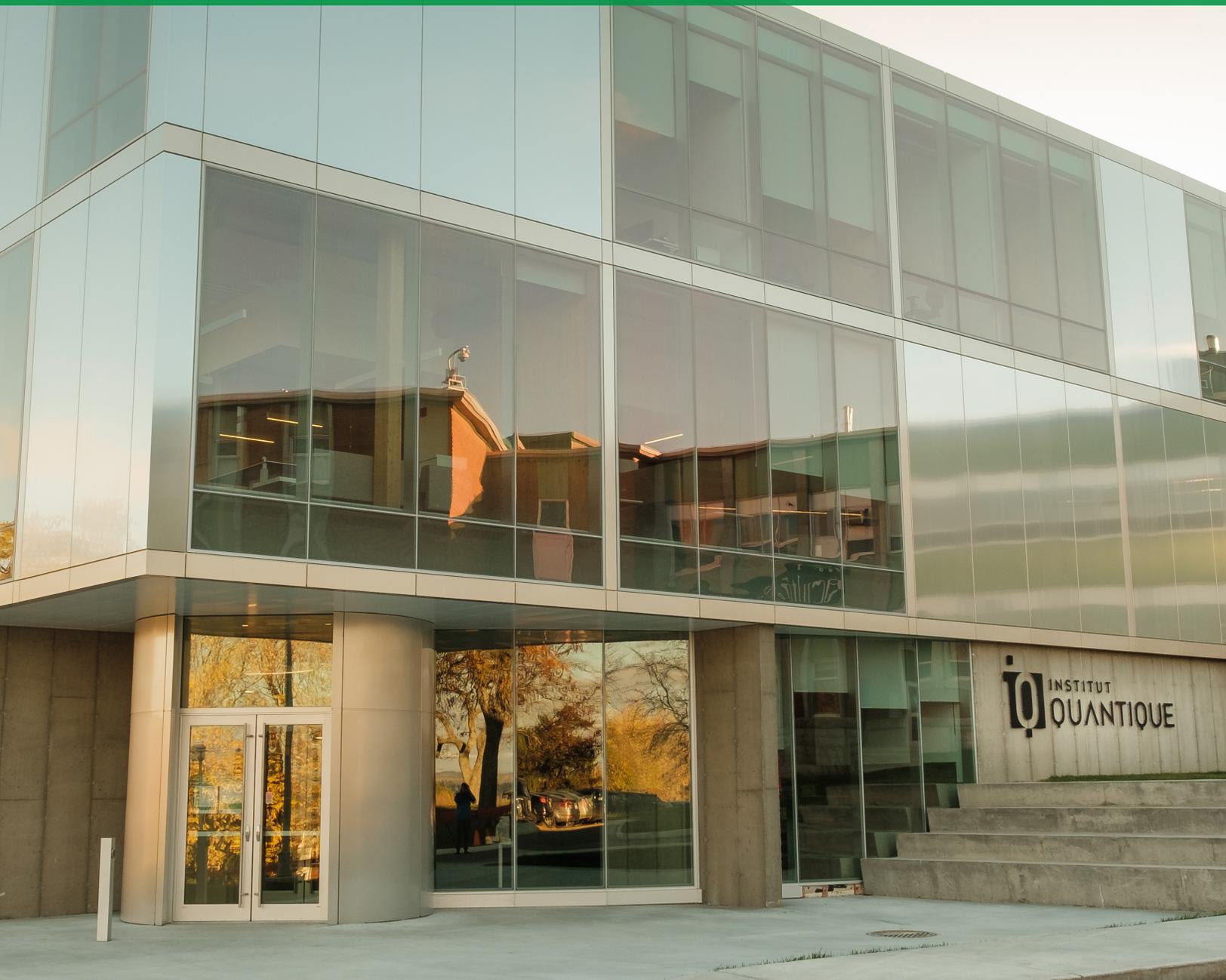
