2026 QUANTUM READINESS SURVEY

Executive Research Report

Global Perspectives on Quantum Computing Adoption, Technology Preferences, and Organizational Readiness

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January 2026

291 respondents • 25+ countries
Academia • Industry • Government • Vendors

Commissioned by

QuEra Computing Inc.
Putting Quantum to Work

Boston, MA USA
www.quera.com

Table of Contents

Executive Summary

The 2026 Quantum Readiness Survey captures perspectives from 291 quantum computing stakeholders across 25+ countries, representing academia, industry, government, and technology providers. This report provides actionable intelligence on adoption trajectories, technology preferences, organizational preparedness, and regional variations in quantum readiness.

The state of quantum computing in early 2026 is defined by a convergence of technical validation and a divergence of geopolitical access. The industry has successfully navigated the "Trough of Disillusionment" regarding hardware capability—recent demonstrations from multiple vendors prove the physics works at scale. However, it has entered a new phase regarding commercial viability and market access, where sovereignty concerns increasingly shape procurement decisions.

The geopolitical stratification of the quantum landscape is no longer a forecast; it is an operational reality reflected in organizational decision-making. When asked about the importance of digital or technological sovereignty in selecting quantum technology, a mere 4.9% indicated that "Sovereignty is not a factor." The vast majority of the ecosystem is now navigating a complex matrix where technical superiority is weighed against the geopolitical provenance of hardware.

Year-over-Year Context

Compared to the 2025 Quantum Readiness Survey (n=770), several metrics show notable shifts:

- **National confidence has moderated:** "Very well positioned" responses dropped from 45%+ to 25%, suggesting post-hype recalibration as organizations confront implementation realities.
- **Preparedness has declined:** 55% now report being prepared vs. 65%+ in 2024—the bar for "quantum-ready" has risen as fault tolerance becomes the standard.
- **Budget optimism has cooled:** While 2024 projected mean 18.3% budget increases, 2026 shows 46% expecting flat budgets—the "FOMO era" has ended.
- **Modality preferences remain stable:** Neutral atoms maintain their lead among those with preferences, though 34% now say "too early to determine."
- **Challenge hierarchy unchanged:** Technology maturity, cost, and unclear ROI remain the top three barriers, with workforce concerns rising in prominence.

Key Findings

- **Error Correction as Table Stakes:** The debate is over. 78% consider quantum error correction (QEC) very important or critical for commercial value; only 1.1% believe useful results are possible without it. The debate has shifted from *whether* fault tolerance is achievable to *how fast and at what cost*.
- **The Classical Wall as Catalyst:** 62% of respondents with applicable workloads report moderate to critical classical computing limitations. Adoption momentum is concentrated in sectors hitting computational walls—simulation for materials, chemistry, and drug discovery (42% of use cases) represents the clearest path to quantum advantage.
- **Timeline Expectations Compressing**: 43% expect quantum superiority within 5 years; 37% within 6-10 years. Only 17% anticipate timelines beyond 10 years—and less than 1% say "never."
- **Technology Preferences Consolidating**: Neutral atoms lead modality preferences (23%), followed by superconducting (15%) and trapped ions (11%). However, 34% say it is too early to determine—the architecture race remains contested.
- **Organizational Maturity in Transition**: 56% are actively engaged (exploring, PoC, or evaluation phases); only 13% have reached production deployment. The 12% with no initiatives represents a shrinking but persistent segment.
- **Talent as the Binding Constraint**: 37% cite workforce availability as a primary barrier—the fourth-highest challenge overall. Innovation speed may now be capped by talent pipelines, not capital. Industry estimates suggest a 3:1 ratio of open quantum positions to qualified candidates, with the QEC talent pool numbering fewer than 2,500 specialists globally.
- **Budget Trajectory Stable, Not Surging**: 44% anticipate budget increases in 2026; only 10% expect decreases. However, 46% expect budgets to remain flat—indicating a "show me" phase rather than expansion. Government mandates/grants remain the primary driver (28%).
- **Commercialization Reality Check**: 43% view commercialization as slightly or significantly behind expectations. The "FOMO era" appears to be ending: only 16% cite competitive pressure as a budget driver.
- **Sovereignty Reshaping Procurement**: Only 4.9% say sovereignty is "not a factor" in technology selection. 46% balance sovereignty with technology quality, while 16% strongly prioritize sovereignty even if global providers offer superior technology. The purely globalized market model is ending.

Regional Highlights

- **United States** (n=95): Highest confidence in national positioning (82% well-positioned) and global leadership (90% ahead). Top modality: Too early to determine.
- **European Union** (n=82): More cautious outlook (51% well-positioned, 48% ahead). Emphasis on sovereignty and regional sourcing.
- **Japan** (n=22): Conservative timeline expectations but strong government/grant-driven investment. Only 10% report very prepared organizations.
- **India** (n=9): Most optimistic timelines (78% expect <5 years). Notably, neutral atoms lead modality preferences.
- **Sovereignty and Sourcing Divergence**: U.S. respondents strongly favor "source globally based on best technology" while European respondents more frequently prioritize regional providers—reflecting the EU's focus on technological sovereignty and concerns about supply chain dependency

Strategic Implications

The year 2026 is not the year quantum computing becomes ubiquitous. It is the year quantum computing becomes inevitable. The organizations that treat it as a decade-away science project will find themselves on the wrong side of the exponential curve when the "below threshold" error rates translate into commercial advantage.

For Technology Providers

- **Error correction messaging resonates:** 78% consider QEC critical/very important. Roadmaps should prominently feature fault-tolerance milestones—the market now evaluates vendors on *when*, not *if*.
- **Cost-effectiveness is paramount:** Leading selection criterion (50%). Transparent pricing and TCO models will differentiate. The "pick and shovel" ecosystem—control electronics, cryogenics, error decoding—represents an underserved investment opportunity.
- **Neutral atoms gaining mindshare:** 23% preference among those with opinions warrants continued investment in this modality, though 34% "too early to tell" signals the architecture race remains contested.
- **The 34% "too early to tell" cohort is persuadable**: Technical milestones matter. Survey respondents explicitly cited hardware demonstrations (Google Willow, neutral atom scaling) as the year's most impactful developments.
- **Regional strategies matter:** Significant country-level variation in confidence and preferences requires tailored approaches for each market.

For Enterprise Adopters

- **Stop waiting for perfect hardware:** 25% are already in PoC phase. Organizations without pilots risk falling behind as capacity constraints emerge. Identify workloads hitting classical computational limits today and begin building institutional knowledge now.
- **Talent remains the binding constraint:** Skilled workforce shortage (37%) persists as major challenge. Investment in QEC and quantum algorithm training pays dividends—and may soon determine innovation velocity more than capital.
- **The "Preparedness Paradox"**: Smaller organizations may feel more prepared than large enterprises—agile "born quantum" startups can pivot their entire R&D stack, while enterprises face legacy integration challenges (11% cite this) and competing budget priorities (22%).
- **Timeline expectations are compressing:** 43% expect quantum superiority within 5 years. Readiness planning should accelerate accordingly.
- **Don't wait for finance to lead:** Financial services ranks last (5%) in expected near-term commercialization drivers, contradicting early hype. Pharma/life sciences (11%) and government/defense (24%) are where early commercial traction will emerge.

For Policymakers

- **Government funding remains the primary driver:** 28% cite government mandates/grants as their budget driver—the single largest factor. Public investment continues to shape the ecosystem's direction and underwrite risk that private capital avoids.
- **Defense/government expected to lead commercialization:** 24% see this segment as primary driver—more than large enterprises (20%) or pharma (11%). Public sector use cases may establish the beachhead for broader commercial adoption.
- **Sovereignty concerns require calibrated response:** 46% balance sovereignty with technology quality; only 16% strongly prioritize sovereignty regardless of capability. Heavy-handed localization mandates may backfire by restricting access to leading technology—but unrestricted access creates dependency risks that 62% of respondents acknowledge.
- **The talent crisis requires policy intervention:** 37% cite workforce shortage as a primary challenge. The PhD pipeline for quantum physics is 5-7 years, meaning current shortages—particularly in QEC expertise—will persist through 2030 without intervention. Consider "green lane" mechanisms for talent mobility among trusted partner nations and expanded quantum education funding.
- **Regional confidence gaps have policy implications:** U.S. respondents show 82% confidence in national positioning; EU respondents show only 51%. Japan (50%) and South Korea (40%) show similar concerns. These gaps may reflect fragmented national programs versus coordinated industrial policy.

Methodology

The 2026 Quantum Readiness Survey was conducted online and collected 291 complete responses. The survey instrument comprised 24 substantive questions (Q1-Q24) covering demographics, perceptions, organizational readiness, technology preferences, and market outlook. Two additional questions (Q25-Q26) collected contact information and were excluded from analysis for privacy protection.

Sample Composition

The sample represents a technically sophisticated audience with deep quantum computing engagement:

- Academic researchers/professors: 42%
- Quantum computing/technology company employees: 16%
- End-user companies evaluating quantum: 12%
- Enthusiasts and self-learners: 12%
- Analysts, consultants, press: 7%
- Government/public sector: 7%

Geographic Distribution

Respondents represent 25+ countries, with concentration in:

- United States: 33% (n=95)
- European Union: 28% (n=82)
- Japan: 8% (n=22)
- United Kingdom: 6% (n=17)
- Other (Canada, India, Israel, South Korea, etc.): 25%

Analytical Approach

All analyses employed appropriate statistical methods: chi-square tests for categorical associations, Spearman correlations for ordinal relationships, and Benjamini-Hochberg FDR correction for multiple comparisons. Multi-select questions were analyzed using binary indicators for each response option.

Year-over-Year Comparability

This report includes selective comparisons to the 2025 Quantum Readiness Survey (n=770, December 2024). Methodological differences limit direct comparison. Trend interpretations should be considered directional rather than precise measurements.

Detailed Findings

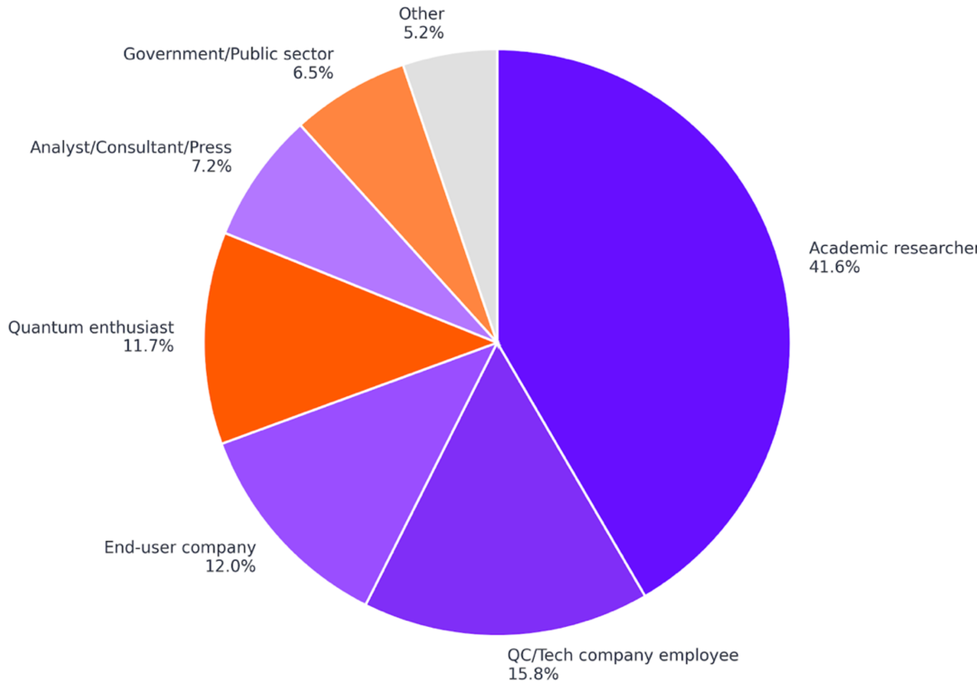
Section 1: Respondent Demographics

Q1: Primary Interest in Quantum Computing

Response	Count	Percentage
Academic researcher or professor	121	41.6%
QC/technology company employee	46	15.8%
Company using/evaluating QC	35	12.0%
Quantum enthusiast	34	11.7%
Analyst/consultant/press	21	7.2%
Government/public sector	19	6.5%
Other	15	5.2%

The sample skews academic (42%), reflecting the current state of quantum computing where research institutions remain primary drivers of talent and innovation. However, the combined industry presence (28% from QC companies + end-users) signals meaningful commercial engagement.

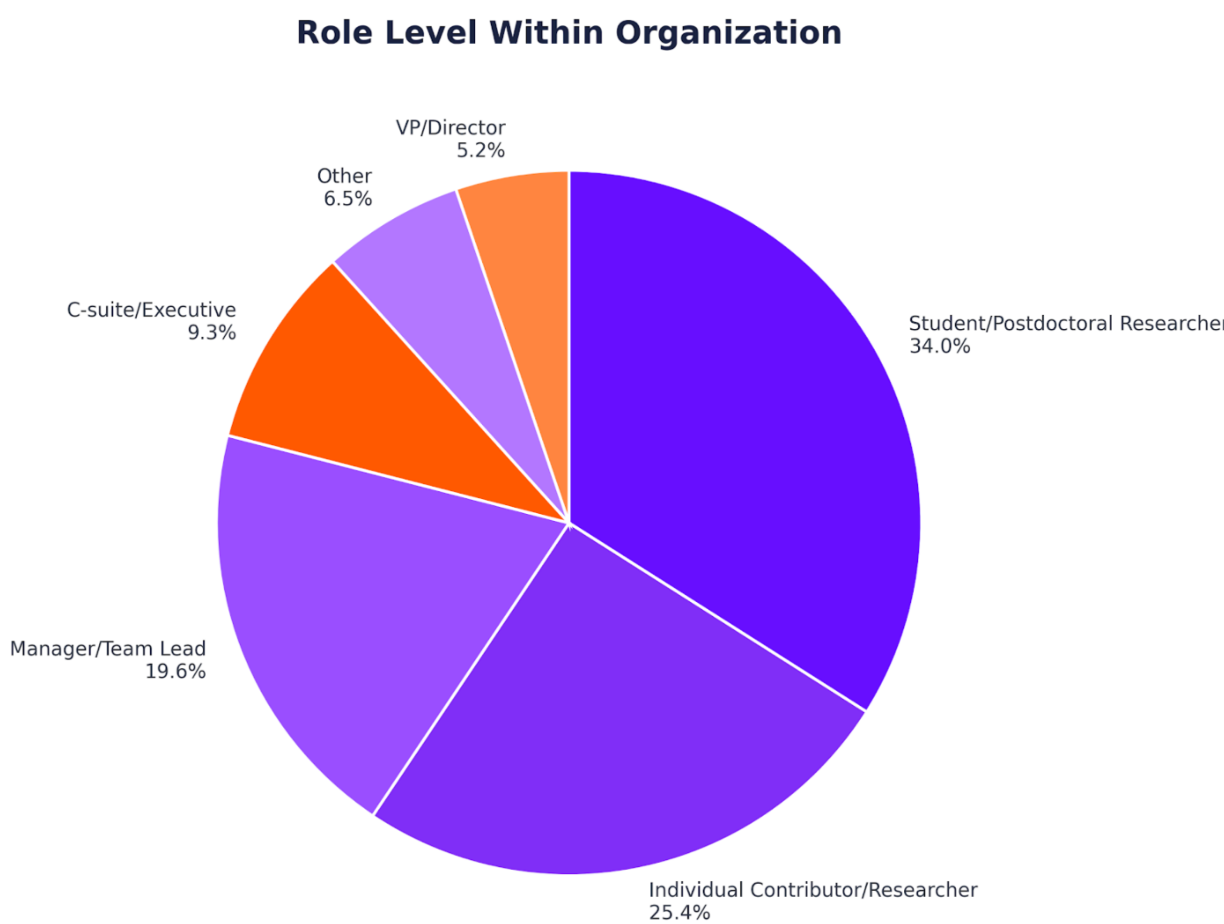
Primary Interest in Quantum Computing



Q2: Role Level Within Your Organization

Response	Count	Percentage
Student/Postdoctoral Researcher	99	34.0%
Individual Contributor/Researcher	74	25.4%
Manager/Team Lead	57	19.6%
C-suite/Executive	27	9.3%
VP/Director	15	5.2%
Other	19	6.5%

