



Dear ,

We are thrilled to tell you about the Quantum Flagship's new Strategic Research and Innovation Agenda, unveiled this month, which aims to establish Europe as the 'Quantum Valley' of the world.

We can also reveal the date and location of this year's European Quantum Technologies Conference, **EQTC 2024**. There are plenty more exciting events too: the next QT training for policymakers, an info event on export control, and the Mobile World Congress 2024 (MWC2024) where we will have a 'European Quantum Zone'.

You can hear about two open calls with dedicated info days: on the deployment of PQC in industrial systems, and on EuroHPC Quantum Centres of Excellence. Finally, we begin introducing the newest Quantum Flagship projects and highlight results of past projects.

If you would like to inform the quantum community on any Quantum Technologies (QT) activities or events within your national or regional community, or provide feedback to the QT newsletter, please get in touch at [newsletter@qt.eu](mailto:newsletter@qt.eu).

Best regards,  
The Quantum Flagship Coordination Team

- **Save the date: EQTC 2024**
- **New Strategic Research and Industry Agenda unveiled**
- **European Quantum Zone at the MWC2024**
- **QT training for policymakers: quantum simulation use cases**
- **QuIC Export Control Event**
- **Deployment of Post-Quantum Cryptography in systems in industrial sectors**
- **EuroHPC Quantum Centres of Excellence**
- **SPINUS pioneers scalable solid-state quantum computing**
- **EPIQUE: developing the European photonic quantum computer**
- **New spectroscopy method unveils light-matter interactions in solids**
- **Join the European network of outreach contact points in quantum**

# News from the Quantum Flagship

Quantum Flagship event news

**Save the date: EQTC 2024**

A promotional poster for the European Quantum Technologies Conference (EQTC) 2024. The poster features a dark blue background with a blurred image of people. At the top left is the EQTC logo, a pink circle with 'EQ' and 'TC' inside. To its right, the text reads 'European Quantum Technologies Conference 2024' and 'a Quantum Flagship event'. In the top right corner, there is a small orange square with a white quantum symbol. The main text 'Save the date' is in a large, pink, sans-serif font. Below it, three icons (calendar, location pin, and speech bubble) are followed by the event details: '18-20th November 2024', 'Culturgest, Lisbon', and 'PQI - Portuguese Quantum Institute'. At the bottom, there are three logos: 'QUANTUM FLAGSHIP' (a globe icon), 'PORTUGUESE QUANTUM INSTITUTE' (a stylized 'PQI' logo), and the 'European Commission' logo (the European flag).

We are thrilled to announce that this year's biggest European quantum event, the European Quantum Technologies Conference (EQTC), will be taking place in beautiful **Lisbon** from **18 - 20 November 2024**.

The EQTC is the showcase and community gathering of the Quantum Flagship, bringing together leading minds from science, industry, and policy for an insightful and exciting programme. The event will be organised and hosted by PQI – the Portuguese Quantum Institute.

Save the date and join us in shaping the future of QT in Europe!

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News from the Quantum Flagship

**New Strategic Research and Industry Agenda unveiled**



On 14 February, the Quantum Flagship presented the new Strategic Research and Industry Agenda, titled '**SRIA 2030: Roadmap and Quantum Ambitions over this Decade**', to the European Commission.

Key topics in the roadmap include economic and technological sovereignty, emphasising the need to bolster the EU's role as a global leader in this transformative field.

The roadmap aims to position the European Union with its innovation hubs, research centres, startups, skilled workforce and multi-billion Euro investments, as the quantum equivalent of Silicon Valley—or the world's first 'quantum valley'.

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## Quantum Flagship event news

### European Quantum Zone at the MWC2024



The European Quantum Flagship returns with the European Quantum Zone to the Mobile World Congress 2024 in **Barcelona** from **26 - 29 February 2024**.

The space includes:

The **Quantum Flagship** welcome counter.

**Companies:** Q\*Bird, LuxQuanta, QoolNet-UPM, ThinkQuantum, Qilimanjaro and VPIphotonics will present the latest technology in QRNGs, QKD devices, quantum cryptography systems, software and hardware solutions as well as quantum and photonic integrated circuits.

**Live demo on quantum communications:** LuxQuanta and QoolNet-UPM will mimic a mini-European Quantum Communications Infrastructure (EuroQCI).

**European Initiatives:** Quantum Internet Alliance, Quantum Secure Network Partnership, Quantum Valley Lower Saxony, QuKomIn

**The QT Club:** With talks including the launch of the QIA Forum and the post-quantum cryptography panel organised by Quside.

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Quantum Flagship event news

## QT training for policymakers: quantum simulation use cases



The 7th session of the online training series is dedicated to quantum simulation and will take place on **7 March 2024**.

Listen to an inspiring presentation on use cases in quantum simulation for materials research cases, to be given by Elvira Shishenina, Quantum Computing Team Lead at BMW Group - Central Invention.