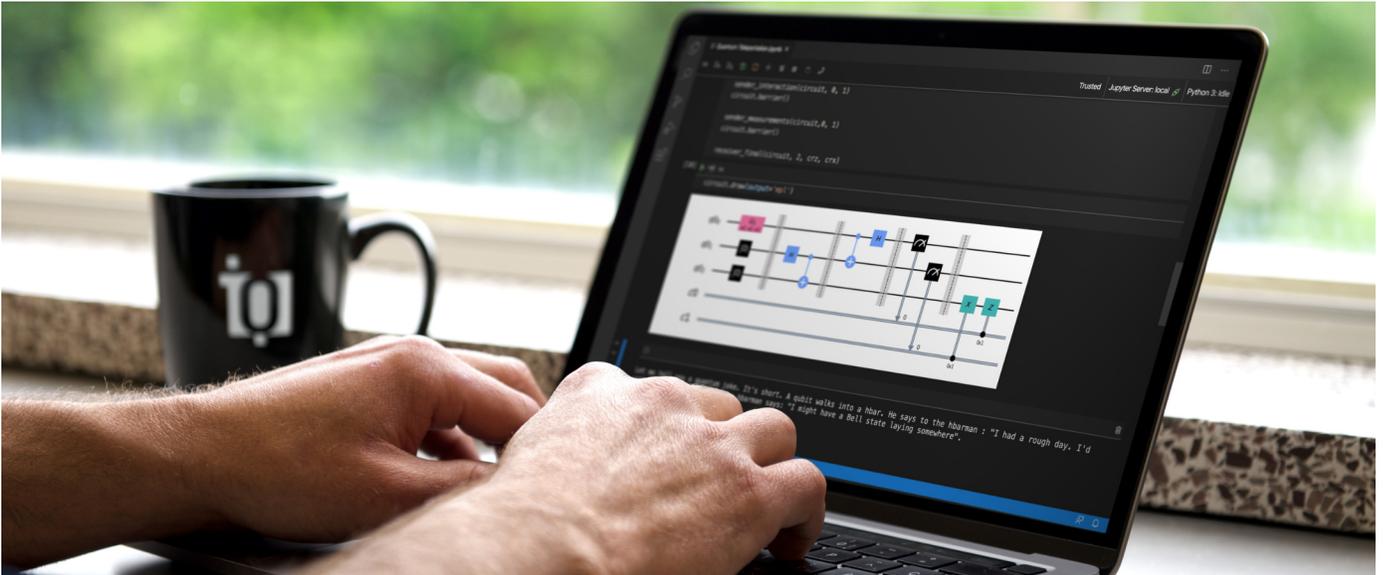


