

PASQAL Announces New Roadmap Focused on Business Utility and Scaling Beyond 1,000 Qubits Towards Fault Tolerance Era

New roadmap outlines advances in hardware, business use cases, and further global expansion



PARIS, FRANCE, March 12, 2024 /EINPresswire.com/ --

[PASQAL](#), a global leader in neutral atoms quantum computing, today announced its latest technology

roadmap. Guided by PASQAL's mission to deliver a useful product for industry, the roadmap emphasizes the devices the company will deliver to customers and their technologies progression as informed by commercial partners.

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PASQAL is dedicated to industrialization and international development – our team is transforming fundamental quantum research into cutting-edge industrial applications”

*Georges-Olivier Reymond,
CEO and co-founder of
PASQAL*

In 2024, PASQAL is already delivering quantum computers to end users with over 100 qubits, allowing for the exploration of new use cases and spurring new software development. Collaborating closely with over 50 customers and partners from Fortune 500 companies, PASQAL has identified hardware accelerated algorithms in quantum materials, graph machine learning, optimization and differential equations. These algorithms are moving beyond the blueprint phase and into development with possible production environment use starting in 2025.

PASQAL's roadmap points to 10,000 qubits in 2026 with

scalable logical qubits architecture. As recent research has demonstrated promising paths to Quantum Error Correction (QEC) for neutral atoms, the fault tolerant quantum computing era is moving closer for neutral atoms quantum computers.

“With a strong focus on engineering, PASQAL takes the neutral atom technology out of the labs. This approach enables us to continuously increase the performance of our machines and bring stable and efficient solutions to our users”, said Loïc Henriët, Co-CEO of PASQAL.

Connecting the international quantum ecosystem is a vital part of PASQAL's vision for their development as a global quantum technology leader. The company fosters international collaboration in quantum computing by connecting industry and academic hubs in Paris, France,

Sherbrooke, Canada, and Daejeon, South Korea. PASQAL plays a key role in Canada's quantum development initiatives and works with South Korean leading academic institutions and the government to advance neutral atoms quantum computing.

Technology informed by the community, designed for business utility

PASQAL is launching its Quantum Community this year, a new initiative designed to build a global network of innovators, researchers and industry

leaders to foster collaboration and advancements in the quantum computing ecosystem. This platform will not only facilitate knowledge exchange and collaboration but also serve as a springboard for future quantum computing applications across various industries.



To further educate those intrigued by quantum tech, PASQAL offers Quantum Discovery, a cloud-based platform designed to introduce enterprises to neutral atoms quantum computing. Quantum Discovery helps business and tech leaders understand quantum fundamentals, experiment with PASQAL's processors, and identify potential use cases within their organization. The platform offers a user-friendly environment for both independent and collaborative learning.

To push forward researchers and academics, PASQAL launched Qadence, a Python library that simplifies development of analog and digital-analog quantum programs, tailored for quantum machine learning. It merges digital and analog approaches for precision, offering a user-friendly interface and smooth transition from simulation to PASQAL's neutral atom quantum computers.

Georges-Olivier Reymond, CEO and co-founder of PASQAL, said "PASQAL is dedicated to industrialization and international development – our team is transforming fundamental quantum research into cutting-edge industrial applications. We are expanding our manufacturing facilities worldwide and opening new offices in Saudi Arabia, South Korea, and other locations to come. Our goal is to meet the growing market demand for quantum computers and have a significant impact on the quantum computing industry."

To learn more about PASQAL's roadmap, join us on March 12 at 5:00pm CET for Pasqal 2024: Roadmap to Quantum Readiness with a Full-Stack Approach & Transformative Use Cases. Attendees will discover the near-term development and potential of quantum computing, learn how to make the right decisions towards implementing quantum today, get to know PASQAL and

several of its transformative use cases, spanning from high level algorithms to hardware implementations.

About PASQAL

PASQAL is a leading 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.

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