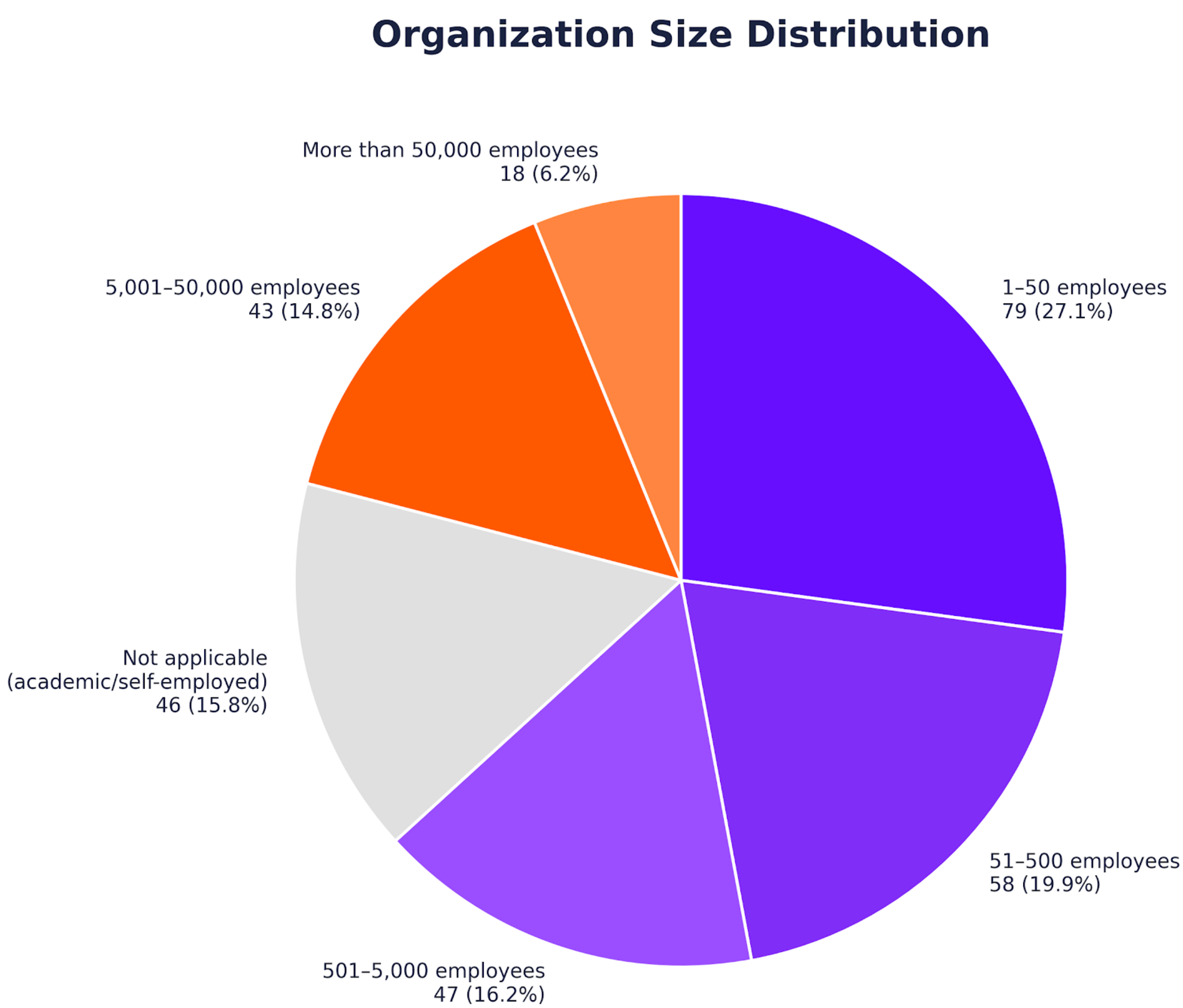
Leadership representation (C-suite + VP/Director: 15%) provides strategic perspective, while the strong student/postdoc cohort (34%) offers emerging talent viewpoints.



Q3: Approximate Organization Size

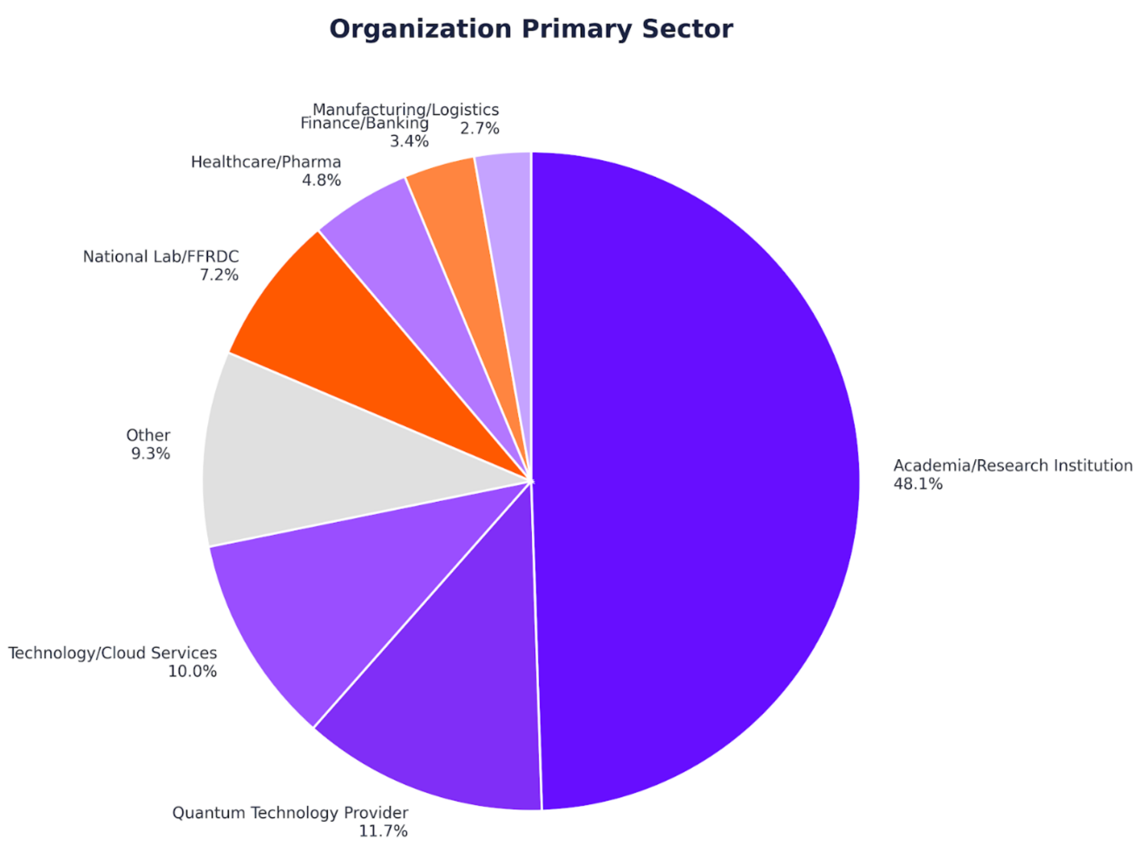
Organization Size	Count	Percentage
1–50 employees	79	27.1%
51–500 employees	58	19.9%
501–5,000 employees	47	16.2%
5,001–50,000 employees	43	14.8%
More than 50,000 employees	18	6.2%
Not applicable (academic/self-employed)	46	15.8%

n=291 respondents



Q4: Primary Sector

Sector	Count	Percentage
Academia/Research Institution	140	48.1%
Quantum Technology Provider	34	11.7%
Technology/Cloud Services	29	10.0%
National Laboratory/FFRDC	21	7.2%
Healthcare/Pharmaceuticals	14	4.8%
Finance/Banking/Insurance	10	3.4%
Manufacturing/Logistics	8	2.7%
Aerospace/Defense	6	2.1%
Other	29	10.0%



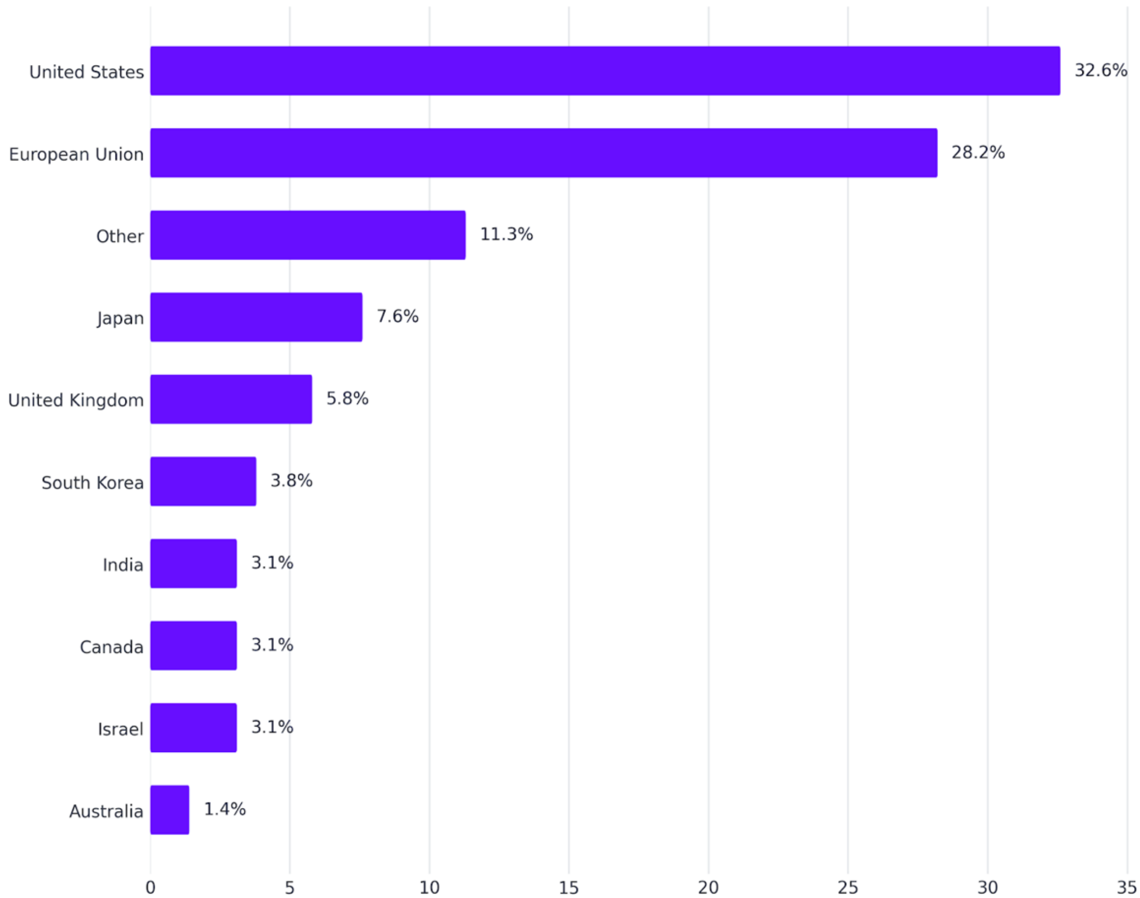
Q5: Country

Please select the primary country you work in

Sector	Count	Percentage
United States	95	32.6%
European Union	82	28.2%
Japan	22	7.6%
United Kingdom	17	5.8%
South Korea	11	3.8%
India	9	3.1%
Israel	9	3.1%
Canada	9	3.1%
Australia	4	1.4%
Other	33	11.3%

Geographic distribution spans 25+ countries with strong North American and European representation. The United States leads (33%), followed by the European Union (28%) and Japan (8%). This distribution enables meaningful cross-regional analysis while reflecting the current concentration of quantum computing activity in established technology hubs. Countries with n≥9 respondents are analyzed in detail in Section 7.

Respondents by Country/Region



Section 2: Industry Perceptions & Timeline Expectations

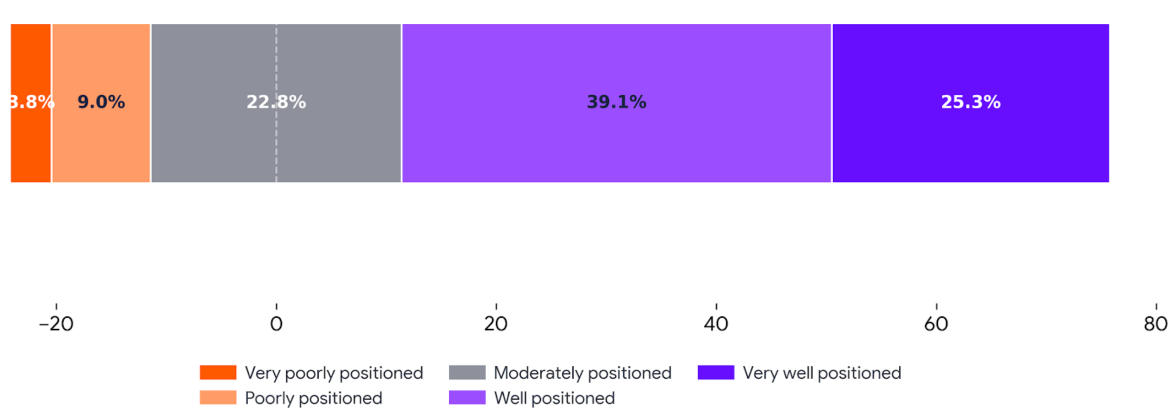
Q6: National Positioning Assessment

How well-positioned is your country to play an important role in the global quantum computing industry?

Response	Count	Percentage
Very well positioned	73	25.3%
Well positioned	113	39.1%
Moderately positioned	66	22.8%
Poorly positioned	26	9.0%
Very poorly positioned	11	3.8%

Nearly two-thirds (64.4%) believe their country is well or very well positioned in quantum computing. This confidence varies significantly by country (see Country Profiles section).

How Well-Positioned Is Your Country in Global Quantum?



Year-over-Year Trend

This represents a notable moderation from the 2025 survey, where over 45% selected "very well positioned" alone—a 20 percentage point decline at the highest confidence level. The shift likely reflects post-hype recalibration as organizations move from exploration to implementation and confront the gap between technical demonstrations and commercial deployment.

Q7: Comparative National Progress

Compared to other countries, how would you rate your country's overall progress in adopting quantum computing?

Response	Count	Percentage
Leading globally	81	28.0%
Somewhat ahead	100	34.6%
On par with most countries	70	24.2%
Somewhat behind	28	9.7%
Significantly lagging	10	3.5%

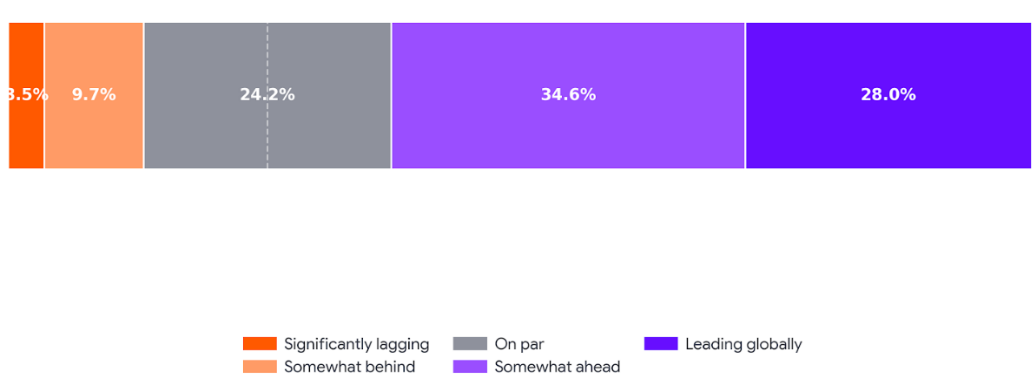
63% rate their country as ahead or leading globally. Strong correlation with Q6 (rho=0.63, $p<0.001$) indicates consistent self-assessment patterns.

The National Confidence Cluster

The strongest ordinal correlation in the dataset links country positioning (Q6) with country progress (Q7): $\rho=0.674$ ($p<0.001$). This tight coupling indicates that respondents form coherent "national confidence" attitudes—those who believe their country is well-positioned also believe it is leading, and vice versa.

More notably, this confidence extends to organizational preparedness (Q6↔Q13: $\rho=0.325$, $p=0.008$). Respondents anchor their organizational readiness assessments partly in their national ecosystem narrative. Whether this reflects real ecosystem advantage or optimism bias is unclear, but it suggests that national quantum initiatives have psychological spillover effects on organizational confidence.