■ QUANTUM ■ ALGO LAB ■



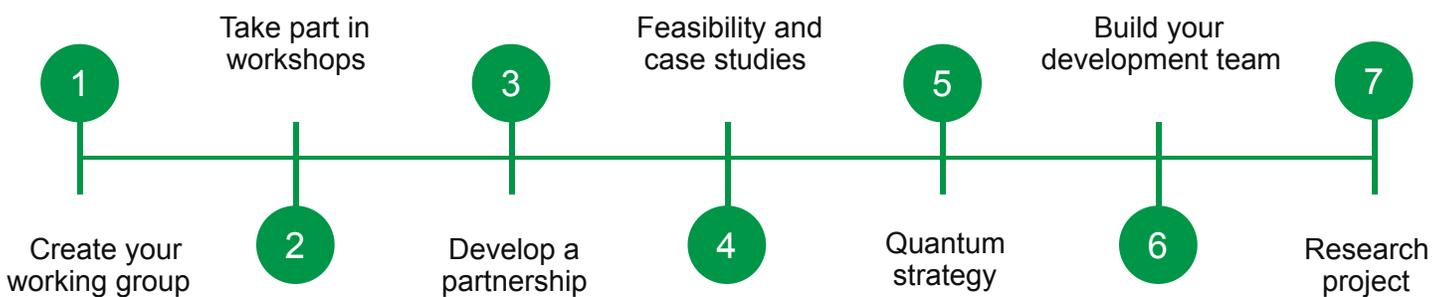


QUANTUM COMPUTING TODAY

Recent technological and scientific advances have brought about the advent of quantum computing and with it, the potential to solve complex problems in optimization, modelling and data analysis. The three most frequently cited reasons by companies for being interested in quantum computing are:

