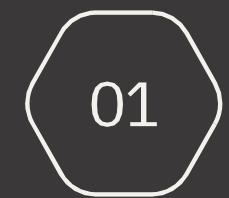


C12

Building scalable and ultra-coherent quantum computers with carbon nanotubes

Pierre Desjardins, *Chief Executive Officer & Co-Founder*

SUMMARY



C12 in a nutshell



Our vision



Road to commercialization

01

C12 in a nutshell

Founded in 2020

Paris-based quantum hardware startup

Technology from the Ecole Normale Supérieure in Paris

30 employees

\$10m Seed round in July 2021

First application-specific chips for quantum chemistry in development

6 patents

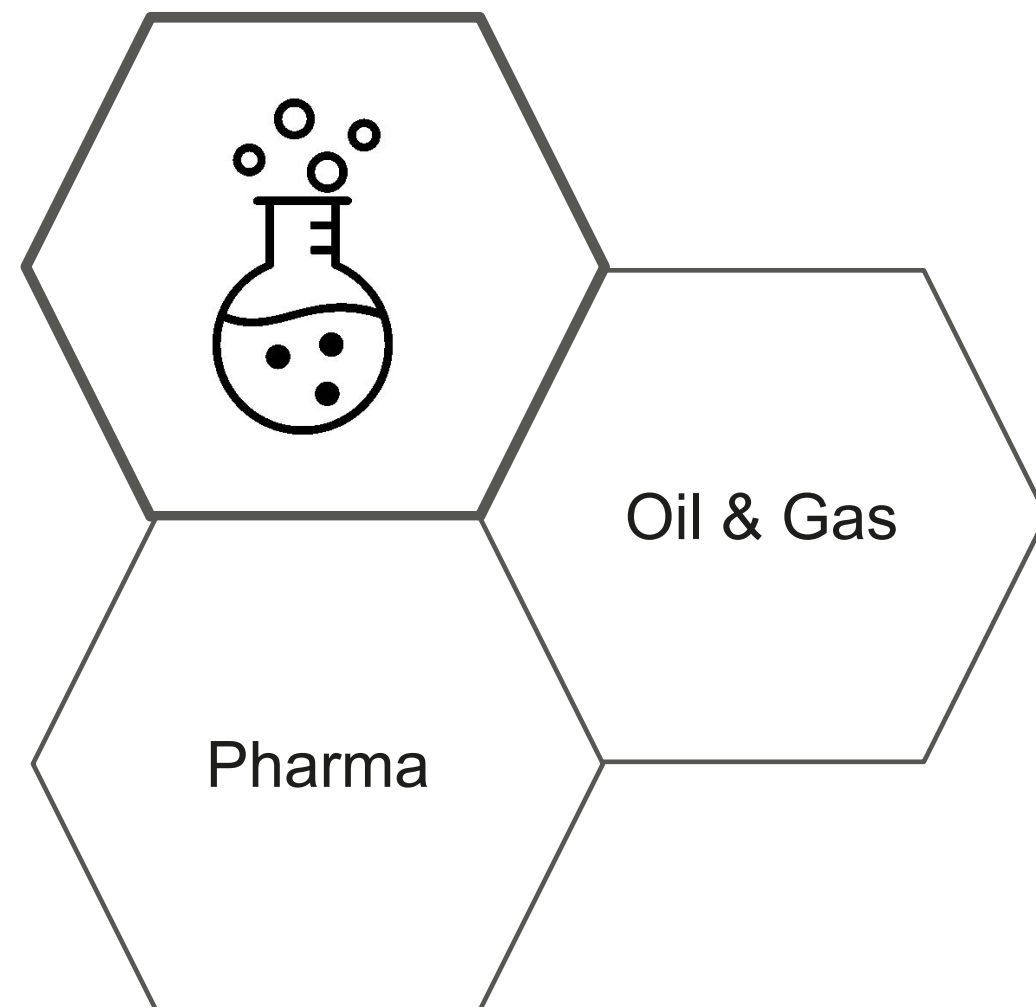


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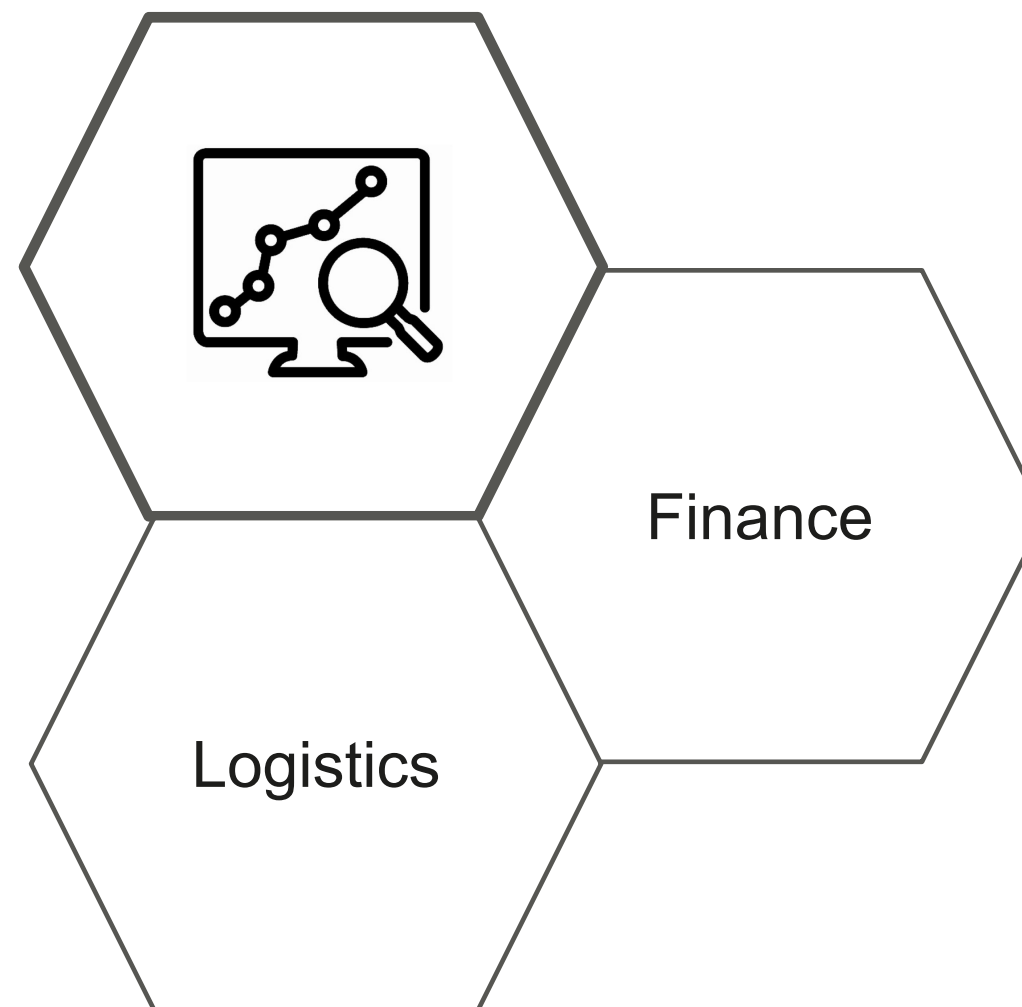
Our vision

