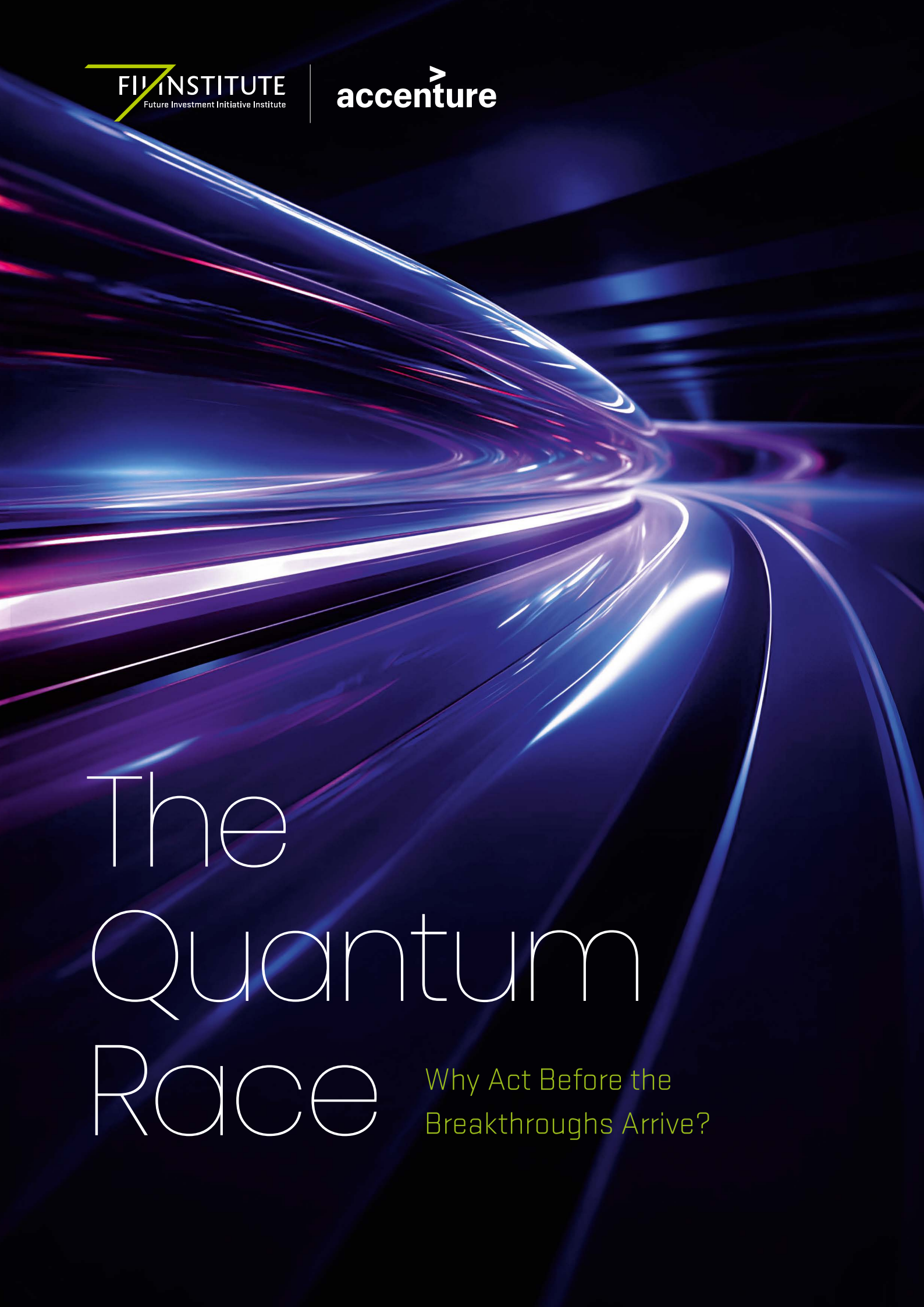
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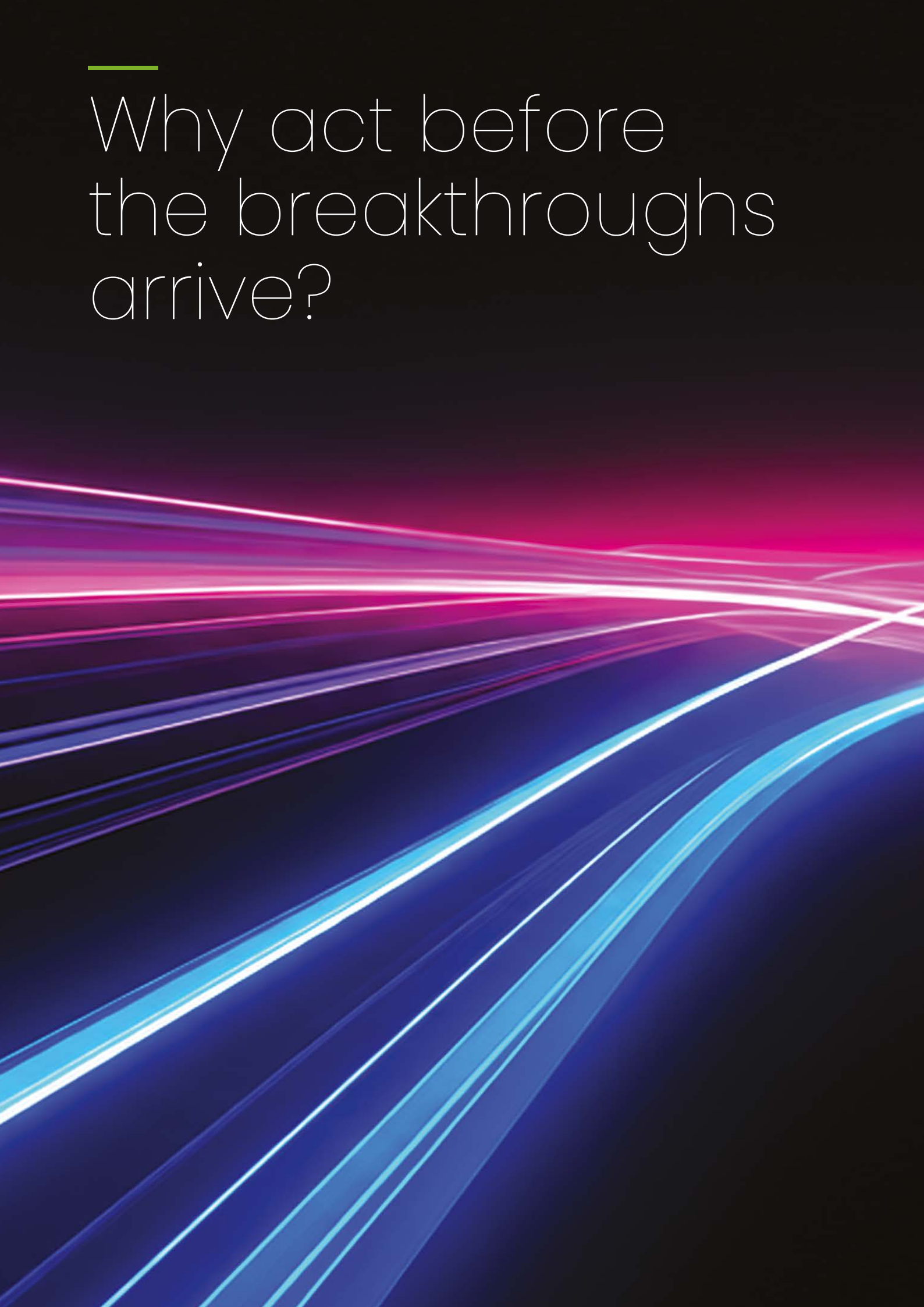


The Quantum Race

Why Act Before the Breakthroughs Arrive?



Why act before the breakthroughs arrive?





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Executive summary

Quantum technologies are here. Their strategic implications are arriving before widespread commercial adoption, forcing governments and businesses to act on security risks today while positioning for economic opportunities that are still taking shape. More than 35 countries have adopted funded national quantum strategies, with public commitments approaching $66 billion. Investment remains highly concentrated in the US, Europe and China.

35

More than 35 countries have adopted funded national quantum strategies

$66 billion

public commitments approaching $66 billion

2.4%

The economies covered in our Global South analysis account for just over 2.4% of that total

$1.6 billion

The economies covered in our Global South[1] analysis account for just over 2.4% of that total, or roughly $1.6 billion, despite representing some of the fastest growing economies. A quantum divide is forming between those shaping the technology and those at risk of depending on capabilities developed elsewhere. India is leading the region with a commitment of INR 6,003.65 crore (roughly USD 625 million) through its National Quantum Mission. The Gulf countries are deploying sovereign capital both domestically and into leading global quantum companies. But the gap remains significant and the window to close it is narrowing.

The most urgent priority is security. A cryptographically relevant quantum computer (CRQC) could eventually compromise the cryptography that underpins today's digital economy, but the risk begins well before that capability arrives. Sensitive information stolen today could be decrypted in the future, while large-scale cryptographic migrations can take more than a decade to complete. With post-quantum cryptography (PQC) standards now available, the strategic question is whether organizations will have completed their transition before it's too late. Banks managing decades of customer records, governments holding classified communications and energy and telecom operators running critical national infrastructure all face the same reality: The cost of acting now is far lower than the cost of being caught unprepared. No country in the region can afford to become the weakest link in a globally interconnected digital system.

The Global South does not need to win the quantum hardware race to capture value from it. The objective is to identify where national strengths, industrial demand and market position create a durable entry point in the quantum economy. This report identifies four strategic positions available to countries across the region: quantum sovereignty, as India is pursuing

through its National Quantum Mission; regional hub, as Qatar is building through joint ventures with leading quantum providers; niche capabilities, as South Africa is developing through strengths in photonics and quantum sensing; and a seat at the table, as Malaysia is securing through international cooperation. Each demands a different combination of capital, talent, R&D capacity and political commitment.

While partnerships can accelerate quantum development, their long-term value will depend on the capabilities they leave behind, including the domestic intellectual property, talent, infrastructure, proprietary solutions and market positions that can generate lasting value. In other words, partnerships that transfer knowledge and anchor it locally will create competitive advantage.

Today, quantum capital is already being deployed before commercial outcomes are proven. Competing technological approaches are also still evolving. And geopolitical fragmentation could reshape access to critical capabilities. Rather than making irreversible bets on a single technology, provider or development path, governments, businesses and investors should build capabilities and relationships that preserve multiple paths forward. This means investing in foundations that remain valuable across different outcomes, using partnerships to gain access and learn, and concentrating capital as evidence of technological and economic advantage becomes clearer.

Thus, the strategic choice is not whether to act, but *where* to act first. Build resilience where the need for action is already established. Preserve optionality where uncertainty remains high. Develop defensible economic capabilities where lasting value can be captured—and before technologies, markets and geopolitical dependencies become entrenched.

For the Global South, the window remains open. The choices made today will determine not only who gains access to quantum technologies, but also who develops the capabilities and retains the value that quantum creates.