1. the computational limitations of classical supercomputers
2. the risk of being disrupted by quantum applications in the near future
3. the first-mover leadership position in the market

Classical to quantum roadmap



QUANTUM PROGRAMMING APPLICATIONS



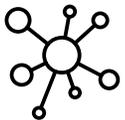
Optimization

Risk analysis
Logistics
Planning



Machine Learning / AI

Data analysis
Imaging
Prediction models



Quantum Modelling

Materials
Molecular simulations
Particle physics

OTHER APPLICATIONS



Quantum Cryptography



Quantum Sensors

INSTITUT QUANTIQUE



The Université de Sherbrooke's Institut quantique (IQ) is at the heart of an ecosystem that is well established in the Estrie region, with key partners, state-of-the-art infrastructure and qualified technical teams.

Technology platforms including the Quantum FabLab and the Quantum AlgoLab are a testament to the exceptional research environment as well as the spirit of scientific and industrial collaboration at Institut quantique.

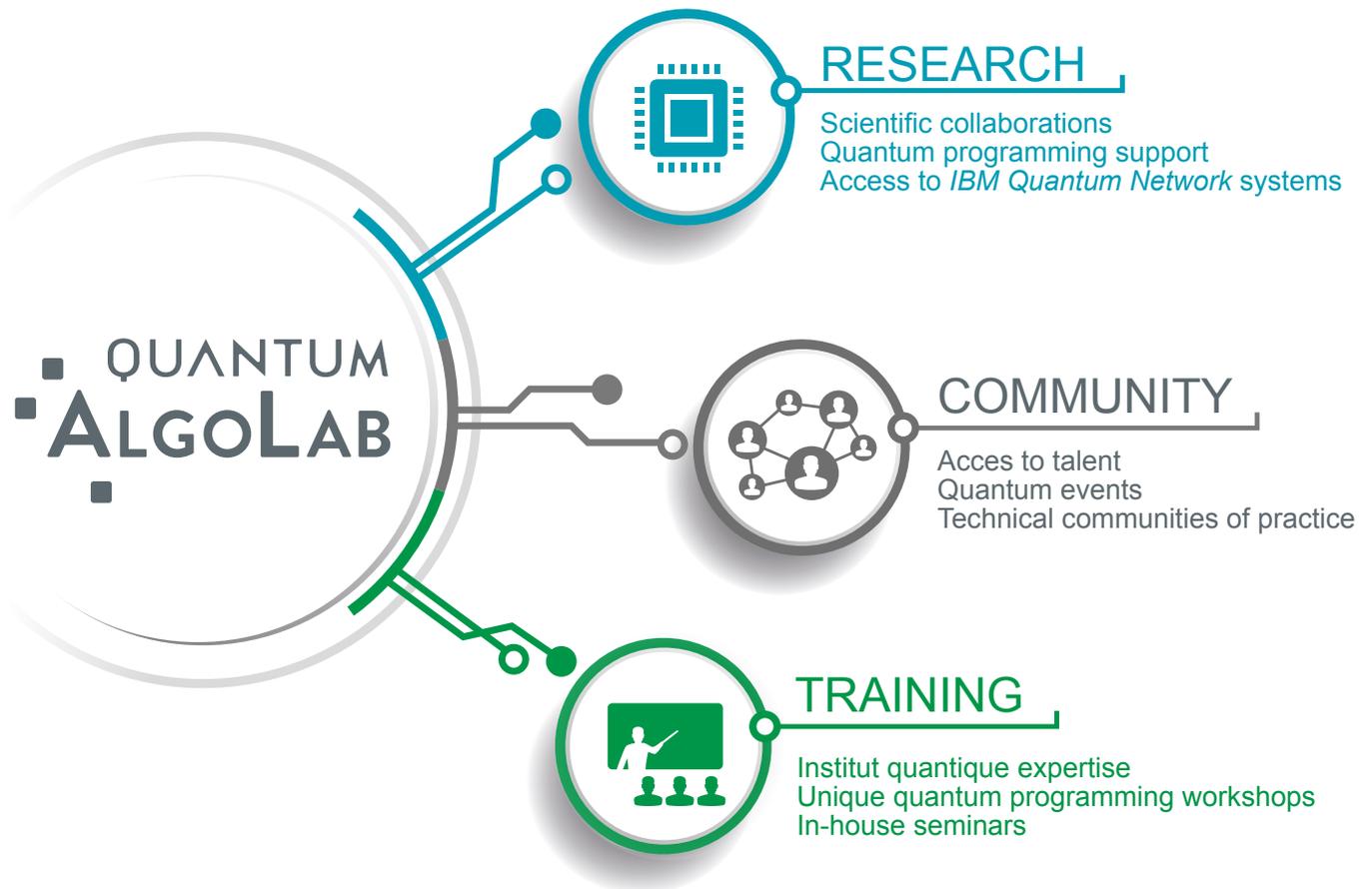
IQ has over 300 members including internationally renowned scientists and a student community working to accelerate the transition from science to quantum technologies.