Quantum computing will **transform** industries with heavy computing demand

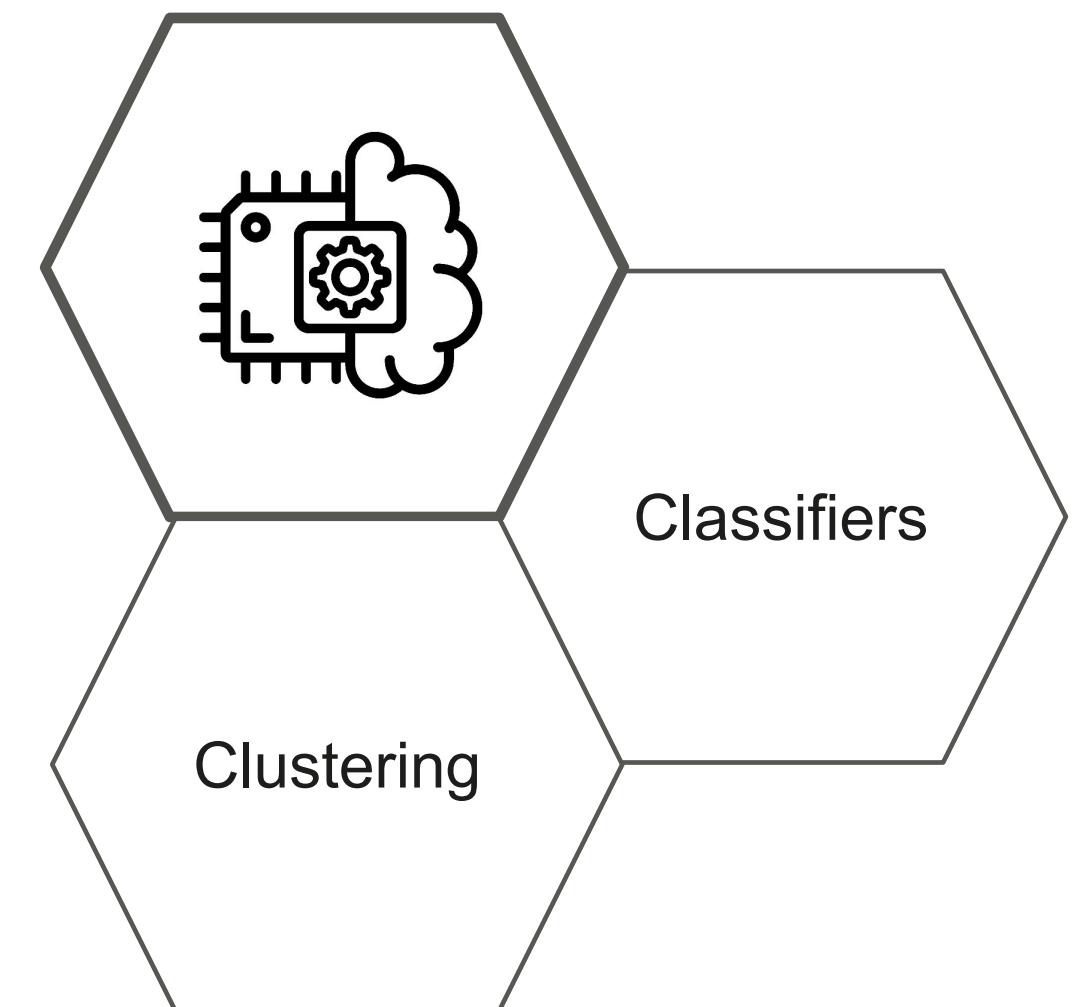
Quantum chemistry



Optimization



Machine learning

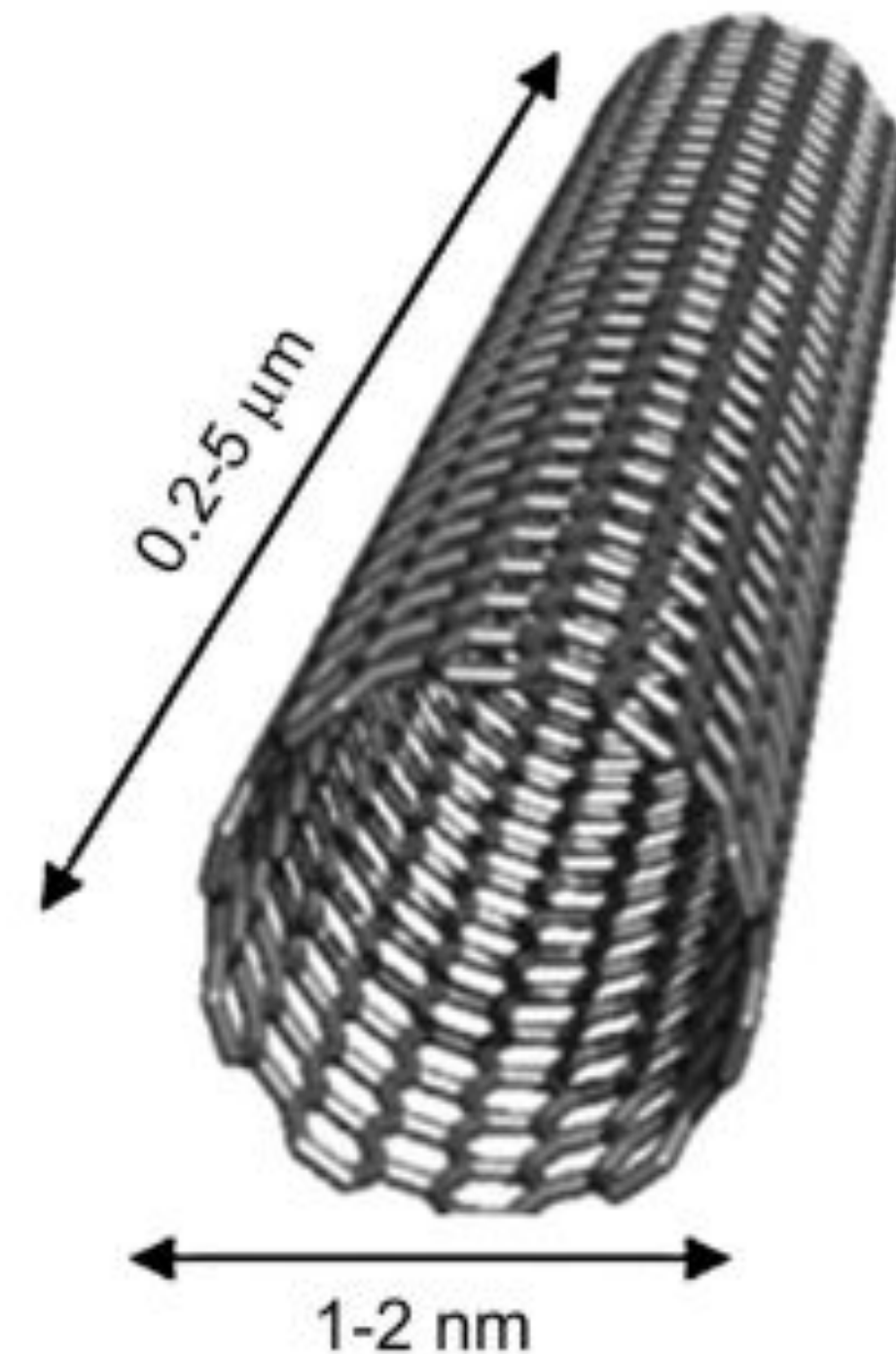


