

# 4<sup>th</sup> Annual Global QC Market: Robust and on the Rise





Bob Sorensen Chief Analyst for Quantum Computing Hyperion Research, LLC

#### 2023 QC Market Dynamics Study Roadmap

#### Formulate global status and prospects from a data-driven perspective

- Conducted QC supplier survey to gather data and insights on QC market dynamics
- Many thanks for assistance from various QC consortia in reaching out to their respective membership base to encourage participation in this effort:
  - Quantum Economic Development Consortium (QED-C)
  - European Quantum Industry Consortium (QuIC)
  - Quantum Industry Canada
  - Japan Quantum STrategic industry Alliance for Revolution (Q-STAR)
  - Australian Quantum Alliance
  - UKQuantum
  - Korea Quantum Industry Association
- Gathered results to span:
  - Geographic variety, company size (total and QC-related revenues), market concentration, QC industry sentiment, and impressions on general trends in the sector
- Analyzed results from 133 respondents representing 108 different companies
  - Individual responses for industry-wide questions
  - Combined single response for organizations

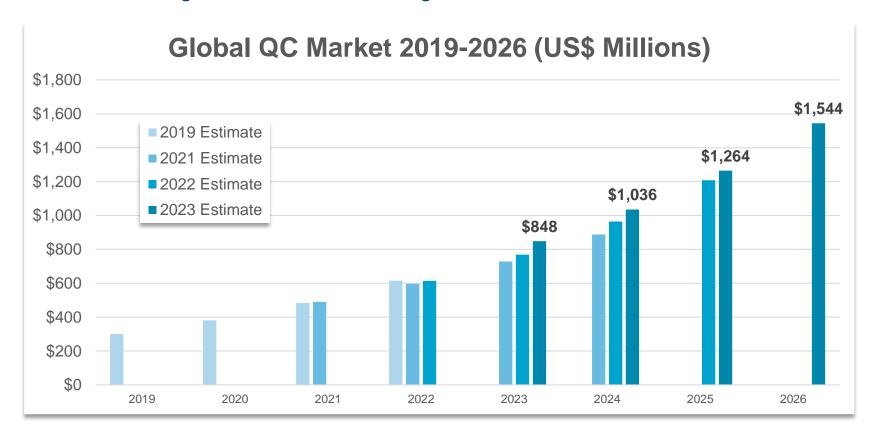
## **QC Market Highlights**

Continued strong and steady progress for the global QC sector

- The global quantum computing (QC) market is estimated to be worth US\$848 million in 2023
  - A projected annual growth rate of 22.1% brings the global QC market to US\$1.5 billion in 2026
- Supply-side growth driven by a collection of factors:
  - Continued revenue growth by traditional QC suppliers
  - First revenue appearances by new-to-market players
  - Expanding base of domestic suppliers in nascent markets
  - Increasing sophistication and specialization of QC stack
- Demand-side interest on the rise:
  - Widespread interest in accelerating critical compute jobs
  - More end use case exploration within the overall HPC community
  - Sustained government programs, and related government procurements, fostering sales and increasing credibility to potential end users

#### QC Market Estimate: US\$848 Million in 2023

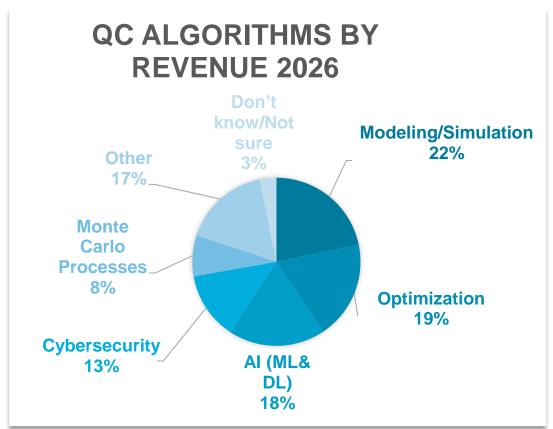
22.1% annual growth rate drives QC global market to US\$1.5 billion in 2026



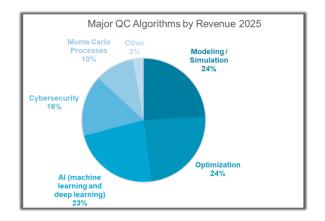
- Dangerous to project out too far: too many unknowns
  - But is this the first stages of an exponential curve?

