (SDTC) is a foundation created by the Government of Canada to advance clean technology innovation in Canada by funding and supporting small and medium-sized enterprises developing and demonstrating clean technology solutions.