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Position Paper

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The Quantum Inflection Point

A Leadership Agenda for the coming Computational Shift

DIGITAL ECONOMY | TECH GOVERNANCE | PARADIGM SHIFT

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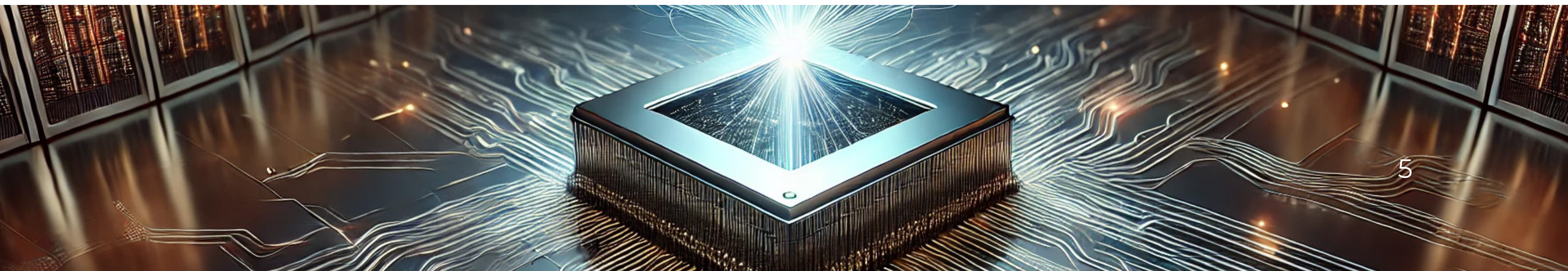
Abstract

Quantum computing is approaching an inflection point that will reshape the computational foundations of the digital economy. While often framed as a distant scientific breakthrough, the technology is rapidly moving from research laboratories into strategic planning conversations across business, government, and international governance.

This position paper examines quantum computing not simply as a faster form of computation but as a structural shift in how complex systems can be modelled, optimized, and governed. The paper proposes and advances a global, strategic, and forward-looking agenda, aiming at equipping boards and private and public sector leaders with the perspective needed to ask the right questions so as to navigate the complexities associated with this new era of computational superiority.

The paper outlines the emerging strategic implications for organizations, including the need to prepare for post-quantum cybersecurity risks, develop internal quantum literacy, identify high-value experimental use cases, and integrate quantum considerations into long-term technology strategy. It also explores the co-evolution of artificial intelligence and quantum computing and the resulting blurring of boundaries between strategy and computation.

Beyond technical adoption, the paper argues that quantum computing raises broader questions related to governance, geopolitics, institutional resilience, and human-centric digital development. As nations invest in quantum capabilities and organizations begin experimenting with hybrid quantum-classical systems, leaders face a timing paradox: the technology may mature unevenly, but its effects could be sudden and disruptive. Preparing for the quantum era, therefore, requires early organizational readiness, ethical foresight, and multidisciplinary collaboration long before large-scale quantum advantage becomes commercially viable.



Introduction

Even though quantum computing is often framed as a distant scientific breakthrough, the field is rapidly transitioning from a research-driven discourse into one with profound implications for industry, government, international relations, and civic society, positioned at the nexus of fundamental science and applied frontier technology (Salampasis 2025).

While still in its formative stages, its potential applications span industries, including chemicals, life sciences, supply chains, pharmaceuticals, finance, and transport, making it a cornerstone of future technological leadership and bringing it increasingly closer to the day-to-day concerns of business leadership (Noyes 2025; Stackpole 2025).