Errors come from defects in the qubit material

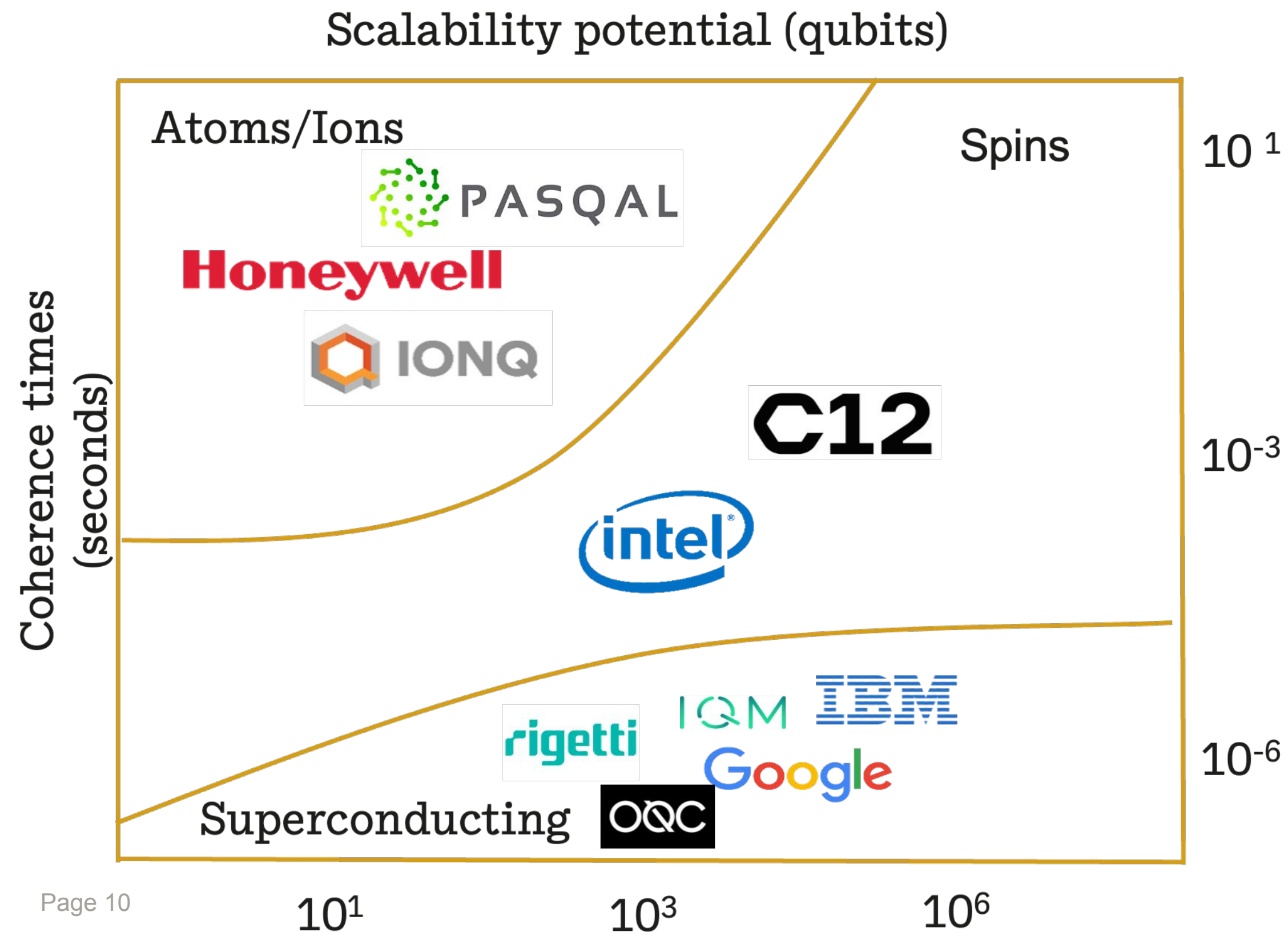
“A roadmap in 10 years, based on a solid-state qubit, relies on breakthroughs in material science.”

