A Demo of Quantum-Secured communications at the Mobile World Congress 2024

The European Quantum Flagship returns to the Mobile World Congress (MWC24) with the European Quantum Zone - Hall 6 Stand 6A8 - aimed at showcasing the most recent and important advances in quantum technologies for the digital market as well as the immersive and connectivity industry.
The worldwide congress, held from February 26-29 in Barcelona, will be an outstanding opportunity for the European Quantum Flagship and other EU and local Quantum Initiatives to show some of their most mature technology and disruptive innovations, connect with the global audience, and seek to enable the integration of these technologies within the current market.

February 21, 2024

This year, MWC24 will host The European Quantum Zone. Curated by ICFO and located in

Hall 6 - Stand 6A8, it will feature the latest achievements and advances mainly in the field of quantum technologies, and in particular quantum-encripted communications, in tone with the audience of the mobile that is interested in cybersecurity, telecommunications, artificial intelligence, finance, healthcare, reliability and agility in secure communications, data centers and 6G, among others.
Arranged in an area of 100m2, the space is divided into five main areas: ?

The **Quantum Flagship:** in its sixth year of life, the flagship will provide an overview of what is happening in Europe, the initiatives that are currently running within this huge program, and also the more recent EuroQCI programme, as well as access to the Strategic Research and Industry Agenda that encompasses an overview of the roadmap for the next future.
Companies: in quantum communications, the companies Q-bird, LuxQuanta; Qoolnet-CI; Quside ; ThinkQuantum will share the latest in technology related to Quantum Random Number Generator (QRNGs) devices, QKD devices, quantum cryptography systems, key management software, among others ; in quantum computing Qilimanjaro will be present providing software and hardware solution for computing, and finally VPIPhotonics will display technology related to quantum and photonics integrated circuits, software and design services.
DEMO on Quantum-encrypted communications: the **DEMO** will feature the essentia elements of a European Quantum Communications Infrastructure (EuroQCI), where the companies **LuxQuanta** and Qoolnet-UPM will integrate their different QKD devices to create a SDN controlled quantum network, both at a hardware and software level, showing this through video conference system validated by quantum key distribution protocols.
European Initiatives: Many initiatives will be present at the European Quantum Zone: Quantum Internet Alliance (QIA) ; Quantum Secure Network Partnership (QSNP), Quantum Valley Lower Saxony (QVLS), QuKomin, EuroQCI-Spain, and Plan Complementario de Comunicaciones Cuanticas, among others.
The QT Club: the quantum corner is a stage area within the stand where exhibitors present the latest advances in the field and announce new insights on future programs, initiatives, as well as collaborations or synergies, among others, to underline the leading position of Europe in this area. This year the QT corner will host the **quantum coffees at 11:00h** and, **at 16:00h,** there will be the **launch of the QIA Forum**, the **Post Quantum Cryptography panel** organized by Quside, as well as the QSNP panel on ¡¿½Quantum Communications to Secure t e Futurei¿½, among other activities. Th**program agenda** may be found here.

What you will see at MWC24's European Quantum Zone is just a small sample of how Europe is seeking to drive quantum technologies into the market, industry and ultimately society to push boundaries, revolutionize the way we communicate, process information, and interact

with the world around us to enhance daily life and become solutions to the needs of our society.

About Quantum Technologies in Europe

The Quantum Flagship is a 10-year initiative funded by the European Commission that was launched in October 2018 to accelerate the development of quantum technologies and their transition to the market. The Flagship is currently in its second phase, coordinating 7 large Framework Agreements (FPA) in **Quantum Communications, Simulation, Computing, Testing and Pilot** programs, comprising many leading academic and industrial partners from across Europe to collaborate on the future of quantum technology.

The goal is to consolidate and expand European scientific leadership and excellence in this research area, to make Europe a dynamic and attractive region for innovative research, business and investments in this field. More recently, Quantum Technologies have expanded to other European actions, e.g. within the Digital Europe Program (DEP), the European Innovation Council (EIC), and the forthcoming Chips Act. Quantum technologies are also supported by actions at the national levels, under the form of various National Quantum Initiatives.