

Demonstration: Pilot Version of the National Quantum Network in Aveiro



On April 24, the Instituto de Telecomunicações and the University of Aveiro hosted the **Aveiro Quantum Communication Network** session, presenting the **pilot version** of the **Portuguese National Quantum Network**.

The event featured a **live demonstration** of quantum-based communication across **five network nodes** in the city of Aveiro – four located in the **University of Aveiro** campus and one at **Altice Labs** headquarters.

Developed under the PTQCI project, this initiative marks a significant **milestone** in the development of **telecommunications infrastructure powered by quantum technologies**.

The event was organized by the Quantum Communications Group - Instituto de Telecomunicações in Aveiro.



Participants in the PTQCI pilot network demonstration, Instituto de Telecomunicações, University of Aveiro.

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Quantum Tech Day: PTQCI Spring School 2025 on Secure Communications and Computation



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On 16th of May, the Instituto de Telecomunicações and the Aveiro University hosted the **Quantum Tech Day: PTQCI Spring School** on Secure Communications and Computation at the Instituto de Telecomunicações, in Aveiro.

This initiative was developed within the scope of the **PTQCI Portuguese Quantum Communication Infrastructure** project. The event featured several sessions with renowned **national and international speakers**, providing an opportunity for students to stay at the forefront of quantum technology.

The program was designed to empower university students and young professionals, providing cutting-edge insights into quantum communications.

The Quantum Tech Day: Spring School featured presentations by Armando Nolasco Pinto (IT/UA), Alex Grilo (Sorbonne Université), Nelson Muga (IT/UA), Nuno Silva (IT/UA), Davide Rusca (Vigo Quantum Communication Center), Gustavo Anjos (IT/UA), Ricardo Faleiro (IT), Mariano Lemus (IT), Emmanuel Cruzeiro (IT), and Manuel Goulão (INESC-ID), who shared insights on various aspects of quantum communication and technology development.

The event emphasized the growing relevance of **quantum technologies** in shaping secure and innovative communication infrastructures, underscoring their role in addressing future scientific and technological challenges.



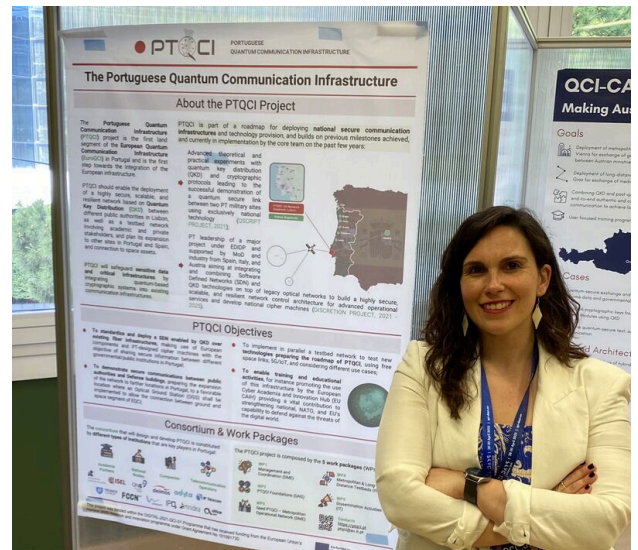
Spring School 2025 Flyer.

PTQCI Presentation at QCI Days Athens 2025

On the 28th of April, **Catarina Bastos**, representing **Deimos** and the Portuguese Quantum Communications Infrastructure - PTQCI project, participated in the **QCI Days Athens 2025**, in Greece.

Catarina delivered a talk and presented a poster of the PTQCI project, highlighting its significant role in enhancing **secure communications** for national security and discussing its use cases in **defense applications**.

This initiative was organized by the **National Quantum Communication Infrastructures (NatQCI)** projects of Greece (**HellasQCI**), Spain (**EuroQCI Spain**), Austria (**QCI-CAT**).



Catarina Bastos (Deimos), coordinator of the PTQCI project, at the QCI Days Athens 2025.

PTQCI Presentation at JEEC - Electrical and Computer Engineering Week



Electrical and Computer Engineering Week (JEEC), Instituto Superior Técnico, Lisbon.

On the 9th of May, **José Carlos Gonçalves**, representing **IP Telecom PT**, participated in the **JEEC** in Lisbon, Portugal.

José Carlos presented the PTQCI project, underlining its essential role in advancing **secure communication systems** for national security.

