DeiC Q-Access Roadshow
Aarhus

22 October 2025 11.15-13.00

iNANO, room 1592-316, Gustav Wieds Vej 14, 8000 Aarhus C

Henrik Navntoft Sønderskov, Head of Quantum Infrastructure, DeiC

- **Introduction**
- **Vision and goal for Danish quantum infrastructure and access?**
- **Where are we going?**

Strong focus – strong collaboration

Quantum Campus Aarhus

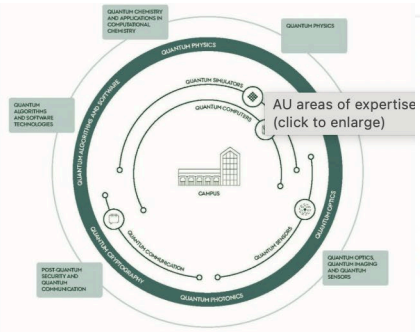
About | Research themes | QUBITS Seminars | News and events | Leadership and Governance | Contact | Stay updated!

Upcoming events

DeiC Q-Access Roadshow

22 OCT — Wednesday 22 October 2025, at 11:15
iNANO, 1592-316

Invitation to Q-Access Roadshow. Researchers and students at Danish universities can apply for free access to quantum computers via DeiC.



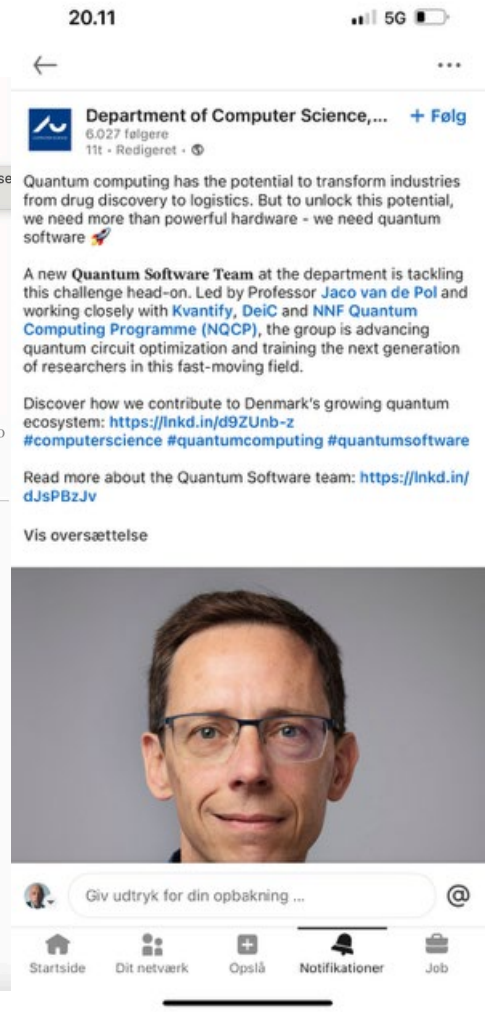
AU areas of expertise and the National Strategy (click to enlarge)

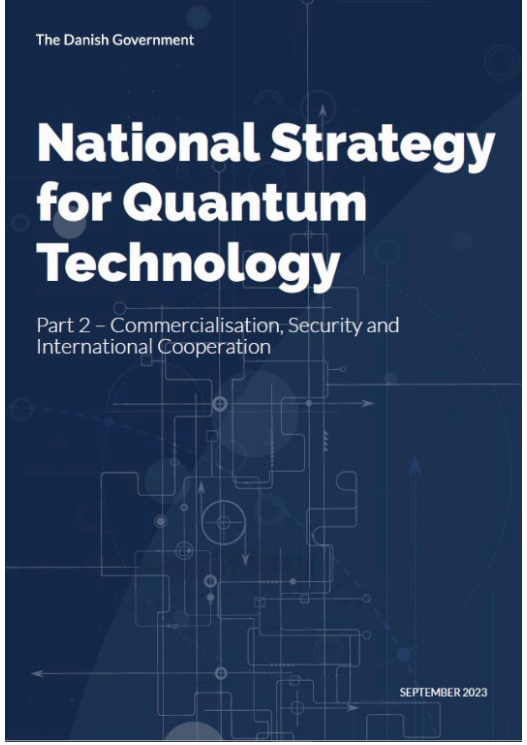
Director

Ove Christiansen
Professor
ove@chem.au.dk
1513, 430
+4551526145

Want to join? Please contact:

Lise Refstrup Linnebjerg Pedersen
Special Consultant
lrlp@inano.au.dk
1590, 222
+4531361693