Chris Monroe, IonQ co-founder and chief scientist

We are
transforming
Carbon
Nanotubes into
“quantum
transistors”

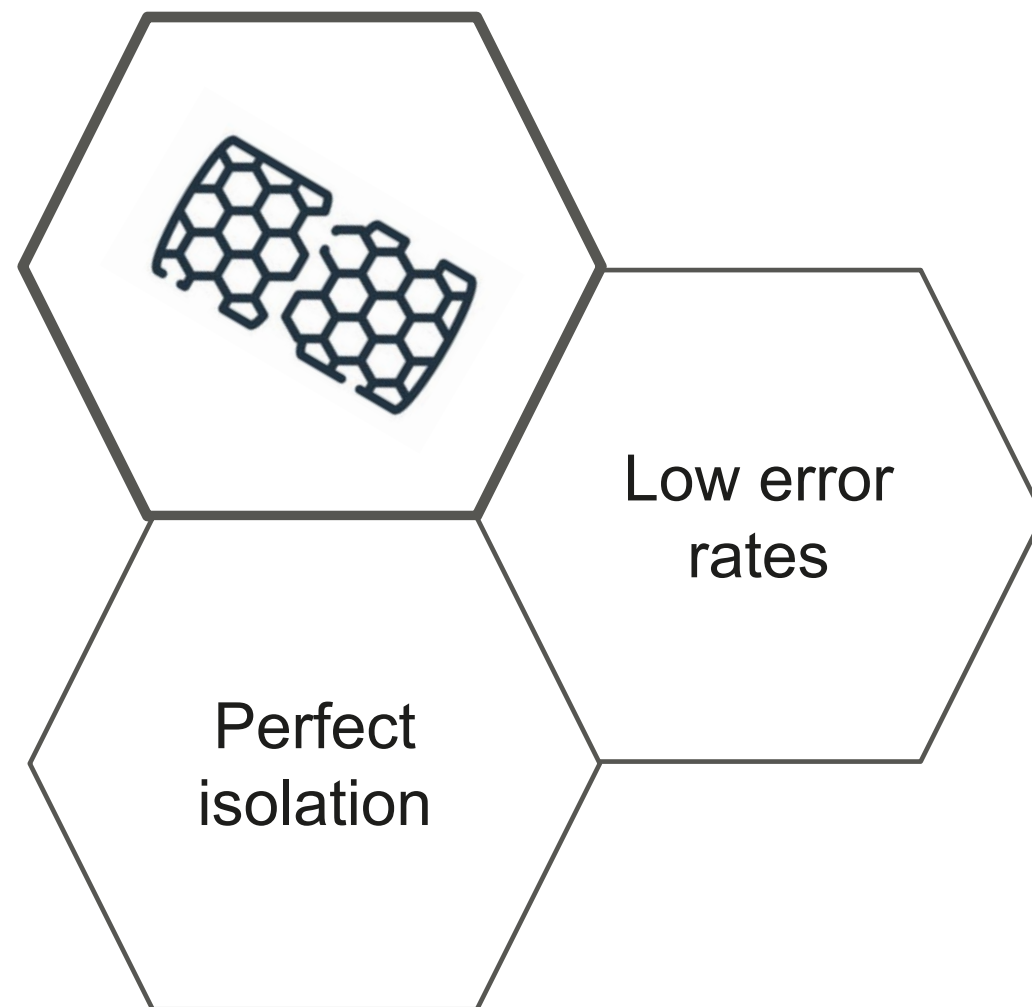


Carbon Nanotubes have the potential to process quantum information with **high fidelity** and at **large scale**



