

ICSC and QuEra Computing Launch Partnership to Give Italian Researchers Premium Cloud Access to World-Leading Neutral-Atom Quantum Computer

Agreement combines the ICSC – Italian Research Center on HPC, Big Data and Quantum Computing with QuEra’s 256-qubit Aquila platform and scientific expertise, accelerating quantum R&D and workforce development across the country

Bologna (Italy) & Boston (USA) — 30 September 2025 - The **National Research Centre for High Performance Computing, Big Data and Quantum Computing (ICSC)** and **QuEra Computing**, a leader in neutral atom quantum platforms, announce a strategic collaboration to accelerate the development of quantum computing in Italy.

Thanks to this agreement, researchers from universities, national laboratories and businesses will have direct access to **Aquila**, QuEra's 256-qubit quantum computer, accompanied by a dedicated mentoring program. The initiative combines ICSC's role in coordinating national expertise and infrastructure in the fields of High-Performance Computing and Quantum Computing with QuEra's cutting-edge technology, strengthening the country's ability to actively contribute to the global quantum ecosystem.

By combining cutting-edge hardware with expert guidance, the program helps teams move quickly from ideas to results, accelerating quantum research, building new skills, and strengthening Italy's leadership in the global quantum ecosystem.

A Program Built for Impact

This initiative widens access to neutral-atom quantum computing for researchers across Italy, inviting participation from multiple disciplines and experience levels. By pairing technology with focused mentorship from QuEra scientists, it helps teams progress faster from promising ideas to credible results, while fostering collaboration across Italian institutions.

How It Works:

- **Open, inclusive calls** – ICSC will announce public calls; proposals are reviewed for relevance, feasibility, and expected impact.
- **Onboarding that builds capability** – Structured tutorials help participants progress from setup to running basic experiments.
- **Targeted mentorship** – Scheduled office hours with QuEra experts provide Q&A and support during implementation.

“Providing Italy’s research community with high level quantum computing capabilities is central to ICSC’s mission,” said **Prof. Antonio Zoccoli**, President of ICSC. “Together with QuEra, our research teams will be able to explore ambitious problems in physics, chemistry, optimization, and artificial intelligence, while developing the necessary skills and enabling Italy to play a leading role in the development of this strategic technology.”

“Italy’s thriving quantum ecosystem is gaining momentum,” said Yuval Boger, Chief Commercial Officer of QuEra. “By working with ICSC, we’re making powerful neutral-atom capabilities easier to access — and backing that access with mentoring from our scientists. This allows Italian teams to focus on ideas, results, and real-world value.”

“This collaboration lets Italian groups prototype quickly, test quantum workflows, and train young researchers on a leading platform for the quantum computing. We’ll prioritize projects with clear scientific or industrial impact and share methods with the broader community,” said **Prof. Simone Montangero** and **Prof. Paolo Cremonesi**, co-leads of the program focused to quantum computing at ICSC.

About QuEra

QuEra Computing is the leader in developing and productizing quantum computers using neutral atoms, widely recognized as a highly promising quantum computing modality. Based in Boston and built on pioneering research from Harvard University and MIT, QuEra operates the world’s largest publicly accessible quantum computer, available over a major public cloud and for on-premises delivery. QuEra is developing useful, scalable and fault-tolerant quantum computers to tackle classically intractable problems, becoming the partner of choice in the quantum field. For more information, visit us at www.quera.com and follow us on [X](#) or [LinkedIn](#).

About ICSC

The ICSC – Italian Research Center on High-Performance Computing, Big Data and Quantum Computing, managed by the homonymous foundation, is one of the five National Centres established and funded under the second component of the fourth mission, “Education and Research”, of the National Recovery and Resilience Plan (PNRR). This mission is dedicated to strategic sectors for the country’s development, with a focus on “From Research to Business”. With the mission of conducting, managing, and coordinating Research and Development activities at both national and international levels for innovation in high-performance simulation, computing, and data analysis, ICSC aims to build a globally attractive ecosystem that supports research, industry, and public administration, thereby strengthening Italy’s competitiveness and growth. To achieve this goal, ICSC is equipping the country with a state-of-the-art supercomputing cloud infrastructure, through the federation and enhancement of existing or developing HPC, data, and quantum resources. Around this infrastructure, it aggregates the most significant Italian expertise and activities, while promoting the training of highly qualified professionals in the Centre’s key scientific domains. For more information: <https://www.supercomputing-icsc.it/>