# ICFO receives a Delegation of Ministers from Luxembourg to explore cutting-edge innovations in Photonics, Quantum Communications and Cybersecurity

## Today, ICFO received the visit of the Minister for Digitalisation, Minister for Research and Higher Education and Minister of the Economy, SME, Energy and Tourism together with a delegation comprised by Industry entities of Luxembourg and accompanied by representatives of ACCIO, hosts of the visit.

May 08, 2025

The Luxembourg Minister for Digitalisation, Minister for Research and Higher Education, **Stephanie Obertin**, and the Minister of the Economy, SME, Energy and Tourism, **Lex Delles**, accompanied by a delegation from Luxembourg and representatives of ACCIO, visited ICFO to deepen the Ministry's understanding of ICFO's ongoing research in the field of photonics

sciences and quantum technologies, tour its state-of-the-art laboratories, and meet and visit LuxQuanta, a spin-off of ICFO, that develops and integrates Quantum Key Distribution (QKD) systems into communication infrastructures.

The visit began with a formal meeting featuring presentations from the center's director, Oriol Romero-Isart, Vice Director of Innovation, Sponsored Research and Public Engagement, Silvia Carrasco, and LuxQuanta CEO, Vanesa Diaz. These talks provided an overview of the institute's mission, scientific excellence and capabilities, strategic as well as technology transfer strengths in the fields of photonics and quantum research. The session served as a platform for open dialogue, inviting the Ministers and accompanying officials to share insights on national priorities and discuss how the institute's technological advancements could help meet pressing societal and economic needs.

Following the presentations, the delegation toured several advanced technological labs at ICFO, including the NanoFabrication Lab, a crucial facility for the start of the new Pilot Lin in Photonic Integrated Circuits, a quantum communications lab centered on th development of quantum memories and repeaters, and finally, LuxQuanta installations where the delegation received live demonstrations of commercial products that center thei technology in quantum key distribution (QKD) systems and encryption protocols. These ar being designed to withstand the threat of possible hackers and can be easily integrated int classical telecommunication systems

This visit underscores the country's strong commitment to identifying possible innovativ solutions that could help overcome issues with data privacy, cyberattacks, and the futur risks posed by quantum computing. As mentioned during the visit, the Luxembour government is exploring new areas, in particular, quantum communication, as a essentia technology for future secure telecommunication infrastructures. Quantum technologies including quantum key distribution systems, offer significantly new methods of ensurin information security, enabling communication that is resilient to eavesdropping an future-proofed against the computational power of quantum threats.

Minister for Digitalisation, Minister for Research and Higher Education, Stephanie Obertin, and the Minister of the Economy, SME, Energy and Tourism, Lex Delles

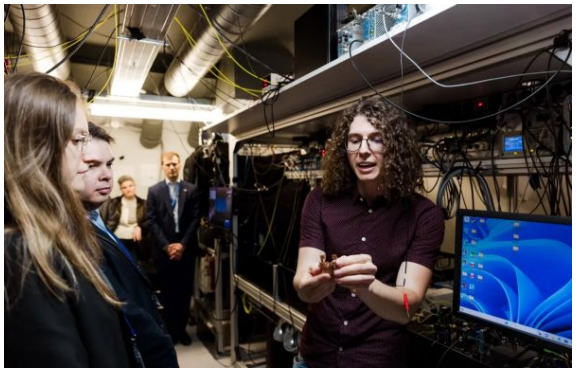
Director of ICFO, Oriol Romero-Isart, welcomes the delegation to ICFO


Silvia Carraso, Vice Director of Innovation, Sponsored Research and Public Engagement, presents KTT at ICFO


Vanesa Diaz, CEO of LuxQuanta, gives an overview of the company

Paula Diaz shows the visit the Nano Fabrication Lab at ICFO

Sebastian Etcheverry, CTO of LuxQuanta, shows the delegation their facilities



Markus Teller, researcher at ICFO, shows the visitors

their lab on quantum repeaters