Qruise and Qblox partner to accelerate scalable quantum computing

Qruise and Qblox unite to deliver seamless software–hardware integration, accelerating scalable, fault-tolerant quantum computing.

SAARBRüCKEN, GERMANY, September 2, 2025 /EINPresswire.com/ -- Today, Qruise and Qblox announced a strategic partnership designed to remove key bottlenecks in quantum system development and deployment. Together, the companies will integrate Qruise's cutting-edge machine learning software with Qblox's state-of-the-art quantum control systems. This collaboration will deliver a seamlessly integrated solution to users, reducing technical overhead and streamlining workflows across the quantum ecosystem.

This partnership comes at a moment when quantum computing is shifting from laboratory research toward scalable, real-world systems. The Qblox Cluster provides a modular and scalable architecture for high-precision digital control and readout of quantum devices, designed to meet the evolving demands of increasingly complex quantum processing units (QPUs).

Equally critical for high-fidelity qubit operation is the ability to characterise, calibrate, and control QPUs with speed and precision. QruiseOS transforms this process with fully automated workflows that replace time-consuming manual routines and dramatically shorten experimental cycles. It works in tandem with QruiseML, Qruise's powerful digital twin software that encapsulates every aspect of the system, from the quantum device itself to the control stack. QruiseML bridges the gap between experiment and simulation, providing detailed quantitative error budgets that help users identify and address the main sources limiting performance.

This integration will provide users with state-of-the-art tools for developing, operating, and scaling quantum systems, without the added complexity typically found at the boundary between hardware and software. By reducing setup time and minimising errors, this joint solution will accelerate the path toward large-scale, fault-tolerant quantum computers.

"We're thrilled to partner with Qblox – both on specific projects and, more broadly, by working towards a tightly integrated offering tailored to the needs of our shared customers," says Shai Machnes, CEO & co-founder of Qruise. "This is an important step in furthering Qruise's mission to be of use to every quantum technology lab everywhere."

"We are excited about our integration with the Qruise software suite," adds Niels Bultink, CEO &

co-founder of Qblox. “Through the tight integration of our solutions, the workflows of our joint customers are transformed in terms of speed and accuracy. This is key to Qblox's mission of advancing our customers towards industrial-scale quantum computing.

About Qruise
Qruise is creating unique machine learning software to debug and reverse-engineer physical systems for R&D labs developing new devices. Their mission is to revolutionise physics-centric R&D by providing virtual physicists to work alongside human physicists and engineers in labs developing cutting-edge technology, starting with quantum computers and quantum sensors. Learn more at: www.qruise.com.

About Qblox
Qblox is accelerating the quantum revolution as the global leader in scalable quantum control. The company provides the essential control and readout engine that empowers researchers and engineers to build high-performance, robust, and scalable systems. Trusted by academic and industrial leaders worldwide, Qblox sets the standard for quantum control and delivers the backbone for a new era of computing. Learn more at www.qblox.com.

Nicu Becherescu
Qruise
+ +40740 005 206
email us here
Visit us on social media:
LinkedIn
Bluesky
YouTube
X