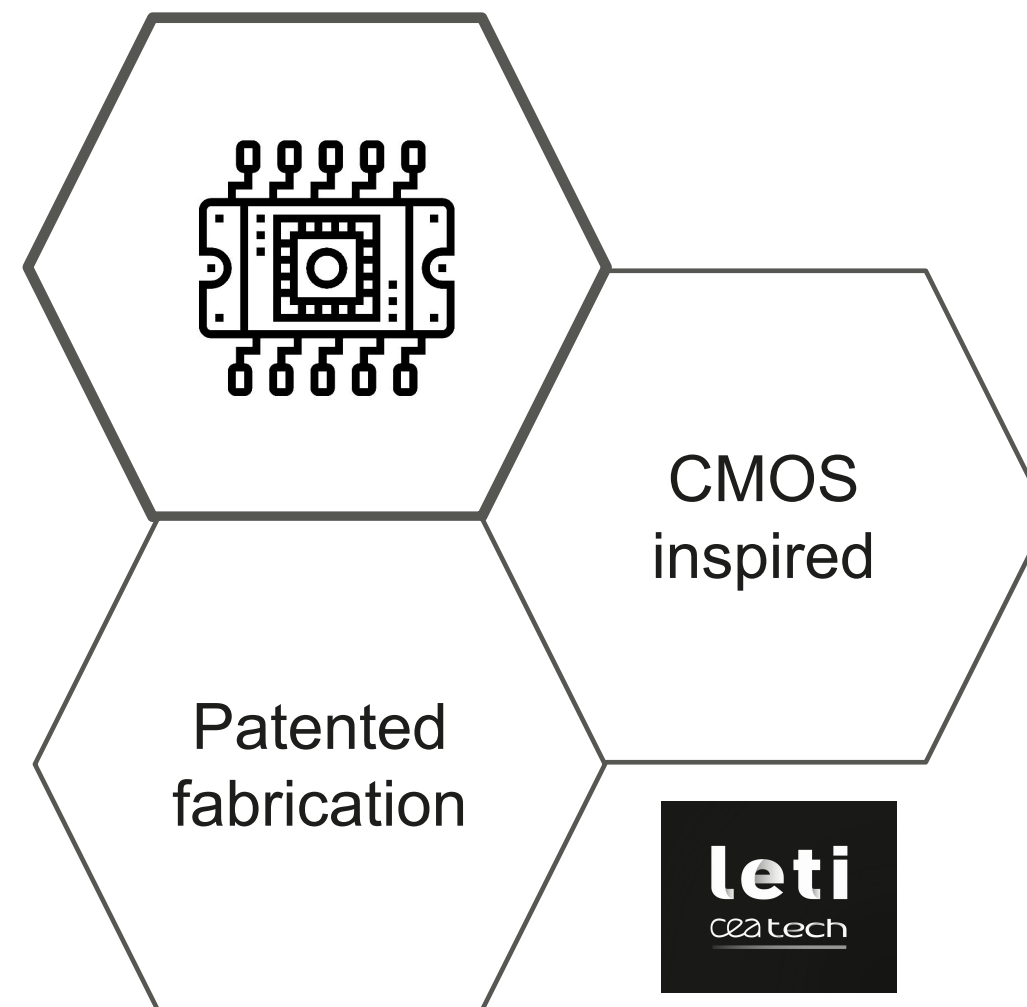
C12 has an **unique** approach to quantum computing

