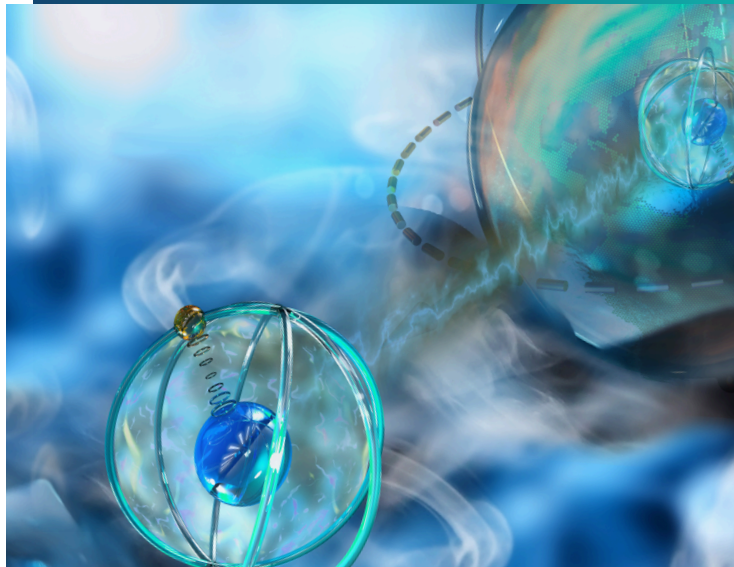


CHICAGO QUANTUM EXCHANGE

*A leading intellectual hub
advancing quantum technologies*

The Chicago Quantum Exchange (CQE) advances cutting-edge **research**, prepares the future **workforce**, and drives the **quantum economy** in collaboration with top universities, national labs, and industry partners.

Visit us at chicagoquantum.org.



Advancing
Research,
Discovery &
Impact



Preparing the
Quantum
Workforce



Driving the
Quantum
Economy

CQE is leading the Midwest to national impact through two federal grant initiatives

The US Economic Development Administration–designated **Bloch Quantum Tech Hub** is focused on scaling quantum manufacturing and other regional assets to compete globally in future industries.

The CQE-led **Quantum Connected** coalition is a finalist for the National Science Foundation’s Regional Innovation Engines (NSF Engines) award, which could provide direct funding of \$160M over 10 years to advance quantum-enabled cybersecurity.

Both aim to establish Illinois, Wisconsin, and Indiana as a global quantum hub and strengthen US economic and national security.

The Quantum Prairie is driving job growth, according to CQE data

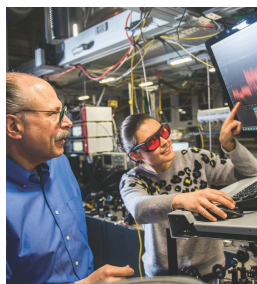
Continued support for quantum tech could boost the regional economy significantly by 2035

\$80B

Projected economic impact

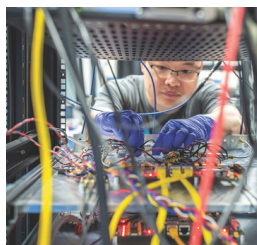
191K

Projected quantum job creation



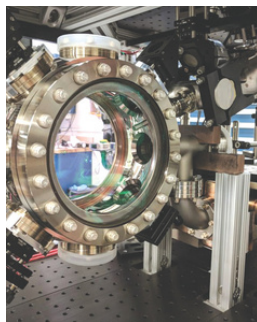
Quantum Communications

Using the principles of quantum entanglement, CQE researchers are developing encryption that could offer revolutionary new schemes of securing information. This quantum-based security will be a game-changer for government, finance, telecom, and other industries that depend on fast, provably secure communications.



Quantum Computing

CQE researchers are developing and improving hardware, including lengthening the amount of time a qubit can be operational, and designing the software and algorithms that will increase the performance of quantum computers.



Quantum Sensing

CQE researchers are developing quantum sensors, platforms that may be used for precision sensing of individual molecules, new techniques for bio-imaging, and novel tools to measure and control temperature within cells. These quantum tools could enable scientists and healthcare providers to monitor and control real-time activity and molecular dynamics.

“Our very economy, our national defense, [and] our way of life depend on quantum advancement and the United States leading the way.”

— **US Senator Todd Young (Indiana)**

at a Congressional briefing hosted by UChicago in July 2025

Chicago Quantum Exchange Members and Partners

MEMBERS

The University of Chicago
Argonne National Laboratory
Fermi National Accelerator Laboratory
University of Illinois Urbana-Champaign
University of Wisconsin-Madison
Northwestern University
Purdue University
CORPORATE
Boeing
IBM
Allstate
Ally
Applied Materials
Atom Computing

Belden

Cisco

Corning

Dirac Labs

Discover

Duality

D-Wave Quantum Inc.

EeroQ

Great Lakes Crystal

Technologies

HRL Laboratories

Infleqtion

K1 Semiconductor

KPMG LLP

Lake Shore Cryotronics

memQ

Microsoft

Photon Queue

Protiviti

PsiQuantum

qBraid

QNu, Inc.

Qolab, Inc.

QuantCAD

Quantinuum

Quantopticon

Quantum Corridor

Quantum Design

Quantum Machines

Quantum Opus

Qubitekk

QuEra

Rigetti

SandboxAQ

Seagate

Sivananthan

Laboratories

staC12

TOPTICA Photonics

Toshiba

Unisys

WD Advanced Materials

Xanadu

Zurich Instruments

NONPROFIT

Illinois EDC

Le Lab Quantique

P33

QED-C

INTERNATIONAL

Indian Institute of

Technology (IIT)

Bombay

QuTech

Technion – Israel

Institute of Technology

University of New

South Wales

Weizmann Institute of

Science

REGIONAL

The Ohio State

University

MIDWEST QUANTUM REGION

A VIBRANT ECOSYSTEM

Quantum startups

The CQE region is home to two dozen quantum startups, as well as the nation's first quantum startup accelerator, Duality. The CQE **Founders Platform** offers connections to critical resources.

World-class facilities

Home to the first US-based **Bluefors Lab**, which provides access to cryogenic systems, and **Hyde Park Labs**, which through the UChicago Science Incubator provides access to shared quantum equipment, the growing **Chicago Quantum Network**, and quantum graduation suites.

Region will soon include the **Roberts Impact Lab**, a commercialization center under development by Purdue University Northwest, and the **Illinois Quantum & Microelectronics Park**, which will include the **DARPA-Illinois Quantum Proving Ground**, a **National Quantum Algorithm Center**, a shared cryo facility, and more.

Degree programs

CQE member institutions teach **114 quantum courses**. All offer degree or concentration programs, including a variety at the undergrad level, a PhD in quantum science and engineering at UChicago's Pritzker School of Molecular Engineering and a master's in quantum computing at the University of Wisconsin–Madison.

Workforce development

Opportunities at all levels, including the **CQE IBM Postdoctoral Trainees Program**, which supports collaborative research across the CQE; the **Open Quantum Initiative Fellowship**, which places undergraduates in quantum labs for the summer; and **Professional Education** courses aimed at equipping early- and mid-career professionals with quantum technical skills.

Cross-sector collaboration

The CQE has connected academic researchers with companies, launching 100+ **industry projects** and reaching 32K+ through **informal learning initiatives**. The **Chicago Quantum Recruiting Forum** connects hundreds of students and trainees with dozens of employers.