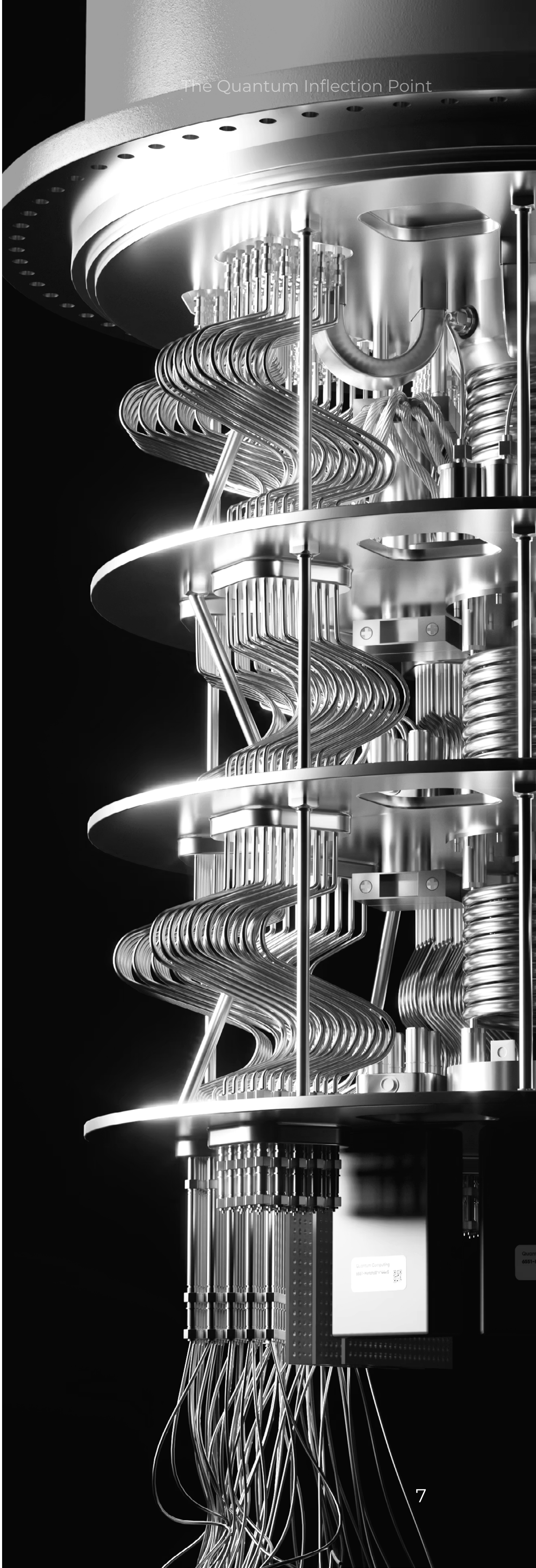
The three core pillars of quantum technology—computing, communication, and sensing—could together generate up to $97 billion in global revenue by 2035 (Soller 2025). Quantum computing, in particular, is poised to introduce a fundamentally new way of representing and processing reality computationally.

Beyond its computational capabilities, quantum computing is also becoming a dynamic arena for international cooperation, competition, co-opetition, and technological standard-setting. A growing number of countries including, among others, Australia (National Quantum Strategy), Singapore (National Quantum Strategy), Canada (National Quantum Strategy Roadmap), Finland (Quantum Technology Strategy), Italy (National Quantum Strategy), Denmark (National Strategy for Quantum Technology), Spain (National Quantum Technologies Strategy) and Great Britain (National Quantum Strategy) have already adopted dedicated, stand-alone national quantum strategies (OECD 2025b).

These strategies typically emphasize economic competitiveness, R&D, security, talent development, infrastructure, and commercialization, alongside policy frameworks related to technological sovereignty, framing quantum as a sovereign-critical domain with strong defense and security implications.

When quantum computers eventually become viable at scale, they will redefine new ways of value creation and value distribution, how risk is modelled, how competitive advantage is built, and how entire industries organize themselves.

Leaders are, therefore, increasingly confronted with a strategic question: *Who will be prepared when quantum computing moves from theoretical discourse to operational reality?*



1.