The **JEEC** is an event organized by students, for students, from various courses at **Instituto Superior Técnico**, with a primary focus on Electrical and Computer Engineering.

PTQCI Presentation at Jornadas FCCN

On May 6, **Bruno Gonçalves** (Warpcom) and **João Sabino** presented the PTQCI Project at the **Jornadas FCCN**, highlighting the challenges and lessons learned from building the first quantum link between **FCCN** and **IPTelecom** data centers, as well as ongoing efforts to establish the **first Iberian quantum connection** between Portalegre, Elvas, and Badajoz.



Jornadas FCCN, Coimbra.

#2 PTQCI Podcast: “The Future is Quantum”

The second series of the **PTQCI Podcast**, titled “**The Future is Quantum**”, is now available on **Spotify**. This edition features contributions from consortium members, who share insights into their roles within the project and the **collaborative efforts** involved in deploying the **Portuguese Quantum Communication Network**.



In the first episode, **Catarina Bastos** (Deimos), coordinator of the PTQCI project, presents *Building Portugal’s Quantum Future with PTQCI*. The second episode features **Carlos Pires** (IPQ), who explains *Quantum Time: Securing the Future of Synchronization*. In the third, **Rui Calé** (Altice Labs) outlines *Smart Networks for a Quantum Future*. The fourth episode includes **Manfred Niehus** (ISEL), who introduces *Connecting Space: Quantum Links from Orbit*. In the fifth, **António Serrador** (ISEL) discusses *Quantum Connection: From Lisbon to the World*. Episodes six and seven feature **João Silva** and **João Carvalho** (ISEL), who share their perspectives and contributions as students and researchers in the PTQCI project.

Stay tuned to the [PTQCI Spotify Channel](#) to listen and learn more about the ongoing developments in Portugal’s quantum communication initiative.

PTQCI MOOC on Quantum Communications

The **Massive Open Online Course (MOOC)** developed under the PTQCI initiative is now available, facilitating knowledge transfer to academia and industry. This educational program is designed to disseminate insights gained throughout the project and to provide practical guidance for organizations preparing to transition into the quantum era.

1st episode:	“Quantum Information and Quantum Cryptography” by Ricardo Faleiro (IT)
2nd episode:	“Quantum Communications” by Prof. Armando Pinto (UA/IT)
3rd episode:	“The ABC of Composable Security in Cryptography” by Mariano Lemus (IT)
4th episode:	“Continuous Variable QKD System” by Gustavo Anjos (IT)
5th episode:	“The Role and Purpose of GNS in the PTQCI Project” by Paulo Santos (GNS)
6th episode:	“Cryptography 1010” by Ricardo Chaves (IST)
7th episode:	“Secure Time Transfer” by Carlos Pires (IPQ)

The MOOC is aimed at students, professionals in the security and technology sectors, researchers, and organizations seeking to develop expertise in quantum communication technologies. Explore the available courses [here](#).

Latest Clippings

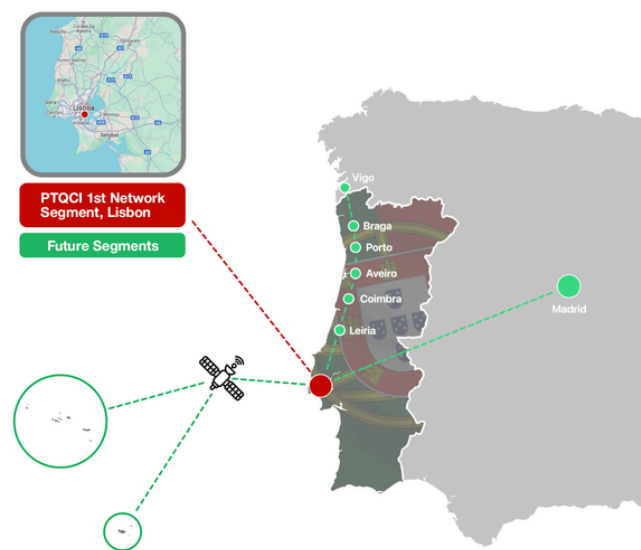
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QUANTUM COMMUNICATION INFRASTRUCTURE



- The Portuguese Quantum Communication Infrastructure (PTQCI) project is the first land segment of the European Quantum Communication Infrastructure (EuroQCI) in Portugal and is the first step towards the integration in the European infrastructure.
- PTQCI should enable the deployment of highly secure services based on Quantum Key Distribution (QKD).

Consortium's partners



IP Telecom



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Acknowledgements

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