

Welcome to WACQT Industry Workshop!

Connect with leading experts in quantum technology, gain access to the latest research and developments, understand quantum technology applications, engage with top academic talent, and participate in collaborative projects. This event brings together companies, researchers, and other interested parties for networking and knowledge sharing.

Time: April 24 at 10:00 - 19:00 **Place:** Kollektorn, Kemivägen 9, Chalmers

[Program & Registration](#)

[How to reach the venue >>](#)

Complementary program information:

Introductory session

You will get an overview and activity update of WACQT and the Swedish ecosystem of quantum technology. Pending decision from the government we hope to hear about the upcoming Swedish national strategy on quantum technology. Use cases and industry interest will be presented by industry representatives from WACQT industrial partners talking about why they have become involved the field and why they joined WACQT, also, IBM will present some use cases for quantum simulation and computation.

For a more popular science introduction to quantum technology please see our page "[Discover quantum technology](#)". During the breaks we will also have an **industrial exhibition showcasing the latest developments in enabling quantum technologies.**

After lunch we split up in two parallel sessions.

Session A has focus on SMEs and funding for the journey towards creating businesses. (*room Kollektorn*)

Session B covers both educational and networking needs for companies. (*room Luftbryggan 8th floor*)

A1: Quantum innovation and business- spin-offs and enabling technology partners

Spin-offs and enabling technology partners from WACQT will give a short presentation about what they do and how they contribute to the development of quantum technology. You will be introduced to some more use cases, quantum technology, and its enabling technologies.

A2: Quantum innovation and business: funding the journey towards utilisation

WACQT includes applied research but does not cover IP protection nor the journey to create business cases around the scientific results. Thus, we have invited speakers to talk about possibilities and experiences from funding beyond the purely academic pursuits. We wrap up with a short discussion.

Here we take a short intermission to join back in the plenary.

B1: Quantum education and training: education for industry

To what extent do companies need be educated on quantum technology? Representatives from Volvo group, WACQT, NQCIS and CNL will present ideas, what they do, and discuss what more could be done to meet the educational needs of industry. We wrap up with a short discussion.

B2: Quantum education and training: industry networking

In this still budding field networking for companies on both transversal and topical issue are of interest. You will hear from some existing networks with focus on industry and innovation, in Europe and the Nordic countries. We wrap up with a short discussion.

Here we take a short intermission to join back in the plenary.

Panel discussion: When will quantum computing provide a useful advantage?

Join the discussion with companies that develop quantum computers, such as IBM, IonQ, Atlantic Quantum regarding when quantum computers will be in commercial operation, and in extension also investigate potential use cases for quantum computing and simulation.

Breaks and mingle.

During the day we have planned plenty time for informal discussion and networking. We end the day with a dinner giving time for even more.

Lab visits

Depending on interest, lab tours will be organized. The times will be scheduled in connection with registration and breaks, as well as at the end of the day.

Descriptions of the labs

Quantum Photonics Laboratory

We explore the flow of and interactions between light, sound, and microwaves at the quantum level. Our interest is in the fundamental limits to information processing. We pursue conversion of information between microwaves and optics, partly in efforts to connect quantum computers.

Hybrid Quantum Systems Lab

The Hybrid Quantum Systems Laboratory (HQL) makes interfaces between cold atoms, photonic integrated circuits and ultrahigh-Q mechanical resonators. The main goals of the research group is to generate long-lived quantum states of motion in macroscopic mechanical resonators, create quantum sensors with improved precision compared to the state of the art and study light-matter interactions in new paradigms using nanophotonics.

Quantum Technology testbed

The Testbed is a facility designed to support the development and testing of quantum algorithms and hardware. A crucial resource for advancing quantum technology, providing essential infrastructure and support to companies and researchers in Sweden.

Quantum sensing and foundations lab

The vision of the quantum sensing and foundations lab is to explore the quantum behaviour of macroscopic objects and to develop novel quantum sensing technologies. We address these research questions with nano- and micromechanical systems.

