PRESS RELEASE

THE QUANTUM FUTURE BEGINS IN PRAGUE

With the power to create unbreakable encryption, supercharge the development of artificial intelligence, and radically expedite the development of new drug treatments, quantum technology will revolutionize our world. On the 19th-20th April 2023, the quantum journey will begin in Prague with the kick-off meeting of the Qu-Test and Qu-Pilot project.

These projects open up new applications in the fields of metrology, imaging, secure communication, and highly complex calculations by supporting SMEs of the quantum supply chain with experimental production and open testing for quantum technologies in computing, communication, and /or sensing in Europe. Renowned quantum scientists will gather in Prague to build upon their spectacular achievements in quantum research:

- In the Qu-Pilot, they are aiming to develop and provide access to the first, federated European production facilities for quantum technologies, linking together existing infrastructures in Europe.
- The network of the Qu-Test will support the creation of a trusted supply chain through the validation of quantum devices, chips, components, and systems by the testbed network as an independent third party.

Both projects are intended to cater to the needs of the industry and support it via Open Calls, thus boosting EU's position in the quantum race.

HIGHLIGHTS

40 PARTNERS
10 COUNTRIES
23 USE CASES
OPEN CALL
BUDGET OF € 38 MILLIONS
ECOSYSTEM PLATFORM
PILOT PRODUCTION
TESTING & EXPERIMENTATION

> **We are excited to welcome more than 70 quantum key leaders in Prague who will move the full ecosystem forward.**

Qu-Test and Qu-Pilot projects have received funding from the European Union's Horizon Europe - The EU research & innovation programme under the Grant Agreement number 101113901 and 101079926.

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Qu-Pilot

The Qu-Pilot project consists of 21 partners from 9 different countries aiming to develop and provide access to the first, federated European fabrication (production) capabilities for quantum technologies, building on and linking together existing infrastructures in Europe. Qu-Pilot will implement the first stage of the capability innovation roadmap for providing experimental (pilot) production capabilities and a roadmap for transferring such capabilities to an industrial production environment. It will provide experimental production capabilities for quantum technologies in computing, communication and /or sensing through 13 service-provider organizations available to users, including industry, in particular SMEs and contribute to developing European standards in the field. Qu-Pilot will provide services for the development of a European supply chain of quantum technologies, provide European industry, especially start-ups and SMEs, with the necessary innovation capacity, and make sure that critical IP remains within the EU. The initial service offering will be validated through use-cases. A minimum of 20 such use-cases are expected and of those 11 are already part of this Qu-Pilot.

The project is coordinated by VTT, Finland which has 80 years of experience in ground breaking research and science-based results.

Qu-Test

Qu-Test brings together 13 service providers for a federated network of testbeds and 11 industrial users from the European quantum community. The network brings together competencies and infrastructures across Europe to offer testing and validation services. The first goal of this cooperation is to support the creation of a trusted supply chain through the validation of quantum devices, chips, components and systems by the testbed network as an independent third party. A second goal is to discuss and agree on unified sets of parameters to characterize quantum devices. Methodologies and procedures will be harmonized among the partners of the testbed network in a step toward establishing standards for quantum technologies. Qu-Test is aligned along three testbeds: quantum computing, quantum communication, and quantum sensing. In more detail, the Quantum Computing Testbed will measure, characterize and validate cryogenic quantum devices, cryogenic qubits such as superconducting and semiconducting qubits, photonics qubits and ion traps. The Quantum Communication Testbed will characterize devices for Quantum Key Distribution (QKD) and Quantum Random Number Generation (QRNG) and provide design and prototyping services to support innovation in the supply chain of quantum communication technologies. Finally, the Quantum Sensing Testbed will benchmark sensing and metrology instruments provided by industry and use a large suite of quantum sensors (clocks, gravimeters, magnetometers, imagers) to validate industrial use cases aiming at generating new business cases for quantum sensing and metrology devices. With additional services of IPR support, business coaching and innovation management, Qu-Test supports the European quantum industry with a holistic one-stop-shop to move the full ecosystem forward.

This project is coordinated by TNO, an independent research organization in the Netherlands that focuses on applied science.