



Dear,

While we look forward to a well-earned rest over the festive period, there is already much to be excited about in the new year. In this newsletter you will hear about a new board for EC-funded projects in quantum, and a Flagship-organised seminar on standardisation in quantum.

We will also tell you about upcoming funding opportunities under the QuantERA Call 2023 and the Horizon Europe work programme 2023-2024. Furthermore, there is news from the fields of QKD and post-quantum cryptography.

Finally, we wish you a relaxing holiday season and a successful and healthy 2023!

If you would like to inform the quantum community on any 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.

Best regards, The Quantum Flagship Coordination Team

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News from the Quantum Flagship

European Quantum Coordination Board

New board for quantum projects seeks to align EU initiatives

On behalf of the European Commission, a *Quantum Coordination Board* (QCB) will form in early 2023. It will be made up of coordinators of ongoing quantum technology projects under Horizon Europe, Digital Europe, EISMEA and other ECfunded calls. This will help projects find collaboration opportunities, identify crosscutting topics, and guide future priorities for the European quantum ecosystem.

An online kick-off event will be held on **16 February 2023, 13:00 CET**. Coordinators of eligible projects who have not yet received an invitation are encouraged to get in touch via the button below.

GET IN TOUCH

Nobel Prize in Physics

European scientists honoured in 2022 Nobel ceremony



Nobel laureate Alain Aspect (centre), with collaborators Jean Dalibard (left) and Philippe Grangier (right) at the Nobel Prize award ceremony in Stockholm. © L. Cognet, IOGS.

In October it was announced that the 2022 Nobel Prize in Physics would be jointly awarded to Alain Aspect, John F. Clauser and Anton Zeilinger, "for experiments with entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science". On 10th December the traditional award ceremony was held in Stockholm, Sweden.

With Alain Aspect and Anton Zeilinger representing France and Austria respectively, this a moment that the European quantum technology community can be very proud of. The Flagship Coordination Office's current chair, Philippe Grangier, worked closely with Alain Aspect on his prize-winning experiments.

Watch the award ceremony

Quantum Flagship event news

European QT standardisation: what's new?

Do you want to know what standardisation on quantum technology could mean for your organisation? The Quantum Flagship is organising a seminar to explain the importance of standardisation and to inform you about the Joint Technical Committee (JTC22/QT), which will be launched by CEN-CENELEC in March 2023.

Save the date: 25 January 2023, 10:00 CET.

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Funding for QT

QuantERA Call 2023 Pre-Announcement

The QuantERA Consortium has pre-announced a call for proposals, to be opened in January 2023. The call will cover two topics, 'Quantum Phenomena and Resources' and 'Applied Quantum Science', which are open to each of the main fields of QT.

A match-making tool has been opened to help potential applicants find partners. Consortia must feature partners from at least three eligible European countries.

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News from the European Commission

Funding for QT

Horizon Europe 2023-2024 Work Programme revealed

The European Commission has pre-published the 2023-2024 Work Programme for Horizon Europe. Under **Cluster 4** there are various funding opportunities for QT to be found, including calls on 'alternative' quantum computing platforms, next-gen

quantum sensing, quantum photonic integrated circuits (PICs), communication technologies for space systems, and more.

The work programme and more information can be downloaded via the button below. The quantum-relevant calls and other QT funding opportunities in Europe can be found on the Flagship's dedicated page here.

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News from the Community

Post-quantum cryptography

France sends first post-quantum encrypted diplomatic message

On 30 November 2022, France transmitted a 'quantum-safe' diplomatic message for the very first time, sent to Paris from its embassy in Washington. The post-quantum encryption – securing the message against decryption even by quantum computers – drew on work by CryptoNext Security, a spin-off of INRIA, CNRS and Sorbonne University. The actual content of the communiqué was a Memorandum of Understanding signed by France and the US that day, aimed at supporting quantum cooperation projects between the two countries.

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QKD

Report on Italy-Croatia-Slovenia quantum key distribution network published

During the 2021 G20 Digital Ministers' Meeting in Trieste, encrypted communication was performed using a quantum key distribution (QKD) protocol, as detailed in a newly published report. The authors comment on the results obtained by connecting Italy, Slovenia, and Croatia over an in-fibre quantum network. The established network connected Trieste to Rijeka via a dedicated 100-km fibre link, and to Ljubljana via a trusted node in Postojna. This represents Europe's first such quantum network, and worldwide the first-ever to connect three countries. This marks a successful kick-off for the European network for Quantum Communication, EuroQCI.







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Responsibility

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