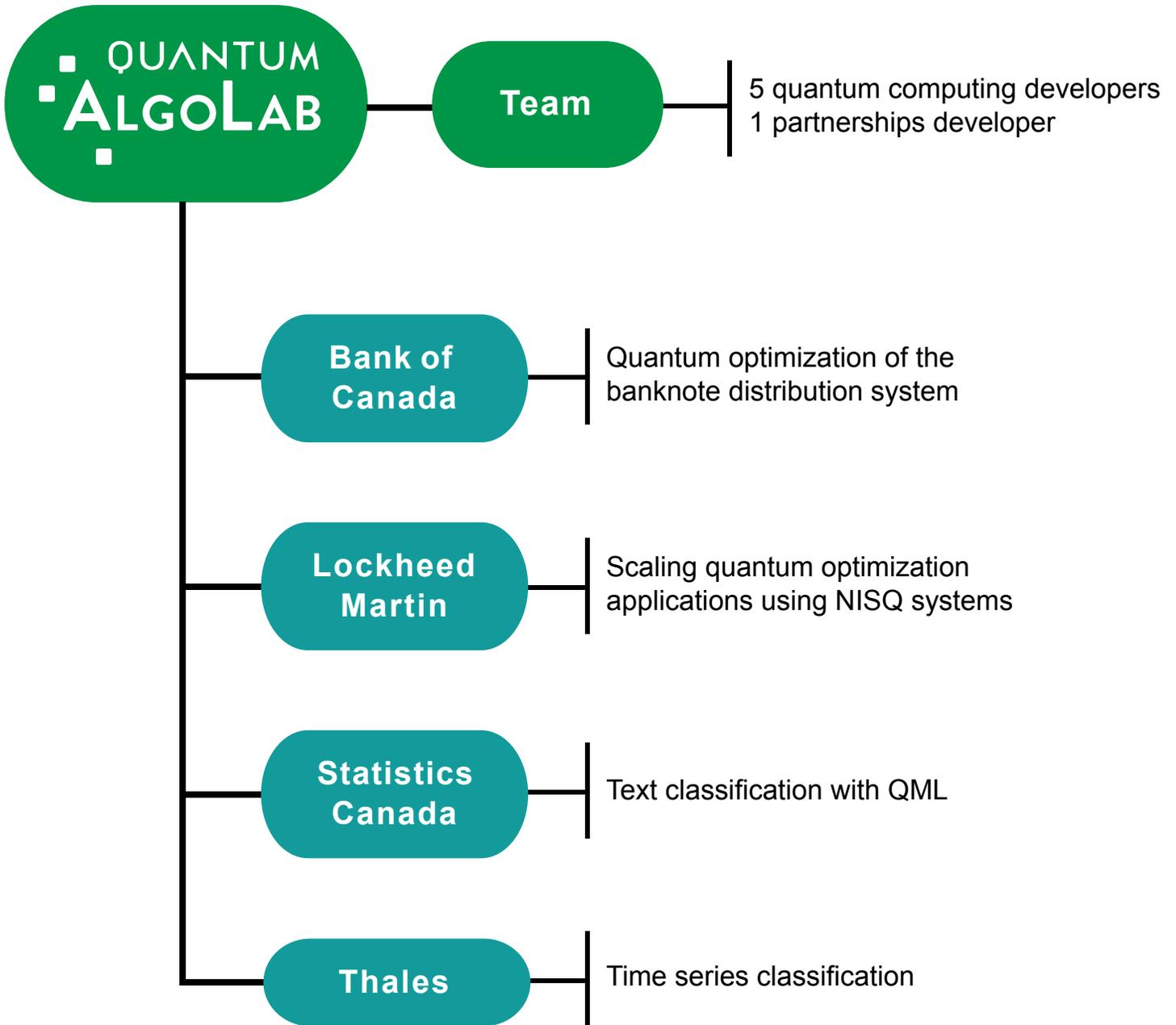
QUANTUM ALGORITHMIC LABORATORY

Institut quantique's Quantum Algorithmic Laboratory (AlgoLab) allows you to explore the potential of quantum computing in many fields of application.

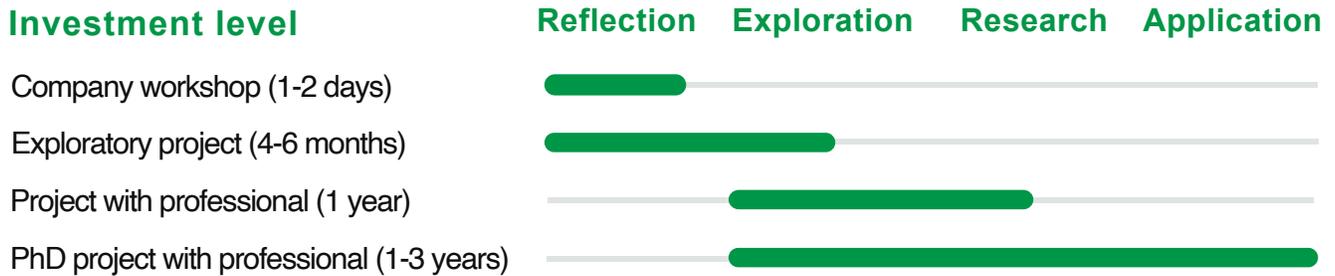
Our Quantum AlgoLab has a unique expertise in Quebec as well as access to the *IBM Quantum Network's* most powerful systems. Our team works with companies and government agencies on research projects, including in optimization and quantum machine learning (QML).



QUANTUM ALGO LAB PARTNERSHIPS AND COLLABORATIVE RESEARCH



INVESTING IN YOUR QUANTUM ROADMAP WITH US



What a research project in quantum enables you to do



Develop your expertise and transfer your knowledge internally



Model a case study with a quantum computer



Identify the quantum algorithms that show the most potential



Determine the challenges linked to implementing quantum algorithms



Find the right quantum solutions adapted to your market reality

Contact us: algolabquantique@usherbrooke.ca

Avec la participation financière de :

Québec 



INSTITUT
IQ
QUANTIQUE
UDS

**YOUR QUANTUM
ADVANTAGE
STARTS HERE.**