Four strategic positions available to countries across the region

quantum sovereignty

India

National Quantum Mission

regional hub

Qatar

joint ventures with leading quantum providers

niche capabilities

South Africa

strengths in photonics and quantum sensing

a seat at the table

Malaysia

international cooperation

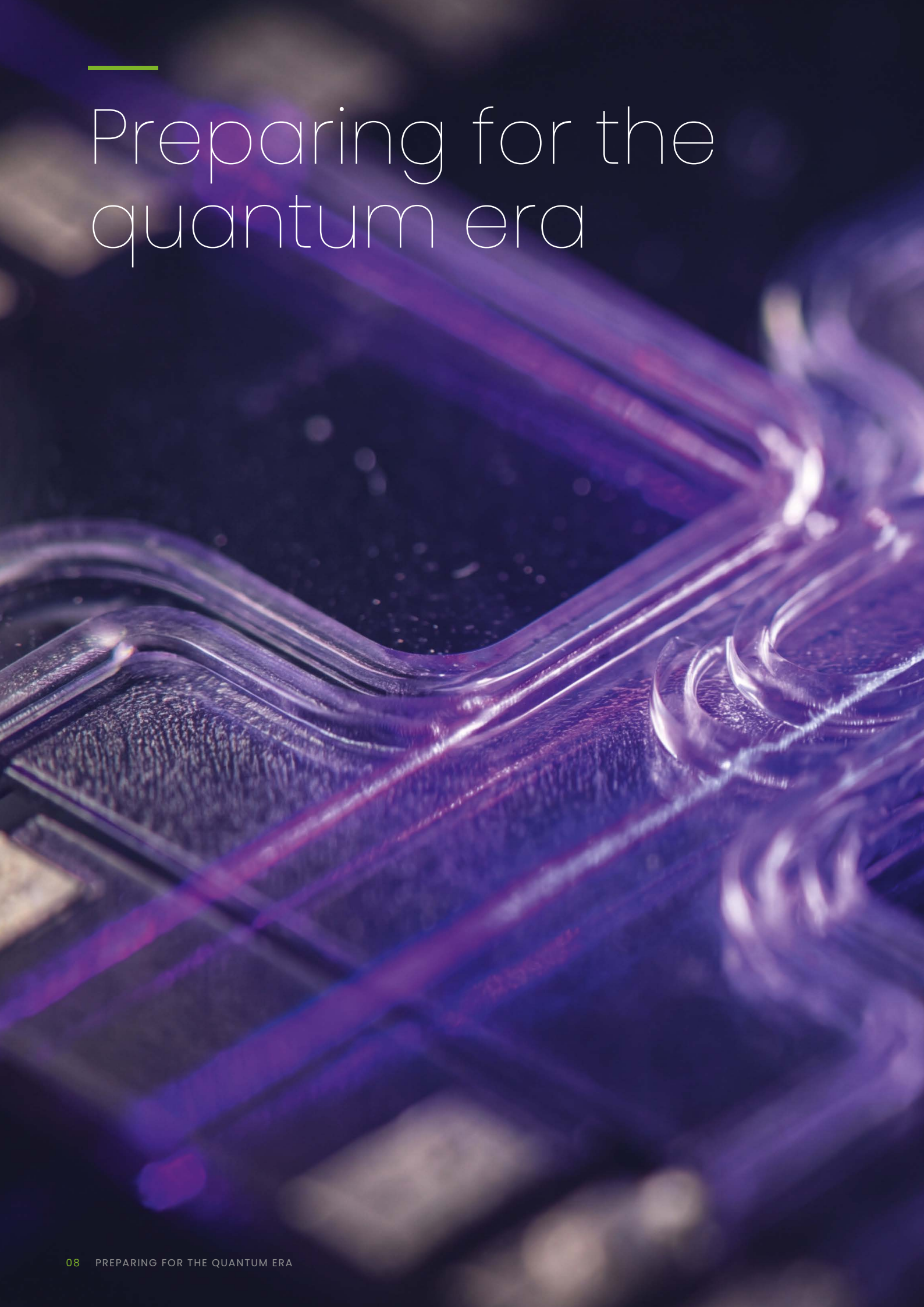
Where to act first

Build resilience
where the need for action is already established

Preserve optionality
where uncertainty remains high

Develop defensible economic capabilities
where lasting value can be captured

Preparing for the quantum era



The quantum era is beginning to take shape, bringing new opportunities alongside risks that demand immediate attention. But quantum technologies will not unfold along a single timeline. Quantum computing, sensing and communication are advancing along different trajectories, with different paths to maturity, infrastructure requirements and strategic implications (Figure 1). Some quantum sensing applications are already reaching the market, while fault-tolerant quantum computing and long-distance quantum communication remain on longer, less certain horizons. Navigating the quantum era therefore requires managing several transitions at once and making decisions today about where to act, where to experiment, what capabilities to build and what can be accessed through trusted partners.

The most immediate imperative is cybersecurity. A quantum computer powerful enough to break current encryption does not need to exist for the threat to require action: Encrypted data is being stolen and stored today for future decryption, while migration to PQC can take years. Acting early is thus essential.

FIGURE 1

Core pillars of quantum technologies



Source: Accenture Research

Artificial Intelligence adds another dimension to the quantum landscape. AI could accelerate quantum breakthroughs and improve quantum computing workflows through increasingly capable AI agents, while already increasing the speed and scale of cyber threats. At the same time, advances in AI and classical computing are raising the bar for quantum advantage, even as hybrid approaches make the technologies increasingly complementary. These growing interdependencies call for closer coordination between national AI and quantum initiatives.

Geopolitics creates an additional challenge. Capital alone may not secure access to critical quantum capabilities; trusted relationships will increasingly matter. The partnerships and strategic choices made today will therefore shape how countries and organizations position themselves in the quantum economy and their ability to capture future value.

National quantum strategies are taking shape worldwide, driven by goals of national security, technological sovereignty and economic competitiveness. Sovereignty, however, does not mean self-sufficiency. It means assessing which technologies, infrastructure, data and capabilities require national control, and where reliable access can be secured through trusted global partners. More than 35 countries have adopted funded national quantum strategies, committing an estimated $66 billion to research, infrastructure and ecosystem development.[2] Among OECD members alone, nearly half have already established formal national quantum strategies.[3]

The scale of these commitments reflects the strategic value at stake. The US, China and Europe[4] have collectively committed roughly $44 billion, representing 66% of global public investment.[5] Their objective extends beyond scientific leadership to securing technological sovereignty and strengthening national security.

Meanwhile, India is leading this momentum across the Global South through its National Quantum Mission, an eight-year program to scale scientific and industrial R&D and build capabilities across quantum computing, communication, sensing and materials. Other economies such as Brazil, Malaysia, Pakistan, Philippines, Qatar, Saudi Arabia, South Africa, Thailand, Türkiye and the United Arab Emirates are also advancing their national quantum journeys. The scale and maturity of these efforts vary, but the direction is consistent: participation in the quantum economy is becoming a strategic priority.

As quantum moves from science to technology, national strategies increasingly need a mission-oriented approach: one that aligns research, investment, talent and infrastructure around clear strategic priorities. Building quantum technology without that direction risks creating capabilities without a clear pathway to national advantage.

Yet quantum preparedness remains highly uneven. While a growing number of countries are developing national strategies, most have yet to establish funded initiatives. The gap is particularly pronounced across the Global South, which has committed $1.6 billion in public quantum investment to date (Figure 2).[6]

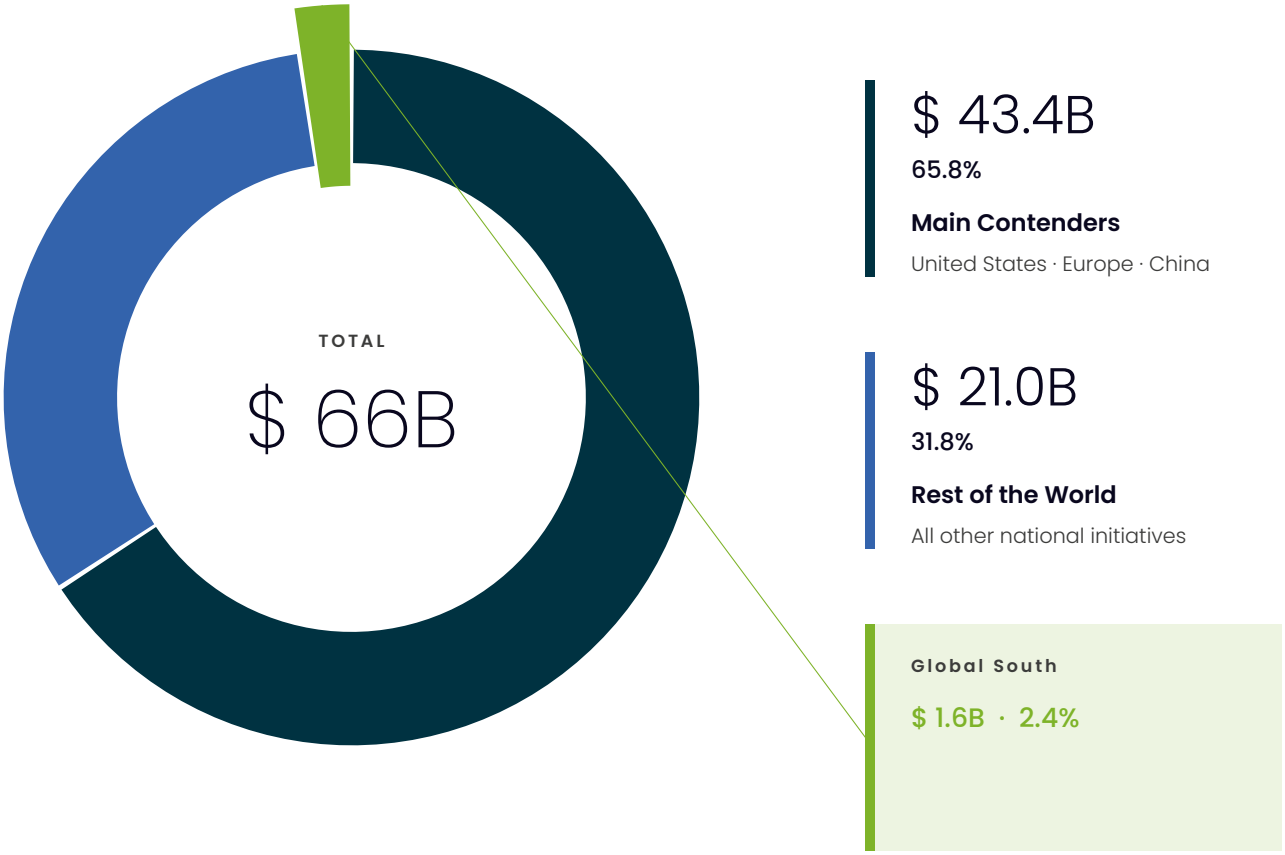
> "Moving from quantum science to technology is not enough. Now is the time to integrate national mission experts directly into the quantum computing development cycle, adding value and achieving early results at every step. Building quantum technology blindly is not a recipe for national success."
>
> **Tom Patterson**
> Managing Director for Emerging Technology Security, Accenture

As quantum capabilities become increasingly linked to cybersecurity, technological sovereignty, and economic competitiveness, this geographical imbalance risks deepening a quantum divide, leaving many countries dependent on foreign technologies, exposed to emerging security risks and excluded from critical segments of the quantum value chain.

FIGURE 2

Quantum national initiatives, 2026 ($ Billion)

Cumulative public investment commitments ($ Billions)

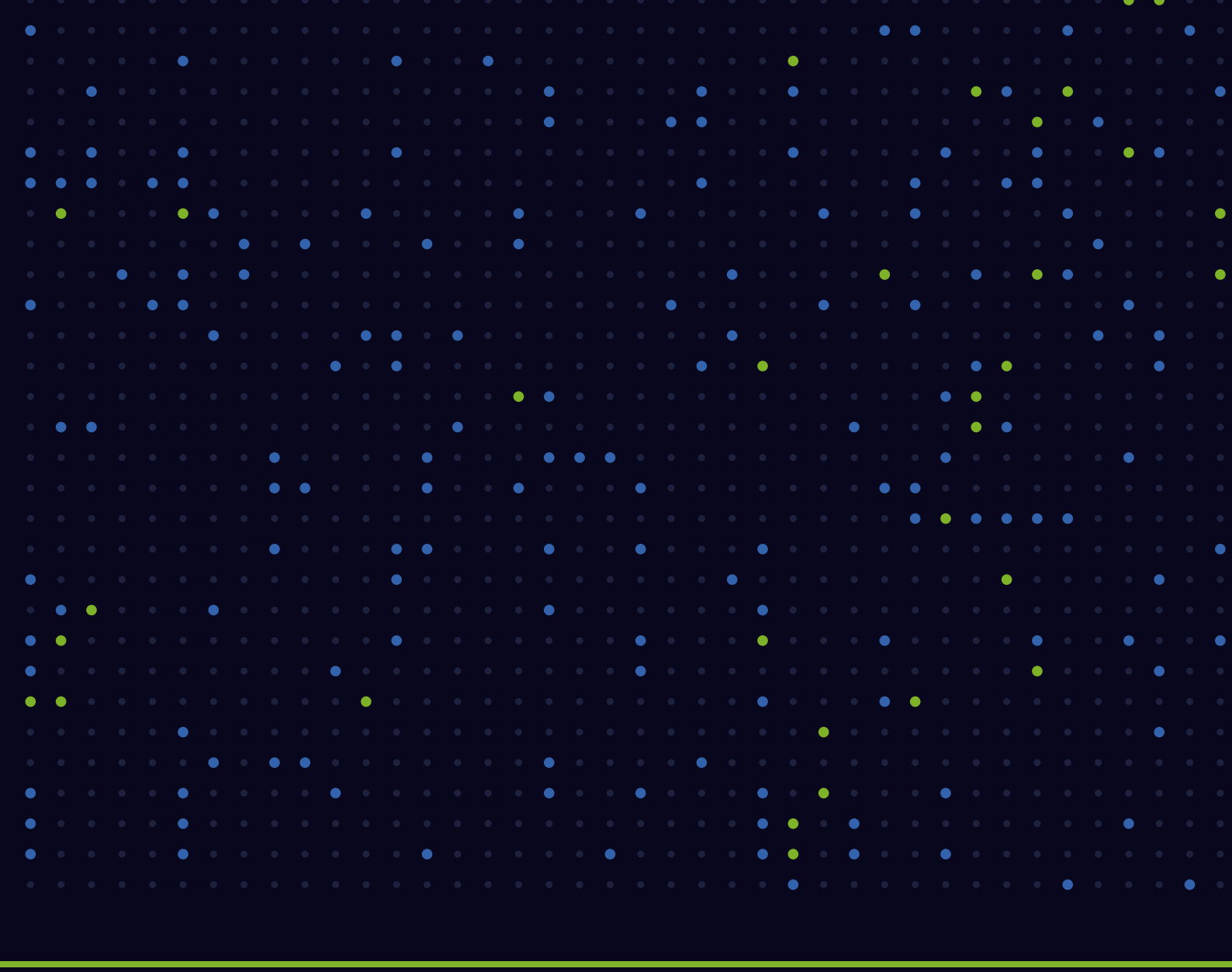


Global South

India · Brazil · Qatar · Saudi Arabia · UAE · Malaysia · Thailand · The Philippines · Pakistan · South Africa · Türkiye

Note: European investment combines funding from the EU Quantum Technologies Flagship, EU member states and non-EU European countries.