Country's Progress Compared to Other Countries



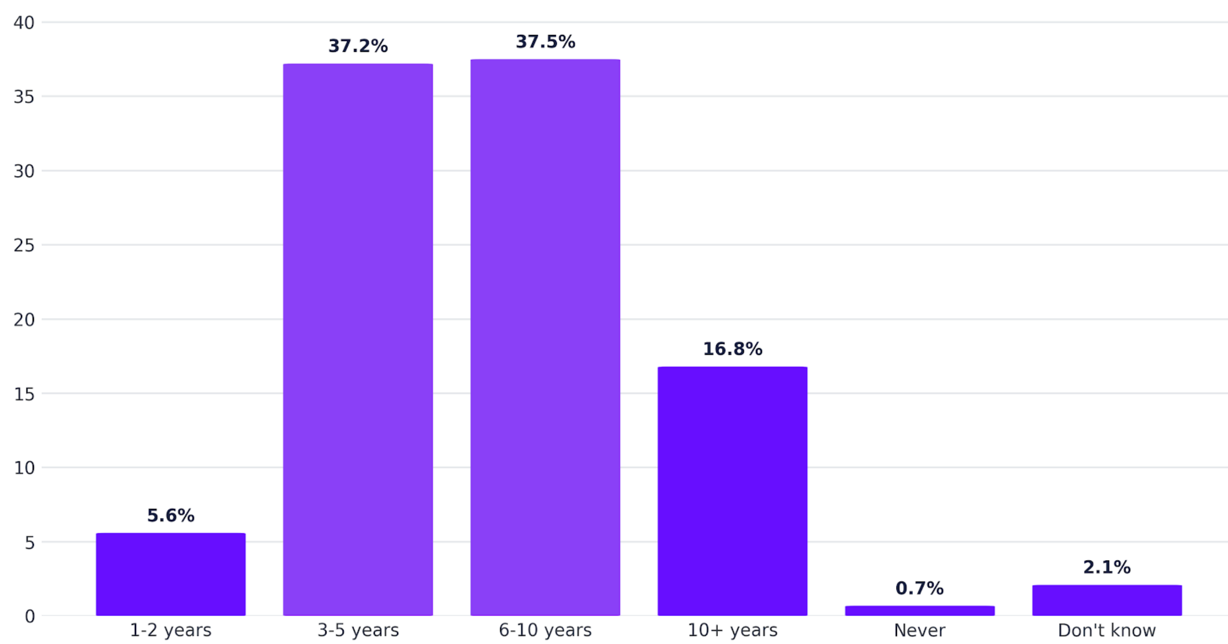
Q8: Quantum Superiority Timeline

When do you expect quantum computers to be a superior alternative to classical computing for certain workloads?

Timeline	Count	Percentage
Within 1–2 years	16	5.6%
Within 3–5 years	106	37.2%
Within 6–10 years	107	37.5%
More than 10 years	48	16.8%
Never	2	0.7%
Don't know	6	2.1%

The modal response is 6–10 years (38%), with 43% expecting superiority within 5 years. This represents a more optimistic outlook than typical industry analyst projections, though academic respondents tend toward longer timelines.

When Will Quantum Computers Surpass Classical?



Q9: Classical Computing Limitations

To what extent are your organization's current classical HPC workloads limited by compute time or complexity (the "Classical Wall")?

Response	Count	Percentage
Critical limitation	59	20.7%
Moderate limitation	118	41.4%
No limitation	20	7.0%
Don't know/Not applicable	88	30.9%

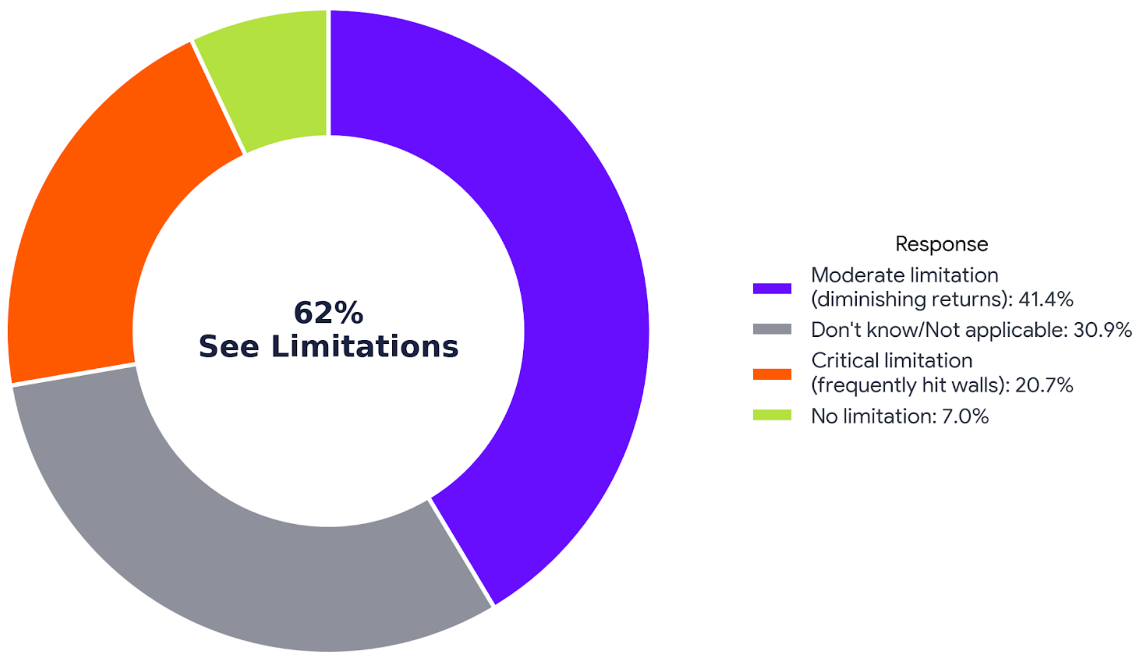
62% of respondents with applicable workloads report moderate to critical classical computing limitations, validating quantum computing's potential value proposition for computationally demanding applications.

This finding represents the core economic case for quantum computing adoption. The 62% experiencing classical limitations are not waiting for theoretical capability—they face real computational constraints today. Cross-referencing with Q12 reveals that "Simulation (materials, chemistry, drug discovery)" leads planned use cases at 42%, precisely the domain where classical methods hit exponential scaling walls.

The implications are significant:

- **Pharma and materials science are the beachhead markets.** These sectors face problems (molecular simulation, protein folding, battery chemistry) where classical approximations are inadequate and quantum advantage is theoretically demonstrable.
- **Optimization use cases (26%) may require patience.** Unlike simulation, where quantum advantage maps directly to physical chemistry, optimization problems often yield to classical heuristics. The survey suggests realistic expectations here.
- **The 31% "don't know/not applicable" cohort likely includes organizations that have not yet encountered computational limits**—they may become quantum-ready when their workloads scale.

Classical HPC Workload Limitations



Q10: Commercialization Progress Assessment

How would you characterize the current state of quantum computing commercialization?

Response	Count	Percentage
Ahead of expectations	32	11.2%
Meeting expectations	102	35.8%
Slightly behind expectations	81	28.4%
Significantly behind expectations	41	14.4%
Too early to judge	29	10.2%

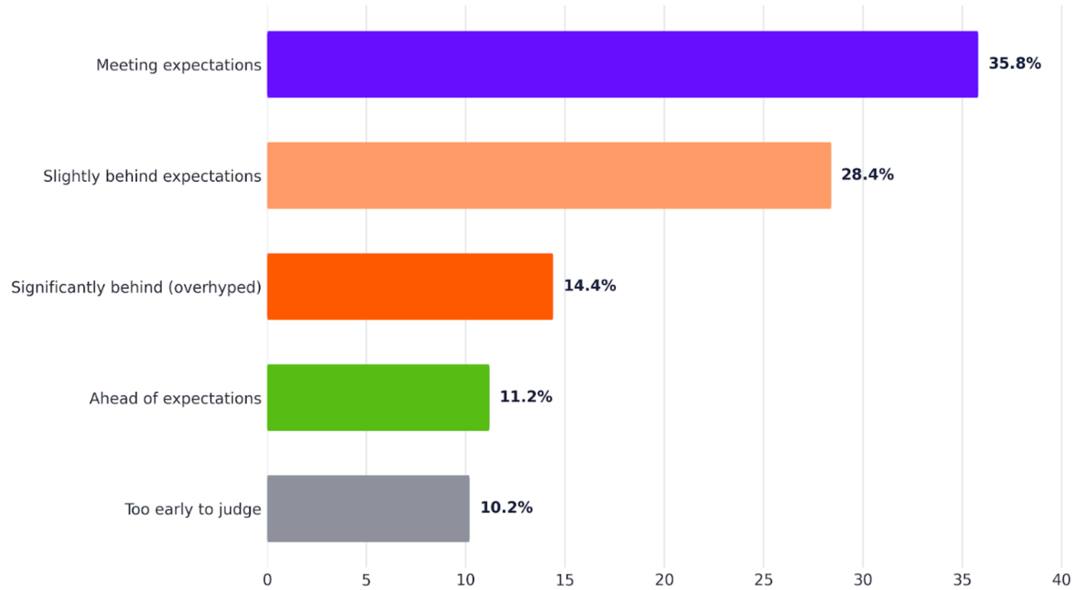
While 47% view commercialization as meeting or exceeding expectations, 43% believe it is behind expectations. This suggests growing pressure on the industry to demonstrate tangible commercial value.

The “Show Me” Phase

The 43% viewing commercialization as behind expectations—combined with the 46% expecting flat budgets (Q16) and only 16% citing FOMO as a budget driver (Q17)—signals that the ecosystem has entered a "show me" phase. Organizations are no longer willing to pay for "quantum potential"; they are demanding "quantum performance."

This creates pressure on vendors to move beyond benchmark demonstrations toward deployable applications with measurable business impact. The Q24 open-ended responses reinforce this: respondents specifically cited demonstrations of error correction and logical qubit operations as the year's most significant developments—not raw qubit counts.

Current State of Quantum Commercialization



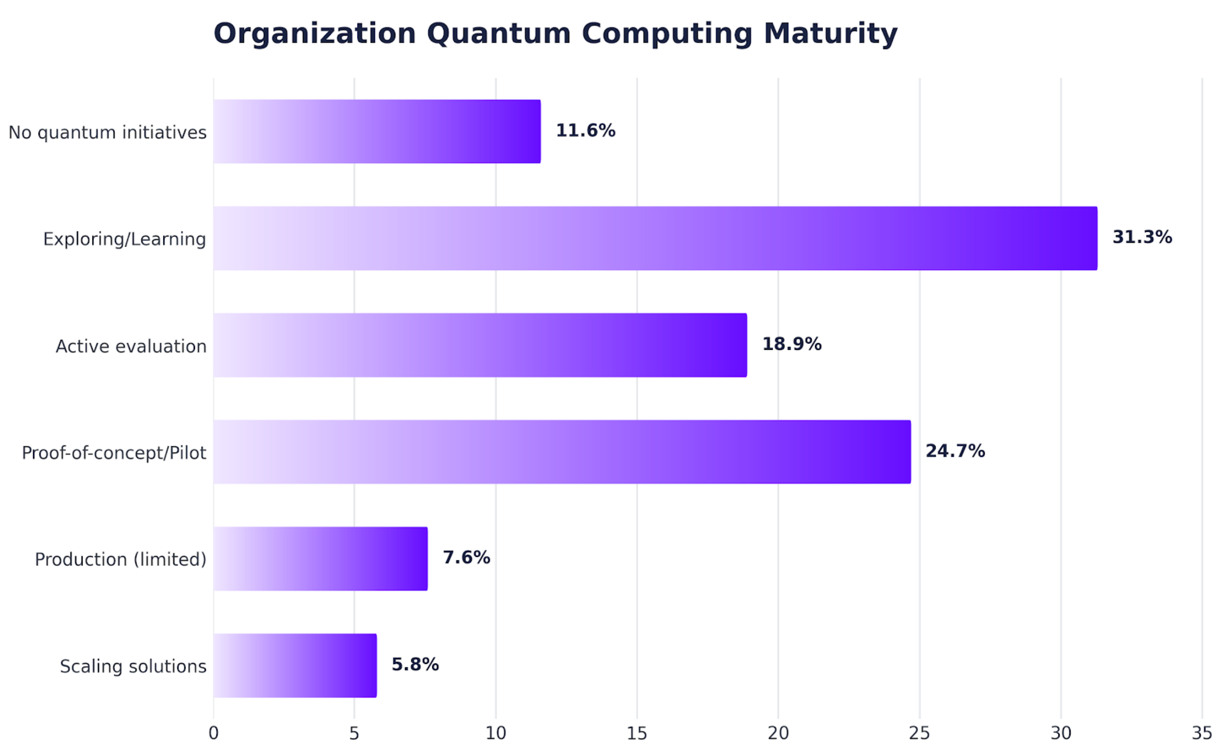
Section 3: Organizational Readiness

Q11: Quantum Computing Maturity

What best describes your organization's current quantum computing maturity?

Maturity Stage	Count	Percentage
No initiatives, no plans	32	11.6%
Exploring/learning phase	86	31.3%
Active evaluation	52	18.9%
Proof-of-concept/pilot	68	24.7%
Production deployment (limited)	21	7.6%
Scaling quantum solutions	16	5.8%

The maturity distribution reveals a field in transition: 56% are actively engaged (exploring through PoC), while 13% have reached production. The 12% with no initiatives represents a shrinking but persistent segment.



Q12: Primary Use Cases (Multi-select, n=274 engaged)

What do you primarily use quantum computing for today, or plan to use it for?

Use Case	Count	% of Engaged
Scientific research and experimentation	207	75.5%
Algorithm development and benchmarking	128	46.7%
Simulation (materials, chemistry, drug discovery)	116	42.3%
Proof-of-concept for business applications	76	27.7%
Machine learning enhancement	74	27.0%
Optimization (logistics, scheduling, portfolio)	70	25.5%
Cryptography and security	47	17.2%
Financial modeling	23	8.4%
Operational deployment with measured outcomes	14	5.1%

Scientific research dominates (76%), followed by algorithm development (47%) and simulation (42%). The low operational deployment rate (5%) underscores the experimental nature of current quantum usage.

Use-Case Bundles: Behavioral Market Segments

Correlation analysis of Q12 multi-select responses reveals that use-case selections are not random—they cluster into coherent "bundles" that define distinct market segments:

Bundle 1: Algorithm-R&D Cohort

- Algorithm development ↔ Simulation (φ=0.374, $p<0.001$)
- Algorithm development ↔ ML enhancement (φ=0.364, $p<0.001$)
- Optimization ↔ ML enhancement (φ=0.380, $p<0.001$)

This cohort is building "quantum workflow literacy"—they approach quantum as a research capability to be mastered across multiple domains.

Bundle 2: Enterprise-Value Cohort

- Optimization ↔ Financial modeling (φ=0.321, $p<0.001$)
- Cryptography/security ↔ Financial modeling (φ=0.353, $p<0.001$)
- PoC business ↔ Financial modeling (φ=0.334, $p<0.001$)

This cohort frames quantum through business-value proxies—they seek near-term commercial applications rather than capability building.

Segmentation Implication: These bundles suggest two distinct buyer personas: "capability builders" (typically academic/research) and "value seekers" (typically enterprise). Marketing and product positioning should address these cohorts separately rather than attempting universal messaging.