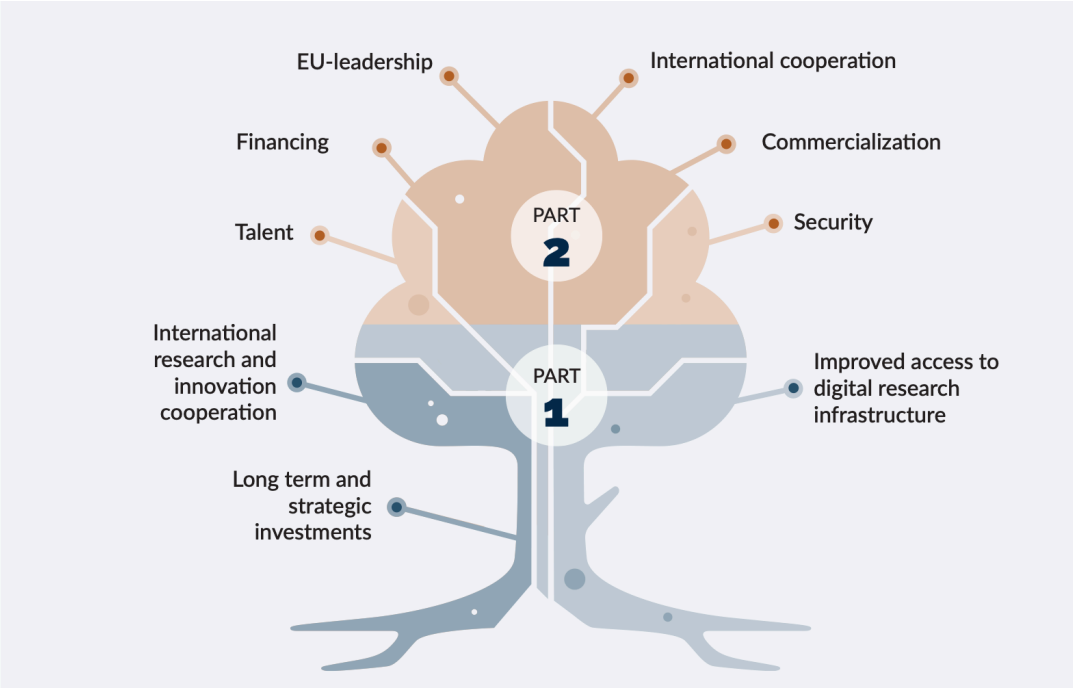




Link between Part 1 and Part 2

The Objective of the Strategy for Quantum Technology - Part 1

> Denmark aims to have one of the world's leading quantum research environments and to have the ability to effectively translate research into new, usable technology.



National Quantum infrastructure:
https://www.deic.dk/quantum-infrastructure

Grants and Funding:
https://www.deic.dk/da/quantum-technology/grants-and-funding

Strategy - part 1:

https://ufm.dk/en/publications/2023/strategy-for-quantum-technology-part-1-2013-world-class-research-and-innovation

Strategy - part 2:

https://eng.em.dk/publications/2023/national-strategy-for-quantum-technology

DEIC QUANTUM DEPARTMENT: GOVERNANCE STRUCTURE & STRATEGIC ROADMAP FOR 2026

PURPOSE: TO VISUALIZE HOW DEIC BUILDS QUANTUM INFRASTRUCTURE

AVAILABLE ON DEIC'S WEBSITE FOR TRANSPARENCY AND KNOWLEDGE SHARING

LIVING WORKING DOCUMENT, UPDATED EVERY QUARTER

DeiC
DANISH eINFRASTRUCTURE CONSORTIUM

Strategic benchmark

Actively follow the development within quantum computing and algorithms and support the national development and future application in the field

Core initiatives	Core purpose	Regular internal meetings incl. i.a. the following governance bodies
DANISH QUANTUM ALGORITHM ACADEMY	Quantum algorithm and software development initiatives for academia and industry	Academy Council Evaluation committee
Q-COMPETENCE	Quantum competence-building educational activities for industry, public administration and research	Working group Evaluation committee
Q-ACCESS	Access to testing on quantum computing facilities at quantum computing and HPC facilities for universities, public administration and industry	Working group Evaluation committee POC @HPC department
NIELS BOHR QUANTUM SUMMER SCHOOL	Attract quantum talent to Denmark and foster a robust and innovative quantum sector	Steering committee Planning committee
LUMI-Q	Participate in the LUMI-Q consortium under EuroHPC JU, to establish a quantum computer	Steering committee
QUEX (QUANTUM EXCELLENCE CENTRE)	One-stop-shop for end-users of quantum technology, to take full advantage of emerging EuroHPC quantum computing infrastructure	Management committee
NORDIQUEST2	Nordic quantum corporation project on Q-oveview and quantum schools, through NeIC / NORFORSK	Procejctmanagement meetings
		Cross-cutting: University/DeiC Front Offices