Preparing for the Quantum Transition

Quantum computing remains in its early stages, yet leaders do not need to wait for full-scale quantum advantage before beginning to prepare.

The most forward-looking organizations are already focusing on awareness-building, talent development, risk preparedness, and capability formation, ensuring they are not caught off guard as the technology matures.

The key question for leaders in both the private and public sectors is therefore practical: Which areas should organizations prioritize today to operationalize quantum's practical readiness?

1.1 Identify High-Impact Business Applications

Leaders should begin by understanding where quantum computing could deliver meaningful business impact. Four categories are particularly relevant:

- Optimization problems such as logistics routing, supply-chain coordination, and portfolio allocation.
- Material and chemical simulation, particularly relevant for pharmaceuticals, energy systems, and advanced manufacturing.
- Machine learning acceleration with quantum-enhanced algorithms.
- Financial modelling, including complex risk simulations and derivative pricing.

Organizations that identify early on high-value use cases have enough runway to experiment faster when quantum computers become practical.

1.2 Prepare For Post-Quantum Cybersecurity

Many modern security protocols rely on cryptographic systems that could eventually become vulnerable to quantum algorithms (e.g., Shor's algorithm).

Large-scale quantum computers could theoretically break widely used encryption schemes such as RSA, potentially compromising the security of data, information, financial transactions, and online infrastructure.

To mitigate this, leaders should begin preparing now:

- Conducting a cryptographic inventory across systems and infrastructure.
- Planning a migration toward post-quantum cryptography.
- Monitoring evolving standards from institutions such as the National Institute of Standards and Technology (NIST).

This preparation is urgent because of a well-known cybersecurity threat known as "harvest now, decrypt later." Adversaries may intercept encrypted data today with the intention of decrypting it in the future once large-scale fault-tolerant quantum computing becomes feasible (Auer et al. 2024).

In this context, transitioning toward quantum-safe cryptographic standards is increasingly viewed as a near-term priority, even before broad commercial quantum advantage is realized.

1.3 Build Quantum Literacy at the Leadership Level

Organizational readiness requires quantum literacy among senior decision-makers, not only among technical teams.

Practical steps include the following:

- Educating executives on quantum fundamentals.
- Establishing internal workshops and learning programs.
- Partnering with technology providers offering cloud-accessible quantum platforms for experimentation and training.

1.4 Develop Early Small Quantum Proof-of-Concept Projects and Use-Case Experiments

Organizations should begin exploring small-scale quantum experiments, even before the technology becomes commercially mature.

Examples include the following:

- Logistics optimization pilots.
- Quantum simulation experiments for materials or chemistry.
- Hybrid quantum-classical algorithm testing.

The purpose of these initiatives is not immediate return on investment (ROI) but rather the development of organizational capability, capacity building, internal expertise, and strategic understanding.

1.5 Develop Talent Pipelines and Strategic Partnerships

Quantum computing requires specialized expertise that remains globally scarce. Specialized quantum-computing expertise is being considered as a critical bottleneck, putting pressure on a global quantum workforce shortage. Even though quantum ecosystems require diverse expertise, the industry is being faced with a growing talent shortage across various roles. This gap is worsened by unequal global access to quantum education and shifting talent flows (Georges and Al Saiyani 2025). Indicatively, according to the 2025 QEC Report, only about 1,800 to 2,200 professionals specialize in quantum error correction worldwide, leaving approximately 50 to 60 percent of quantum jobs unfilled. The long training time—up to ten years—creates a major talent pipeline shortage.

Organizations should therefore focus on the following:

- Partnerships with universities and research institutions.
- Recruiting quantum researchers and physicists.
- Training existing data scientists and engineers in quantum computing concepts.

Organizations that begin building internal quantum fluency are more likely to secure competitive advantage as the technology evolves.

1.6 Monitor Technology Roadmaps and Global Developments

Leaders should actively monitor technological progress across several key areas:

- Fault-tolerant quantum computing.
- Quantum error correction.
- Qubit scaling and hardware stability.