202Q lab

Our research targets questions include: Can we efficiently store and manipulate quantum information in harmonic oscillators? How to connect two quantum processing units to boost their performance? Can we use quantum mechanics to build a better engine or refrigerator?

WACQT core project lab

The core project within the Wallenberg Centre for Quantum Technology is to build a superconducting quantum computer with one hundred well-functioning qubits and to run at least one useful algorithm. We have several cryostats to test materials, components and run in-house development of quantum processors.

Integrated ultrafast photonics laboratory

We explore laser-light interactions with advanced microphotonic devices. Our team specialises in developing chip-scale laser frequency comb technology, driving innovations in next-generation optical communications and ultrafast precision metrology.

PROGRAM	<i>Room: Kollektorn</i>
09.00	Registration and coffee (mingel, company exhibition, lab visits)
10.00	Welcome address, Göran Johansson, Chalmers
10.05	WACQT update, Göran Johansson, Chalmers
10.25	Invited talk: QT Ecosystem in Sweden and the Nordics, Lena Gustafsson, WACQT
10.40	Invited talk: Vinnova: Strategy perspective, national policy, Laurent Saunier
11.05	BREAK (mingel, company exhibition, lab visits)
11.35	QulC, Dr. Thierry Botter, Executive Director QulC
11,5	Showcase of WACQT industry collaboration, Beatriz Grafulla, Ericsson
12.00	Quantum use cases, IBM
12.20	LUNCH (mingel, company exhibition, lab visits)

PARALLELL SESSIONS

Room: Kollektorn

SESSION A	Quantum innovation and business (SMEs)
13:30	Presentations from WACQT spin-offs/ Enabling technology Atlantic Quantum, Jonas Bylander Conscience, Lert Chayanun Deep Light Vision, Anders Sjögren Intermodulation products, Marina Kudra Sweden Quantum, Gustav Liepa Åström Qucertify, Mohamed Bourennane QET Sweden, Carina Dreifeldt ScalinQ, Zaid Saeed WACQT IP- Victor Westergård
14,45	Vinnova - Funding and calls, Jeanette Dypbukt, Ulf Öhlander
15.00	BREAK (mingel, company exhibition, lab visits)
15.30	Wallenberg Launch Pad (WALP), Pontus de Laval
15.40	Navigare, Diana Henningsson
15.50	Industrifonden, Mattias Bertolino
16:00	Q&A
16:15	Time to regather in Kollektorn

Room: Luftrummet (8th floor)

SESSION B	Quantum education, and Networking (large companies)
13:30	Industrial needs, Mikael Rönholm, Volvo
13:40	Industrial needs, Peter Sutton, Jeppesen
13:50	WACQT Graduate School, Peter Samuelsson
14:00	National Quantum Communication Infrastructure in Sweden (NQ CIS), Katia Gallo
14:10	WACQT Quantum Technology Testbed - presentation, Mårten Skogh
14:20	Q&A
14:30	WACQT Quantum Technology Testbed - hands-on, Pontus Vikstål
15.00	BREAK (mingel, company exhibition, lab visits)
15:30	Danish Quantum Community, Peter Viereck
15:45	The Finnish Quantum Institute, Juho Pirinen
16:00	Quantum Sweden Innovation Platform (QSIP), Camilla Johansson, Johan Felix
16:15	Time to regather in Kollektorn

PLENARY SESSION

16.20	WACQT industry offer/ research arenas, Cristina Andersson, Göran Johansson
16.35	Panel discussion: IBM (Elmar Mitterreiter), IonQ (Lorenzo Rovarsi), Atlantic Quantum (Jonas Bylander), Pasqal (Krisztian Benyo) Moderator: Göran Johansson (Chalmers, Director of WACQT)
17.05	Last remarks
17.10	Mingle, company exhibition, lab visits
17.40	Dinner