High-fidelity qubits



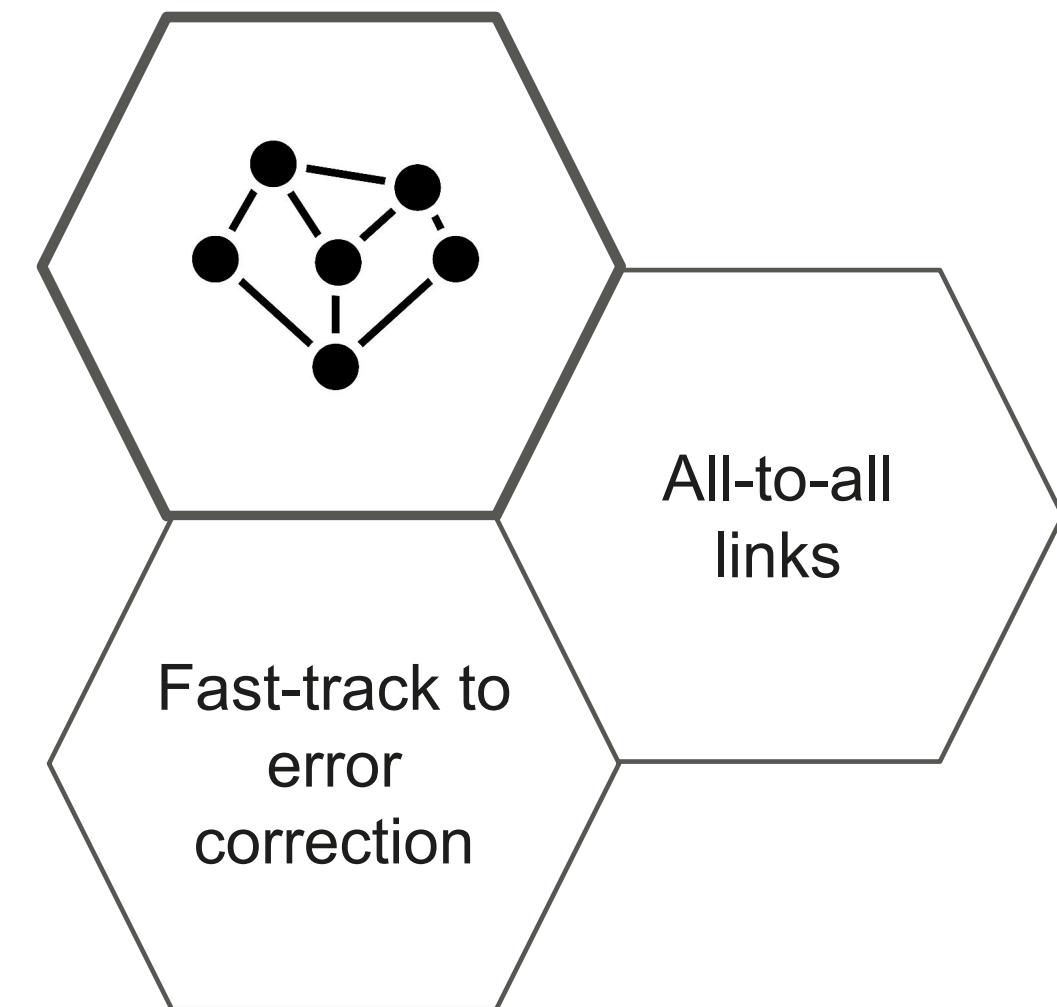
Qubits are hosted in **ultra-pure carbon nanotubes** to reduce environment-induced errors.

Scalable fabrication



Proprietary **high-throughput assembly** technique compatible with semiconductor **fabrication**.

High connectivity

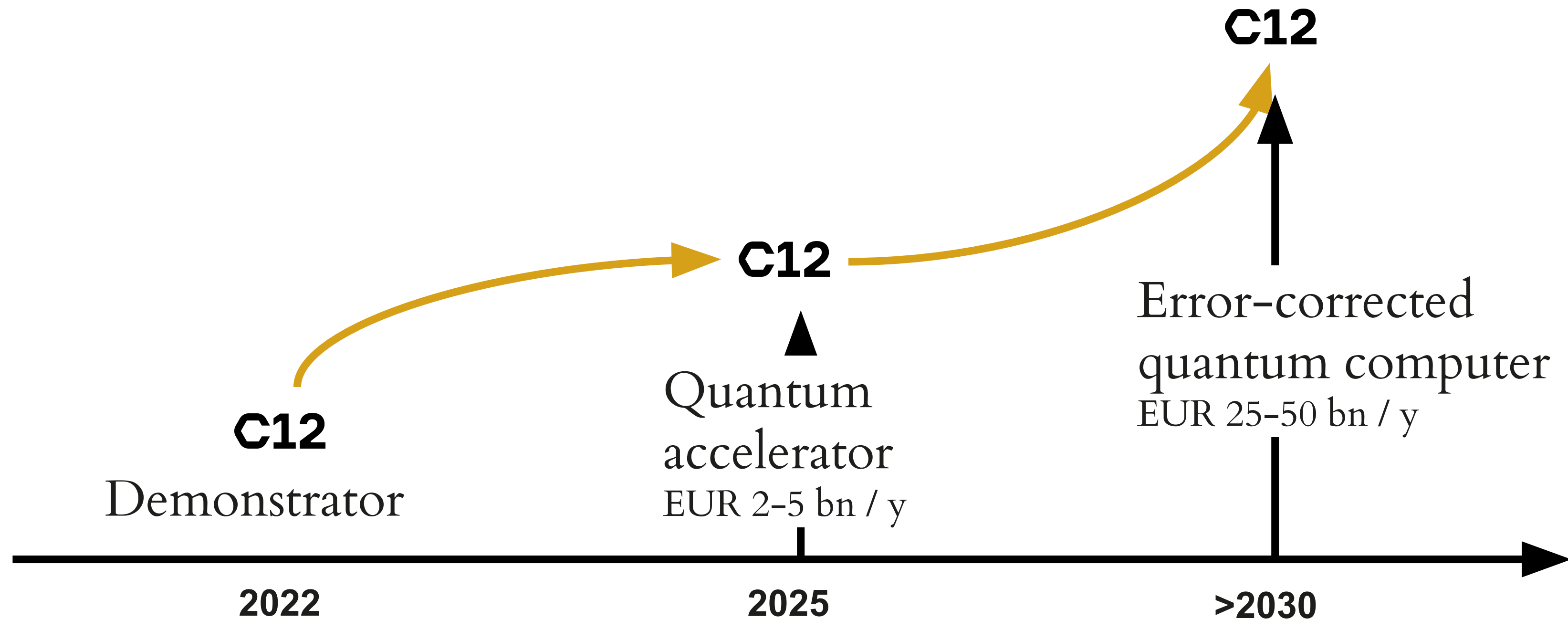


Customized quantum processor and **low overhead** for error correction.