Understanding these roadmaps will allow organizations to estimate realistic timelines for adoption and experimentation.

1.7 Integrate Quantum into Long-Term Strategy

Finally, quantum computing should be incorporated into broader technology horizon scanning and strategic planning processes.

Key actions include the following:

- Adding quantum computing to technology risk registers.
- Including quantum considerations in innovation and R&D strategy discussions.
- Assigning internal quantum champions, working groups, or task forces.

Preparing early does not require large capital investments today. However, it does require organizational awareness, strategic foresight, and disciplined experimentation.

1.8 Strategic Pitfalls and Preparation Principles

Five most common mistakes companies make when approaching quantum computing too early:

- **Expecting immediate commercial ROI.**
  Quantum computing remains in a developmental phase, and early initiatives should prioritize capability-building and experimentation rather than short-term financial returns.
- **Purchasing hardware prematurely.**
  Quantum hardware is evolving rapidly. Most organizations benefit more from cloud-based access to quantum platforms than from attempting to acquire or operate their own systems.
- **Treating quantum computing purely as an IT project.**
  Quantum computing has implications for strategy, operations, cybersecurity, and competitive positioning, not just information technology infrastructure.
- **Ignoring the cybersecurity transition timeline.**
  The migration to post-quantum cryptography must begin long before large-scale quantum computers become operational.
- **Not identifying real use cases.**
  Without clearly defined problems—particularly in optimization, simulation, and complex modelling—quantum initiatives risk becoming technology experiments without strategic relevance.

Building readiness without overinvesting, these are five preparation moves for leaders:

- Develop quantum literacy across leadership and technical teams.
- Identify high-value use cases where quantum methods may eventually provide advantage.
- Experiment with small-scale pilot projects and hybrid quantum–classical approaches.
- Form strategic partnerships with key stakeholders (e.g., universities, research labs, and technology providers).
- Prepare early for the transition to post-quantum cryptography.

2.

From Classical to Quantum Computation

Quantum computing represents a categorically different technological shift because it ultimately changes the model of computation itself (MIT Sloan Office of Communication 2023).

Quantum computing is not going to be merely a faster computer. Classical computing encodes information in binary terms—zeros and ones—and processes them through deterministic logical operations. Quantum computing, by contrast, operates through superposition, entanglement, and probabilistic state spaces, allowing computational systems to explore many possible solutions simultaneously.

From a business point of view, quantum computing therefore represents a deeper shift from the deterministic worldview businesses have been optimizing for decades. Quantum computing emerges with a probabilistic worldview where multiple probabilities coexist, correlations matter more compared to linear causality, and optimal solutions emerge based on statistical rather than deterministic terms.

Leaders are expected to rethink optimization, prediction, and decision-making since quantum computing brings a discontinuity in existing computational capabilities, opening up new frontiers across neuralgic sectors of the global economy and paving the way for novel business models, management systems, and feasible policy instruments (Munoz et al. 2023).

3.

Rethinking the Question: What Is Quantum Computing For?

The question "What problems will quantum computing solve?" is a natural starting point, but it may also be fundamentally flawed.

Transformative technologies rarely succeed because they solve existing problems. Instead, they expand the space of questions that can be meaningfully explored.

Quantum computing is expected to follow the same pattern. Its long-term significance may lie not only in accelerating today's hardest calculations but in determining and deciding which calculations become meaningful, or even possible, to pursue in the first place.

In the era of technological revolution, the evolutionary forces of artificial intelligence and quantum computing are beginning to blur the boundaries between strategy and computation.

Historically, computation has supported the execution of strategies designed by humans. Today, advanced AI systems can generate hypotheses, evaluate options, and adapt policies through interactions with complex environments.

At the same time, quantum computing introduces new capabilities for optimization, sampling, search, and probabilistic exploration, expanding the range of problems that can be computationally addressed.

