QUANTUM FLAGSHIP

Dear Quantum Flagship member,

As the year draws to a close, we have a final newsletter of 2025 to share with you.

The main highlight is looking back at a very successful European Quantum Technologies Conference (EQTC) last month, while we can also reveal next year's hosts… There is plenty of other news too, on the Quantum Act, project updates, standardisation, and more.

Finally, we wish you a relaxing holiday season, and look forward to seeing how European quantum technology continues to grow in 2026!

If you would like to inform the community on quantum technology (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

- **EQTC recap – Looking back on an excellent EQTC 2025 in Copenhagen**

- **Have your say on Europe's Quantum Future – deadline today!**
- **EQUALITY project concludes with advances towards quantum algorithms for industrial applications**
- **Inauguration of Jade and Ruby quantum processors at Jülich and Paris**
- **JJTC22 publishes its first standard: layered model for quantum computing**
- **QuantERA updates its RRI Guidelines: fostering responsible quantum research**

News from the Quantum Flagship

Quantum Flagship event news

EQTC recap – Looking back on an excellent EQTC 2025 in Copenhagen



© Ola Jakup Joensen

Following wonderful editions in Hannover and Lisbon, this year's EQTC had high expectations to meet. The Copenhagen organising team went above and beyond, putting on three days of stimulating progamming for the European quantum technology community between 10 and 12 November.

The attendance of the King Frederik X of Denmark, Executive Vice-President of the European Commission Henna Virkkunen and several Danish Ministers underscored the ever-growing importance of quantum technologies in Europe. With over 1,000 participants – the highest number so far – this year's conference also reflected remarkable momentum in the field. We can hardly wait to see how the community evolves at **EQTC 2026 in Dublin, Ireland**!

Our warmest thanks to the EQTC 2025 organising team, who have the following message:

Dear colleagues and friends,

A heartfelt thank you from all of us at the Niels Bohr Institute to everyone who helped make the European Quantum Technologies Conference 2025 in Copenhagen such a resounding success.

This year we welcomed 1,072 registered participants, representatives from over 40 companies, and – regrettably – more than 200 hopefuls on the waiting list. Your enthusiasm and

contributions made EQTC2025 truly special.

We are deeply grateful for your participation and the many ways you supported the conference. We already look forward to continuing the momentum next year in Dublin, Ireland.

In the meantime, please take a few moments to enjoy the photos from the conference, now available on the website: https://eqtc2025.ku.dk/

Video will soon be available on the website as well.

With gratitude,

The Niels Bohr Institute,
University of Copenhagen

PHOTO GALLERY

News from the European Commission

EU Quantum Act

Have your say on Europe's Quantum Future – deadline today!

After the European Commission extended the call for evidence supporting the upcoming EU Quantum Act, the consultation now **closes today, 15 December 2025**.

Set for adoption in 2026, the Quantum Act will aim to:

- advance quantum research and innovation,
- scale Europe's industrial capacity — from pilot lines to design facilities,
- strengthen supply chains, governance and strategic autonomy,

building on the Quantum Europe Strategy and work alongside the Chips Act, EuroHPC Joint Undertaking and IRIS² to keep Europe at the forefront of quantum technologies.

Contributions are welcome from Member State authorities, EU agencies, EuroHPC/EuroQCI infrastructure operators, industry, start-ups, research organisations, universities, standardisation bodies, and experts in cybersecurity, defence and quantum.

HAVE YOUR SAY

News from European projects

News from the EQUALITY project

EQUALITY project concludes with advances towards quantum algorithms for industrial applications

Between 2022 and 2025, the EQUALITY (Efficient QUantum ALgorithms for IndusTrY) project aimed to develop a full stack of technologies comprising core quantum algorithms and hardware, as well as a set of enabling technologies to make the most of Noisy Intermediate-Scale Quantum hardware in industrial use cases where quantum computing is expected to have the greatest impact, such as aerodynamic simulations, design of batteries and fuel cells, and space mission optimisation and data analysis.

With these achievements, EQUALITY helped to strengthen the links between strategic European industries and the emerging quantum ecosystem while contributing to technologies critical to the green transition.

READ MORE

News from HPCQS Project

Inauguration of Jade and Ruby quantum processors at Jülich and Paris

The High-Performance Computing and Quantum Simulator (HPCQS) project reached a major milestone on 13 November with the inauguration of two quantum processors - Jade and Ruby - at Forschungszentrum Jülich and CEA (Paris) respectively.

The successful integration of the two next-generation quantum processors into HPC environments, made possible by the EuroHPC Joint Undertaking, marks a decisive step toward making quantum computing a practical component of Europe's scientific and industrial computational landscape.

READ MORE

News from the Community

News from CEN-CENELEC JTC22

JTC22 publishes its first standard: layered model for quantum computing

CEN-CENELEC JTC22 (est. 2023) recently published its first standard: “Layer model of Quantum Computing”. The document defines a layer model that covers the entire stack of universal gate-based quantum computers. The higher-up in the stack, the more agnostic it will be from underlying layers. Reducing the dependencies between higher and lower layers is a crucial point for optimized quantum computations. Highlighting commonalities between multiple physical systems such as transmon, spin-qubit, ion-trap, neutral-atom, and others, these imply a market for products usable for this wide range of quantum computing technologies.

The work was led by Delft Circuits, with written contributions from TNO, CINI, ParityQC, DLR, QDeepTech, Alice&Bob and Pasqal. One can obtain a copy of the standard from their National Standards Body.

More information via Rob van den Brink (Delft Circuits): Rob.vandenBrink@Delft-Circuits.com

JTC22 STANDARDISATION

News from QuantERA

QuantERA updates its RRI Guidelines: fostering responsible quantum research

QuantERA has released a revised edition of its ***Responsible Research and Innovation (RRI) Guidelines***, reflecting nearly a decade of collaboration within the European quantum research community. The updated Guidelines provide practical approaches for integrating RRI principles into call design, evaluation, funding, and project monitoring. They also highlight the importance of gender equality and diversity, showcasing examples like the Women Leaders in Quantum interview series. The document offers tested practices and strategic reflections, supporting a responsible, sustainable, and inclusive quantum ecosystem.

READ THE RRI GUIDELINES

QUANTUM FLAGSHIP

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Responsibility

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