INDRA GROUP LEADS THE IMPLEMENTATION OF THE NATIONAL QUANTUM COMMUNICATIONS NETWORK TO BE INTEGRATED INTO THE EUROPEAN EUROQCI NETWORK

- **With this deployment, Spain will be at the forefront of the future pan-European ultra-secure quantum communications infrastructure designed to safeguard sensitive data and critical infrastructures in the face of potential attacks by future quantum computers**
- **As part of the European EuroQCI RDI project, Indra has developed the key infrastructure of the Spanish network and coordinated the project's 14 use cases, demonstrating the viability of quantum technology in critical sectors such as banking and emergency handling**
- **The company has deployed strategic links across the Madrid network and developed its own hybrid key management systems, combining classical, quantum (QKD), and post-quantum (PQC) cryptography**
- **Through Indra Space, Indra Group is also heading the IberianQCI project, which forms the southwestern European segment of the future European quantum communications network, and interconnects the infrastructures of Spain and Portugal with terrestrial and satellite communications**

Madrid, June 2nd, 2026. Following the completion of the domestic phase of the deployment of the European EuroQCI RDI project, Indra Group has consolidated its position as a key player in the development of the quantum communications network in Spain and one of the most prominent national and European authorities in this technology. As part of this European RDI project, the company has developed the infrastructure key to the national deployment of this network and led the use case work package (WP3), contributing its cutting-edge technology in order to ensure the security of sensitive information and critical infrastructures in the face of quantum computing threats.

As a result of this project, Spain is at the forefront of the future pan-European ultra-secure quantum communications infrastructure driven by the EuroQCI (European Quantum Communication Infrastructure), whose aim is to provide EU member States with a network secured by Quantum Key Distribution (QKD) mechanisms.

The European Commission is working with the 27 member States and the European Space Agency (ESA) to design, develop, and deploy the EuroQCI, which will be made up of a terrestrial segment based on fiber optic communication networks connecting national and cross-border strategic sites, and a satellite-based space segment. In Spain, this effort has crystallized into a robust infrastructure that currently boasts nearly 30 nodes in Madrid and a three-node ring in Barcelona, where air links and interleaving distribution systems have also been successfully tested.

Leadership of infrastructures, intelligent management and use cases

Indra has played a dual role in the project, as a network architect and developer of management solutions. The company has deployed two critical fiber optic links, the first connecting its work center in Torrejón de Ardoz to the Quantum Technologies Innovation Center located at its headquarters in Alcobendas, and the second connecting the latter to the Rectorate of the Polytechnic University of Madrid (UPM), the central node of the network in the capital.

Beyond the physical deployment, Indra has implemented its proprietary hybrid key management systems and fully developed the network and application management layer. This technology is capable of efficiently orchestrating the security of communications in a complex and highly dynamic environment.

Moreover, under the company's leadership, a total of 14 use cases have been implemented with government agencies and private entities. The company has directly headed two highly complex scenarios:

- **Banking Sector:** The transmission of encrypted financial data has been validated by means of a hybrid key scheme that combines classical cryptography, QKD, and post-quantum cryptography (PQC). This triple security shield guarantees that the information is invulnerable to both conventional computers and future quantum computers.
- **Emergency Management:** Indra has demonstrated the resilience of the network in critical scenarios. This use case tested the system's ability to automatically switch from a primary QKD system to a secondary one in the event of a failure, thus ensuring the uninterrupted continuity of the communications service, a vital capability for national security and civil protection.

The completion of this phase has positioned Spain as a benchmark in the pan-European EuroQCI network which is prepared for a new era of ultra-secure communications.

Indra Space leads Iberian QCI, which connects the infrastructures of Spain and Portugal

Likewise, as part of the European EuroQCI program, Indra Space is playing a key role as the leader of the IberianQCI project, which forms the southwestern European segment of the future European quantum communications network, connecting the infrastructures of Spain and Portugal with terrestrial and space components and guaranteeing quantum communications with non-neighboring European countries.

This Iberian network, integrated into the future European EuroQCI architecture and fully interoperable with it, will connect Vigo and Valença via trusted nodes in its terrestrial component. As for the space component, three optical stations will be set up in Madrid, Barcelona, and southern Portugal and connected to the terrestrial segment in Lisbon.

Leading quantum technology

Indra Group's involvement in the EuroQCI program will enhance Indra's standing as one of the foremost domestic and European authorities in the field of quantum technology. The company is working with the main quantum computers that are currently available, deploying quantum intelligence platforms and developing algorithms to improve the performance of existing solutions. In the field of communications, the company provides solutions based on PQC and QKD to improve the security of the communications of critical infrastructures in the face of the quantum threat. In the area of sensing, it works with different quantum technologies to improve its radars, positioning systems, earth observation, Industry 4.0, etc.

Indra Group cooperates with universities, technology centers, companies, and startups specializing in quantum technologies to generate an internationally renowned technological ecosystem.

About Indra Group

Indra Group (www.indracompany.com) is the flagship Spanish multinational and one of the leading European companies in the areas of defence and advanced digitization. It stands at the forefront of the defence, space, air traffic management, mobility, and transformational technology businesses through Minsait, and it integrates its sovereign AI, cybersecurity, and cyberdefence capabilities into IndraMind. Indra Group is paving the way to a more secure and better-connected future through innovative solutions, trusted relationships, and the very best talent. Sustainability is an integral part of its strategy and culture in order to overcome current and future social and environmental challenges. At the close of the 2025 financial year, Indra Group posted revenues totaling €5.457 billion and had a local presence in 46 countries and business operations in over 140 countries.

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