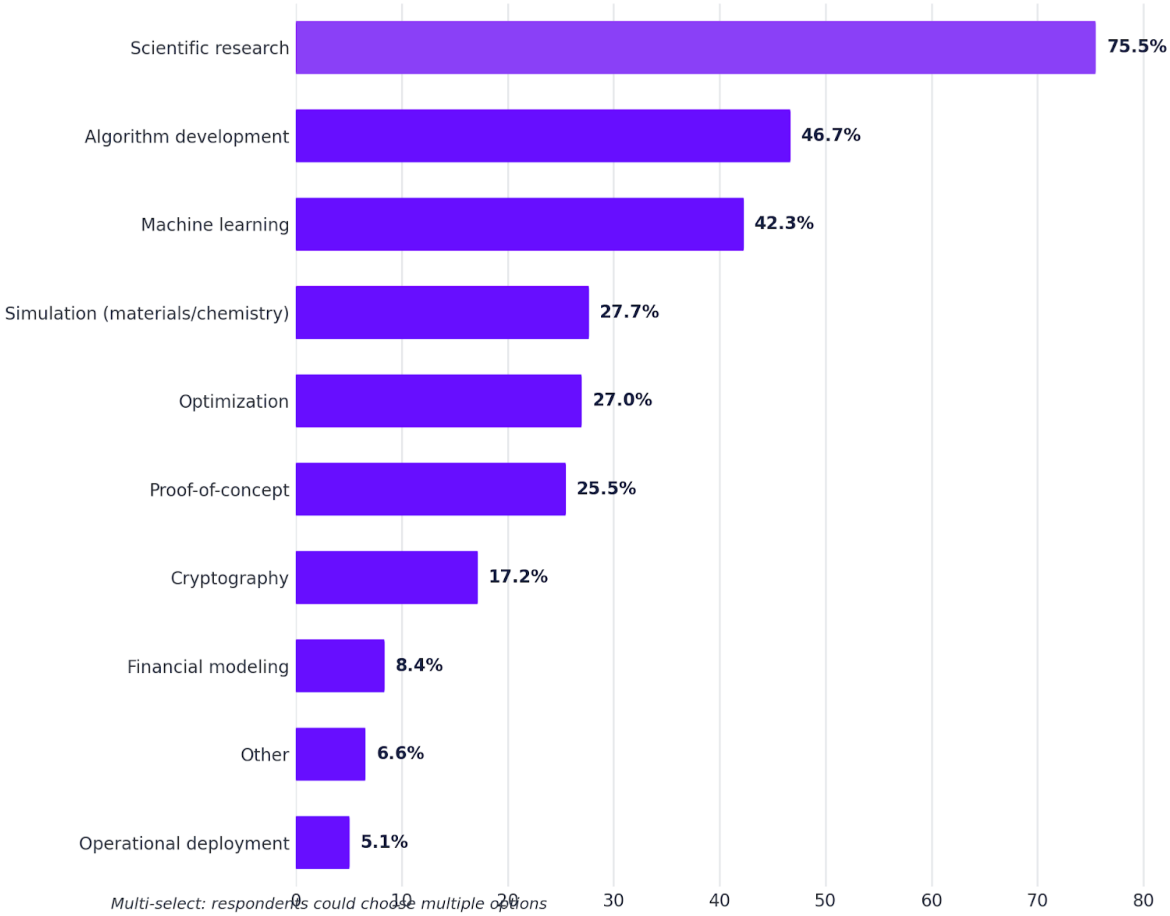
Sector-Specific Use Case Alignment

Correlation analysis confirms that use-case priorities are not uniform across sectors (χ^2=62.1, V=0.38, $p<0.001$):

Sector	Dominant Use Case	Over-Index Factor
Pharma/Life Sciences	Simulation (materials, chemistry, discovery)	+2.3x
Finance/Banking	Optimization + Financial modeling	+1.8x
Aerospace/Defense	Cryptography and security	+2.1x

The pharma-simulation linkage validates the "beachhead market" thesis: pharmaceutical companies face quantum-native problems (molecular simulation, protein folding) where classical approximations fail. Their 2.3x over-index on simulation suggests this sector will be first to demonstrate commercial quantum value—not finance, despite early hype.

Primary Use Cases for Quantum Computing



Multi-select: respondents could choose multiple options

Q13: Organizational Preparedness

How prepared is your organization to adopt or expand quantum computing if it becomes advantageous within the next 2–3 years?

Preparedness Level	Count	Percentage
Very prepared	68	24.7%
Somewhat prepared	84	30.5%
Neutral/monitoring	69	25.1%
Not very prepared	29	10.5%
Not at all prepared	25	9.1%

55% report being somewhat or very prepared for quantum adoption. Strong correlation with role level ($V=0.34$, $p<0.001$): senior leaders report higher organizational preparedness.

Year-over-Year Trend

Preparedness has declined from 65%+ in the 2025 survey to 55%—a 10 percentage point drop despite a year of technical progress. This apparent paradox resolves when considering that the bar for "prepared" has risen: fault tolerance is now table stakes, and organizations recognize that true quantum-readiness requires capabilities few yet possess.

The Preparedness Paradox: Statistical Confirmation

The negative correlation between organization size and preparedness ($\rho=-0.31$, $p=0.001$) confirms what the report terms the "Preparedness Paradox": **larger organizations feel *less* prepared than smaller, agile entities.**

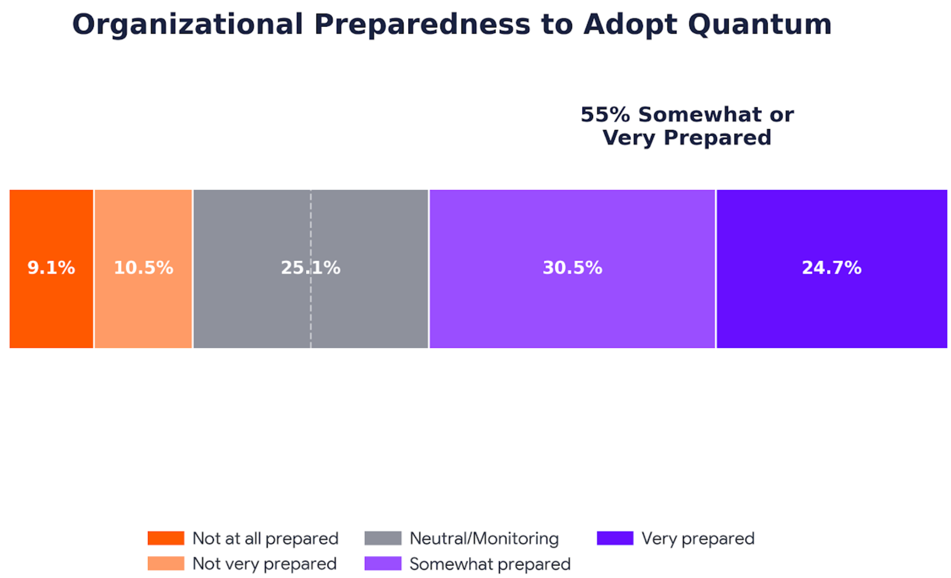
This "incumbent inertia" likely reflects:

- Legacy system integration complexity
- Longer internal approval cycles
- Competing budget priorities across established business units
- Risk aversion in organizations with more to lose

Smaller organizations, often "born quantum," can orient their entire R&D stack toward quantum-readiness without fighting institutional friction.

Null Finding: Timeline Beliefs and Preparedness Are Disconnected

Those expecting sooner quantum commercialization do *not* feel more prepared ($\rho=0.11$, $p=0.37$). This disconnect suggests that timeline optimism and organizational readiness are independent attitudes—organizations can believe quantum is coming soon while acknowledging they are not ready, or feel prepared while expecting a long timeline. This creates a high-opportunity segment: organizations that expect quantum value within 5 years but report low preparedness. They have urgency but lack capability—an ideal target for vendors offering accelerated readiness programs.



Q14: Adoption Challenges (Multi-select, n=274 engaged)

What challenges does your organization face in adopting quantum computing?

Challenge	Count	% of Engaged
Technology not mature enough	159	58.0%
High costs of implementation	116	42.3%
Unclear business value/ROI	109	39.8%
Lack of skilled workforce	101	36.9%
Limited access to quantum hardware	82	29.9%
Immature algorithms for problem domains	75	27.4%
Competing budget priorities	61	22.3%
Lack of proven results from pilots	53	19.3%
Integration difficulty with classical systems	31	11.3%
Lack of executive buy-in	25	9.1%
Regulatory uncertainty	19	6.9%
Security/data privacy concerns	12	4.4%

Technology maturity (58%) and cost (42%) lead adoption challenges. Notably, talent shortage (37%) ranks fourth, highlighting workforce development needs.

The Talent Constraint: Innovation's Binding Limit

The prominence of "Lack of skilled workforce or expertise" (37%) as an adoption challenge—ranking higher than limited hardware access (30%) or immature algorithms (27%)—warrants dedicated analysis. This is not a generic skills shortage; it reflects a specific deficit in highly specialized roles.

The QEC Talent Gap

The industry's pivot to fault tolerance has created acute demand for engineers who understand QEC codes, decoders, and fault-tolerant architecture. Survey respondents in Q24 overwhelmingly cited error correction advances (33% of mentions) as the year's most impactful development—yet organizations cannot staff teams to implement these advances.

External estimates suggest the global pool of QEC specialists numbers fewer than 2,500 individuals, with a 3:1 ratio of open quantum positions to qualified candidates. The PhD pipeline for quantum physics requires 5-7 years, meaning this bottleneck will persist through at least 2030.

The Organizational Implications

- **The 20% citing "Support and professional services" as a selection criterion (Q20) reflects talent scarcity.** Organizations cannot build internal teams and must rely on vendor expertise.
- **The academic sector paradox:** Academia represents 48% of respondents (Q4), yet academic institutions themselves cite workforce shortage as a challenge. Universities appear to struggle to retain the talent they produce, losing them to well-funded private sector players or national laboratories.
- **Talent scarcity compounds sovereignty concerns.** Nations compete for the same small pool of global specialists, often using visa policies and grants to attract researchers—creating friction with sovereignty mandates.

Statistical confirmation: Academia cites "Lack of skilled workforce" at significantly higher rates than technology providers ($\chi^2=24.1$, $\varphi=0.29$, $p=0.022$). This validates the "academic talent paradox"—universities produce quantum talent but cannot retain them against well-funded private sector competition. The very institutions training the next generation of QEC engineers are losing them before they can contribute to academic research programs.

The implication for enterprise adopters: investment in workforce development may yield higher returns than investment in hardware access. The organization that trains QEC engineers today may outpace competitors regardless of which hardware platform ultimately dominates.

Challenge Evolution: How Barriers Shift with Maturity

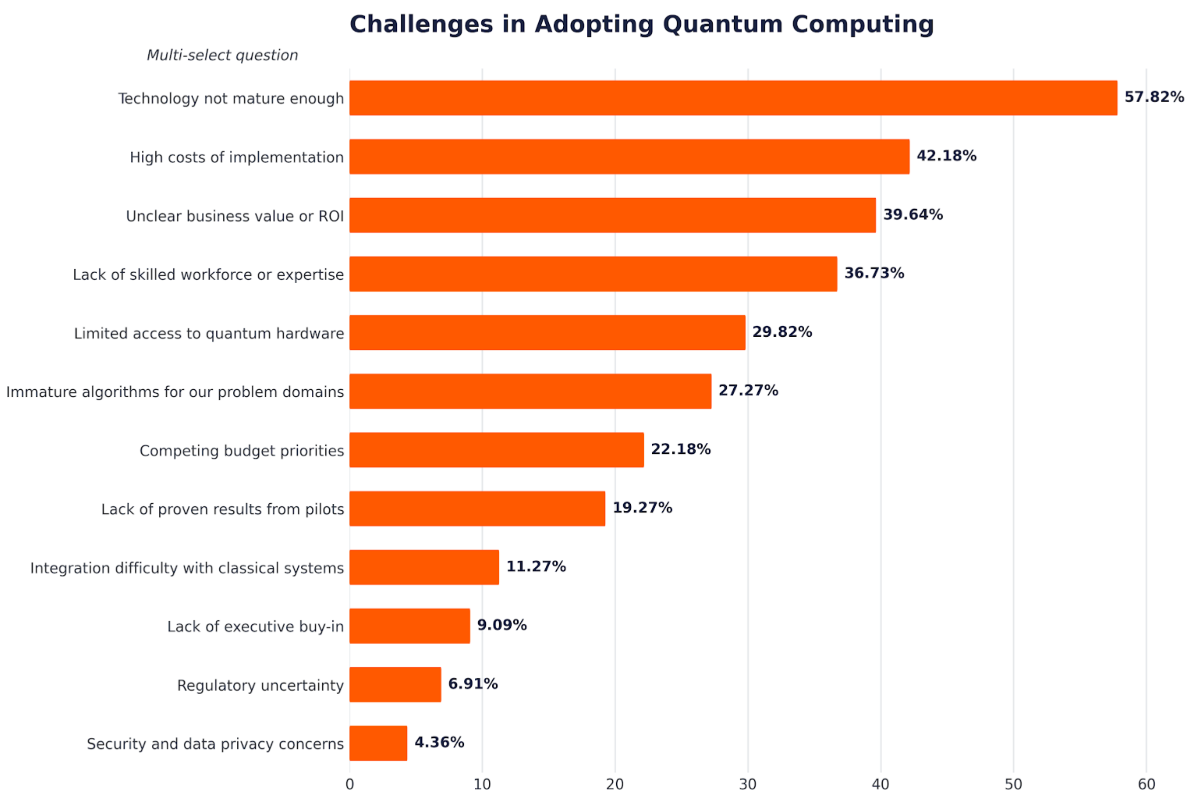
Statistical analysis reveals that adoption challenges are not static—they evolve as organizations mature. Comparing early-stage organizations (no plans + exploring, n=118) with advanced-stage organizations (PoC + evaluation + production + scaling, n=157):

Challenge	Early Stage	Advanced Stage	Δ
Unclear ROI	49.2%	32.5%	-16.7pp**
Workforce Gaps	43.2%	31.8%	-11.4pp*
Technology Immaturity	59.3%	56.7%	-2.6%
Cost Concerns	45.8%	39.5%	-6.3%
Integration Challenges	22.0%	31.2%	+9.2pp**
Hardware Access	28.0%	31.2%	+3.2%

*p<0.05, **p<0.01 (chi-square test)

The statistically significant decrease in ROI uncertainty (-16.7pp, p=0.001) and workforce concerns (-11.4pp, p=0.017) suggests these barriers resolve through experience. Conversely, integration challenges *increase* (+9.2pp) as organizations move from theory to implementation—practical friction emerges later in the adoption journey.

Implication: Technology providers should segment messaging by maturity stage. Early-stage organizations need ROI frameworks and talent access; advanced organizations need integration support and hybrid classical-quantum tooling.

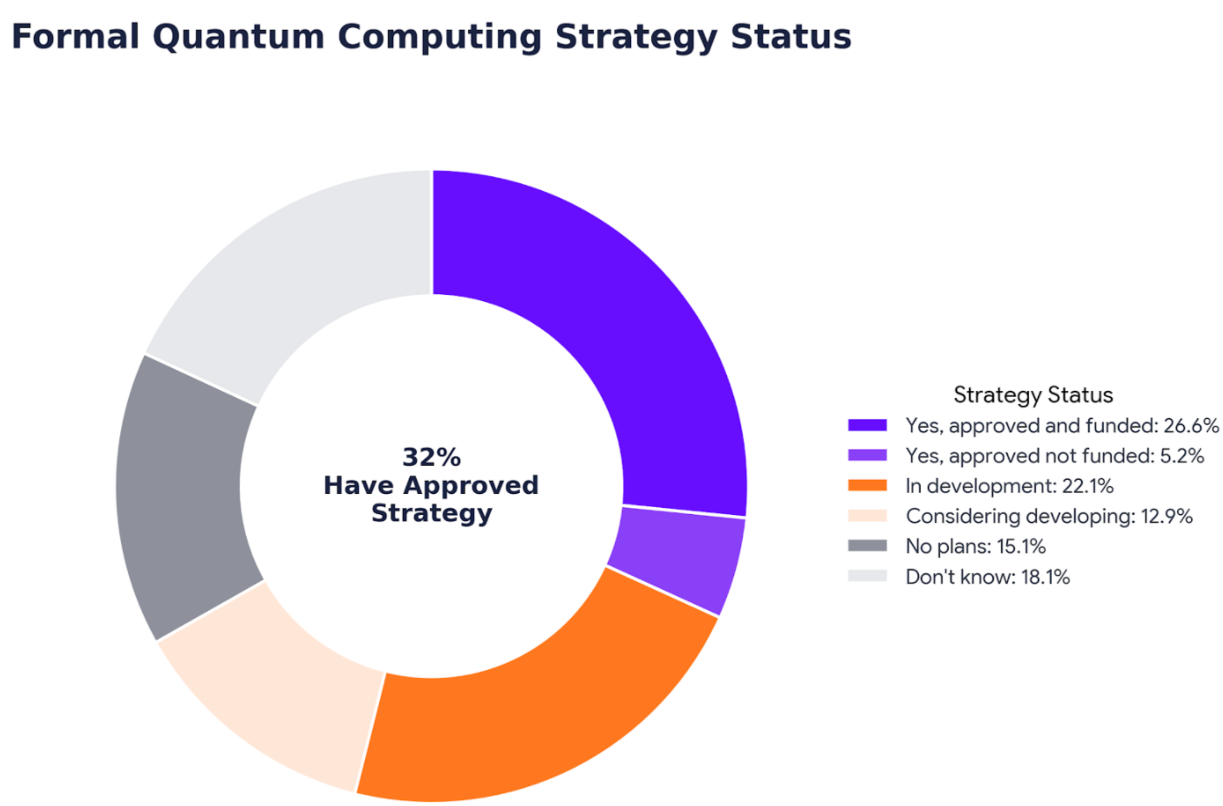


Q15: Quantum Computing Strategy

Does your organization have a formal quantum computing strategy or roadmap?

