

FROM THE DIRECTOR

"Finland is one of the forerunners in quantum technologies. There is fierce global competition, but the strong and agile collaboration between Finnish universities, research institutions, government agencies, and industrial partners allows us to have significant impact. The launching of this flagship will serve as a catalyst in bolstering education, research, and industrial development in quantum technologies in Finland."

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FQF Director



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FQF

Finnish Quantum Flagship

Shaping a Quantum-Ready Finland

What is FQF?

The flagship brings together leading quantum experts in physics, computational science, mathematics, nanoscience and nanotechnology and economics to consolidate and expand Finland's national ecosystem for quantum technology (QT). The eight-year project aims to:

- Initiate new business and research ventures across universities, industries and research institutions
- Attract, train, and retain top local and international talent in the QT field
- Raise awareness of QT in Finnish society via open-access courses and trainings
- Activate new relationships with other organisations in the Nordics, Europe, and beyond

OUR QUANTUM FOCUS AREAS

The flagship consists of five key programs that underscore Finland's superlative research areas and pave the path forward for further development of the quantum ecosystem.



MATERIALS

Quantum materials bring quantum phenomena to the macroscopic scales required for QT, enabling emergent phenomena non-existent in conventional materials.



DEVICES

Quantum devices leverage quantum resources, merging material science and nanotech. Finnish researchers excel in low-temp and nanophysics in this program.



ALGORITHMS, SOFTWARE, INFORMATION

Quantum computing will require algorithms and software fundamentally different from their classical counterparts. This program aims to bridge this gap.



FUTURE

This program drives impact in QT and reserves resources for emerging directions. Annual calls for lighthouse projects ensure renewal and synergy with the ecosystem.



ECOSYSTEM

The program enhances collaboration and fosters innovation and knowledge transfer among universities, RTOs, companies, government entities, and private investors.

OUR HOST ORGANIZATIONS

The flagship comprises seven host organisations: Aalto University (coordinator), VTT Technical Research Centre of Finland, the University of Helsinki, CSC-IT Centre for Science, the University of Jyväskylä, Tampere University, and the University of Oulu.



OUR LEADERSHIP

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