



Dear Quantum Flagship member,

With more than ever going on in the European quantum technology (QT) community, we have a jam-packed newsletter for you this month.

Firstly – registration for the European Quantum Technologies Conference 2024 is now open! And there are other exciting events to read about.

Moreover, there are open calls from Horizon Europe, the EIC, and Quantum Flagship projects on education and on testing.

You can read about three new Quantum Flagship projects focussed on quantum photonic integrated circuits (QPICs), a technical survey on quantum computing, news from Quandela, and much more...

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

- **Registration open for EQTC 2024!**
- **Save the date: QT training for Policymakers**
- **Quantum CARLA attracts over 400 participants**
- **Funding opportunities under Horizon and EIC**
- **New Quantum Flagship projects: QPICs x3**
- **QT Education project calls for Affiliated Partners**
- **Open call for companies to utilise testing and piloting services**
- **End-user workshop 'Applications of Quantum Simulation 2' held**
- **Call for Quantum experts: state-of-the-art technical survey**
- **Quandela announces improved quantum computing 'Cloud 2.0' service**

News from the Quantum Flagship

Quantum Flagship event news

Registration open for EQTC 2024!

A promotional banner for the European Quantum Technologies Conference (EQTC) 2024. The background is a dark blue gradient with a blurred image of people smiling. In the top left, the EQTC logo is shown next to the text 'European Quantum Technologies Conference 2024' and 'a Quantum Flagship event'. In the top right, there is a small orange square with a white quantum symbol. The center features the text 'Save the date' in a large, bold, orange font. Below this, a list of event details is provided with icons: a calendar icon for '18-20th November 2024', a location pin icon for 'Culturgest, Lisbon', and a speech bubble icon for 'PQI - Portuguese Quantum Institute'. At the bottom, there are three logos: the Quantum Flagship logo, the Portuguese Quantum Institute logo, and the European Commission logo.

EQTC European Quantum Technologies Conference **2024**
a Quantum Flagship event

Save the date

- 18-20th November 2024
- Culturgest, Lisbon
- PQI - Portuguese Quantum Institute

QUANTUM FLAGSHIP PORTUGUESE QUANTUM INSTITUTE European Commission

The European Quantum Technologies Conference (EQTC) will be repeated with just a one-year interval for the first time, after wonderful feedback last year and with the European quantum ecosystem growing faster than ever. PQI - Portuguese Quantum Institute will host EQTC 2024 in Lisbon from **18 to 20 November 2024**.

We are thrilled to tell you that **registration is now open** for EQTC 2024, with Early Bird rates available until **31 July**.

We invite you to invite to a series of inspiring high-level talks and keynotes showcasing ground-breaking scientific results from across Europe, along with discussions on the challenges facing QT in Europe: in research & innovation, policy, and collaboration. It will also be an excellent networking opportunity for participants.

REGISTER NOW

Quantum Flagship event news

Save the date: QT training for Policymakers

Mark your calendars for the 9th session



of our engaging online training series tailored for policymakers. Join us on **13 June** for the second part of an insightful discussion on '**QT state of the art**'.

Stay tuned on our website for updates and click the button below to stay informed. More details about the agenda and speakers will be released soon.

You can already register for this enlightening session [here](#).

STAY TUNED

News from the Quantum Flagship

Quantum CARLA attracts over 400 participants

The third edition of Quantum CARLA took place in Barcelona on 22 March 2024. With over 400 attendees from 44 countries and 26 speakers representing academia and industry, the event facilitated insightful discussions and networking opportunities.

Highlights included a keynote lecture on the landscape of QT, panel sessions on career development, and presentations from academia, spin-off companies, and larger corporations discussing career paths and recruitment perspectives. Additionally, an informative session covered national and international quantum initiatives, spotlighting European projects.

Expanding its scope, the CARLA events are now enhanced with **360 CARLA**, a new Horizon Europe project coordinated by ICFO.

READ MORE

News from European Commission

Horizon Europe and the European Innovation Council (EIC) have four newly opened or reopened calls dedicated to quantum technology (QT). Find out more below, and stay up to date with the latest calls on our [funding opportunities page](#).

A network of quantum gravimeters for Europe

Under the Quantum Flagship of Horizon Europe, a €25mil call titled '*Developing and deploying a network of quantum gravimeters for Europe*' has been opened.