Regular external meetings

incl. i.a. the following stakeholders
min. biannually

Cross-cutting:

Public organisations:

Ministry of Foreign Affairs (+ICDK's)

Danish Agency for Higher Education and Science

Danish Business Authority

Danish Defence (FE, FMI, FAK)
National Defence Technology Centre

PET (national security and intelligence service)

Innovation Fund Denmark

Independent Research Fund Denmark

LUMI-Q

QUEX

Danish Chips Competence Centre (DKCCC)

Private organisations:
Novo Nordisk Foundation

Confederation of Danish Industry

Quantum Denmark /DFM

Danish Quantum Community (DQC)

BII - DeepTech Lab/DIANA

Quantum computing companies

Current planned events and activities

some examples

Cross-cutting:

National events:
Digital Lead: Business casen for kvanteteknologi i 2025 - Del I

Social dinner for quantum community

Business Vejle paneldebat

Q-Access university roadshow visits

Sparrow Quantum networking event

Niels Bohr Quantum School incl. industry side event

Defence industy event at Precision Technic Defence

Cyber industry panel

Industryevent at the Confederation of Danish Industry (DI)

DeiC annual conference

International events:

QUEX internal kickoff (CPH)

QUEX external kickoff (Netherlands)

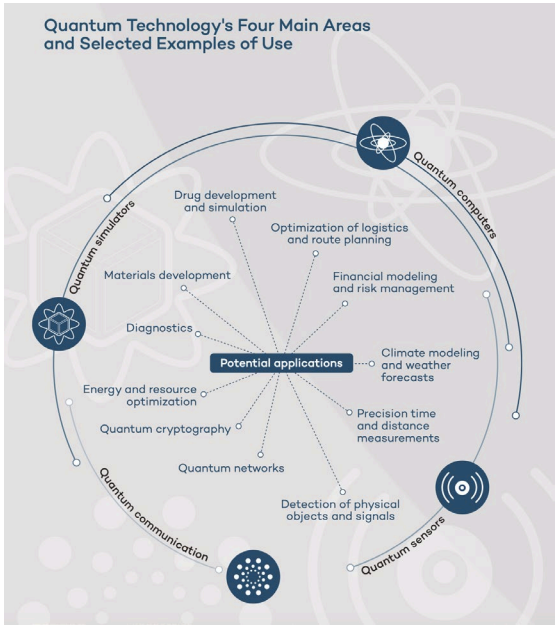
Ostrava / LUMIQ delegation trip

The European Quantum Technologies Conference 2025 (CPH)

The Danish quantum ecosystem now

DANISH MINISTRY OF DEFENCE

MINISTRY OF INDUSTRY, BUSINESS AND FINANCIAL AFFAIRS



Ministry of Higher Education and Science Denmark

NATO OTAN

MINISTRY OF FOREIGN AFFAIRS OF DENMARK

Quantum branches:

1) **Science:** E.g. physics, biologi, Social science, philosophy

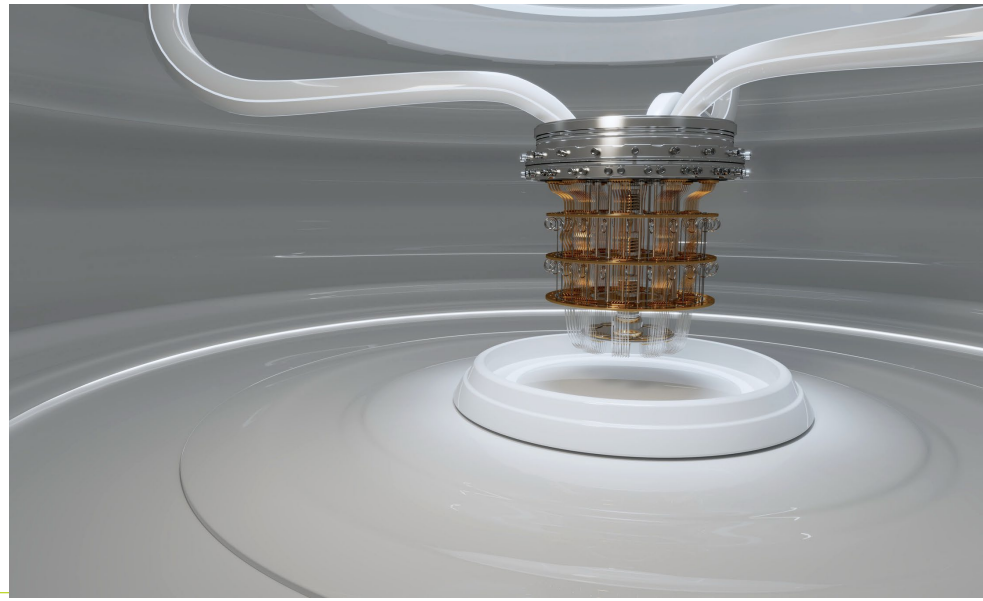
2) **Commercial (every sektor i society):** Fx cyber, logistics, banking, climate