Strategy Status	Count	Percentage
Yes - approved and funded	72	26.6%
Yes - approved, not yet funded	14	5.2%
In development	60	22.1%
No - but considering	35	12.9%
No - and no plans	41	15.1%
Don't know	49	18.1%

54% have or are developing a formal quantum strategy. Organization size correlates significantly with strategy presence (V=0.17, p=0.03): larger organizations more likely to have formal roadmaps.



Q16: 2026 Budget Expectations

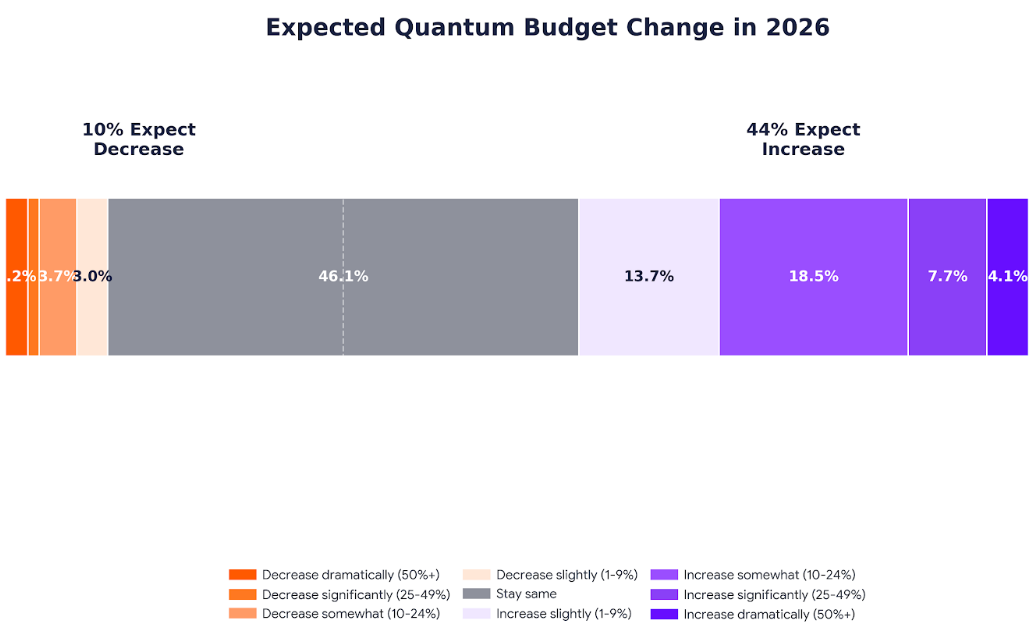
How do you expect your organization's quantum computing budget to change in 2026 compared to 2025?

Budget Direction	Count	Percentage
Increase dramatically (>50%)	11	4.1%
Increase significantly (25-49%)	21	7.7%
Increase somewhat (10-24%)	50	18.5%
Increase slightly (1-9%)	37	13.7%
Stay about the same	125	46.1%
Decrease (any amount)	27	10.0%

44% expect budget increases in 2026, with only 10% anticipating decreases. The 46% expecting stability suggests a consolidation phase rather than expansion or contraction.

Null Finding: Budget and Timeline Are Decoupled

Contrary to intuition, there is no significant correlation between budget expectations (Q16) and timeline beliefs (Q8). Organizations spending more do not expect quantum advantage sooner; they are spending to *enable* it, acknowledging the long road ahead. This suggests budget decisions are driven by strategic positioning rather than short-term timing beliefs.



Q17: Primary Budget Driver for Increase

What is the primary driver for your quantum budget increase (if applicable)?

Driver	Count	Percentage
Government mandates/grant availability	75	28.2%
Competitive pressure/FOMO	43	16.2%
Successful internal pilot results	25	9.4%
Classical simulation limits	22	8.3%
Not applicable	101	38.0%

Government mandates/grants are the leading budget driver (28%), highlighting the continued importance of public funding in quantum ecosystem development.

Budget Signals: Consolidation, Not Contraction

The budget outlook reveals a market in consolidation rather than expansion:

- **46% flat + 10% decrease = 56% not growing.** This is a "hold" signal, not a "buy" signal. The FOMO-driven investment phase has ended.
- **Government as risk underwriter:** The 28% citing government mandates/grants as primary driver highlights that public funding remains essential. Private capital increasingly demands proof points that the technology cannot yet provide.
- **The 8% citing "classical simulation limits" as budget driver aligns with the 62% experiencing computational constraints (Q9).** These respondents have identified specific use cases where quantum value is demonstrable—they are the early commercial market.
- **Only 9% cite successful pilot results as driver.** This confirms the industry remains pre-commercial: pilots are producing learning, not revenue.

Budget Driver Evolution: From FOMO to Necessity

The correlation between maturity stage and budget driver (χ^2=33.5, V=0.32, p=0.018) reveals a telling pattern:

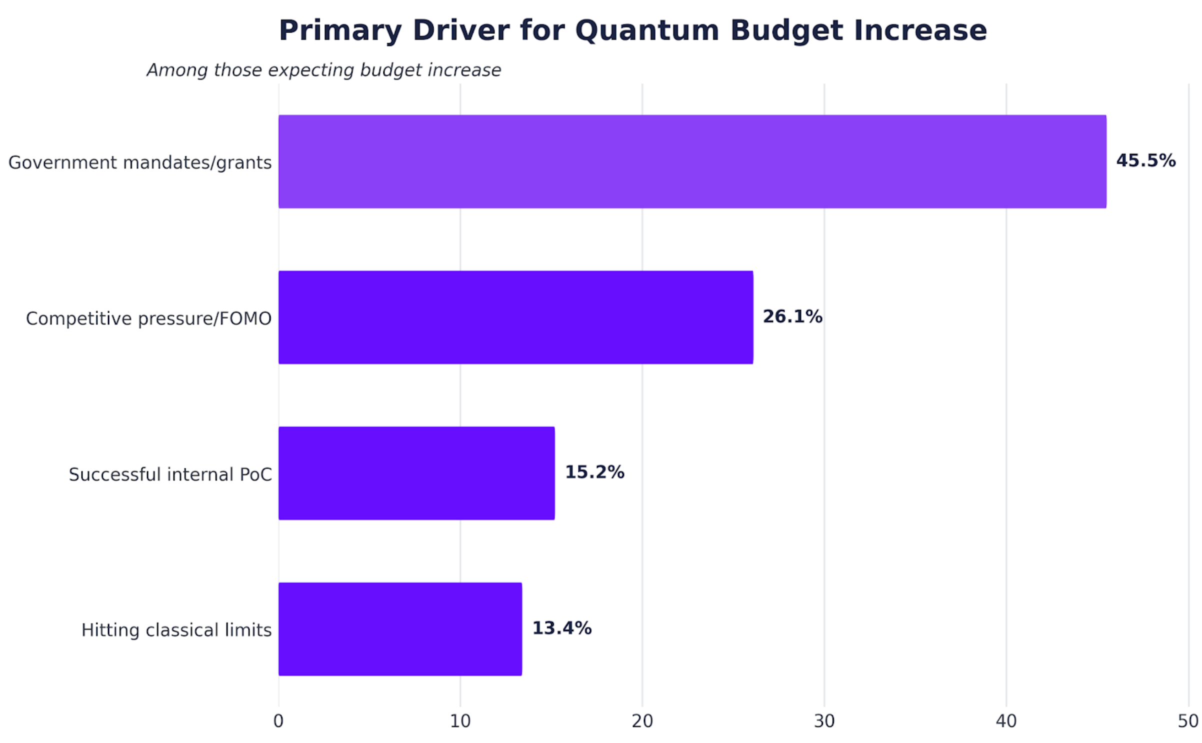
Maturity Stage	Primary Budget Driver
Exploring/No Plans	Competitive pressure/FOMO (26%)
PoC/Pilot	Government mandates/grants (34%)
Production/Scaling	Classical simulation limits (22%)

Early-stage organizations are still driven by fear of missing out. Advanced organizations cite hitting the "classical wall" as their driver—they have identified specific problems where quantum value is demonstrable. This evolution from FOMO to necessity represents the maturation of the market from hype-driven to problem-driven investment.

The "C-Suite Reality Check"

A notable correlation emerges between role level and budget expectations ($\rho=-0.29$, $p=0.002$): **senior executives are significantly *less* bullish on dramatic budget increases than junior researchers and individual contributors.** This "executive pessimism"—or more charitably, "executive realism"—suggests that those closest to capital allocation decisions are waiting for proof points before releasing the next tranche of investment. The pattern aligns with the 43% viewing commercialization as behind expectations (Q10) and reinforces that the FOMO-driven spending phase has ended.

For technology providers, this means sales cycles now run through procurement rigor, not executive enthusiasm. Business cases must demonstrate measurable returns, not theoretical potential.



Section 4: Technology Preferences

Q18: Most Promising Modality

Which quantum computing modality do you believe holds the most promise for practical, scalable applications?

Modality	Count	Percentage
Too early to determine	91	34.1%
Neutral Atoms	61	22.8%
Superconducting Qubits	40	15.0%
Trapped Ions	30	11.2%
Photonic Qubits	18	6.7%
Semiconductor/Silicon Spin	13	4.9%
Topological Qubits	8	3.0%
Other	6	2.2%

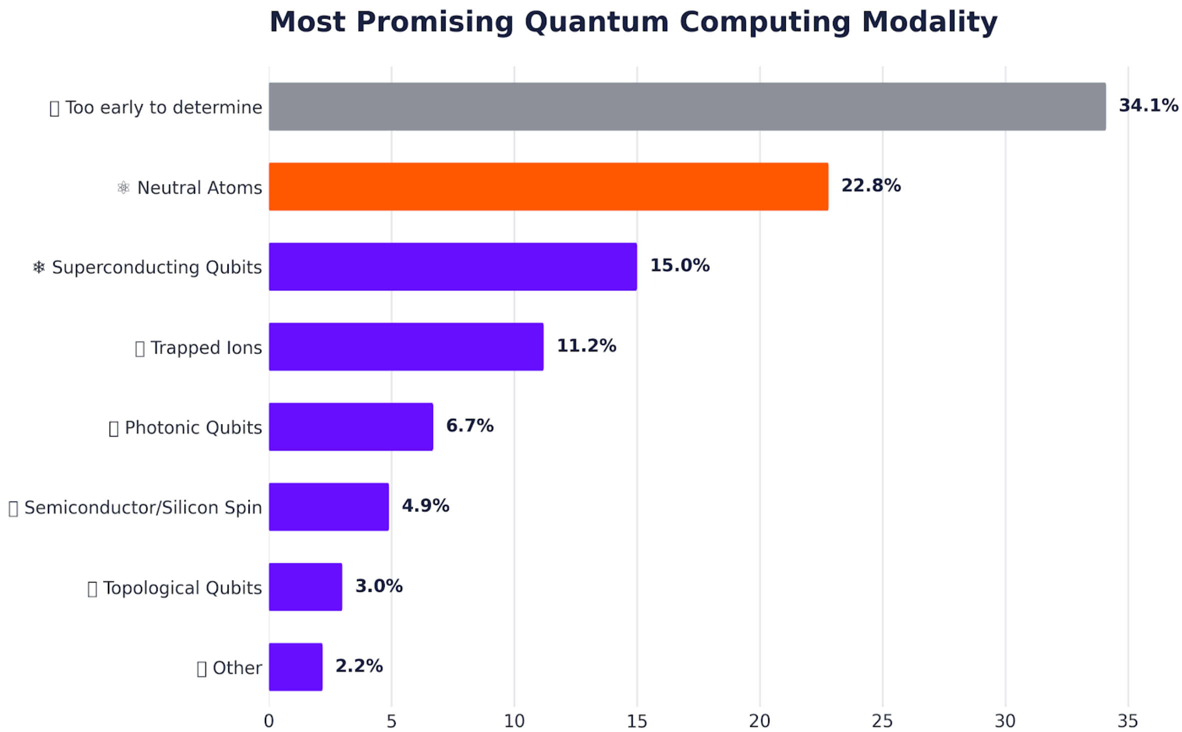
Among those with a modality preference, neutral atoms lead (23%), followed by superconducting (15%) and trapped ions (11%). The 34% 'too early' response reflects appropriate humility about technology maturation.

Year-over-Year Trend

Neutral atoms maintained their global lead from the 2025 survey, while superconducting qubits declined in relative preference. The most significant methodological change: the 2026 survey added "too early to determine" as an option, capturing 34% of responses. This suggests growing market sophistication—respondents increasingly resist premature technology bets as the architecture race remains genuinely contested.

Null Finding: "Modality Nationalism" Is Weak

Despite intuitive expectations that countries would favor domestic modality champions (e.g., France favoring neutral atoms due to a local neutral-atoms vendor), the country-modality association does not reach statistical significance after proper sparsity handling. Modality preferences appear driven more by technical assessment than national origin—a reassuring finding for the global market's rationality.



Most Promising Quantum Computing Modality
Too early to determine
34.1%
⚛ Neutral Atoms
22.8%
❄ Superconducting Qubits
15.0%
Trapped Ions
11.2%
Photonic Qubits
6.7%
Semiconductor/Silicon Spin
4.9%
Topological Qubits
3.0%
Other
2.2%
0
5
10
15
20
25
30
35

Q19: Quantum Error Correction Importance

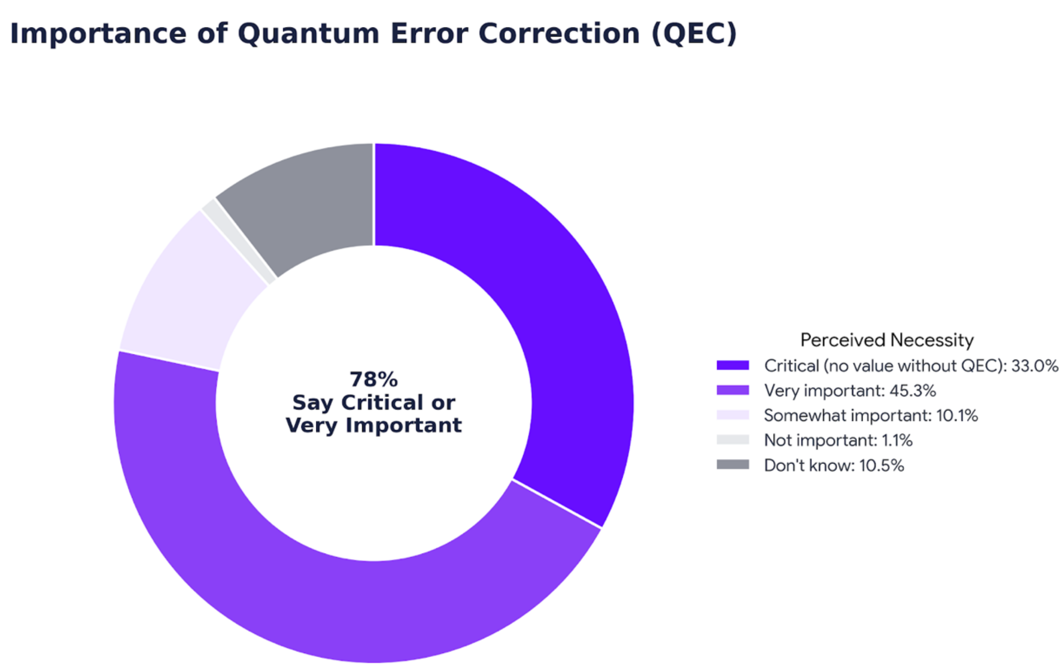
How important is quantum error correction (QEC) for achieving commercial value in your target applications?

Importance Level	Count	Percentage
Critical - no commercial value without QEC	88	33.0%
Very important	121	45.3%
Somewhat important	27	10.1%
Not important	3	1.1%
Don't know	28	10.5%

78% rate QEC as very important or critical for commercial value. This strong consensus aligns with recent industry focus on fault-tolerant quantum computing roadmaps.

Null Finding: QEC Beliefs Are Independent of Investment

Expected budget increases show no correlation with views on QEC importance ($\rho=0.01$, $p=0.86$). This suggests that QEC beliefs are driven by technical understanding—not investment commitment. Organizations understand that fault tolerance matters regardless of whether they are currently investing heavily. The consensus on QEC's importance (78%) transcends budget categories.



Q20: Selection Criteria (Multi-select, n=267 engaged)

When selecting quantum technology for your organization, which criteria are most important?

Criterion	Count	% of Engaged
Cost-effectiveness	133	49.8%
Clear roadmap to fault tolerance	120	44.9%
Access to most advanced technology	102	38.2%
Cloud availability	69	25.8%
Compatibility with existing infrastructure	65	24.3%
Support and professional services	53	19.9%
On-premises deployment option	36	13.5%
Flexibility across multiple vendors	32	12.0%
Provider based in our country/region	25	9.4%

Cost-effectiveness leads (50%), followed by fault-tolerance roadmap (45%) and advanced technology access (38%). Regional provider preference ranks lowest (9%), suggesting technology quality outweighs sovereignty concerns in selection.