A registration link and additional information will soon be available on our website.

[STAY UPDATED](#)

Quantum Flagship event news

## QuIC Export Control Event

The European Quantum Industry Consortium (QuIC) is hosting an Export Control info event on **12 March 2024**, online, offering insights on international dual-use export control frameworks and how they are relevant for the quantum community. Sabine van Gastel (TNO, Netherlands) and Johan Evers (imec, Belgium) will cover the EU dual-use export control system, while Verena Manger-Lemke and Paul Gerharz (Fraunhofer-Gesellschaft, Germany) will provide guidance on setting up an ICP and general export control matters. Register for free for a chance to:

- Learn the basics of export control
- Hear testimonials from QuIC Members like Toptica
- Participate in a Q&A session

[REGISTER NOW](#)

## Open call & info day

### Deployment of Post-Quantum Cryptography in systems in industrial sectors

With the aim of enabling the deployment of post-quantum cryptography (PQC) in industrial sectors, the European Commission has launched a call under the Digital Europe Programme, for the seamless integration of PQC systems, devices, components, protocols and network technologies into existing digital security and communication networks. Proposals can be submitted until **26 March 2024**.

You can join the European Cybersecurity Competence Centre and Network (ECCC) Info Day in **Bucharest** on **22 February 2024** to learn more about this and other open calls for cybersecurity funding.

[VIEW CALL](#)[INFO DAY](#)

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## Open call & info day

### EuroHPC Quantum Centres of Excellence

The EuroHPC Joint Undertaking has launched a [call](#) to establish two European Quantum Excellence Centres (QECs) to foster the development of an ecosystem of quantum programming facilities, application libraries and a skilled workforce. The submission deadline is **14 May 2024**.

With reference to the open call, the EuroHPC JU will organise a two-hour online information session on **1 March 2024** to discuss the following topics:

- Specifics and technological scope of the QECs
- Expected collaboration with existing Quantum Computing infrastructure
- Eligibility criteria for applicants and consortia
- Intellectual property rights
- Details on integration with national/local programs and other EU initiatives (such as the Quantum Flagship)

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A new batch of Quantum Flagship projects kicked off in January 2024, covering various fields of QT, and we will be profiling these in the next monthly newsletter. We start off by looking at two exciting projects funded under the '*Investing in alternative quantum computation and simulation platform technologies*' call:

## SPINUS project news

### **SPINUS pioneers scalable solid-state quantum computing**

The SPINUS project is a pioneering initiative in scalable solid-state quantum computing. The project aims to advance quantum simulation beyond 50 quantum units and elevate spin-based quantum computing beyond 10 qubits. Key objectives include:

- Developing mature hardware platforms for quantum simulation
- Enhancing spin-based quantum computing platforms and control techniques
- Improving methods for qubit control and readout
- Enhancing the performance of quantum algorithms for various applications

Lasting for 4 years with €10mil of funding, the SPINUS project consists of 12 partners from 8 different countries, coordinated by Fraunhofer IAF, Germany.

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## EPIQUE project

### **EPIQUE: developing the European photonic quantum computer**

The EPIQUE project will investigate the potential offered by the development of photonic quantum computing platforms. It aims to develop three different prototypes of photonic quantum computers at scales of 10s of qubits, paving the way forward towards a more ambitious platform of over 1000 qubits. Key objectives include:

- Development of high-performance quantum light sources, integrated photonic platforms and detectors
- Development of full quantum computing machines
- Development, execution and benchmarking of near-term quantum algorithms

The project will run for 3 years with over €10 mil of funding. It is led by the Sapienza

Università di Roma and features 18 partners from 12 different countries.

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PhoQuS project news

## New spectroscopy method unveils light-matter interactions in solids

Also the concluded Quantum Flagship projects continue to deliver exciting results, including the project PhoQuS (Photons for Quantum Simulation), as recently published in the journal *Nature Physics*. Together with international collaborators, the team from CNRS in France have demonstrated a new quantum optics technique to probe exciton-polariton interactions in semiconductors.

The new technique, which the authors have dubbed 'photon-cascade correlation spectroscopy', enables the revealing of resonances due to few-body electronic interactions in solid state materials such as semiconductors. Through these insights into their quantum properties, promising 2D materials can be engineered for new quantum technology applications.

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## News from the community

Community news

### Join the European network of outreach contact points in quantum

In view of dissemination actions and opportunities for scientific outreach activities in the domain of Quantum Science & Technology in Europe, we are gathering contact information of outreach officers (or equivalent) at European research institutes, learned societies, student associations, museums, companies and other organisations involved in QT. This is being done **in the context of World Quantum Day on 14 April 2024**, Quantum Cities, and related initiatives.

To join this network, register your organisation and/or yourself by **28 February 2024** below.

[REGISTER NOW](#)



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