Source: Accenture Research, based on data from QURECA and OECD.



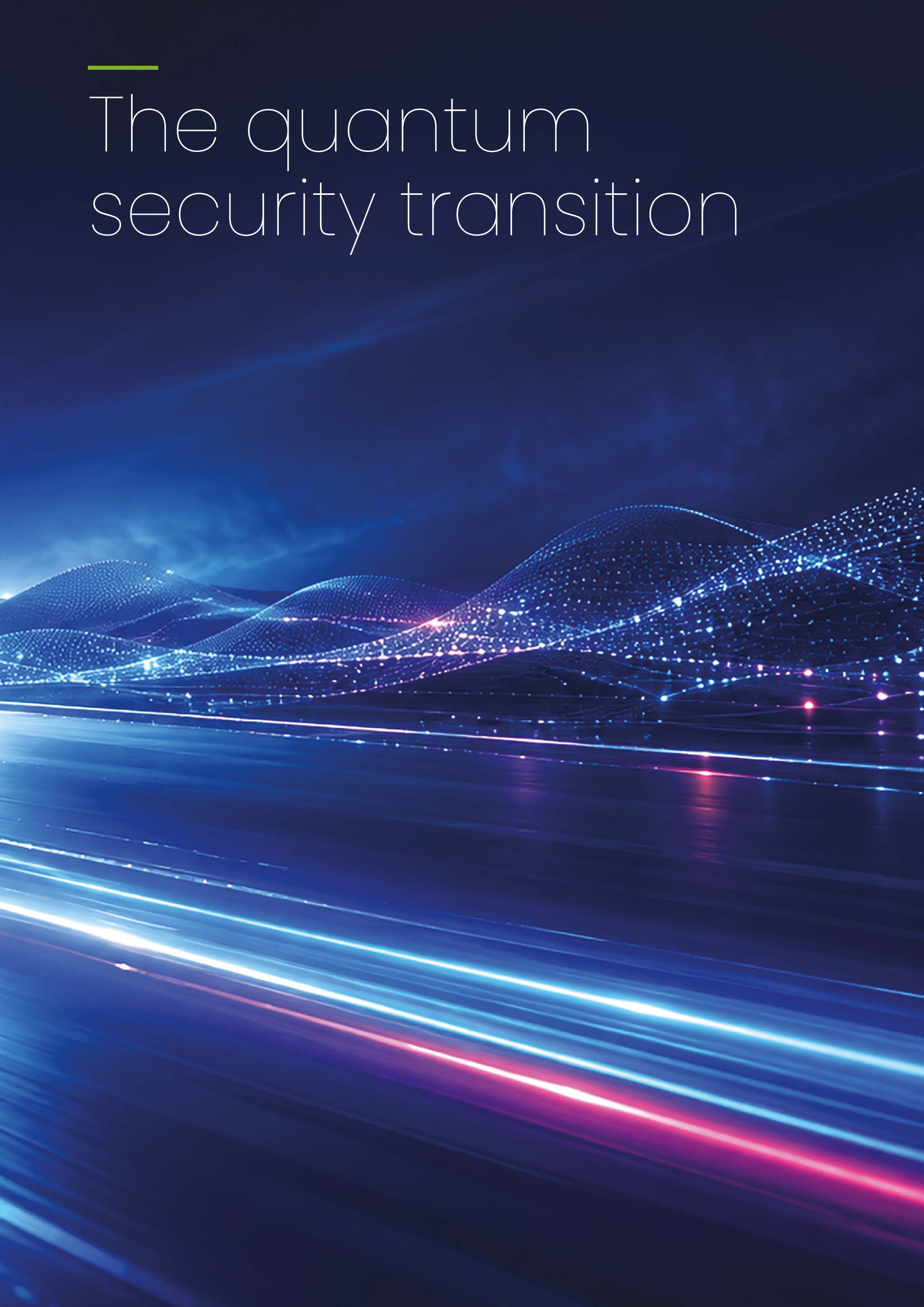
For corporate leaders, the pressing question is how and when to prepare for quantum. The capabilities that underpin future competitiveness take years to build, yet the timing and scale of quantum advantage remain uncertain. The challenge is therefore to act early without overinvesting in technologies or applications whose commercial value is still unproven. Organizations should assess how quantum could reshape their industries, protect critical assets and build capabilities selectively, preserving the flexibility to scale investment as evidence of advantage emerges.

Preparation also requires more than technology investments; it calls for building the capabilities, institutions and trusted infrastructure to navigate a fundamentally different technological and geopolitical landscape. Standards and interoperability are part of that foundation: those that help define the rules and interfaces through which quantum technologies connect can gain strategic influence as the global quantum ecosystem develops.

Governments that act early will strengthen national resilience, quantum sovereignty and economic growth. Companies that prepare now will be better positioned to protect critical assets, earn the trust of customers and partners, and adapt to evolving security and market requirements. For the Global South, the opportunity is equally strategic: Even where competing at the technological frontier is not viable, countries can strengthen strategic resilience and capture value where national capabilities and market opportunities align.



The quantum security transition



Quantum security is the most immediate imperative of the quantum era, and the stakes extend well beyond protecting encrypted data. Public-key cryptography underpins digital trust, from authenticating identities and transactions to verifying software and digital signatures. A cryptographically relevant quantum computer could therefore compromise not only confidentiality, but also the integrity and authenticity of the digital systems on which businesses, governments and economies depend.

Dismantling the "we have time" rationale

Organizations may look at the uncertainty surrounding the arrival of a sufficiently powerful quantum computer and conclude that there is still time to act. But this "we have time" rationale overlooks a critical reality: there is no single clock to follow.

Organizations cannot control the Q-Day clock,[7] but they can control the migration clock and, to some extent, the exposure created by long-lived data.

Long-lived sensitive data can be stolen and stored for future decryption through harvest-now, decrypt-later (HNDL) attacks. Migration to post-quantum cryptography can take more than a decade for large organizations. Organizations can act on both today by identifying data that requires long-term protection and starting migration early. With the first PQC standards of the National Institute of Standards and Technology (NIST) now finalized, organizations have a clear technical foundation to begin the transition.[8]

The transition also applies to the systems and assets that rely on today's cryptography. Satellites carry 15-year replacement cycles. Connected vehicles have 10-year operational lifetimes. Industrial control systems run for 20–30 years. Migration must protect encrypted data and preserve the authentication, integrity and digital signatures that underpin trust across digital systems. For governments and businesses, quantum readiness will depend on their ability to translate PQC standards into large-scale migrations.

The stakes extend well beyond cybersecurity, too. The Hudson Institute, a think tank, estimated that a single-day quantum attack on a top-five US bank's access to Fedwire (the Federal Reserve's large-value payment system) puts $2 trillion–$3.3 trillion of U.S. GDP at risk through cascading financial contagion, liquidity hoarding and a resulting economic recession.[9] What begins as a cybersecurity incident can rapidly become an economic crisis.

A fragmented security landscape

The global security transition is already underway. The US and Europe are advancing PQC migration timelines, while China continues to invest heavily in Quantum Key Distribution (QKD) infrastructure and develop its own approach to PQC standards. This divergence raises concerns that extend well beyond national borders. As countries adopt different approaches to the quantum security transition, governments and companies might increasingly

THE THREE QUANTUM-SECURITY CLOCKS

01

Q-Day clock
When a CRQC becomes available

02

Data-lifetime clock
How long sensitive data must remain confidential

03

Migration clock
How long cryptographic migration takes

Q-Day, also known as "Years to Quantum" (Y2Q), describes the point at which a CRQC becomes capable of breaking the public-key cryptography that secures much of today's digital infrastructure. Cryptographic methods used to protect financial systems, government communications, software updates and digital identities could then become vulnerable, requiring migration to quantum-safe security.

operate within a fragmented cryptographic environment where interoperability, compliance and trusted supply chains become strategic considerations. Because the global digital economy is deeply interconnected, quantum security cannot be viewed solely as a national undertaking. While early adopters will strengthen their own resilience, an uneven global transition will leave systemic vulnerabilities across global supply chains, financial networks and digital infrastructure.

Across the Global South, the approach to post-quantum cryptography also varies (Figure 3). India, the UAE and Malaysia, for example, are pursuing different approaches to balancing global interoperability, domestic capability development and international partnerships, shaped by their technological capabilities, security priorities and long-term ambitions.

These approaches show that post-quantum cryptography does not depend on achieving full technological sovereignty from the outset. Countries can begin by adopting interoperable standards and establishing strong national governance, while progressively developing the expertise, trusted supply chains and domestic capabilities needed to reduce strategic dependence over time. For most developing economies, accelerating migration should therefore take priority, supported by a longer-term plan to strengthen national control over critical cryptographic infrastructure.

Beyond PQC migration: building crypto-agility

The world's largest technology and cloud providers are already accelerating the transition to post-quantum cryptography. But a quantum-safe internet does not automatically create a quantum-

PQC:

Primary security path for general-purpose digital infrastructure.

Post-quantum cryptography (PQC) refers to new encryption and digital signature algorithms designed to protect digital systems against attacks from cryptographically relevant quantum computers (CRQCs). PQC aims to replace public-key cryptographic methods that are vulnerable to quantum attacks.

QKD:

Specialized, complementary technology for selected high-value communications.

Quantum Key Distribution (QKD) uses dedicated communications infrastructure and quantum mechanics to securely distribute encryption keys, thereby making it possible to detect "eavesdroppers" without relying on software-based cryptography alone.

FIGURE 3

Strategic pathways to post-quantum security in the Global South

Country	Approach to global standards	Domestic capability priorities	Managing external dependence	Strategic direction
India	Adopts NIST-selected algorithms to preserve interoperability with global systems.	Progressively develops proprietary quantum-safe products, platforms, infrastructure, research capabilities and talent.	Seeks to reduce long-term technological dependence by expanding sovereign capabilities over time.	Combine immediate interoperability with a longer-term path toward cryptographic sovereignty.
United Arab Emirates (UAE)	Aligns with NIST standards to support compatibility and accelerate implementation.	Encourages the development of proprietary quantum-safe cryptographic libraries that can provide a national foundation.	Partners with global technology providers to access expertise and accelerate the national transition.	Advance migration on three fronts: global standards, domestic innovation and international partnerships.
Malaysia	Prioritizes rapid migration to internationally interoperable PQC standards under national governance.	Builds domestic expertise and the institutional capacity to govern cryptographic standards and protect critical infrastructure.	Accepts continued reliance on foreign hardware while reducing supply-chain risk through trusted procurement and sovereign oversight.	Strengthen operational control and national resilience without pursuing full technological sovereignty.

Source: Accenture Research, based on insights from the GSM Association, India's Department of Science and Technology, Malaysia's Ministry of Digital and the UAE Cybersecurity Council.

safe enterprise. Cryptographic vulnerabilities remain embedded across legacy systems, applications, data and third-party dependencies, leaving organizations responsible for securing their own environments. Addressing these vulnerabilities requires far more than a software update; it demands a long-term enterprise transformation.

