



Quantum Computing Platforms

Key offerings enabling enterprises to build next-generation applications using quantum technology

2025 CONSTELLATION SHORTLIST

The Constellation ShortList™ presents vendors in different categories of the market relevant to early adopters. In addition, products included in this document meet the threshold criteria for this category as determined by Constellation Research. This Constellation ShortList of vendors for a market category is compiled through conversations with early adopter clients, independent analysis and briefings with vendors and partners.

ABOUT THIS SHORTLIST

Quantum computing describes an approach to computing using quantum mechanical phenomena such as entanglement and superposition. The goal is to apply a probabilistic model to solve problems more quickly.

While these are the early days of quantum technology, the pace of advancements has increased. The industry has now moved on beyond the debate of who reaches quantum superiority and is focusing on go-lives and practical use cases. What matters is that if vendors show commercial success in key quantum computing use cases—e.g., annealing, adiabatic optimization, chemistry, cryptography, financial markets, machine learning, search and simulation in the next 12 months—CxOs need to pay attention to the technology, platforms and players. 2023 was a great year for quantum technology with first commercial production use cases happening. It also helped reshape the competitor field.

Enterprises are looking for holistic solutions beyond hardware, so vendors included in this list also offer related products and services that accelerate enterprise adoption. These can be in the areas of platform services, programming languages, administration services, early adjacent products and more. And 2024 showed even more progress, with quantum being the most promising technology change maturing (next to AI of course).

8 SOLUTIONS TO KNOW

Constellation evaluates more than 20 solutions categorized in this market. This Constellation ShortList is determined by client inquiries, partner conversations, customer references, vendor selection projects, market share, and internal research.



AWS



D-WAVE SYSTEMS



GOOGLE



IBM



IONQ



MICROSOFT



QUANTINUUM



RIGETTI COMPUTING

LIKE WHAT YOU SEE?

Consider partnering with Constellation Research on your go-to-market-strategy. Email ShortList@ConstellationR.com for more info.

To learn more about Constellation Research Shortlists visit: www.constellationr.com/ShortList



THRESHOLD CRITERIA

Constellation considers the following criteria for these solutions:

- Multiple versions of a working quantum machine
- At least three adjacent products, software, services or other offerings next to hardware
- Active work on 6-10 enterprise use cases
- At least 500 or more active customer/prospect conversations and/or beta/live customers
- Sufficient funding to remain a player at least in the early rounds of the quantum computing market

BUSINESS THEMES



New C-Suite



Technology Optimization

ABOUT CONSTELLATION RESEARCH

As an award-winning Silicon Valley-based strategic advisory and futurist analyst firm, Constellation Research serves leaders and organizations navigating the challenges of digital strategy, business-model disruption and digital transformation. Constellation works closely with solution providers, partners, C-suite executives, board of directors, and its Constellation Executive Network of buy-side leaders to lead the way in research coverage and advise clients how to achieve valuable business results.

FREQUENCY OF EVALUATION

Each Constellation ShortList is updated at least once per year. Updates may occur after six months if deemed necessary.

EVALUATION SERVICES

Constellation clients can work with the analyst and the research team to conduct a more thorough discussion of this ShortList. Constellation can also provide guidance in vendor selection and contract negotiation.



Holger Mueller Vice President & Principal Analyst

Holger Mueller focuses on the synergies between people and software. As the hand-to-machine ratio radically changes over the next decade (primary factors: age dynamics and technology innovation), enterprises need to find the appropriate balance between changes in a dynamic workforce and the creation and adoption of next-generation applications, all determining the Future of Work and helping enterprises accelerate. Mueller provides strategy and counsel for key clients, including CTOs, CHROs and CIOs as well as investment analysts, VCs, PE firms and technology buyers.