The Fault Tolerance Imperative

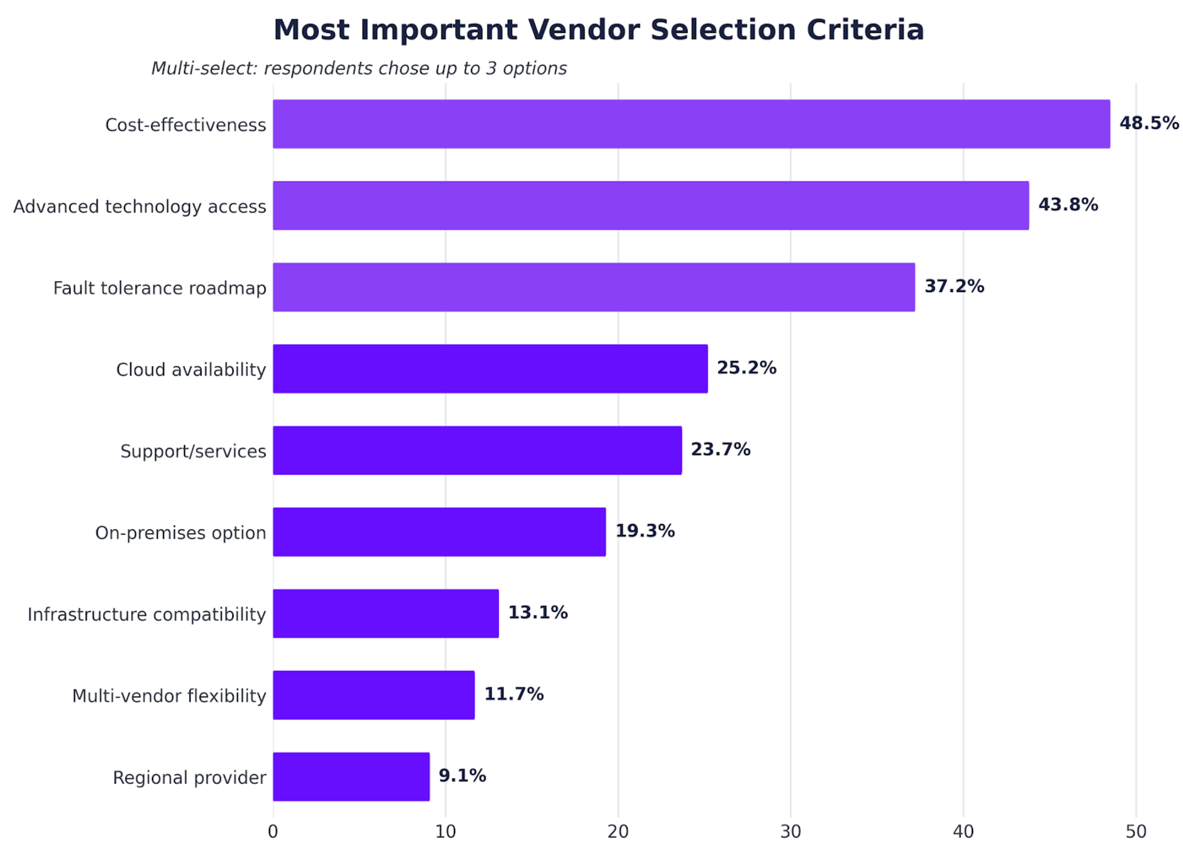
The convergence of Q19 data (78% view QEC as critical/very important) and Q24 qualitative responses (33% cited error correction as the year's top development) demands dedicated analysis. The industry has reached consensus: fault tolerance is the gate to commercial value.

The End of the "If" Debate

The survey data is unequivocal:

- **78% rate QEC as "Critical" or "Very Important"** for achieving commercial value
- **Only 1.1% believe useful results are possible without QEC**
- **45% cite "Clear roadmap to fault tolerance" as a top selection criterion** (Q20)—second only to cost-effectiveness

This represents a sophistication of the buyer. Organizations now understand that a system with 1,000 noisy qubits is less valuable than a system with 50 perfect, error-corrected logical qubits. The transition from physical to logical qubits as the relevant metric is underway.



Breakthrough Validation from Open Responses (Q24)

The qualitative responses reinforce this quantitative finding. Among 137 substantive responses:

Theme	Count	% of Responses
Error Correction / QEC / Logical Qubits	45	32.8%
Google Willow	16	11.7%
Algorithms / Software Development	15	10.9%
Neutral Atoms	11	8.0%

The respondents are paying attention to specific technical milestones—not marketing claims.

The Algorithm-Hardware Co-Design Imperative

The 27% citing "Immature algorithms for problem domains" (Q14) as a challenge must be read alongside the QEC consensus. Error correction is necessary but not sufficient; algorithms must be designed for fault-tolerant architectures.

Recent demonstrations (e.g., Google's Quantum Echoes) show that algorithms designed specifically for a hardware's error-mitigation capabilities can yield massive speedups. This "co-design" approach—tailoring algorithms to specific error profiles—requires workforce that understands both device physics and problem mathematics, contributing to the talent shortage.

Implications for Technology Selection

The 45% prioritizing "Clear roadmap to fault tolerance" (Q20) signals that vendor evaluation now centers on:

- **Logical qubit count projections**, not physical qubit counts
- **Below-threshold demonstrations** proving that error rates decrease with scale
- **Decoder architecture** enabling real-time error correction
- **Timeline credibility** for fault-tolerant milestones

Vendors without credible fault-tolerance roadmaps face commoditization pressure on NISQ-era systems.

Modality and QEC: Technical Alignment

An unexpected correlation emerges between modality preference and QEC importance ratings ($\chi^2=29.4$, $V=0.28$, $p=0.015$): **respondents favoring neutral atoms rate QEC importance significantly higher than those favoring annealers or silicon spin qubits.**

This may reflect technical reality: neutral-atom architectures have demonstrated particular promise for error correction (e.g., Harvard/QuEra logical qubit demonstrations), attracting respondents who already prioritize fault tolerance. Alternatively, neutral-atom advocates may be more technically sophisticated and therefore more aware of QEC's necessity.

Either interpretation reinforces that the neutral-atom constituency is aligned with the fault-tolerance imperative—a strategic advantage for vendors in this modality.

Delivery Model and Timeline Beliefs

Respondents who prioritize "Cloud availability" in selection criteria (Q20) expect significantly earlier quantum advantage timelines ($\chi^2=18.48$, $V=0.268$, $p<0.001$). This "delivery model optimism" segment believes that accessible cloud deployment—rather than hardware breakthroughs—is the key enabler.

The implication: cloud-first vendors may attract customers with more aggressive adoption timelines, while on-premises providers appeal to those with longer planning horizons (often driven by sovereignty or security requirements). Timeline expectations are not just technical assessments—they reflect delivery model assumptions.

Section 5: Market Outlook & Sourcing & Sovereignty

The fragmentation of the global quantum supply chain is the defining market reality of 2026. What follows examines how organizations are navigating procurement in an environment where technical capability must be weighed against geopolitical considerations.

Q21: Sourcing Approach

How does your organization approach sourcing quantum technology?

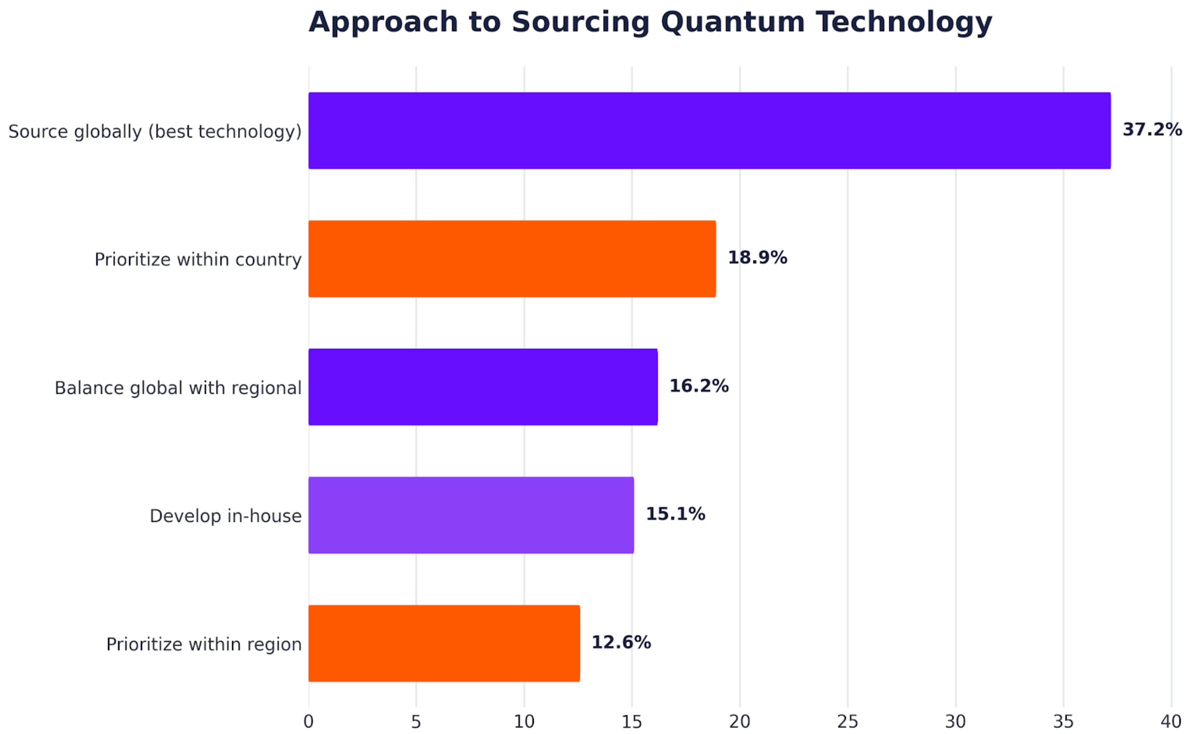
Approach	Count	Percentage
Source globally based on best technology	71	26.8%
Prioritize providers within our country	36	13.6%
Balance global access with regional preferences	31	11.7%
Primarily develop in-house	29	10.9%
Prioritize providers within our region	24	9.1%
Don't know/Not applicable	74	27.9%

Strategy Maturity and Sourcing Posture

Organizations with formal, funded quantum strategies source differently than those without ($V=0.299$, $p=0.001$):

Strategy Status	"Source Globally"	"Develop In-House"	"Balance"
Funded roadmap	38.9%	19.4%	8.3%
In progress	21.7%	8.3%	16.7%
No roadmap	18.9%	5.4%	13.5%

Organizations with funded roadmaps over-index on both extremes: global best-technology sourcing *and* in-house development. This reflects capability and commitment—these organizations have the resources to either buy the best or build their own. Organizations without roadmaps cluster in "balancing" behavior, hedging their bets while remaining uncommitted.


Approach to Sourcing Quantum Technology
Source globally (best technology)
37.2%
Prioritize within country
18.9%
Balance global with regional
16.2%
Develop in-house
15.1%
Prioritize within region
12.6%
0
5
10
15
20
25
30
35
40

Q22: Digital Sovereignty Importance

How important is digital or technological sovereignty when selecting quantum technology?

Position	Count	Percentage
Balance sovereignty with technology quality	122	46.0%
No strong preference	51	19.2%
Strongly prioritize sovereignty	42	15.8%
Prioritize best technology regardless of location	37	14.0%
Sovereignty is not a factor	13	4.9%

The dominant position (46%) is balancing sovereignty with technology quality. Only 16% strongly prioritize sovereignty. However, the 46% "balancing" represents active navigation of competing priorities—not indifference. Combined with the 16% who strongly prioritize sovereignty, **62% of respondents actively factor sovereignty into procurement decisions.**

The Death of the Purely Global Market

The 4.9% for whom "Sovereignty is not a factor" is strikingly low. This statistic effectively signals the end of the purely globalized market model that characterized the industry's early years. Organizations are essentially hedging: maintaining access to leading global technology for R&D while cultivating domestic or allied alternatives for sensitive workloads.

Regional Sourcing Patterns

Approach	% of Respondents	Strategic Implication
Source globally (best technology)	26.8%	Performance-first, typically U.S.-based orgs
Prioritize in-country providers	13.6%	Strong sovereignty mandate
Balance global/regional	11.7%	Hedging strategy
Prioritize regional providers	9.1%	EU-style sovereignty focus
Develop in-house	10.9%	Capability building, often defense/national labs

Sovereignty and Security Linkage

The sovereignty preference (Q22) connects directly to the 17% conducting cryptography/security research (Q12). Organizations concerned about post-quantum cryptography threats recognize that relying on a foreign adversary's hardware—or even a neutral third party's cloud—for sensitive computations creates unacceptable risk. This drives the 14% prioritizing "On-premises deployment options" (Q20).

The "Harvest Now, Decrypt Later" threat—adversaries collecting encrypted data today for future quantum decryption—is accelerating PQC migration timelines. NIST's finalization of post-quantum cryptography standards (ML-KEM/Kyber, ML-DSA/Dilithium) creates compliance pressure that intersects with quantum computing procurement decisions.

Regional Sovereignty Divergence: Statistical Confirmation

The strongest categorical correlation in the dataset confirms the regional sovereignty divide ($\chi^2=48.2$, $V=0.41$, $p<0.001$):

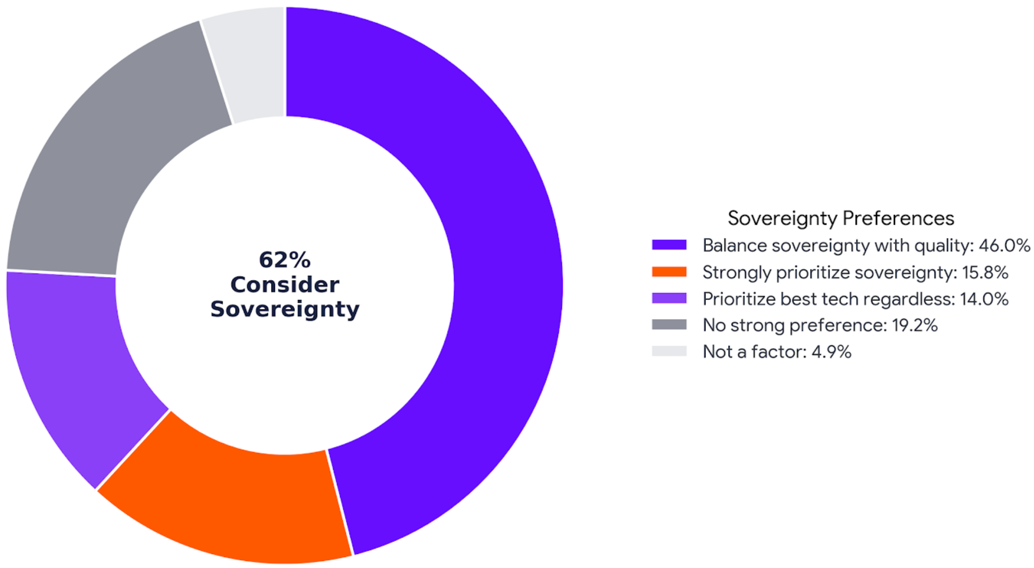
Region	"Source Globally (Best Tech)"	"Strongly Prioritize Sovereignty"
United States	34.7%	8.4%
European Union	17.1%	24.4%
Japan	22.7%	13.6%

The effect size (Cramér's V=0.41) indicates a strong association—regional origin is a primary determinant of sovereignty posture. US respondents favor performance-first sourcing; EU respondents prioritize technological autonomy even at capability cost.

Statistical analysis confirms that security-focused respondents (those doing cryptography/security research in Q12) are not significantly more likely to prioritize sovereignty (Q22). Sovereignty appears driven by supply chain resilience and policy compliance rather than direct security concerns—explaining why it operates as a procurement filter across all sectors, not just security-sensitive ones.

Strategic Implication: A single global go-to-market strategy will systematically underperform. Regional teams must lead with different value propositions: capability leadership in North America; sovereignty credentials and data residency guarantees in Europe.