The organizations best positioned for the quantum era will be those cataloguing their cryptographic assets, identifying sensitive information that must remain secure well into the future and designing systems with crypto-agility so that algorithms can be replaced without major redesigns. Quantum computing changes the cryptographic threat model by putting widely used algorithms at risk, while AI can accelerate the speed and scale at which cyber vulnerabilities are identified and exploited. Together, these pressures reinforce the need to look beyond a one-time migration to PQC and build "crypto-agility" into systems, thus treating algorithms as replaceable as threats and standards evolve.

For companies handling data that must remain

confidential for decades—such as banking transactions, patient records and attorney-client communications—the migration clock started years ago. Because migration cannot be completed overnight, early preparation will reduce operational risk and enable a more orderly transition as PQC standards become widely adopted.

At the same time, enterprises operating across regions should prepare for a more fragmented cryptographic environment, where interoperability, compliance, and supply chain security become strategic considerations. This marks a significant departure from the digital era, when a small number of cryptographic algorithms provided a common global standard.

As governments get ready to protect high-risk sectors, and technology providers accelerate their transition, enterprise readiness will increasingly determine which organizations are trusted partners in the global economy. Forrester estimates that quantum-related security spending will exceed 5% of overall IT security budgets in 2026,[10] representing a fundamental IT spending reallocation and signaling that quantum security is beginning to command a more meaningful share of enterprise security investment.

Crypto-agility refers to systems, platforms, applications or organizations that can rapidly adapt their cryptographic mechanisms and algorithms in response to changing threats, technological advances or other vulnerabilities.



Financial services: the migration clock is already ticking



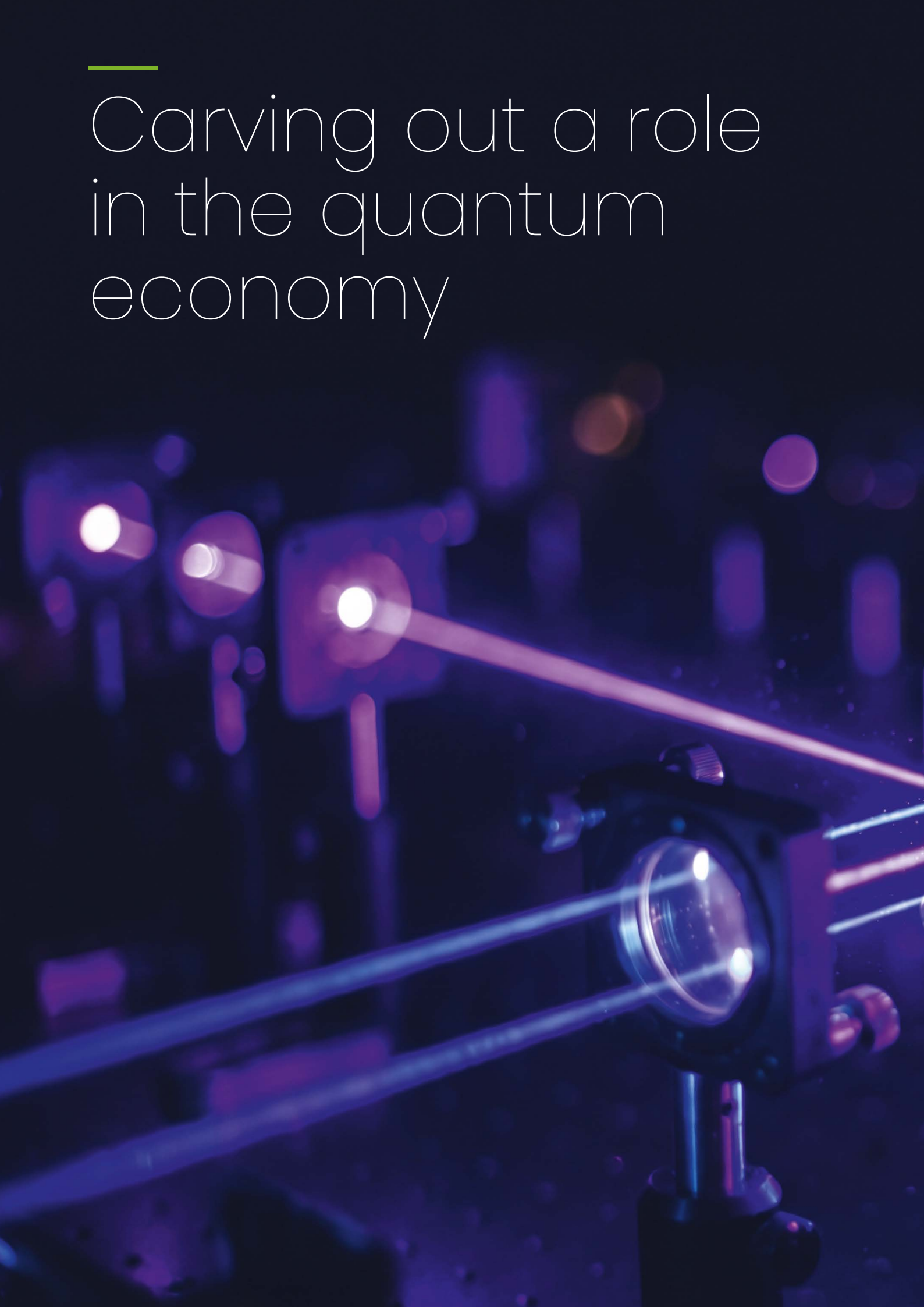
For every industry managing sensitive, long-lived information, a significant challenge is the risk that encrypted data stolen today could be decrypted in the future. For financial institutions, however, the stakes are particularly high, making quantum security a business-resilience imperative. Banks manage some of the world's longest-lived data assets, including mortgage records, investment portfolios, customer identities, pension accounts and payment histories, many of which must remain confidential for decades.

The challenge is compounded by legacy systems. Many core banking platforms were designed decades ago, with cryptographic algorithms deeply embedded into critical systems that cannot simply be upgraded through routine software patches. Financial institutions also depend on extensive third-party technology providers, making migration contingent on the readiness of an entire ecosystem rather than a single organization. And while institutions may operate under common regulatory requirements, technical implementations and processes can vary significantly across firms. This limits the ability to replicate migration approaches from one institution to another, adding further complexity to the transition.

Regulators are beginning to respond. Across the G7 and Europe, emerging guidance is pushing financial institutions toward greater visibility over their cryptographic exposure, stronger cryptographic controls and the ability to adapt as standards and threats evolve.[11] As a result, financial institutions will increasingly need to demonstrate that quantum risk is being incorporated into technology, cyber resilience and long-term transformation plans.

For emerging economies, meanwhile, the challenge is to advance this transition while operating under constrained technology budgets. Thailand offers an early example of how preparation can begin. The Bank of Thailand and the Thai Bankers' Association are evaluating risks and developing guidelines to safeguard the financial system.[12] Such initiatives point to the potential for regulators and industry to coordinate capabilities and prepare the broader financial ecosystem before the quantum risk becomes an immediate operational threat.

Carving out a role in the quantum economy



Strategic choices for industry and governments

Frontier quantum capabilities are likely to remain concentrated among a relatively small number of countries and global technology providers, generating major global disparities. High capital requirements, scarce talent and complex supply chains create significant barriers to entry, while export controls could further constrain access to the technology. Mastering the full quantum stack is not a prerequisite to participate in the quantum economy.

Governments, in particular, can help shape this emerging market by becoming lead customers, using strategic procurement to create early demand and help bridge the gap from research and prototyping to commercial deployment. And governments and business leaders alike will need to decide where in the quantum value chain they are best positioned to create and capture value (Figure 4).

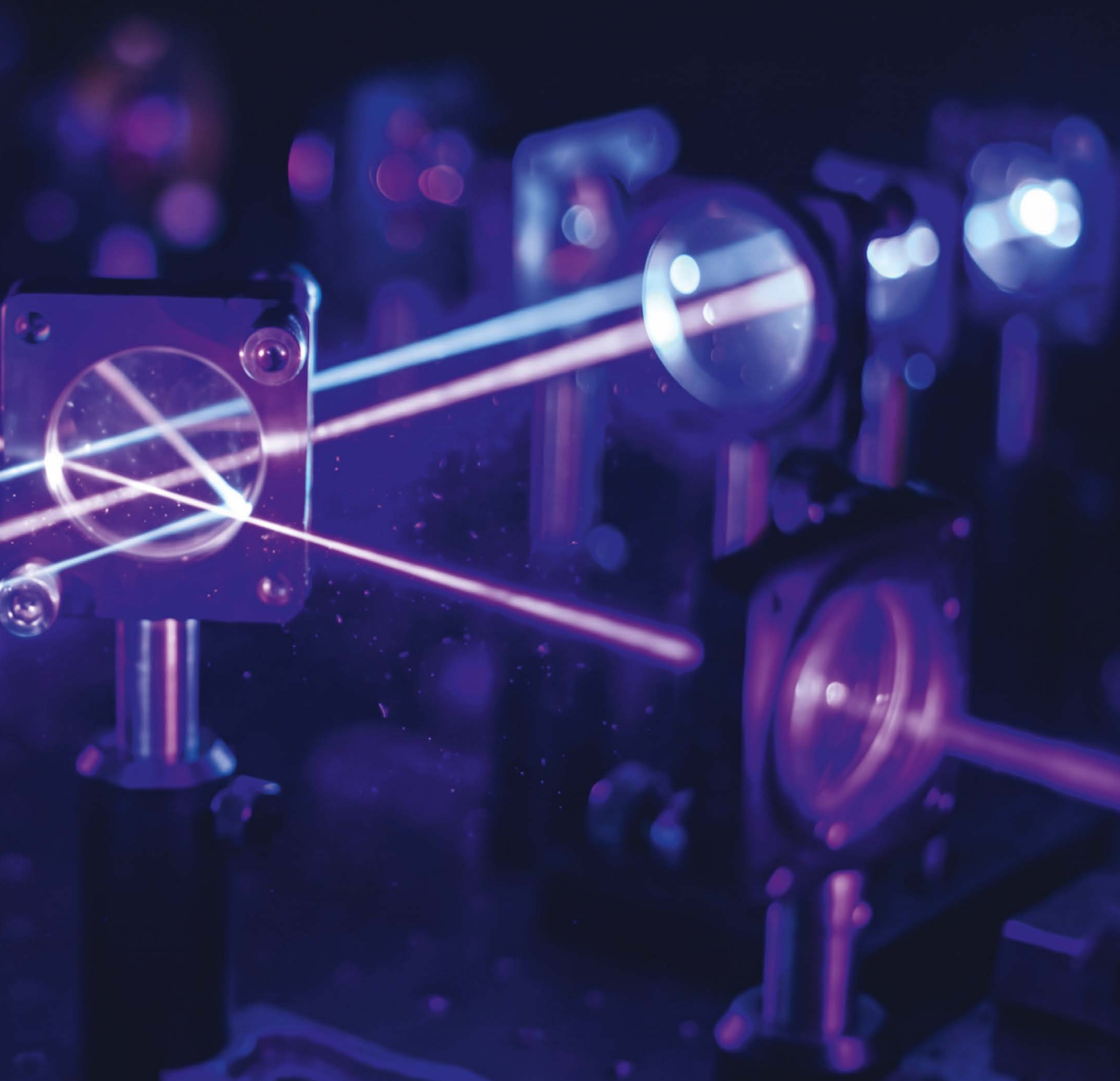


FIGURE 4

Potential entry points in the quantum value chain



Raw Materials and Sub-Kelvin coolants

- Superconducting Metals
- Rare-Earth Elements
- Ultra-Pure Semiconductors
- Cryogenic Coolants

Critical Hardware Enablers

- Microwave Electronics
- Photonics & Optics
- Dilution Refrigerators

Quantum Computing Stack

PROCESSORS & FABRICATION	MIDDLEWARE	SOFTWARE
• Quantum chips • Chips modality: superconducting, neutral atom, photonics, trapped ion, etc.	• Quantum Error Correction (QEC) • Control Software	• Compilers & Optimizers • Development Frameworks • Quantum Algorithms

Infrastructure & Access

- On-premise facilities
- Cloud access
- Quantum-Accelerated High-Performance Computing (HPC)

Applications

- Financial Services
- Pharma
- Health
- Energy & Materials Science
- Supply Chain
- Telecom
- Others

Source: Accenture Research

The challenge is particularly significant for developing economies. While the leading quantum nations are shaping standards, supply chains and industrial ecosystems, many countries across the Global South are still defining their role in the emerging landscape. The opportunity is to identify where national strengths can create lasting strategic value, rather than replicating the capabilities of the quantum leaders.