Proposed projects should contribute towards outcomes such as:

- demonstrating the advantage of q. gravimeters in innovate operational settings, including (a) an onboard gravimeter and (b) a terrestrial network of at least eight gravimeters,
- readying the network for integration into a multi-country initiative,
- and identifying new use cases.

The call is open until **18 September 2024**.

[READ MORE](#)

Funding for QT

Stimulating transnational research on QT

Also under Quantum Flagship, a €15mil call has been opened with the title '*Stimulating transnational research and development of next generation quantum technologies, including basic theories and components*.' It will function as a cascading grant (FTSP). Proposed projects should in turn implement funding calls to address:

- transnational efforts in guaranteeing critical technology availabilities,
- early-stage involvement of industry in transnational R&D agendas,
- any gaps in the ongoing Quantum Flagship activities.

The call is also open until **18 September 2024**.

[READ MORE](#)

Funding for QT

'Hop-On Facility' for widening countries in Horizon Europe

The Hop-On Facility allows for legal entities from widening countries to join running collaborative R&I actions, subject to the agreement of the respective consortium and provided that legal entities from such countries are not yet participating. The scheme aims to improve the inclusiveness of Horizon Europe by involving more research institutions from widening countries under Horizon Europe Pillar 2 and EIC Pathfinder actions.

Main selection criteria are excellence and added value of the new partner performing a relevant additional task in the project. You can view the [projects eligible](#) to be joined and find out more below. The deadline for proposals is **26 September 2024**.

[READ MORE](#)

Funding for QT

EIC Accelerator Challenge: Emerging quantum technology components

The EIC Accelerator Challenge on '*emerging quantum technology components*' remains open. Specifically, it will support ground-breaking innovations that have the potential to develop:

- fault-tolerant **quantum computing** hardware components,
- **quantum sensing** components to function in real/harsh environments,
- or **quantum communication** devices that can be deployed in a real environment.

The next cut-off for full applications is **3 October 2024**, but it is advisable to submit a short application before that.

[READ MORE](#)

News from Quantum Flagship projects

Three exciting Quantum Flagship projects working on **Quantum Photonic Integrated Circuits** (QPICs) started in early 2024, each one focussing on a different material as their platform. They are funded under a Horizon Europe call initiated jointly by the Quantum Flagship and the Photonics Partnership. Here we take a brief look at the projects.

QPIC1550 project news

Driving integration at a pivotal wavelength

The project QPIC1550 (*Quantum photonic integrated circuits at 1550nm*) will integrate InP, quantum dot and InGaAs detectors on SiN-based PICs. It aims to

enhance the performance of quantum circuits and ensure they are compatible with existing optical fibre networks operating at 1550nm, by leveraging the unique properties of SiN to create ultra-low loss circuit pathways and combine them with InP active devices. This dual focus on innovation and compatibility is designed to accelerate the adoption of QT in a range of sectors, including telecommunications, healthcare, finance, and defence.

The consortium features 9 partners from 7 different EU countries, coordinated by QTI S.r.l., a quantum telecommunications start-up based in Florence, Italy. The project will receive €6mil over its 4-year life-time. You can sign up for the project newsletter and find out more via the project [LinkedIn](#) and website:

[READ MORE](#)

QLASS project news

A new generation of QPICs in glass

The *Quantum Glass-based Photonic Integrated Circuits* (QLASS) project will create a new end-to-end quantum photonic platform combining the potential of femtosecond laser writing (FLW) technique to fabricate 3D waveguides in specially-developed glass, high-performance single-photon sources, superconducting nanowire detectors and electronics enabling reconfigurable state manipulation. It aims at developing a new generation of QPICs particularly suited for implementing Variational Quantum Algorithms (VQAs), developing not only the hardware but also the software for end users to translate VQAs into FLW circuits.

QLASS brings together experts from well-renowned research groups, up-and-coming SMEs, and industry from France, Germany and Italy, sharing €6mil of funding in a 3-year project, and led by the Politecnico di Milano.

[READ MORE](#)

QU-PIC project news

Aluminium oxide as a backbone for quantum applications

The project QU-PIC (*Quantum Universal Photonics Integrated Circuits platform*) will use Al₂O₃ as its platform, aiming to develop a PIC technology which can enable a wide range of QT, thanks to the platform's broad transparency window (from UV to NIR) with very low propagation losses. A full process design kit of quantum building blocks will be developed, including on-chip tunable laser sources, fast modulators, superconducting nanowire SPDs and programmable ASICs. The necessary integration technologies, i.e., microtransfer printing and advanced packaging, will also be developed to produce two demonstrators, one in quantum computing and another in quantum sensing.