### QC Market 2026: Major Algorithms by Revenue

Mod/sim, optimization, and AI still the three major algorithms areas



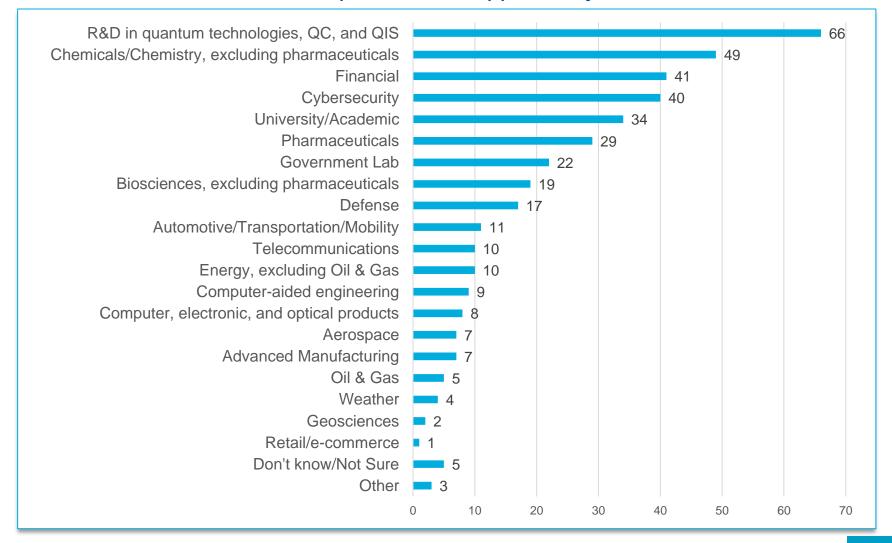
- Some changes from previous years' studies
  - The overall share of the big three is slipping due to major gains in the 'Other" category
  - But there was little detail offered about the new alternatives
  - Suggests trends towards mixed algorithms use



N = 133

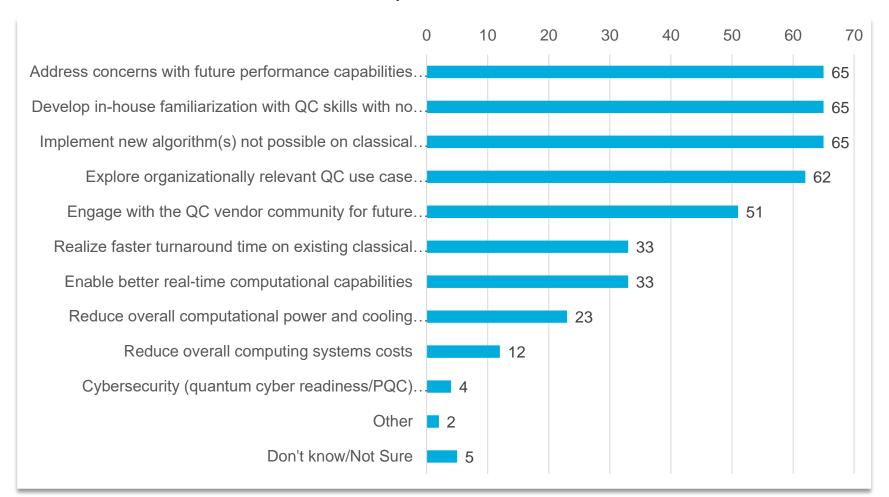
## QC Market 2026: Top End User Sectors/Verticals

QC R&D and Chemicals on top, but broad applicability envisioned



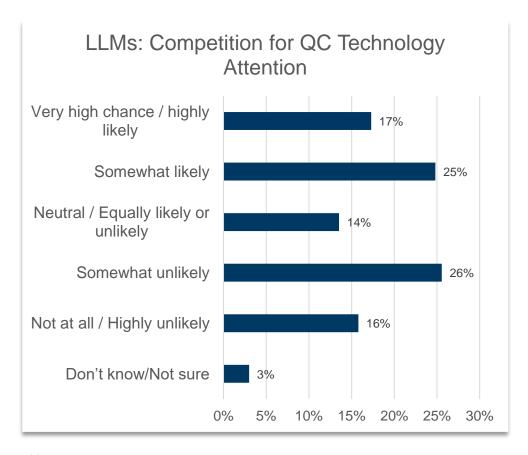
### QC 2026: QC End User Perceptions

#### Mixed drivers for QC end user adoption



#### **QC Distractions and LLMs**

How likely is it that the emergence of large language models like ChatGPT and BERT will draw attention away from end user interest in quantum computing?



- LLMs and likely generative AI in general seen as near-term competitor for end user interest in QC by 42% of respondents
- But equal percentage not overly concerned
- Demonstrates need for QC to continue to deliver on technology/performance gains
- Highlights perceived end user interest in performance gains no matter how it is delivered

N = 133





#### bsorensen@hyperionres.com

When the great innovation appears, it will almost certainly be in a muddled, incomplete, and confused form. To the discoverer himself, it will be only half understood; to everybody else it will be a mystery.

----Freeman Dyson 'Innovation in Physics', Scientific American, Sept 1958