As illustrated in Figure 5, there are multiple strategic choices for quantum competitiveness, shaped by each country's capabilities, resources and ambitions. Some countries will pursue the full quantum stack, while others will create value through partnerships, specialized capabilities or regional leadership. What matters is securing a meaningful position in the emerging quantum value chain.

Strategic Paths in the Global South

INDIA | Quantum Sovereignty

The National Quantum Mission (NQM) is building capabilities across hardware, software, algorithms and startups to develop a more self-reliant quantum ecosystem.

QATAR | Regional hub

Joint ventures and strategic partnerships with leading global quantum providers are being used to attract scientific capability and talent to position Qatar as an emerging Gulf quantum hub.

MALAYSIA | A seat at the table

International cooperation, including the planned Quantum Valley with SDT, are connecting Malaysia to capabilities and networks beyond its domestic ecosystem.

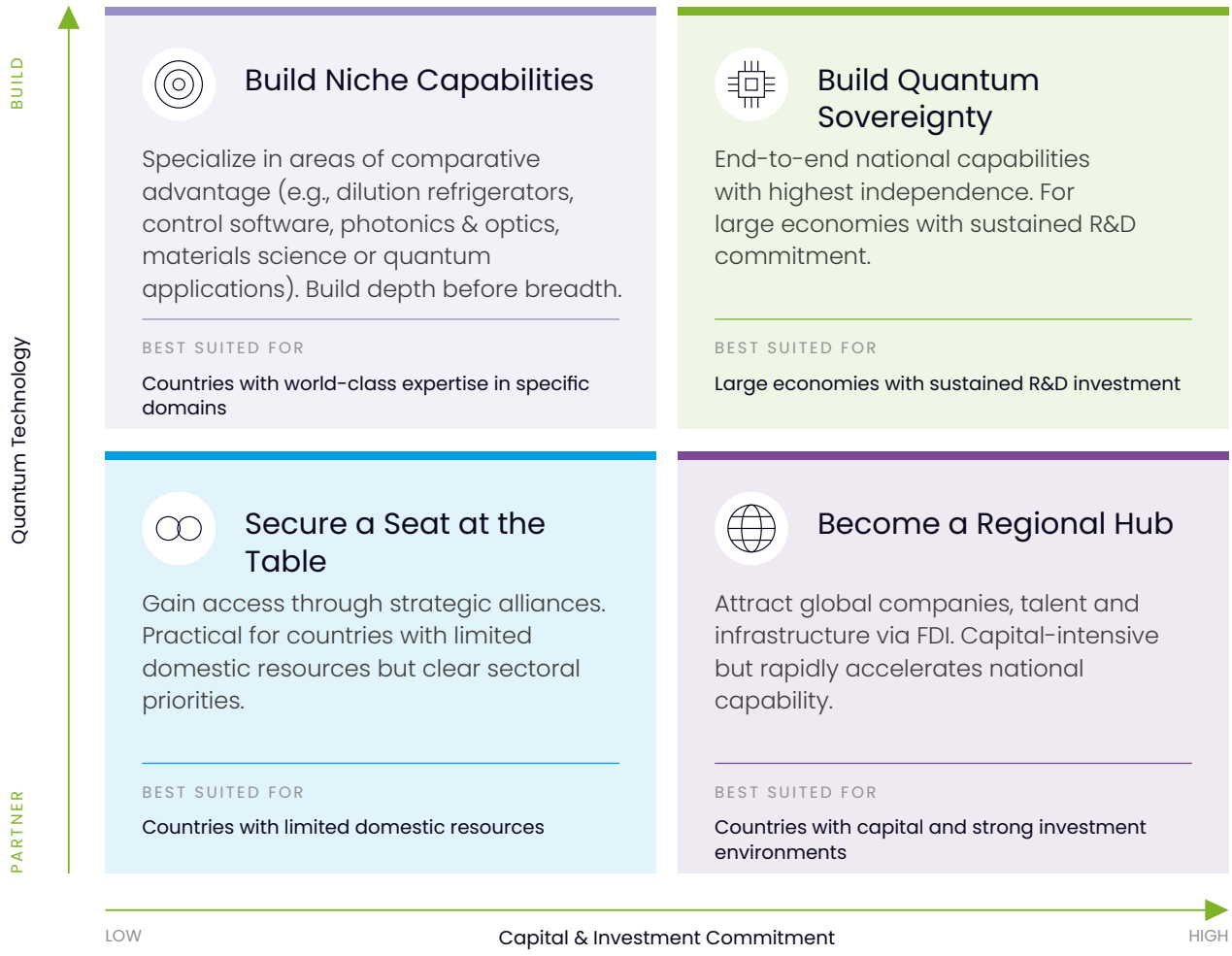
SOUTH AFRICA | Niche capabilities

Existing strengths in optics, photonics and laser science provide a foundation for QKD demonstrations and capabilities relevant to space-based quantum communication.

FIGURE 5

Four pathways to quantum competitiveness

Strategic positioning across access to technology (domestic vs. partnership) and scale of capital investment

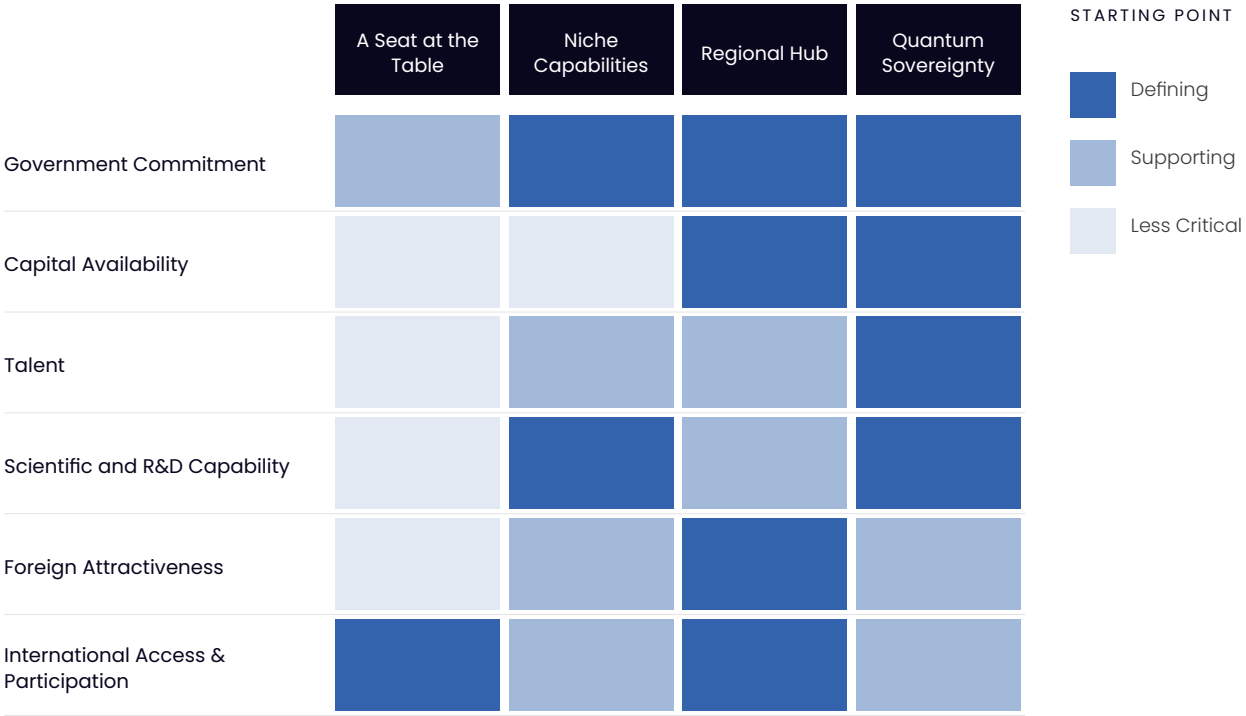


Source: Accenture Research

Determining which strategic choice fits best starts with a country's existing position and an understanding of what each choice requires. Factors such as government commitment, capital availability, talent, scientific and R&D capability, foreign attractiveness, and international access and participation will carry different weight depending on the strategy pursued. Figure 6 illustrates which requirements are essential, supporting or less critical for each of the four strategic choices.

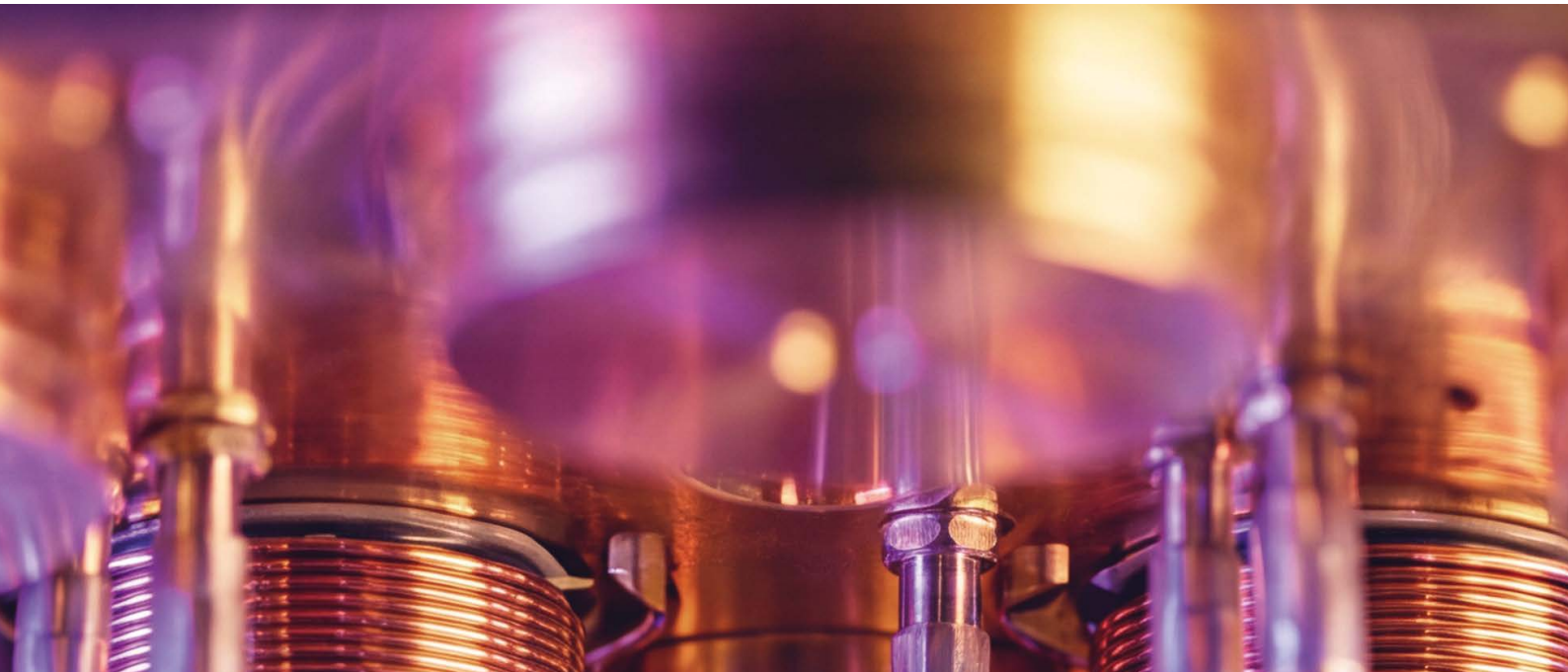
FIGURE 6

What does each strategic choice require?



Source: Accenture Research

These strategic choices are not mutually exclusive or fixed. Countries may combine elements of different approaches or shift their positioning as capabilities, resources and market conditions evolve. The choices made today will influence where they participate, what value they capture and how resilient they remain as the quantum economy takes shape.



Beyond the hardware race

Developing applications offers a more accessible path beyond the hardware race to meaningful participation in the quantum economy, allowing countries to build on sectors where they already have expertise, data and market demand. By directing innovation toward national priorities and existing industrial capabilities, governments can create economic value while addressing pressing societal and industrial challenges. This application-led approach can help countries move from technology adopters to active contributors in the global quantum value chain.

Saudi Arabia, for example, aligns its quantum initiatives with Vision 2030, the country's national transformation plan, to address critical priorities such as energy, health, food and water security.[13] Brazil illustrates how quantum technologies can support areas of national significance through a research and innovation unit in tropical agriculture that brings together quantum technologies, sensors, photonics and other advanced digital technologies.[14]

Quantum computing could transform complex optimization and simulation, while opening new frontiers in scientific discovery. The technology's potential to model molecules and materials at the quantum level could be particularly transformative for materials science, accelerating the discovery of new materials, chemicals and industrial processes that are difficult to simulate with classical computers.