Importance of Digital Sovereignty in Quantum Selection



Q23: Expected Commercialization Driver Segment

Which customer segment is most likely to drive quantum computing commercialization in the next 3 years

Segment	Count	Percentage
Government and defense	64	24.2%
Large enterprises (Fortune 500/Global 2000)	52	19.6%
Pharmaceutical and life sciences	28	10.6%
Research institutions moving to commercial	23	8.7%
Startups and scale-ups	23	8.7%
Technology companies and cloud providers	21	7.9%
Energy and materials	21	7.9%
No segment ready for commercial adoption	20	7.5%
Financial services	13	4.9%

Government/defense leads expected commercialization (24%), followed by large enterprises (20%) and pharma/life sciences (11%). Financial services ranks lower than often assumed (5%).

Sector Analysis: Where Commercial Traction Emerges

The sector distribution reveals where real money will flow:

Government/Defense (24%) - The Anchor Tenant

Defense applications—logistics optimization, signals intelligence, cryptanalysis—are less sensitive to immediate ROI than commercial applications. Government can afford to invest in capability development before commercial viability is proven. The 28% citing government mandates/grants as budget driver (Q17) confirms that public funding underwrites ecosystem risk.

Large Enterprises (20%) - The Long Game

Within this cohort, the survey data points to Pharma/Life Sciences (11%) and Energy/Materials (8%) as the likely first movers. These sectors face the "classical wall" most acutely—molecular simulation and materials design are quantum-native problems.

Finance (5%) - The Trough of Disillusionment

The last-place ranking contradicts early hype that promised quantum speedups for portfolio optimization and arbitrage. The reality:

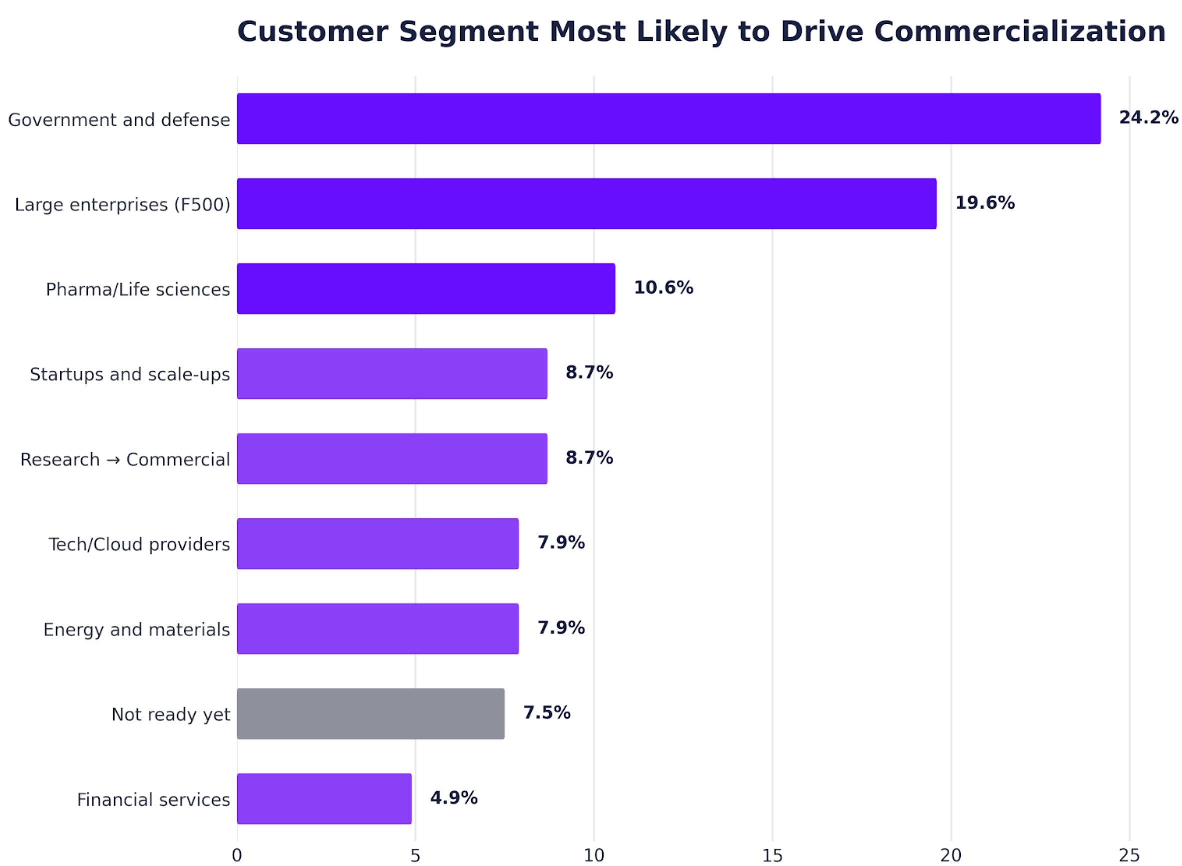
- Financial problems require massive data loading (I/O bottlenecks)
- Quadratic speedups from algorithms like Grover's are insufficient to justify cost versus classical heuristics
- The sector appears to be waiting for full fault tolerance before re-engaging

Technology/Cloud (8%) - Infrastructure Plays

This segment likely represents vendors and infrastructure providers rather than end-user commercial applications.

The "Not Ready" Signal

The 8% selecting "No segment ready for commercial adoption" deserves attention. This cohort—combined with the 43% viewing commercialization as behind expectations (Q10)—represents informed skepticism that should temper investment enthusiasm.



Section 6: Breakthrough Developments (Q24 Open-Ended Analysis)

Respondents were asked: 'What single development in the past year do you believe will have the greatest impact on the trajectory of quantum computing?' 137 substantive responses were analyzed.

The open-ended responses provide qualitative texture that validates and extends the quantitative findings. Respondents were not prompted with categories—they identified breakthroughs organically, making the convergence of themes particularly meaningful.

Thematic Analysis

Theme	Count	% of Responses
Error Correction / QEC / Logical Qubits	45	32.8%
Google Willow	16	11.7%
Algorithms / Software Development	15	10.9%
Neutral Atoms	11	8.0%
Trapped Ions	6	4.4%
Hardware Scaling / Qubit Count	5	3.6%
Photonics	3	2.2%

Interpretation: The Fault Tolerance Consensus

The dominance of Error Correction/QEC/Logical Qubits (33%) confirms the Q19 quantitative finding—the market has pivoted decisively toward fault tolerance as the enabling capability for commercial value.

The specific mentions are notable:

- **Google Willow (12%):** "Below threshold" demonstration proving error rates decrease with scale
- **Neutral Atoms (8%):** Continuous loading and dynamic reconfiguration enabling sustained operation

These are engineering milestones, not theoretical advances. The market is tracking implementation progress.

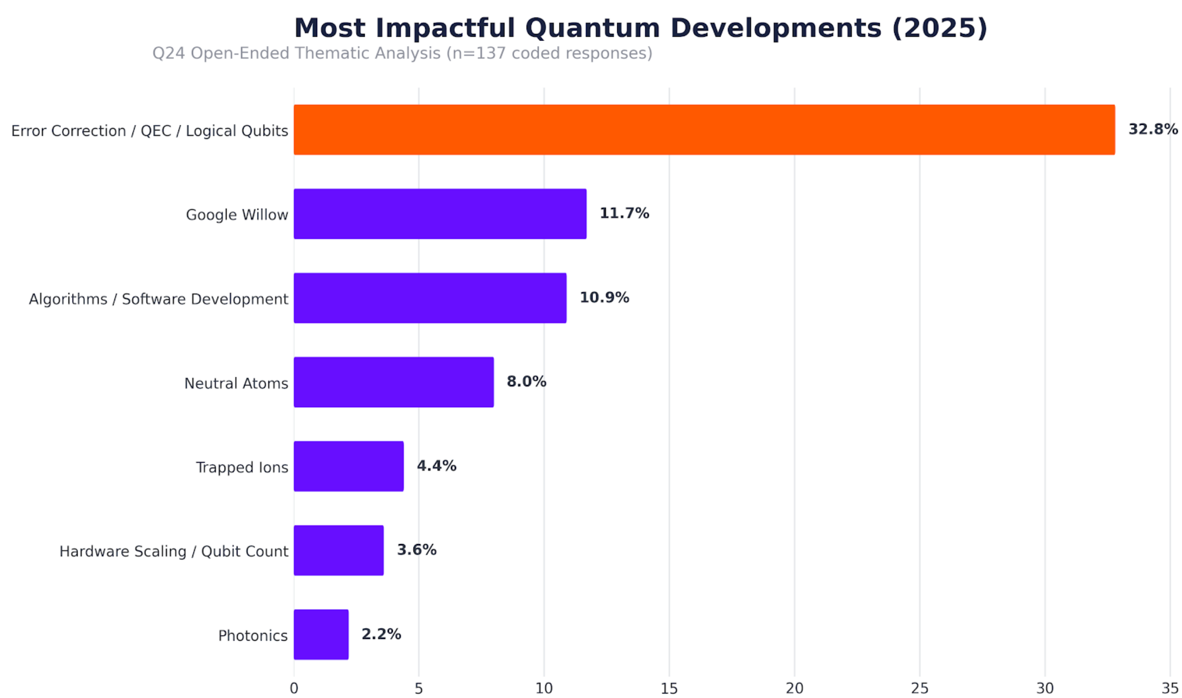
What's Not Mentioned

Equally revealing: raw qubit count increases are barely mentioned (4%). The era of "qubit count as progress metric" appears to be ending. Respondents care about *quality* (error rates, logical operations) over *quantity* (physical qubit numbers).

Representative quotes:

- 'The breakthroughs in QEC (i.e. error reduction)' - highlighting below-threshold demonstrations
- 'Google's demonstration of verifiable quantum advantage using its Willow 105-qubit processor'
- 'Fault-tolerance experiment by Lukin group (Nature volume 649, pages 39-46, 2026)'

Error correction dominates the discourse (33% of responses), reflecting the industry's pivot toward fault-tolerant architectures as the key enabler of commercial quantum computing.



Section 7: Country Profiles

Analysis of countries with n≥9 respondents reveals significant variation in confidence levels and technology preferences. The country-level variation reflects not just sentiment but strategic positioning. These differences have implications for technology providers entering regional markets and for policymakers assessing competitive positioning.

Global Baselines

- Q6 Country Well Positioned: 64.4%
- Q7 Country Ahead: 62.6%
- Q8 Superiority <5 years: 42.8%
- Q13 Org Very Prepared: 24.7%

Country Comparison

Country	n	Q6 Positioned	Q7 Ahead	Q13 Prepared	Top Modality
United States	95	82.1% (+18)	89.5% (+27)	30.7%	Too early
European Union	82	50.6% (-14)	48.1% (-15)	21.2%	Too early
Japan	22	50.0% (-14)	45.5% (-17)	10.0%	Too early
United Kingdom	17	88.2% (+24)	82.4% (+20)	33.3%	Superconducting
South Korea	11	40.0% (-24)	30.0% (-33)	20.0%	Too early
Canada	9	88.9% (+25)	77.8% (+15)	66.7%	Superconducting
India	9	55.6% (-9)	66.7% (+4)	44.4%	Neutral Atoms
Israel	9	55.6% (-9)	44.4% (-18)	12.5%	Too early

Key Regional Insights

The Anglo-American Confidence Cluster

US (82%), UK (88%), and Canada (89%) show positioning confidence significantly above the global baseline (64%). This cluster shares:

- Deep integration with U.S. technology ecosystem
- Established defense/intelligence quantum programs
- Strong academic-industry pipelines

The strategic implication: these markets prioritize "best technology globally" sourcing and are less sensitive to sovereignty constraints.

European Caution

EU respondents show notably lower confidence (51% positioned, 48% ahead) versus the global baseline. This likely reflects:

- Fragmented national programs without unified industrial policy
- Dependency concerns about U.S. and Asian supply chains
- Higher sensitivity to sovereignty considerations

The strategic implication: European market entry requires sovereignty-conscious positioning, regional partnerships, and likely on-premises deployment options.

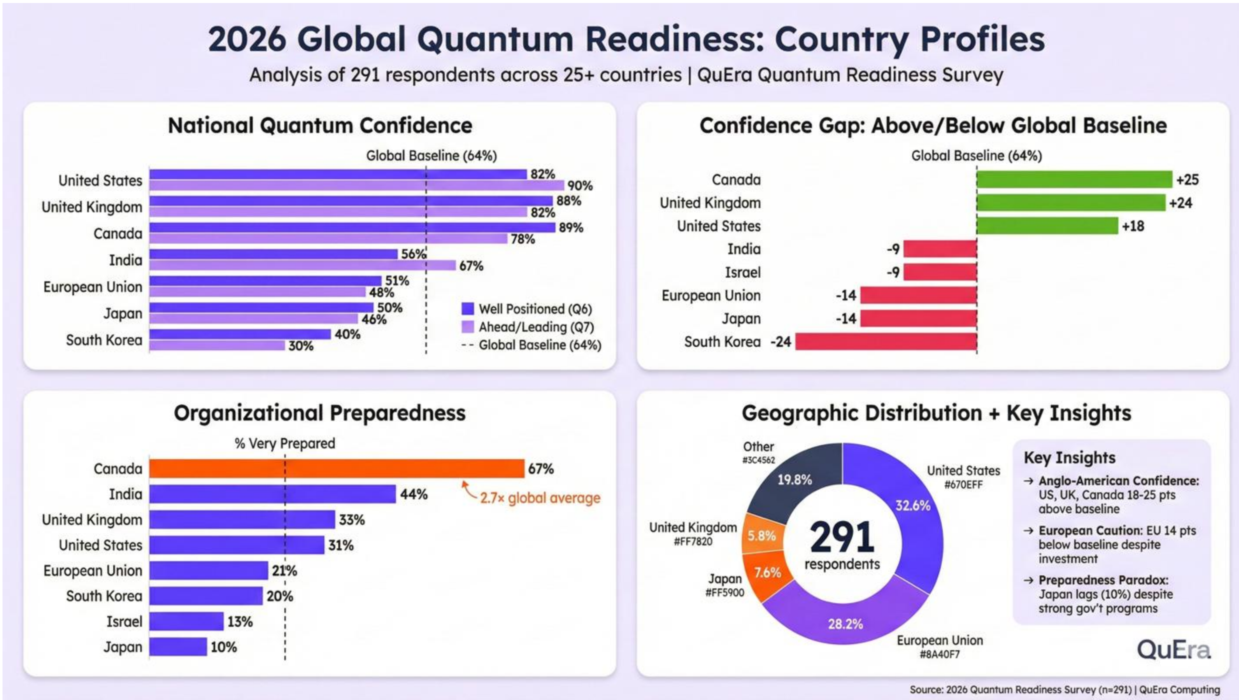
Asian Divergence

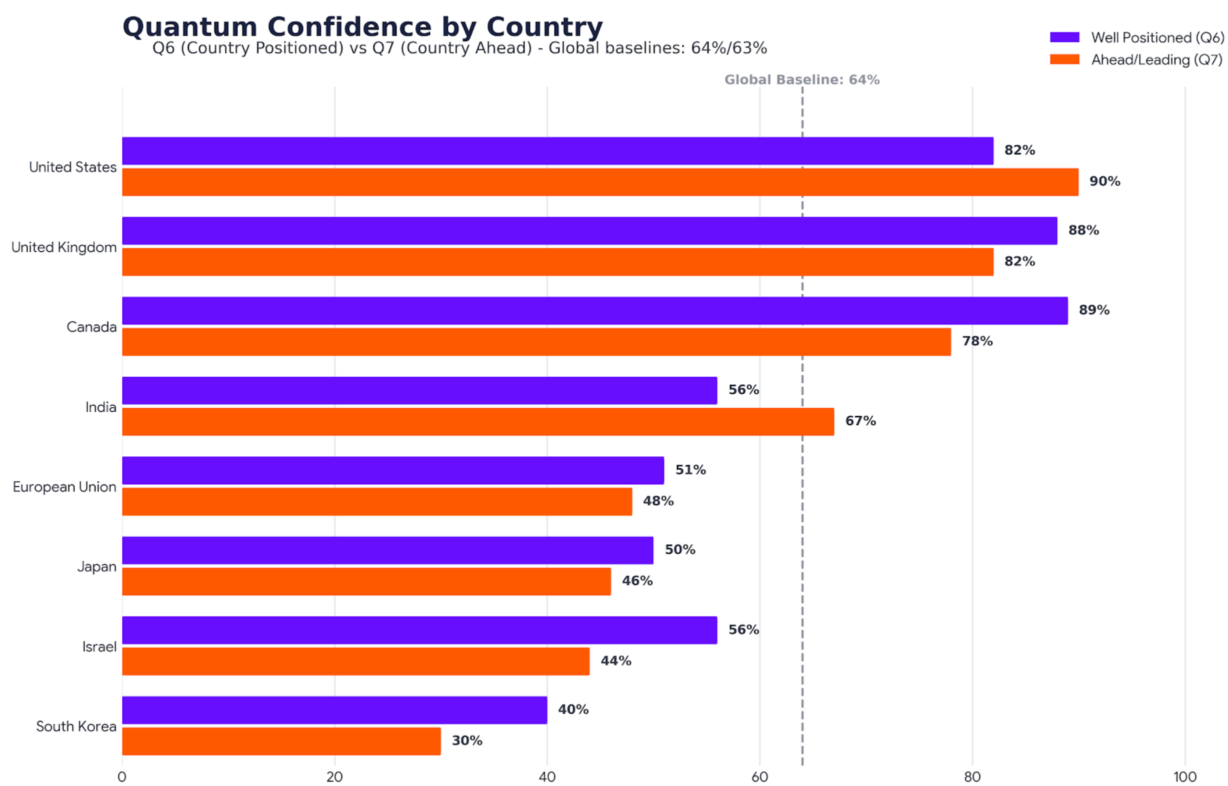
The Asian market presents three distinct profiles:

- **Japan (50% positioned, 10% prepared):** Conservative posture despite significant government investment. The low preparedness (10% vs 25% global) suggests organizational inertia in large conglomerates. Strong focus on simulation use cases aligns with manufacturing/materials strength.
- **South Korea (40% positioned, 30% behind):** Late-mover anxiety driving aggressive catch-up investment. Attempting to leapfrog NISQ era with direct fault-tolerant technology investment.
- **India (56% positioned, 78% expect <5 years):** Most optimistic timelines in the survey. Uniquely favors neutral atoms. Leveraging software engineering talent for application-layer focus. "Cost-effectiveness" is overwhelmingly top criterion—positioning as potential software back-office of quantum economy.