03

Road to commercialization

Before error correction, there is a lot of value in **error reduction** to build **Noisy Intermediate-Scale Quantum** applications



How to unlock industry applications? By developing application-specific customized quantum processors



We are developing first two **application-specific chips** with partners

Quantum Chemistry

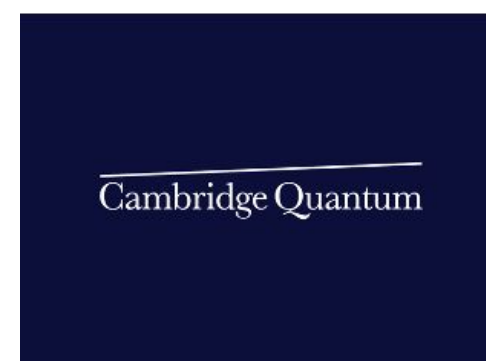
Atomic layer deposition

Quantum algorithm: Variational Quantum Eigensolver

Quantum optimization solver

Graph-based combinatorial problems

Quantum algorithm: Quantum Approximate Optimization Algorithm



C12's product roadmap

Simulator

First-of-kind “**digital twin**” of future quantum processors

Advanced modelling of quantum physics phenomena

Available to test first quantum algorithms

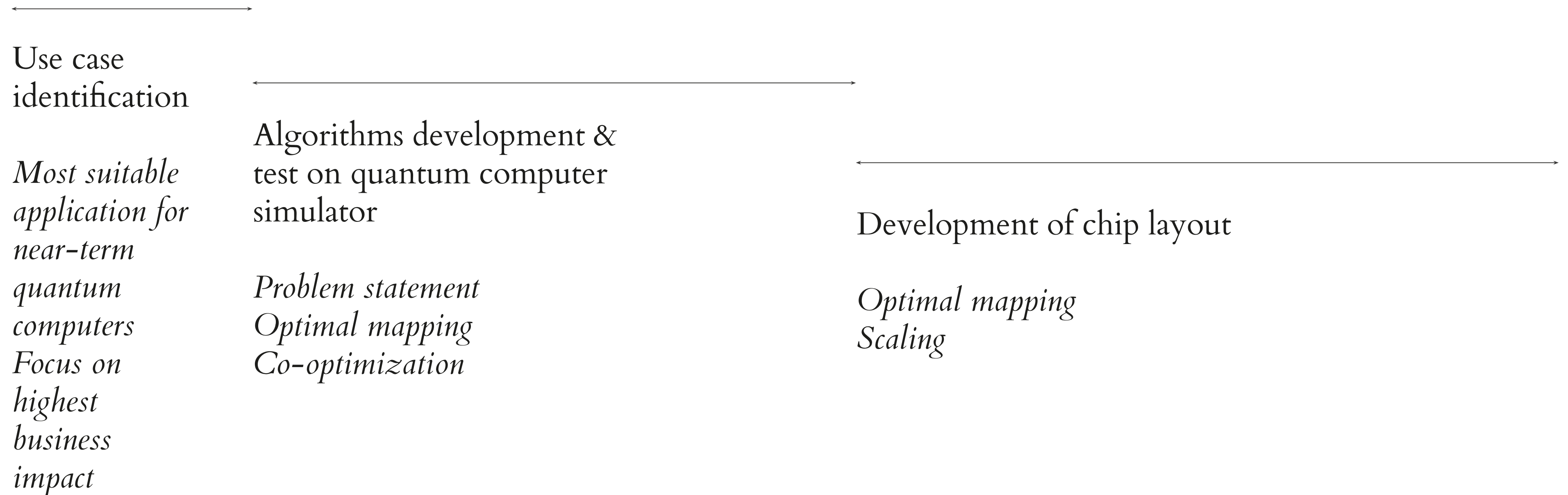
Quantum chips

Co-design with selected partners

Application-specific quantum chip

Non recurring engineering costs

C12 is designing application-specific quantum processors for forward-thinking companies



C12

Leading the next materials leap in quantum computing

hello@c12qe.com