But the ability to formulate a problem for a quantum computer does not make it an investment priority. Governments and companies need to determine whether quantum can outperform the best available classical alternative for a specific problem at an acceptable economic cost.[15] As both quantum and classical technologies advance, investment should concentrate on use cases where the potential advantage is significant enough to justify the additional cost and complexity.

Quantum sensing, meantime, opens a different set of opportunities and is already more mature in some applications, enabling greater precision in areas such as medical diagnostics, mineral exploration, GPS-free navigation and environmental monitoring. Some quantum sensors can be deployed as field-ready devices, offering earlier paths to commercialization and lower infrastructure requirements than quantum computing. This could make quantum sensing particularly relevant for the Global South, where applications in sectors such as mining, energy, agriculture and healthcare can create economic value, while navigation and infrastructure monitoring can also support national security priorities.

Quantum communication, for its part, can strengthen the security of sensitive data and critical communications. For most organizations, the most immediate route to quantum-safe communications is PQC, which uses new cryptographic algorithms to protect existing classical networks. QKD offers a complementary infrastructure-based approach, using quantum properties to securely distribute encryption keys and detect eavesdropping attempts. Looking further ahead, quantum networks could connect quantum computers, sensors and other quantum devices to transmit quantum information, eventually laying the foundations for a quantum internet. For the Global South, this emerging infrastructure could either widen the digital divide or create an opportunity to participate in a new generation of secure communications and scientific collaboration, depending on access, investment and infrastructure development.

Together, the three quantum domains offer multiple opportunities to create value beyond the hardware race. Long-term differentiation will increasingly depend on algorithms, industry expertise and unique data assets. Countries and organizations that identify high-impact applications early and develop proprietary solutions around their distinctive strengths will be better positioned to capture value as the quantum economy develops.



The Monetary Authority of Singapore tests QKD to accelerate quantum resilience

As one of the world's leading financial services hubs, Singapore is preparing its financial sector for the quantum security transition. The Monetary Authority of Singapore (MAS), a regulator often looked to for best practice, is taking an early and proactive approach, combining guidance on quantum-related cyber risks with applied experimentation.[16] Working with financial institutions and technology partners, MAS launched a proof-of-concept sandbox to test Quantum Key Distribution (QKD) for secure financial communications.

The initiative provided more than a technology test, enabling participating institutions to build practical expertise, assess integration with existing infrastructure and explore interoperability across providers. Together with MAS's work on post-quantum cryptography, the initiative is helping financial institutions understand how different quantum-safe technologies can strengthen cyber resilience and prepare for the transition.

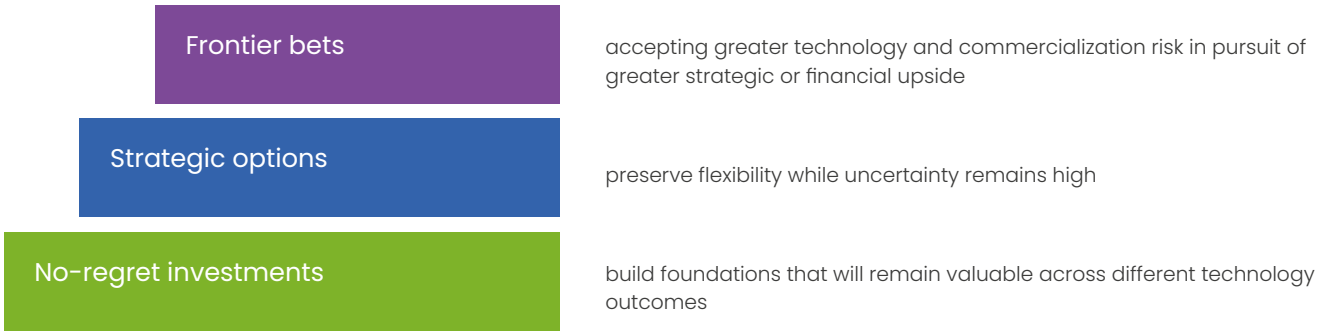
MAS's experience also surfaced a broader leadership lesson: Technology readiness requires organizational readiness. MAS identified senior management sponsorship as critical to building in-house capabilities and securing the budget and resources required for quantum-safe initiatives. By bringing regulators, financial institutions and technology providers together, MAS is demonstrating how ecosystem collaboration and early experimentation can build sector-wide capabilities and turn an emerging security risk into a coordinated resilience agenda.

Capital before returns

Quantum capital is being deployed well before commercial outcomes are proven. Governments, sovereign investors and corporations are funding research, infrastructure and technology companies despite uncertainty over which modalities, providers and applications will ultimately create value. This makes it important to distinguish capital formation from commercial validation: Rising investment signals confidence in quantum's strategic potential, but it is not evidence that the technologies being funded will deliver quantum advantage or generate economic returns. The more relevant question is what that capital is funding: proven applications, strategic options, enabling infrastructure or early-stage frontier technologies.

In this environment, quantum investment is better approached as a portfolio than as a single bet on one technology or company. No-regret investments build foundations that will remain valuable across different technology outcomes, including talent, research capacity, quantum-security capabilities and classical infrastructure and data readiness. Strategic options preserve flexibility while uncertainty remains high, using investments, partnerships, joint ventures and pilots across providers or modalities to gain access, learn and maintain multiple paths forward without committing too early to a single technological path. Frontier bets concentrate capital behind particular companies, modalities or architectures that investors believe could lead the market, accepting greater technology and commercialization risk in pursuit of greater strategic or financial upside.

A PORTFOLIO



Governments have reasons to invest before commercial validation because quantum has the potential to reshape existing industries and create entirely new ones. Its disruptive potential could unlock new sources of economic growth, diversify economies and create value chains that are difficult to anticipate today. Just as semiconductors gave rise to industries that were difficult to imagine before the transistor, quantum-enabled materials discovery could open entirely new markets. New catalysts capable of capturing and converting CO_2 into valuable inputs, for example, could transform carbon from a waste stream into an economic resource.

For countries, returns should therefore be measured not only in financial terms. At this stage of the quantum market, one of the most important returns on strategic investment may be foundational: the talent, intellectual property, research capacity, infrastructure and industrial capabilities that remain in the country. These foundations can strengthen national readiness even if technologies take longer than expected to mature or particular applications fail to scale. The investment question therefore extends beyond what will generate a financial return to what capabilities an investment will leave behind.

This broader view of returns is particularly relevant for the Gulf, where sovereign capital can provide early exposure to leading quantum companies and technologies before commercial and technological winners are clear. The strategic opportunity is to use that capital not only to participate in future value creation, but also to accelerate the formation of foundational capabilities at home.

Export controls: the geopolitical risk

As quantum technologies become strategically important, they are also becoming strategically protected. Governments are increasingly using export controls to restrict access to sensitive technologies, components and know-how across borders while the quantum ecosystem is still taking shape. For countries that depend on capabilities developed abroad, access to frontier technologies may therefore depend not only on capital availability, but increasingly on geopolitical alignment and trusted relationships, potentially widening the quantum divide.

The exposure extends across the quantum value chain. No single country controls every component required to build advanced quantum systems, with critical materials, specialized manufacturing equipment, cryogenic systems and semiconductor technologies distributed across different regions and suppliers. As trade restrictions expand,[17] concentrated dependencies can become bottlenecks, making diversified supply chains and trusted international partnerships increasingly important to securing long-term access.

For investors, this adds geopolitical risk to an already uncertain technology landscape. Capital allocation decisions should consider not only market potential, but also the resilience of supply chains, jurisdictions and technology partnerships to future restrictions. Diversifying across geographies, technology modalities and parts of the quantum value chain can reduce exposure while preserving access and optionality as the geopolitical landscape evolves.

Countries cannot eliminate these risks, but they can reduce strategic dependencies by building selected domestic capabilities, diversifying trusted international partnerships and strengthening quantum diplomacy. For the Global South, these efforts can help narrow the quantum divide and secure a meaningful role in the quantum economy. In an increasingly fragmented world, the ability to reliably access critical technologies may become as important as the ability to develop them.

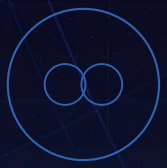
REDUCE STRATEGIC DEPENDENCIES

01



Building selected domestic capabilities

02



Diversifying trusted international partnerships

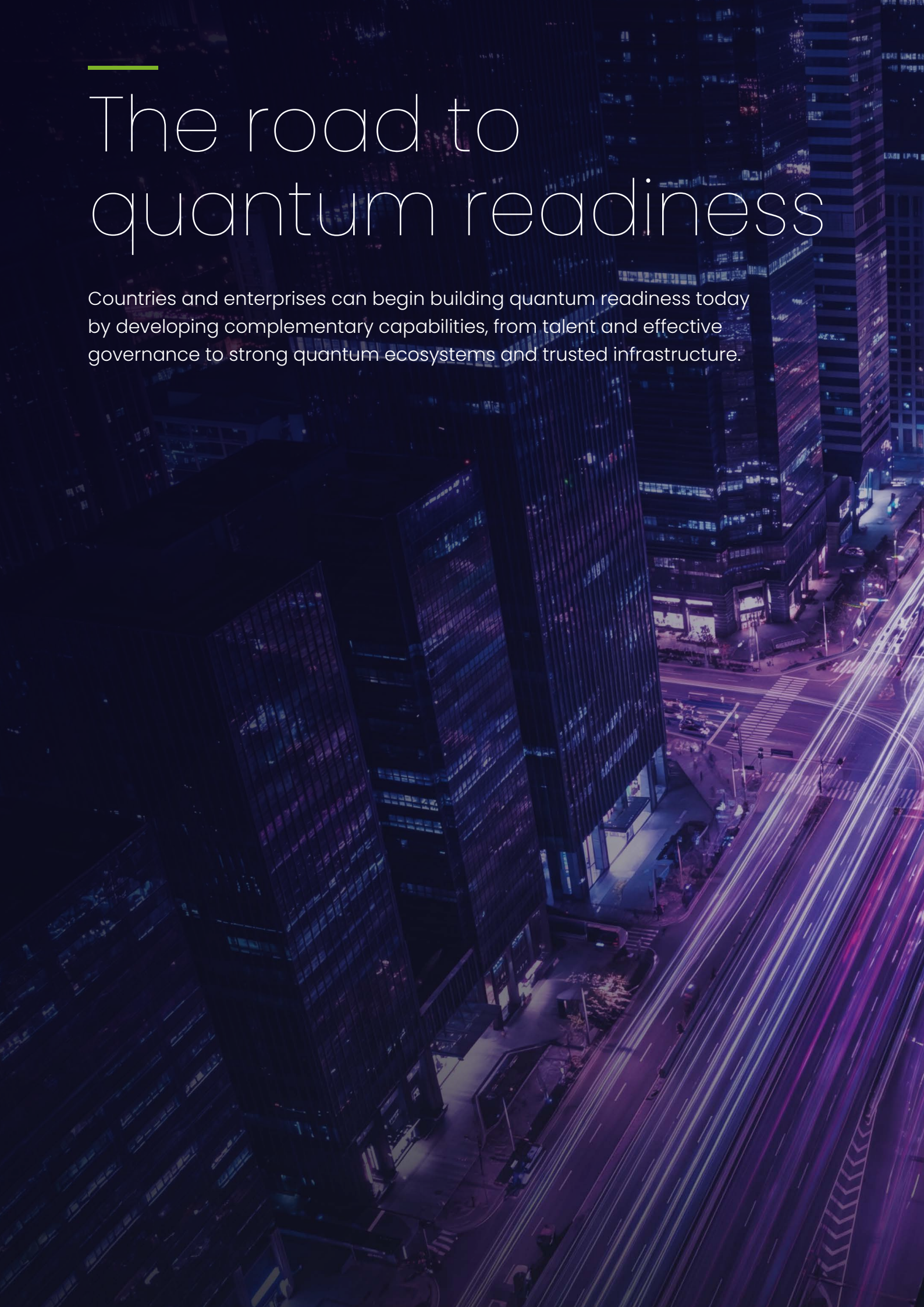
03



Strengthening quantum diplomacy

The road to quantum readiness

Countries and enterprises can begin building quantum readiness today by developing complementary capabilities, from talent and effective governance to strong quantum ecosystems and trusted infrastructure.





