ICFO



Barcelona hosted the first Pan-European Summit dedicated to Quantum Education

The Quantum Education Summit event, hosted at the CosmoCaixa Science Museum of Barcelona, gathered more than 300 participants from five different continents.
The topics of the conference covered the full spectrum of quantum education: from foundational curriculum design, workforce training, and inclusive global participation to policy strategies, educational innovations, and outreach efforts that advanced accessibility and broadened the impact of quantum learning worldwide.
Keynote speakers included Nobel Laureate Carl Wieman from Stanford University, Maite Depuis from the Perimeter Institute of Canada, and Eboney Hearn from MIT Introduction to Technology, Engineering and Science.

December 05, 2025

From December 3-5, 2025, the CosmoCaixa Science Museum of Barcelona became a global hotspot for quantum science training. The Quantum Education Summit event gathered more than 300 participants from 34 countries for the first pan-European conference dedicated entirely to quantum education. Organized by the Catalonia Quantum Academy (CQA), an initiative coordinated by ICFO in collaboration with the Quantum Flagship projects DigiQ & QTIndu, the Generalitat de Catalunya, QURECA, and additional partners including Quantum Spain and the International Year of Quantum (IYQ) initiative, the event marked a milestone for Europe's rapidly evolving quantum ecosystem in the fields of training and education.
The span of participating institutions, ranging from major research universities such as UAB, UB, UPC, AU, and TU Braunschweig to highly specialized centers like ICFO, BSC, and EURECAT, strongly demonstrated the need to establish clear guidelines on academic programs that included quantum physics and its applications in their curricula. By reaching out to learners earlier in time and presenting quantum concepts in age-appropriate, engaging ways, these institutions cultivated a stronger, more diverse pipeline of talent, knowledge, and know-how, enabling a continuously trained and well-prepared workforce in a rapidly evolving quantum landscape.
With over 300 attendees from five continents, the summit brought together a uniquely diverse community: 20 invited speakers from 15 countries, 41 contributed talks representing 16 countries, 16 panelists across four round-table discussions, and 100 students and early-career researchers.

A Global Effort to Break Barriers in Quantum Education

The idea for the summit grew from a shared recognition of the need to elevate global awareness, accessibility, and coordination in quantum science education. Organizers envisioned a space where quantum knowledge became more approachable and could be discussed between appropriate actors and focused audiences, such as university educators, early-career researchers, industry professionals, or even high-school students.
The event reflected a broader mission: making quantum technologies understandable and accessible to all levels of expertise. Sessions ranged from introductory-level outreach talks to advanced discussions on curriculum development, workforce needs, and cutting-edge quantum technologies.

High-Profile Speakers and Key Themes

The selection of speakers for the event prioritized both innovation in education and geographical and disciplinary diversity. The summit featured influential voices in quantum physics outreach and training, including:

Nobel Laureate Carl Wieman, renowned for his contributions to physics education
Representatives from internationally leading institutions such as the Perimeter Institute from Canada, including **Maite Depuis**, Director of Training, Educational Outreach & Scientific Programs
Eboney Hearn, Executive Director of Engineering Outreach Programs of MITES (MIT Introduction to Technology, Engineering and Science), offering perspectives on community engagement and skills development

Outcomes: A Roadmap for Global Quantum Education

Several concrete outcomes were anticipated, the most important being the elaboration of a white paper capturing best practices and insights from participating speakers to understand the landscape at that moment, seek new collaborations, strengthen networks, develop emerging joint projects, improve existing educational programs, and increase the visibility of quantum science education at regional, European, and global levels.
The summit stood apart as the first global conference focused exclusively on quantum education, and the first of its kind in Europe. Its breadth-both in topics and in the diversity of participants-positioned it as a crucial platform for shaping the future of the quantum workforce. As Robert Sewell, Vice Director of People, Education, and Culture at ICFO, concluded, i¿½we hoped that this inaugural summit would grow into a recurring internation l platform, and that it would allow us to continue strengthening the quantum educati n landscape and connect communities worldwide.i¿½

