

PASQAL will Open a Quantum Computer Factory in Canada

The Canadian subsidiary of PASQAL is setting up a quantum computer factory in the DistriQ - Quantum Innovation Zone in Sherbrooke

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/EINPresswire.com/ -- PASQAL, the

world leader in quantum computing

based on neutral atoms, announces

the creation of a factory to produce

state-of-the-art quantum processing

devices at Espace Quantique 1 of

DistriQ – Quantum Innovation Zone in

Sherbrooke, Canada. In this new

flagship installation, PASQAL-Canada

will produce hardware for the North

American market to accelerate the

adoption of neutral atoms quantum

computing in the region. PASQAL Canada will develop in partnership, new commercial

applications in multiple areas, such as: smart cities, energy, and materials science, focusing on

providing business value to end-users in the short term.



(Left to right) Raphaël de Thoury, CEO of PASQAL Canada, Richard St-Pierre of DistriQ, Quantum Innovation Zone and Georges-Olivier Reymond, CEO of PASQAL.

PASQAL's quantum technology uses highly focused lasers, "optical tweezers", to trap and manipulate neutral atoms individually to create 1D and 2D arrays in arbitrary configurations. In these quantum processors, each quantum bit (qubit) is encoded into two energy levels of an atom, each atom in these arrays represents a qubit. PASQAL neutral atoms technology has already demonstrated its capability to operate with more than 300 qubits and its next generation devices will deliver a 1,000 qubit quantum computing power, which it believes will provide significant commercial advantages over classical computers by 2024. The company's customers include BMW, BASF, Johnson & Johnson, Siemens, Airbus, LG Electronics and Thales among many others.

PASQAL will install its quantum computer production in DistriQ's Espace Quantique 1. Opening in Sherbrooke in early fall 2023, the 50,000 square foot (4,600 square meter) building will be the most extensive and comprehensive commercially focused quantum centre. It brings together the foremost minds in quantum technologies with the most comprehensively equipped shared



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*Raphaël de Thoury, CEO of
PASQAL Canada*

commercial quantum development labs. DistriQ's Espace Quantique 1 empowers companies like PASQAL to accelerate the development of technologies and applications by focusing their resources on research and development rather than costly infrastructure and technologies.

"This location is ideal to catalyze PASQAL's collaborations with academic institutions and industries in North America, ensuring a sustainable development in the growing quantum computing market," said Raphaël de Thoury, CEO of PASQAL Canada. "The ecosystem in Sherbrooke, fostered by the dynamism of DistriQ - Quantum Innovation Zone in Sherbrooke, is fertile ground for quantum

industrial companies like PASQAL. DistriQ is unique, as it is gathering the key leading players in the value chain, from science to industrial applications."

The applications resulting from the power of hybrid computers (quantum computing combined with High Performance Computing) are multiple, including:

- The optimization of distribution or transport networks
- The understanding of photosynthesis mechanisms
- The design of catalysts for fertilizers or new drugs
- The optimization of batteries or solar cells

Quantum computing is a promising field, and many companies worldwide are investing in developing quantum technologies and applications in the hope of finding solutions to today's humanity challenges.

ABOUT DISTRIQ, QUANTUM INNOVATION ZONE

The non-profit organization (NPO), Quantum Innovation Zone, is a catalyst of expertise and infrastructure that connects and integrates the collaborative initiatives of the quantum ecosystem aimed at the emergence and acceleration of innovations. One of DistriQ's flagship projects is Studio Quantique. One of Quantum Innovation Zone's partners is the Institut quantique from Université de Sherbrooke, which increases the synergy between research, teaching, entrepreneurship, and industry.

ABOUT PASQAL

PASQAL is a leading French Quantum Computing company that builds quantum processors from ordered neutral atoms in 2D and 3D arrays to bring a practical quantum advantage to its customers and address real-world problems. PASQAL was founded in 2019, out of the Institut d'Optique, by Georges-Olivier Reymond, Christophe Jurczak, Professor Dr. Alain Aspect, Nobel

Prize Laureate Physics, 2022, Dr. Antoine Browaeys, and Dr. Thierry Lahaye. PASQAL has secured more than €140 million in financing to date. To learn more about PASQAL, visit www.pasqal.com.

Luke Keding
HKA Marketing Communications
+1 315-575-4491
[email us here](#)

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