Talent & workforce

Talent is one of the core building blocks of quantum readiness, as well as among the most difficult capabilities to develop. Quantum expertise takes years to build and remains scarce globally (Figure 7).[18] Quantum readiness will require more than quantum scientists. Countries will also need hybrid talent: engineers who can connect quantum systems to classical infrastructure, developers who can build hybrid quantum-classical workflows, security experts who understand how AI and quantum are reshaping the threat landscape and business translators who can identify where quantum could deliver value over classical approaches. Building these capabilities will require sustained collaboration across governments, universities and industry.

Countries do not need to wait for frontier quantum hardware to begin building quantum literacy. Education programs, applied research, cloud access, shared testbeds and international partnerships can already give students, researchers and industry specialists practical exposure to quantum technologies. Leading research institutions can also provide models and partnership opportunities for countries developing their own capabilities. The concentration of highly cited quantum research across a relatively small number of institutions illustrates where frontier expertise resides and where international collaboration can accelerate learning (Figure 8).

FIGURE 8

Leading institutions ranked by share of highly cited publications, 2021-2025

#	Quantum Computing | Institution
1	Delft University of Technology
2	California Institute of Technology (Caltech)
3	Harvard University
4	MIT
5	Google
6	IBM
7	University of Science and Technology of China
8	University of Chicago
9	University of California. Berkeley
10	University of Maryland. College Park

#	Post-Quantum Cryptography | Institution
1	University of Science and Technology of China
2	Nanjing University
3	Tsinghua University
4	Nanjing University of Post and Telecommunications
5	Beijing University of Post and Telecommunications
6	Nanyang Technological University
7	Delft University of Technology
8	University of South Florida
9	University of Waterloo
10	Florida Atlantic University

Source: Accenture Research, based on data from the Australian Strategic Policy Institute.

For developing economies, "brain circulation" can offer a more realistic path than focusing only on brain retention.[19] Researchers who build careers abroad can remain part of the national talent network through diaspora communities, visiting appointments, remote research, joint laboratories and international research programs. These connections can create channels for knowledge transfer, startup formation, investment and capital flows back into domestic ecosystems, allowing countries to benefit from global expertise even when talent is geographically dispersed.

Brain circulation and international partnerships, however, create lasting value only when countries have the domestic capacity to absorb and apply what they learn. Universities, research institutions and companies need applied learning programs, career pathways and opportunities for researchers to work on relevant industrial challenges. Building this combination of interdisciplinary talent, global connections and domestic absorptive capacity can help countries transform talent into a quantum-ready workforce.

Governance & accountability

Quantum readiness requires both effective governance and clear accountability. Governance provides the frameworks for setting priorities, coordinating decisions and managing risks, while accountability establishes who is responsible for turning those decisions into action. Both need to operate across governments, regulators and enterprises as quantum moves from an emerging technology issue to a broader strategic priority (Figure 9).

For governments, governance starts with a coherent national strategy that aligns security, enabling infrastructure, research, workforce and innovation priorities. Delivering against that strategy requires coordination across the institutions responsible for cybersecurity, standards, infrastructure, education, industrial policy and procurement, with clear accountability for advancing national objectives.

For critical sectors such as financial services, energy, telecommunications and healthcare, regulators can translate national priorities into industry-specific expectations, establishing priorities and timelines for PQC migration. This can provide greater clarity on how and when organizations should prepare, while enterprises remain accountable for execution.

For companies, governance means integrating quantum into existing processes for strategy, investment and enterprise risk. Organizations need to assess their exposure across the full spectrum of quantum risks, from cybersecurity and technological uncertainty to investment, talent, infrastructure, ecosystem dependencies and geopolitics, while also identifying where quantum could create future value. Boards and executive teams can provide oversight and set risk appetite and investment priorities, while clear executive accountability ensures that decisions translate into coordinated action across the enterprise. This is particularly important for quantum security, where companies remain responsible for executing post-quantum migration across their own systems, data and third-party dependencies.

Ecosystem & partnerships

Strong ecosystems are a core building block of quantum readiness; countries must decide where to build and where to partner. Domestic investment can concentrate where national priorities, industrial strengths and comparative advantages intersect. Security and sovereignty considerations also matter: Capabilities involving sensitive data, critical infrastructure or strategic dependencies may warrant greater domestic control.

But quantum is, of course, an emerging technology, and few countries begin with all the capabilities required to become quantum-ready. Building specialized talent, infrastructure, research capacity and technology from the ground up takes time and significant capital. Joint ventures and partnerships with leading global quantum providers can help bridge these gaps, allowing countries to back technologies and companies they believe can lead the market while gaining access to capabilities and expertise that would otherwise take years to develop.

For the Global South, partnering can provide a path to leapfrog stages of capability development. For countries pursuing greater sovereignty over the long term, partnerships can accelerate the development of critical domestic capabilities. For those seeking a meaningful role in the global quantum value chain, partnerships can provide access to frontier technologies, expertise and networks without requiring the entire technology stack to be built domestically.

Attracting partners is only the first step. The value of these partnerships should be measured not only by the capital they attract or infrastructure they deploy, but by the capabilities they leave behind. For Global South economies, this means considering who owns the resulting IP and data, how much technological control remains domestic, whether local talent is being trained and whether partnerships create lasting access to markets and expertise. The strongest partnerships build capabilities that can endure beyond the life of the agreement.

FIGURE 9

Governance & accountability—a three-level framework

Clear ownership at every level—quantum readiness cannot be delegated upward or downward

ACCOUNTABILITY CASCADE

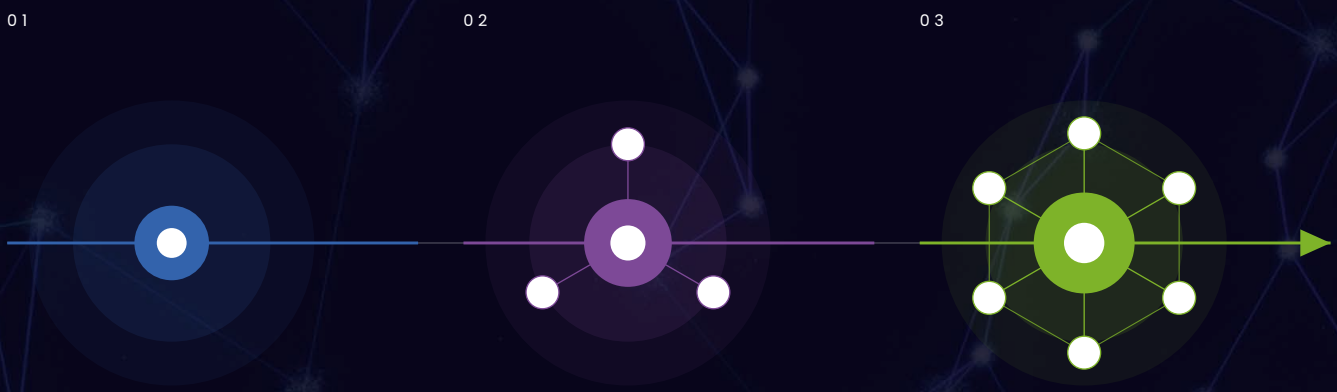


Source: Accenture Research

Whether countries choose to build or partner, targeted mechanisms can help accelerate ecosystem development and shorten the path from scientific discovery to market adoption. By linking research with industry, attracting talent and capital, sharing risk and reducing the cost of experimentation, initiatives such as startup accelerators and incubators, open challenges, talent exchanges, shared testbeds and local hubs can strengthen the broader ecosystem (Figure 10).

FIGURE 10

Quantum ecosystem development accelerators



IGNITE

Seed & cultivate new ventures and ideas

INCUBATE

Accelerators & Incubators

Incubate early concepts and fast-track existing early companies

INNOVATE

Quantum Challenges

Challenge programs linked to national priorities accelerate industry-focused innovation

SCALE

Co-create solutions and build human capital

CO-CREATE

Shared Testbeds

Lower barriers to innovation

DEVELOP

Talent Exchanges

Facilitate workforce development and build the quantum-ready human capital pipeline

INTEGRATE

Integrate local hubs and global partners

CONNECT DOMESTICALLY

Quantum Hubs

Concentrate talent and capital flows. A network of interconnected quantum hubs creates a strong national or regional ecosystem

CONNECT GLOBALLY

Global Partnerships

Enable technology access, expertise and knowledge transfer across borders

Source: Accenture Research

Geography matters: The largest quantum ecosystems flourish where scarce talent, startups, universities and research institutions concentrate, creating a reinforcing cycle of innovation and investment (Figure 11). Today, 96% of global quantum company funding flows into just 45 geographically concentrated clusters, or quantum hubs, including Bangalore and Dubai in the Global South[20]. Countries do not need to replicate the scale of these clusters to become quantum-ready, but they do need sufficient depth in strategically important capabilities and strong connections to expertise and technologies available beyond their borders.

FIGURE 11

Major quantum hubs for large metropolitan areas

QUANTUM CLUSTER	COUNTRY	TOP INDUSTRY COLLABORATORS	TOP RESEARCH COLLABORATORS
San Francisco Bay Area		Google · Rigetti Computing · D-Wave	Caltech – UC Berkeley · Stanford University · RIACS
London Commuter Belt		Arqit Quantum Inc. · BT Group · Crypto Quantique	Imperial College London · UCL · King's College London
Greater Washington		IonQ · RTX Corporation · Northrop Grumman	University of Maryland · Joint Quantum Institute · QuICS
Greater Paris		PASQAL · Quandela · Thales	Sorbonne University · University of Paris-Saclay · Paris Cité University
Shanghai		TuringQ · Guoke Quantum · CSSC	SJTU · ECNU · Fudan University
Greater New York		IBM · SEEQC · JPMorgan Chase	Columbia University · CUNY · NYU
Beijing		Lonxun Quantum · CASC · Baidu	BAQIS · Tsinghua University · BUPT
Greater Tokyo		NTT · Toshiba · Fujitsu	University of Tokyo · Waseda University · Keio University
Shenzhen–Hong Kong–Guangzhou Region		SpinQ · Huawei · Tencent	Sun Yat-Sen University · SUS-Tech · HKU
Greater Los Angeles		RadiaBeam Technologies · BlueQubit · Beyond Limits	Caltech · UCLA · USC
Seoul Metropolitan Area		SDT · Samsung · Hyundai	Seoul National University · SKKU · Kyung Hee University

Large Metropolitan Areas with GDP over 750 billion USD

Source: European Centre for International Political Economy



Qatar: Turning global investments into domestic quantum capabilities

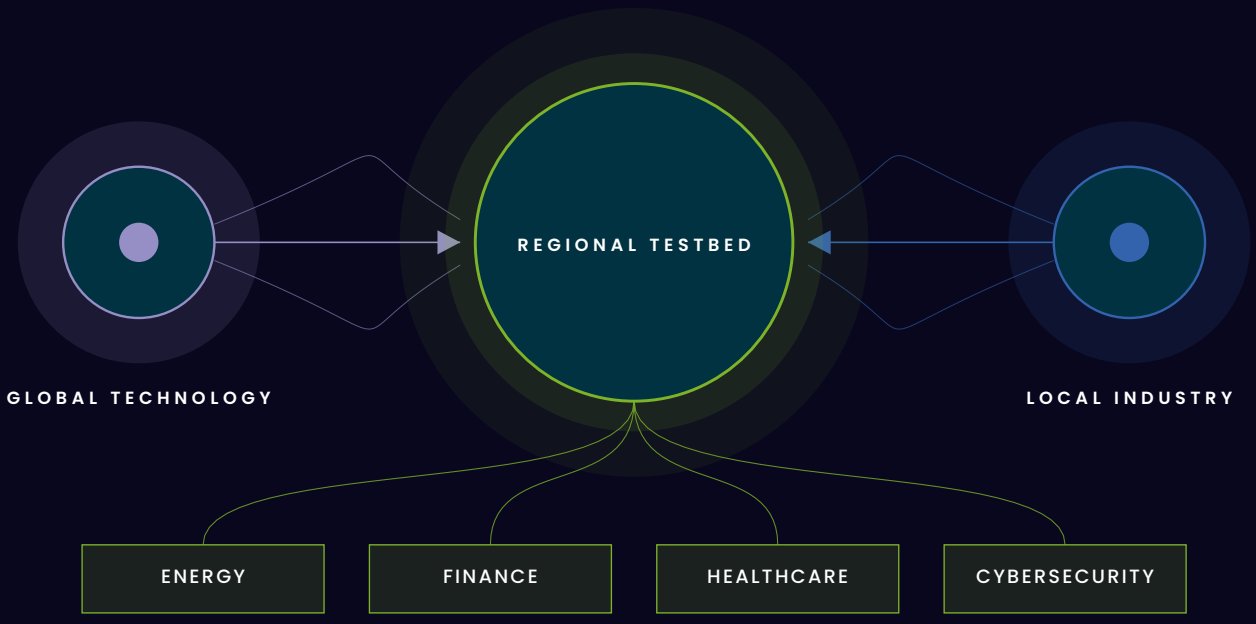


Qatar is taking a pragmatic route into the quantum economy. Rather than building a quantum computer from scratch, it is positioning itself as a regional testbed where global technology meets local industry. The ambition is to translate quantum research into applications across energy, finance, healthcare and cybersecurity, while using these activities to build domestic capabilities and support economic diversification.[21]

The strategy combines investment abroad with ecosystem building at home. Qatar plans to allocate around $1 billion over a decade to quantum research, infrastructure and talent development, working with global technology companies and academic institutions. At the center of the domestic ecosystem is the Qatar Center for Quantum Computing (QC2) at Hamad Bin Khalifa University. Its location alongside research institutes spanning computing, biomedical sciences, energy and the environment creates a natural bridge between quantum expertise and sectors of national importance.