The project sees the collaboration of 11 different partners from 5 different countries, receiving €6mil over 4 years, coordinated by University of Twente, Netherlands. You can find out more via the project's [LinkedIn](#) and website:

[READ MORE](#)

DigiQ project news

QT Education project calls for Affiliated Partners

The [DigiQ](#) (*Digitally Enhanced European Quantum Technology Master*) consortium has an open call for organisations that wish to become Affiliated Partners.

DigiQ is Europe's largest quantum education project, with 24 partners and a budget of €17.6mil, developing 16 quantum Master's degrees until September 2026. EU organisations are eligible to participate in DigiQ as Affiliated Partners, for activities such as hosting internship students, sharing resources, and participating in online networks. More information is available on this opportunity via the button below.

A Q&A Session will run on **29 May** at 15:00 CET. To participate in this meeting or for more information, contact [Simon Goorney](#).

[READ MORE](#)

Qu-Test & Qu-Pilot project news

Open call for companies to utilise testing and piloting services

Qu-Pilot & Qu-Test, a dedicated network of quantum pilot lines and testbeds, will launch an open call for EU-based companies in search of testing and experimental production facilities incorporating technologies in quantum computing, communication, and sensing. Successful applicants will receive expertise and testing or experimental production services for free (100% funded), and will become parties to the Qu-Test/Qu-Pilot Framework Partnership Agreement. The call will be open from 1 June 2024 until 31 March 2025 with applicants will be able to apply anytime.

The first opportunity to learn more about the conditions and application process will be during the 'Step into the future of Quantum with Qu-Test & Qu-Pilot' side event at Q-Expo, Amsterdam, **11 June**. For updates on the call, you can also follow Qu-Test & Qu-Pilot on [LinkedIn](#).

[JOIN THE EVENT](#)

PASQuanS2.1 project news

End-user workshop 'Applications of Quantum Simulation 2' held

The PASQuanS2.1 project held a successful end-user workshop, 'Applications of Quantum Simulation 2', which took place from 21-22 March at Palaiseau, France. Hosted by EDF, participants enjoyed a great atmosphere for exchanging on collaborations between academia and industry and discussing potential use cases.

Major European companies like Airbus, BASF and Bosch as well as smaller specialized companies and start-ups gave presentations and explored potential applications together with PASQuanS2.1 academics. Also, the start-up companies ParityQC, PASQAL and Qruise, which emerged during PASQuanS1, gave an insight into their recent developments.

[READ MORE](#)

News from the Community

SPECTRUM project news

Call for quantum experts: state-of-the-art technical survey

The EIC Transition project SPECTRUM aims to realise a multi-port switching platform to multiplex control signals of several qubits in one cable and thus reduce the overall number of cables in superconducting quantum computers.

The consortium is collecting information about the **state of the art of quantum architecture**, as well as insights into **switching technology for cryogenic hardware**. Feedback is sought from all quantum stakeholders, particularly cryogenics and control electronics providers, and superconducting quantum computer manufacturers. The survey takes about 10 minutes and is open until **31 May**:

[TO SURVEY](#)

News from Quandela

Quandela announces improved quantum computing 'Cloud 2.0' service

The European start-up Quandela has released a new version of its quantum computing cloud service, Quandela Cloud 2.0, providing end-users with an improved

platform for developing photonic quantum applications.

The Cloud service gives access to Quandela's quantum servers, software for generating quantum circuits, as well as middleware for executing hybrid quantum-classical workflows. The new version includes a quantum toolbox designed for industry-specific applications, and Altair, a 10-qubit quantum processor.

Quandela, headquartered in Massy, France, has received funding under an EIC Accelerator grant and is the beneficiary of Quantum Flagship projects, among them Qu-Pilot, Qu-Test and EPIQUE.

[READ MORE](#)



Funded by the European
Commission

Responsibility

This newsletter is operated by the project "QUCATS – the Quantum Flagship Coordination and Support Action", which is funded by the European Commission.

Responsible for the content of this newsletter is:

VDI Technologiezentrum GmbH
VDI-Platz 1
D-40468 Düsseldorf
Germany

Email: info@qt.eu

[Unsubscribe](#)

© Quantum Flagship | [Imprint](#) | [Privacy Policy](#) | [Contact](#)