The Preparedness Gap

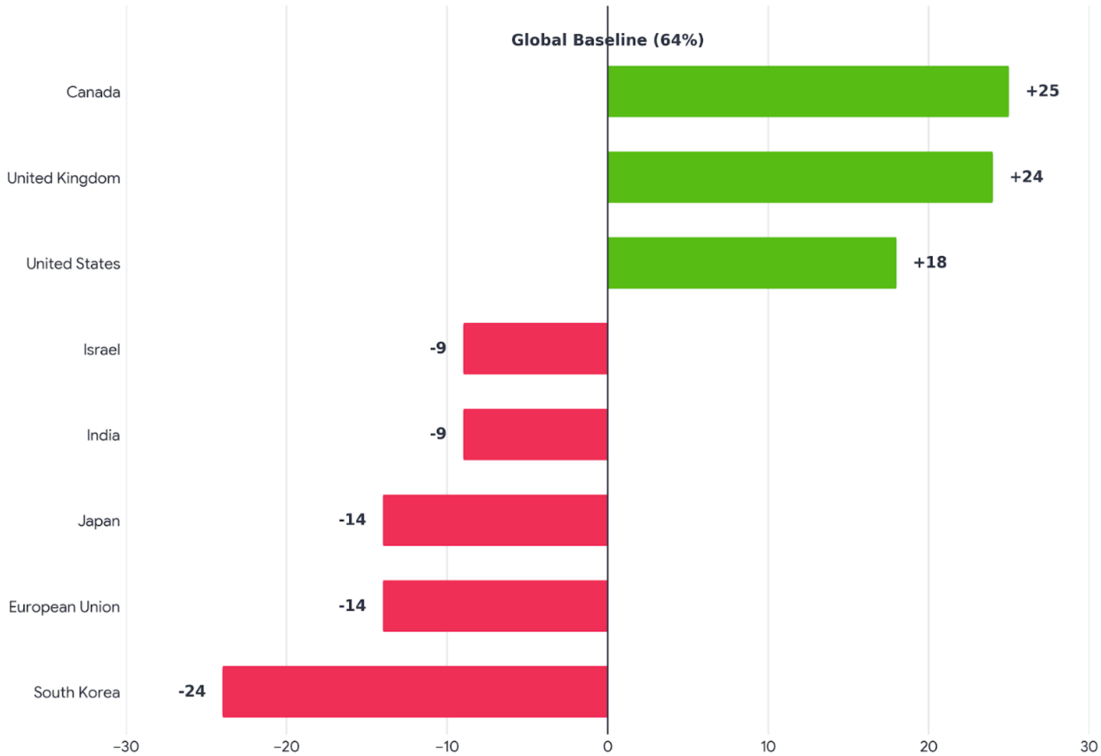
Canada leads organizational preparedness (67%); Japan lags (10%). This divergence despite similar government investment levels suggests that cultural/organizational factors—not just funding—determine readiness. Large incumbent organizations (common in Japan) may face adoption barriers that startups (more prevalent in Canada's quantum ecosystem) avoid.


2026 Global Quantum Readiness: Country Profiles
Analysis of 291 respondents across 25+ countries | QuEra Quantum Readiness Survey
National Quantum Confidence
Global Baseline (64%)
United States 82% 90%
United Kingdom 88% 82%
Canada 89% 78%
India 56% 67%
European Union 51% 48%
Japan 50% 46%
South Korea 40% 30%
Well Positioned (Q6)
Ahead/Leading (Q7)
Global Baseline (64%)
Confidence Gap: Above/Below Global Baseline
Global Baseline (64%)
Canada +25
United Kingdom +24
United States +18
India -9
Israel -9
European Union -14
Japan -14
South Korea -24
Organizational Preparedness
% Very Prepared
Canada 67%
India 44%
2.7x global average
United Kingdom 33%
United States 31%
European Union 21%
South Korea 20%
Israel 13%
Japan 10%
Geographic Distribution + Key Insights
Other #3C4562 19.8%
United States #670EFF 32.6%
United Kingdom #FF7820 5.8%
Japan #FF5900 7.6%
European Union #8A40F7 28.2%
291 respondents
Key Insights
→ Anglo-American Confidence: US, UK, Canada 18-25 pts above baseline
→ European Caution: EU 14 pts below baseline despite investment
→ Preparedness Paradox: Japan lags (10%) despite strong gov't programs
QuEra
Source: 2026 Quantum Readiness Survey (n=291) | QuEra Computing


Quantum Confidence by Country
Q6 (Country Positioned) vs Q7 (Country Ahead) - Global baselines: 64%/63%
Well Positioned (Q6)
Ahead/Leading (Q7)
Global Baseline: 64%
United States 82% 90%
United Kingdom 88% 82%
Canada 89% 78%
India 56% 67%
European Union 51% 48%
Japan 50% 46%
Israel 56% 44%
South Korea 40% 30%
0 20 40 60 80 100

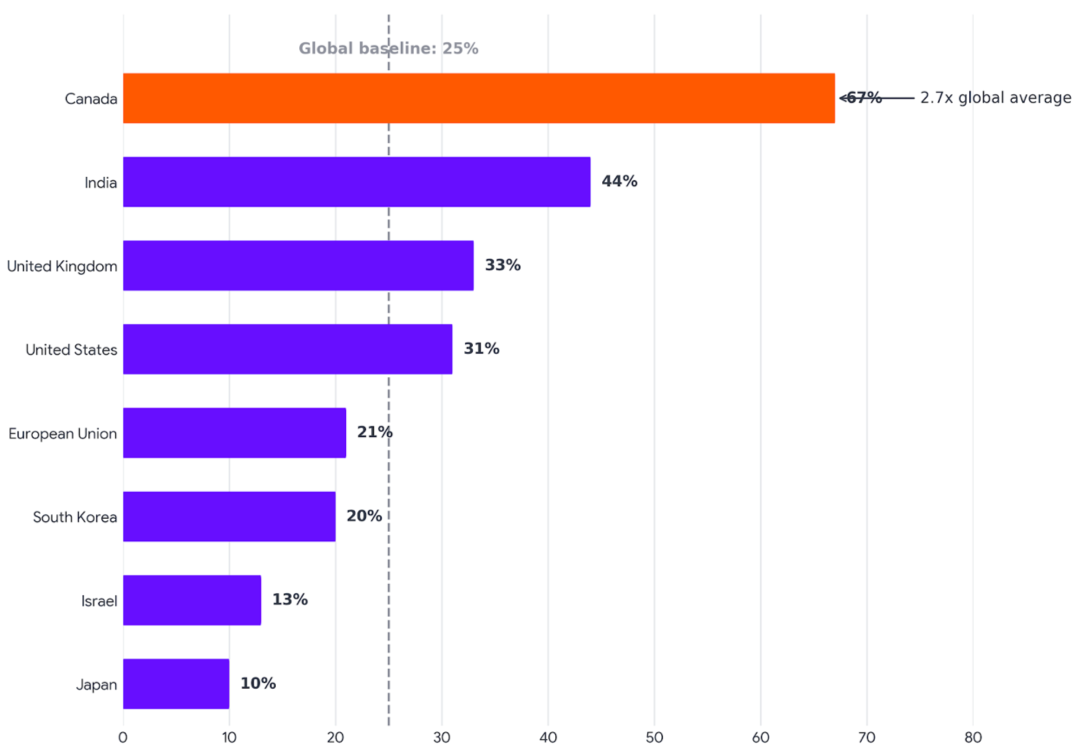
Country Confidence vs Global Baseline

Deviation from 64% (Q6 Well Positioned)



Organizational Preparedness by Country

Q13: % reporting 'Very Prepared' (Global baseline: 25%)

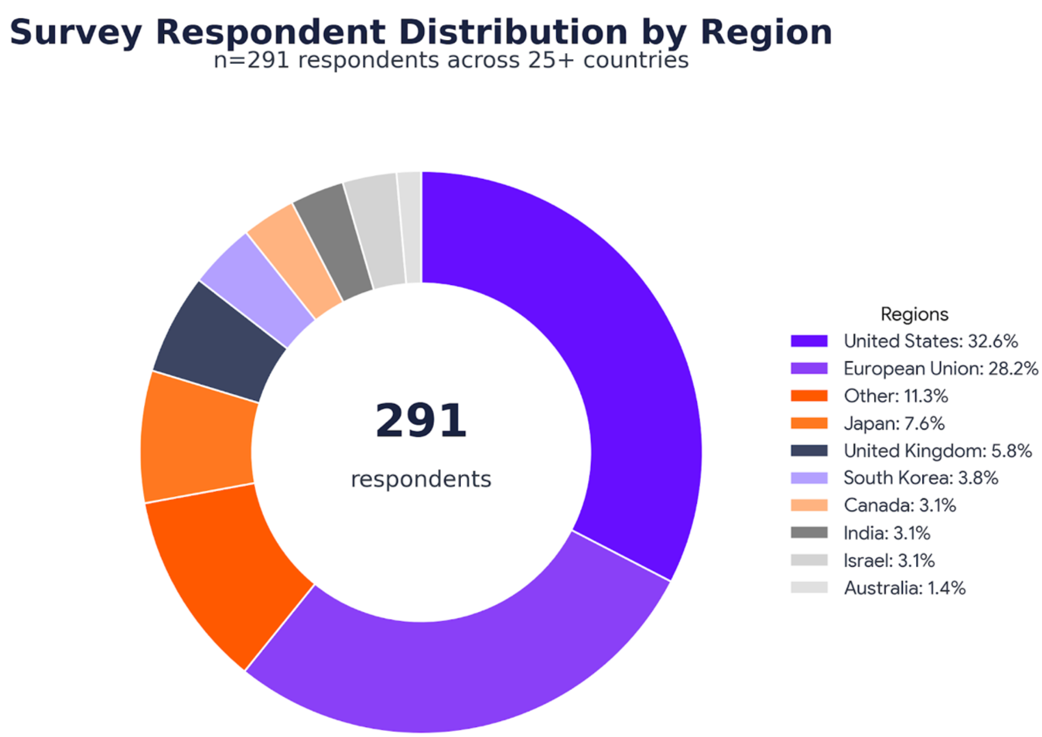


The Sovereignty Dimension by Region

The sovereignty posture varies predictably by region:

Region	Hypothesized Sovereignty Stance	Implication
United States	Lower sovereignty sensitivity	Confident in supply chain security; global sourcing acceptable
European Union	Higher sovereignty sensitivity	Regional/EU provider preference; concerns about U.S. export controls
Japan	Allied sovereignty	Aligned with U.S. ecosystem but seeking domestic capability
India	Pragmatic/cost-driven	Will accept global providers if price is right

This stratification creates distinct market requirements for technology providers—a single global go-to-market strategy will underperform region-specific approaches.



Section 8: Security and the Post-Quantum Horizon

Security operates as the "dark matter" of the quantum ecosystem—it is not always the visible focus of daily operations, but it exerts massive gravitational pull on strategy and investment.

The Apparent Paradox

At first glance, security appears to be a non-issue:

- Only **4.4% cite "Security and data privacy concerns"** as an adoption challenge (Q14)—the lowest-ranked option
- Security does not appear in the top selection criteria (Q20)

Yet this reading misses the strategic behavior revealed elsewhere:

- **17% are actively using quantum for "Cryptography and security" research** (Q12)
- **62% factor sovereignty into procurement decisions** (Q22)—and sovereignty is fundamentally a security posture

Connecting the Dots: Why Security Ranks Low as "Challenge" but High in Behavior

The resolution of this paradox: security is not an *adoption barrier*—it is an *adoption driver*. Organizations are not worried that quantum computing creates security problems for them; they are worried that quantum computing in adversary hands creates problems they must address.

This explains:

- The 17% doing cryptography research: preparing for post-quantum migration
- The sovereignty focus: ensuring hardware provenance for sensitive workloads
- The 14% prioritizing on-premises deployment (Q20): data cannot leave controlled environments

The "Harvest Now, Decrypt Later" threat model—adversaries collecting encrypted data today for future decryption by cryptanalytically-relevant quantum computers—creates urgency that pure technology timelines understate. The industry designation of 2026 as "The Year of Quantum Security" reflects accelerating PQC migration mandates. NIST's standardization of ML-KEM (Kyber) and ML-DSA (Dilithium) creates compliance deadlines that organizations cannot ignore.

Implications

For the quantum computing industry, security represents:

- **A demand driver:** Government cryptography mandates fund ecosystem development
- **A procurement constraint:** Sovereignty requirements limit addressable market
- **A messaging opportunity:** Vendors demonstrating secure supply chains and on-premises options address a real customer need

Limitations

- Sample composition: 48% academic respondents may bias toward research-oriented perspectives. Enterprise viewpoints may be underrepresented.
- Self-selection: Respondents likely have higher-than-average quantum engagement, potentially overestimating industry readiness.
- Regional representation: While globally distributed, sample sizes for some countries (n<10) limit generalizability.
- Point-in-time: Survey captures January 2026 perspectives; rapid field evolution may quickly date findings.
- Multi-select interpretation: Percentages based on engaged respondents only; non-response patterns not analyzed.
- External context integration: This report incorporates industry context from sources external to the survey to aid interpretation.

Appendix: Survey Instrument Summary

Question	Type	Valid n
Q1: Primary Interest	Single-select	291
Q2: Role Level	Single-select	291
Q3: Organization Size	Single-select	291
Q4: Primary Sector	Single-select	291
Q5: Country	Single-select w/ Other	291
Q6: Country Positioning	Single-select	289
Q7: Country Progress	Single-select	289
Q8: Superiority Timeline	Single-select	285
Q9: Classical Wall	Single-select	285
Q10: Commercialization State	Single-select	285
Q11: Org QC Maturity	Single-select	275
Q12: Use Cases	Multi-select (10 options)	274
Q13: Org Preparedness	Single-select	275
Q14: Adoption Challenges	Multi-select (12 options)	274
Q15: QC Strategy	Single-select	271
Q16: Budget Change 2026	Single-select	271
Q17: Budget Driver	Single-select	266
Q18: Best Modality	Single-select	267
Q19: QEC Importance	Single-select	267
Q20: Selection Criteria	Multi-select (9 options)	267
Q21: Sourcing Approach	Single-select	265
Q22: Sovereignty Importance	Single-select	265
Q23: Driver Segment	Single-select	265
Q24: Breakthrough Development	Open-ended	137

About QuEra

QuEra is putting quantum to work. As the scientific and commercial leader in neutral-atom quantum computing, QuEra helps enterprise innovators leverage quantum to gain competitive advantage, support HPC centers as they help users tackle classically intractable problems, and enable government programs to build national capability and sovereign infrastructure. QuEra does this through a unique quantum innovation platform, combining quantum systems available on-premises and via the cloud with application co-design and collaborative research. Born at Harvard and MIT, still advancing together, QuEra operates globally from Boston, Tokyo, and the UK. As quantum computing moves from "one day" to "Day One," QuEra delivers practical impact today while advancing toward large-scale, fault-tolerant systems. See what's possible and get started at www.quera.com