As these technologies evolve together, the relationship between strategy and computation begins to shift. Strategy becomes less of a fixed plan designed in advance and more a dynamic process—continuously explored, tested, and refined within hybrid human–machine systems.

In neuralgic areas of material science, logistics, finance, drug discovery, energy systems, and risk modelling, computational fidelity is paramount. Complexity is not defined and constrained any longer as being computationally intractable. Quantum computing will enable systems to be modelled within exponentially larger state spaces, allowing deeper exploration of complex solution landscapes.

This transformation raises an important governance question for leadership.

With artificial intelligence and quantum computing continuing to advance and co-evolve, the inherent nature of strategy is shifting. In this context, strategy is becoming a continuous, iterative, and adaptive process that is redefined, repurposed, and recalibrated in real-time, combining hybrid human-algorithmic judgment and discovery.

However, this transformation comes with critical and significant governance challenges, especially since the reasoning behind outcomes may become opaque or very difficult to interpret. In that respect, boards and senior executives are being faced with a critical question: *How much opacity are we willing to accept or even sacrifice, in exchange for superior performance*?

In this context, it becomes imperative for organizations to rethink, revisit, and update their existing governance frameworks by developing and embedding new norms and values for explainability, interpretability, risk tolerance, responsibility, and accountability, especially within environments where strategic outcomes are emergent and probabilistic, rather than causal.

This new reality requires preparedness and critical thinking for leaders to harness machine-driven discovery while ensuring and maintaining institutional trust and human accountability.

4.

Strategic Importance vs. Quantum Supremacy

The field of quantum computing is facing an underlying tension between strategic importance and quantum supremacy, with governments and institutions trying to find optimal and rigorous ways to evaluate quantum computing progress.

Even though quantum supremacy has historically been framed as the critical scientific milestone (Lin 2025), its technological superiority narrative seems to be quite monolithic and not being fit-for-purpose since it overlooks or even misses completely the following critical factors:

- **Technological Leadership:** Quantum computing represents a new frontier in computing science. Early leadership in this field will confer significant strategic and economic advantages.
- **Geopolitical Relevance:** Numerous jurisdictions are already investing heavily in quantum research, linking progress in this area to national security, digital sovereignty, and competitiveness (Liman and Weber 2023).
- **Societal Impact:** Applications of quantum computing will reshape industries such as healthcare, energy, logistics, and cybersecurity, requiring foresight to maximize benefits while mitigating risks.

In this context, leaders and policymakers are shifting their focus to the strategic importance (i.e., the practical capabilities quantum technologies can deliver that will affect national security, economic competitiveness, and technological sovereignty). At the same time, leaders are being confronted with a sophisticated timing paradox: quantum computing will not arrive gradually. Its impact will appear suddenly and unevenly. Entire categories of competitive advantage may instantly disappear while new monopolies form around quantum-enabled insights, ecosystems, and algorithms.

For diplomats and regulators, the governance challenges revolving around quantum computing are compounded by uneven investment across jurisdictions, strategic export controls, along the prospect of quantum-enabled asymmetries in industrial competitiveness, critical infrastructure resilience, and security (FINRA 2023; World Economic Forum 2025; World Economic Forum 2022; OECD 2025a).

Ultimately, this discussion is about shifting emphasis from symbolic technological supremacy to strategically relevant, high real-world value applications. This approach reframes quantum progress as a more sustained strategic capability, rather than a single technological breakthrough.

5.

Human-Centric Design in the Quantum Era

Human-centricity places experiences, perspective, and interaction at the core of meaning-making. Reality is understood and perceived as something that is shaped through participation and context. Quantum systems cannot always be understood in isolation. Human systems are interconnected and context-dependent. In times of quantum, knowledge and outcomes emerge through interaction rather than existing as fixed, independent absolutes.

