

Dear Quantum Flagship member,

We hope you've had a great start to 2025 and that the year ahead brings you luck, happiness, and exciting quantum adventures! It is a very special year for us all, namely **International Year of Quantum Science and Technology 2025**.

We take a look at the celebrations of this milestone year, and continue spreading the word on quantum technologies with educational events and videos. You can also hear about an EIC initiative for start-ups, TWPAs, Q-Expo, and quantum education in Catalonia.

If you would like to inform the community on QT activities or events within your national or regional community, or provide feedback to the Quantum Flagship newsletter, please get in touch at newsletter@qt.eu.

Best regards,

The Quantum Flagship Coordination Team

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2025: International Year of Quantum

2025 is the **International Year of Quantum Science and Technology (IYQ)**, announced by UNESCO and now being celebrated globally. Marking a century since Werner Heisenberg's paper arguably heralded the advent of quantum mechanics, the occasion should be used to 'help raise public awareness of the importance and impact of quantum science and applications on all aspects of life'.

Various events and initiatives are taking place, including the opening ceremony in Paris on 4 February 2025. Countries such as Germany have their own individual celebrations planned. Anyone, anywhere can participate in IYQ 2025, so get involved now!



News from the Quantum Flagship

Beyond the Known: Quantum Possibilities

We will of course be celebrating the International Year of Quantum throughout the 2025 at the Quantum Flagship. We start with a third, special episode of our Quantum Explained video series. (It's not too late to watch the episodes one and two first!)



Beyond technological advancements, quantum science challenges how we view reality itself, opening new perspectives on the nature of existence. To spark your thoughts, we invite you to watch the third episode of *Quantum Explained*, a conversation starter about quantum's role in reshaping what we see possible.

WATCH VIDEO

Quantum Flagship event news

QT for policymakers: Efforts and Investments in Quantum Technology Beyond Europe

Register now for the fourth session of our policymaker training series: 'Efforts and Investments in Quantum Technology Beyond Europe', taking place on **30 January 2025**.

In this session, participants will learn more



about the quantum ecosystems in two countries closely linked to the EU. Insights on current efforts and investments in **quantum tech in Canada** will be given by Louise Turner, while Joe Spencer will assess the **UK quantum ecosystem**.

Read more and register now on the training webpage.



Quantum Flagship event news

Educational Demo Day: Qureka! Box

The next QTEdu Demo Day takes place tomorrow, **21 January 2025**, as part of a series showcasing innovative educational tools in the quantum computing landscape.

In this session, **Simon Armstrong** of **QURECA** will present *Qureka! Box*, a product designed to make quantum computing accessible to audiences as young as 12 years old. Built on QURECA's experience-based pedagogy, ENSAR, the Qureka! Box introduces key concepts – such as superposition, entanglement, and logic gates – through interactive games, videos, discussions, and hands-on activities.

Register now for the online event, taking place **2pm-3pm CET tomorrow**, to discover how *Qureka! Box* is inspiring the next generation of quantum innovators.



News from the European Commission

Funding for QT

Apply for the EIC STEP Scale Up Scheme

As part of the Strategic Technologies for Europe Platform (STEP), the EIC STEP Scale Up scheme offers €10–30 million in equity-only investments to EU startups, SMEs, and small midcaps in strategic tech sectors like quantum technologies and semiconductors. With a €300 million budget for 2025, it aims to support 10–30 deep-tech companies scaling innovation and strengthening the EU's global competitiveness.

Applicants must secure a pre-commitment for at least 20% of their funding round from a qualified investor. Applications are possible until **16 December 2025** via the Funding & Tenders Portal.

Learn more in the EIC Work Programme 2025 (page 96 and following) by clicking on the button below

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News from the Community

QuIC event news

Q-Expo website launched



After the success of the 2024 edition, featuring 28 exhibitors, representatives from 15 nations, 32 speakers from around the world and more than 400 participants, Q-Expo will return to **Amsterdam** on **14-15 May 2025**.

The newly launched website is the go-to source for:

- Event Details: Explore key highlights, including plenary sessions, networking opportunities, and exhibitions.
- Brochure Download: Get all the essential information in one place.
- Sponsorship Opportunities: Discover unique ways to showcase your brand to the quantum community.

News from CEN-CENELEC JTC22

JTC22-WG2 develops European Norm for Traveling Wave Parametric Amplifiers

Traveling Wave Parametric Amplifiers (TWPA) are a key component in cryogenic quantum computing systems. A European Norm is being developed by CEN-CENELEC JTC22-WG2, led by Physikalisch-Technische Bundesanstalt (PTB), and supported by QuantWare, Silent Waves, Arctic Instruments, INRiM, and NPL. The final document aims to provide terms and definitions for parameters of TWPAs as well as standardised measurement methodologies for parameters such as power gain, compression power, and noise.

The work on the document is ongoing and the next step includes further discussions on measurement methodology. The goal is reliable data sheets for TWPAs, and their certification. The draft JTC22-WG2 TWPA document is available here. (Create your personal login using the "Read More" button below to access the document.)

For more information, please contact Lukas Grünhaupt (PTB) at lukas.gruenhaupt@ptb.de.

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News from Catalonia

Catalonia Quantum Academy building a solid educational base for the quantum future

The Catalonia Quantum Academy (CQA) is the educational branch of the Quantica-Mediterranean Valley of Quantum Science and Technologies initiative by the Generalitat de Catalunya. CQA fosters education, training, and career mobility for students and researchers in quantum science and technology.

With programs in talent development, knowledge sharing, international exchange, and outreach, it aims to train future quantum leaders. The first call awarded 10 Master's scholarships in Quantum Science and Photonics. New programmes include Student Research Fellowships and the Student Mobility Program, supported by 60+ experts from Catalonia's universities and research centers.

For more information, please contact cqa@icfo.eu.

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Responsibility

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