3) **Political:** E.g. National strategies, NATO, EU.

Niels Bohr “If anybody says he can think about **quantum** theory without getting giddy it merely shows that he hasn't understood the first thing about it!”

“If anybody says they can think about the Danish Quantum Ecosystem today without getting giddy it merely shows that they haven´t understood the first thing about it!”

Does anyone have an idea of - which different types of actors are working within the quantum field? and how many there are in Denmark as of October 2025?



A (very) small fraction and example of the Danish Quantum landscape. Which is in a form of ”superposition”

(AI)

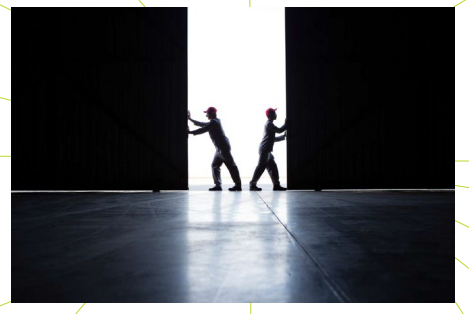
(Defence oriented)

(Life Science)

(Cyber)

(Research / innovation)

(Transport)



(Hardware & infrastructure)

(Industry organisations)

(Investors and accelerators)

(International)

(Authorities)

(Counselling)

(Banking)

History show we can't predict the future - yet

"There is not the slightest indication that nuclear energy will ever be attainable. It would mean the atom would have to be shattered at will". *Albert Einstein, 1932.*

"Remote shopping, while entirely feasible, will certainly flop. It has no chance of success." *Time Magazine, 1966.*

"No-one will ever need more than 637KB of memory in a computer. 640KB ought to be enough for anybody." *Bill Gates, CEO of Microsoft, 1981.*

"The idea of a personal communicator in every pocket is nothing more than a pipe-dream fuelled by greed." *Andy Grove, CEO of Intel, 1992.*

"I predict that the internet will go spectacularly supernova, and in 1996 it will catastrophically implode". *Robert Metcalf, inventor of Ethernet, 1995.*

"The internet will fade away because most people have nothing to say to each other. By 2005 it will be clear that the internet's impact on the global economy has been no greater than the fax machine." *Paul Krugman, renowned Economist, 1998.*

"There is practically no chance satellites will ever improve telephone, television or radio reception within the United States." *T. Craven, FCC Commissioner, 1961.*

"There is no reason an individual would ever want a computer in their home". *Ken Olsen, founder of Digital Equipment Corp, 1977.*

"Mobile phones will absolutely never replace the wired telephone". *Marty Cooper, inventor of the mobile phone, 1981.*

"I don't know… there just aren't that many videos I want to watch." *Steve Chen, founder of YouTube, expressing doubts about YouTube's viability as a company. 2005.*

"There is no chance of the iPhone ever gaining significant market share". *Steve Ballmer, CEO of Microsoft, 2007.*

"Subscription models for music are bankrupt. I think you could make the Second Coming of Jesus himself available on subscription and it wouldn't be successful." *Steve Jobs, CEO of Apple, 2003.*

A few perspectives

"Those who are not shocked when they first come across quantum theory cannot possibly have understood it"
Niels Bohr, theoretical physicist. 1927

The main ingredient of the first quantum revolution, wave-particle duality, has led to inventions such as the transistor and the laser that are at the root of the information society"
Alan Aspect, physicist. 2014-

"The paradox is only a conflict between reality and your feeling of what reality 'ought to be'"
Richard Feynman, theoretical physicist. 1963

"Quantum mechanics makes absolutely no sense"
Roger Penrose, mathematical physicist. 1980´s

"The fast-advancing quantum computing (r)evolution, will challenge the pre-quantum way of conducting scientific and industrial development by making digital transformation of societies, organizations, and financial markets fundamentally different" A quote on the Goodreads platform.