Investment funds and international partnerships provide another route to capability. The Qatar Investment Authority invested in quantum companies in the US and France, while Al Rabban Capital entered a joint venture with a leading trapped-ion quantum computing company, with commitments of up to $1 billion over the next decade. Rather than simply importing technology, the goal is to use these relationships to accelerate knowledge transfer, develop local talent, nurture startups and bring advanced quantum capabilities closer to potential users.

Qatar's bet is that a country does not need to own the full quantum stack to become a meaningful player in the quantum economy. By combining global technology, domestic research and industry demand, Qatar is creating the conditions to develop local capabilities, attract innovation and establish itself as a regional quantum hub.



QC2 Qatar Center for Quantum Computing (QC2) at Hamad Bin Khalifa University

COMBINING GLOBAL TECHNOLOGY, DOMESTIC RESEARCH AND INDUSTRY DEMAND

DEVELOP LOCAL CAPABILITIES → ATTRACT INNOVATION → ESTABLISH ITSELF AS A REGIONAL QUANTUM HUB

Trusted infrastructure

As cloud access lowers the barriers to quantum computing, reliance on cloud services also raises questions of technological and data sovereignty, particularly around where sensitive data and workloads are processed and under whose control. Trusted infrastructure will therefore be a core building block of quantum readiness, helping countries and organizations navigate this tension. Such infrastructure also extends well beyond quantum computers to include hybrid quantum-classical computing environments and the software that connects them, along with quantum-safe communications infrastructure and the broader digital environment needed to operate securely through the transition to the post-quantum era.

That broader infrastructure needs protection from the risks that quantum technologies may introduce, too. The growing interconnection of critical infrastructure means quantum-enabled cyber threats could turn digital vulnerabilities into disruptions to essential services, from power grids and railways to ports, financial systems and national security. Building domestic capabilities in quantum communication and post-quantum security will therefore be an important pillar of national resilience in the quantum age.

Trusted infrastructure must also enable secure and reliable access to quantum computing itself. The high cost and scarcity of quantum computers are driving cloud-based access, with the Quantum Computing as a Service (QCaaS) market expected to reach $26 billion by 2030.[22] But greater accessibility introduces security and jurisdictional considerations when sensitive data, proprietary workloads or intellectual property are processed outside an organization's direct control. Not all workloads require the same level of protection, either: Research and proofs of concept using synthetic or anonymized data can often run on global platforms, while sensitive or regulated workloads may require trusted domestic environments. A financial institution, for example, could test a portfolio optimization algorithm using synthetic data abroad while keeping workloads involving sensitive client data under domestic control.

For developing economies, finding this balance will be particularly important. Cloud access can broaden participation in the quantum economy, but dependence on infrastructure concentrated among a small number of countries and providers could constrain sensitive and strategic use cases. Governments will therefore need to determine which workloads require domestic control and where trusted partnerships can provide access to frontier capabilities without compromising sovereignty. Building this combination of trusted domestic infrastructure and global access will be an important foundation for quantum readiness.

QUANTUM COMPUTING AS A SERVICE (QCAAS)

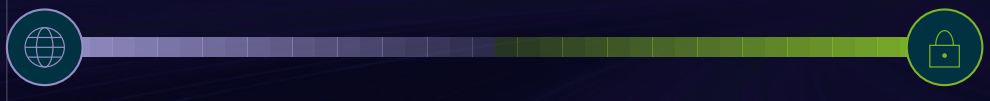
market expected to reach

$26 billion

by 2030

The high cost and scarcity of quantum computers are driving cloud-based access

NOT ALL WORKLOADS REQUIRE THE SAME LEVEL OF PROTECTION



GLOBAL PLATFORMS

Research and proofs of concept using synthetic or anonymized data

TRUSTED DOMESTIC ENVIRONMENTS

sensitive or regulated workloads

Conclusion: from quantum ambition to quantum readiness

Our analysis identified six critical strategies to help governments and businesses prepare for the quantum era by unlocking new opportunities while mitigating emerging risks. Quantum readiness requires making deliberate choices today about what to protect, where to build capabilities and how to position for future value. The following imperatives provide a roadmap for turning quantum ambition into action.

1. Act now on quantum security

The security transition has begun. Governments and organizations need to protect critical infrastructure and accelerate PQC migration now. The case for action does not depend on when Q-Day arrives. Three clocks are already running: the arrival of a cryptographically relevant quantum computer, the lifetime of sensitive data and the time required to complete cryptographic migration. Organizations cannot control the first, but they can act on the other two. Sensitive encrypted data is being stolen and stored today for future decryption, while large-scale migrations can take many years to complete. With PQC standards available, there is a clear path to begin the transition.

For businesses, preparation starts with understanding cryptographic exposure through comprehensive inventory and dependency mapping, identifying where critical systems rely on vulnerable algorithms. From there, organizations can prioritize long-lived sensitive data and build crypto-agility by design, enabling cryptographic algorithms to evolve as threats and standards change. Acting early can reduce operational disruption, strengthen resilience and make the transition more manageable. Yet 62% of executives are waiting for vendors to make them quantum-safe, creating a critical dependency on third parties for a risk that organizations ultimately remain accountable for.[23]

2. Build resilience across multiple risks

The risks emerging with the quantum era extend well beyond cryptography. As governments, investors and businesses commit capital and build capabilities ahead of technological maturity, they face risks that could slow development, constrain access or prevent investments from delivering their intended value. Scientific and engineering pathways remain uncertain, creating the possibility that a quantum modality or technological approach fails to advance or is overtaken by alternatives. Long development horizons add capital and capability risks. And ecosystem dependencies extend from access to critical materials and enabling technologies "upstream" (the inputs needed to develop and build quantum technologies) to the ability of industries to integrate and adopt quantum solutions "downstream" (where those technologies are deployed and used). Geopolitical fragmentation adds another layer of exposure as export controls, concentrated supply chains and restrictions on technology transfer reshape access and partnerships.

Anticipating these risks requires looking beyond individual quantum initiatives to the resilience of the system around them. Diversifying technological approaches and alliances, preserving optionality, planning for sustained funding, securing access to talent and infrastructure and understanding critical supply-chain dependencies can help governments, investors and businesses adapt as technologies, markets and geopolitical conditions evolve.

3. Quantum requires commitment before certainty

Governments that put quantum on the national agenda today can strengthen resilience while building the foundations for future economic participation. Early action can reinforce cybersecurity, develop trusted domestic capabilities and reduce strategic dependencies, while creating the talent, partnerships and areas of specialization needed to secure a meaningful role in the global quantum value chain.

Organizations face a similar leadership choice. Quantum needs sustained C-level sponsorship to earn its place on the strategic agenda, even while returns remain uncertain. Quantum also requires clear strategic choices. Leaders should identify where quantum could matter, preserve options where technological uncertainty remains high and concentrate resources where a differentiated advantage could emerge. As technologies advance, potential quantum advantage should be measured against the best available classical alternatives, ensuring that investment decisions are grounded in evidence rather than technological momentum.

4. Build the core capabilities as the quantum economy takes shape

The capabilities that will matter tomorrow take years to develop. Technical capabilities—from specialized talent and research expertise to patents and proprietary know-how—need to be complemented by the strategic competence to identify where quantum matters, make informed technology choices and translate innovation into economic value. For countries, strengthening education, interdisciplinary research and workforce pipelines today can build both. Investments in research institutions, shared testbeds and innovation ecosystems can provide the foundations for specialized expertise and future industries, while classical infrastructure and data readiness will be essential to support the hybrid quantum-classical environments in which many applications will develop. For critical communications, governments can also assess where QKD infrastructure could complement PQC, particularly where the sensitivity and strategic importance of information justify an additional layer of protection.

Companies do not need billion-dollar commitments to begin. Research collaborations, pilots, small teams and targeted experimentation around high-value use cases can build technical expertise and strategic competence while revealing where quantum could create business value. Preparing the classical foundations matters, too: Organizations need datasets and computing environments capable of integrating quantum computing into existing workflows. These investments generate learning advantages that accumulate over time, helping organizations develop proprietary solutions and scale more rapidly as the technology advances.

5. Develop locally, connect globally

Meaningful participation in the quantum economy does not depend on achieving full sovereignty. For most countries, strong domestic ecosystems connected to trusted global partners will offer a more pragmatic path. These networks can provide access to technology, expertise, capital and markets, while engagement in international standards can help ensure interoperability and preserve access to the global quantum ecosystem. As geopolitical fragmentation intensifies and export controls expand, the ability to develop locally, connect globally and remain interoperable will become an increasingly important source of national strength.

Few organizations will develop every quantum capability internally, either. Partnerships with technology providers, research institutions, startups and industry peers can provide access to scarce expertise and infrastructure while sharing the cost and risk of early innovation. The strategic challenge is knowing where collaboration creates advantage, and which capabilities and IP should be retained to capture lasting value.

6. Focus quantum innovation on areas of strategic advantage

Move from science to technology to mission. National missions can provide the direction needed to align investment, research and capability building with strategic priorities. Across quantum computing, sensing and communication, countries can create value by focusing investments where national priorities, industrial strengths and comparative advantages intersect. Depending on their capabilities and economic resources, that could mean developing niche expertise, building a regional hub, or pursuing technological sovereignty. These pathways are not mutually exclusive or fixed. Countries can combine them and evolve their positioning over time as capabilities mature, resources expand and new opportunities emerge.

For organizations, the opportunity starts with knowing their industry and identifying where quantum could outperform classical approaches. Demonstrating quantum advantage alone does not necessarily create business value. What matters is whether quantum can deliver sufficient gains in cost, speed or performance to justify adoption. In this pre-competitive phase, companies can collaborate with industry peers to experiment, learn and reduce the cost and risk of early exploration. As promising applications emerge, the focus should shift toward a small number of high-value use cases where domain expertise and data provide an edge. Making those choices early can help turn industry knowledge into proprietary solutions and position businesses to capture emerging opportunities.

Appendix

Research methodology

Geographic coverage

References

Authors and Contributors

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Research methodology

This report draws on four complementary research components:

- We reviewed reputable content sources to analyze key quantum market signals, including venture funding, job openings, academic publications and quantum hubs across major metropolitan areas.

- We assessed national quantum initiatives across 35 countries to identify funded programs and investment commitments, with a particular focus on the Global South.

- We ran a detailed analysis of post-quantum security strategies across the Global South.

- We conducted in-depth interviews with quantum experts to formulate the four strategic choices for quantum competitiveness framework.

Geographic Coverage

For the purpose of this report the Global South is defined as the following countries (and excludes China):

Africa: Algeria, Angola, Congo, Egypt, Ethiopia, Ghana, Ivory Coast, Kenya, Mauritania, Mauritius, Morocco, Mozambique, Nigeria, Senegal, South Africa, Tanzania, Tunisia

Developing APAC: Cambodia, India, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam

Latin America: Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay

The Middle East: Jordan, Lebanon, Qatar, Saudi Arabia, the United Arab Emirates (UAE)

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[1] For the purposes of this report, the Global South comprises selected economies across Africa, developing Asia-Pacific, Latin America and the Middle East, excluding China. Geographic Coverage is detailed on page 49.

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Authors

In collaboration with the Future Investment Initiative (FII) Institute



Omar Boulos

CEO, Middle East and Africa Market Unit, Accenture



Tom Patterson

Emerging Technology Security Managing Director, Accenture



Laura Converso

Technology Research Principal Director, Accenture



Paloma Haschke-Joseph

Director of Research and Thought leadership, MEA, Accenture

CONTRIBUTORS

Sandra Atallah

Gargi Chakrabarty

Carl Dukatz

David Kimble

Kamran Haider

Jinesh Mathew

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