Ensuring human centricity in times of quantum computing means designing technology, governance, and applications so that they serve human well-being, rights, and societal values, instead of solely serving technical or commercial interests. Quantum computing is poised to disrupt areas like cybersecurity, finance, medicine, and AI. In this context, human-centric frameworks need to be embedded early. Ensuring human centricity in times of quantum computing requires the adoption of a number of strategies:

5.1 Embedding Human Values in Quantum System Design

Human-centric quantum development should incorporate value-sensitive design principles, ensuring that ethical considerations are embedded directly into technological architectures (Possati 2023).

Key elements include the following:

- Value-sensitive design approaches that incorporate ethical values such as privacy, fairness, and safety.
- Human-in-the-loop oversight mechanisms that maintain meaningful human judgment in high-stakes decisions.
- Explainability and interpretability frameworks, where feasible, to improve transparency and trust (Salampasis 2026).

5.2 Protecting Privacy and Security in a Post-Quantum World

The emergence of quantum computing raises important security considerations, particularly because existing cryptographic systems may become vulnerable.

Human-centric governance therefore requires the following:

- Adoption of post-quantum cryptographic standards.
- Secure migration strategies for critical infrastructure and sensitive data systems.
- Safeguards to prevent surveillance expansion or data exploration, particularly affecting vulnerable populations.

5.3 Building Ethical and Transparent Governance and Regulatory Frameworks

Human-centric quantum innovation will also require robust governance mechanisms. Potential measures include the following:

- Establishing ethical review boards for high-impact quantum applications.
- Strengthening international cooperation on responsible innovation policies.
- Developing regulatory frameworks that prevent misuse or destabilizing technological asymmetries.

5.4 Ensuring Inclusive Access and Reducing the Global Quantum Divide

Without deliberate policy intervention, quantum technologies risk reinforcing existing technological and economic inequalities. Strategies to mitigate this risk include the following:

- Public funding for open research and education initiatives.
- Shared access to quantum infrastructure and research platforms.
- Workforce development and reskilling programs to expand participation in quantum-related fields.

A widening quantum divide could exacerbate global disparities unless dedicated and cutting-edge policies deliberately broaden participation, access to critical quantum infrastructure, and skills development (OECD 2025).

5.5 Prioritizing Socially Beneficial Applications

Human-centric quantum strategies should incentivize socially beneficial R&D rather than purely profit-driven applications (Roberson et al. 2021).

5.6 Interdisciplinary Collaboration and Societal Engagement

Ensuring that quantum computing evolves with societal awareness and democratic input while avoiding the same trust gap seen with AI.

Ultimately, human-centric quantum development requires ethical design, strong governance, security preparedness, inclusive access, and societal-focused innovation. Embedding these principles early—before the technology reaches full maturity—will be critical to ensuring that the quantum transition strengthens rather than undermines the foundations of a human-centered digital economy.

6.

A Quantum Agenda for the Digital Economy

Cultivating quantum fluency at the leadership level is key. Leaders must be able to ask intelligent questions about which parts of their value chain are limited due to computational complexity. Leaders must understand where probabilistic advantage matters more than precision, where optimization is more valuable compared to prediction, and where correlations hidden in massive (and often unknown) state spaces could unlock new business models. Quantum computing forces leaders to shape how the organization thinks tomorrow.

- **Multidisciplinary Integration and Culture:** Quantum computing is not just a technical challenge; it is inherently multidisciplinary since it requires insights from physics, computer science, mathematics, engineering, business, ethics, public policy, and domain expertise. Leaders should understand how to integrate diverse forms of intelligence (human and machine, theoretical and applied, centralized and exploratory, actual and perceived).
- **Translation of Science to Practice:** Bridging research and practical applications, translating into scalable innovations. Quantum readiness is all about organizational maturity.
- **Responsible Adoption:** Incorporating ESG principles and ethical foresight to shape pathways for inclusive, sustainable, and equitable implementation. Shaping global frameworks for ethical norms, fairness, responsible innovation, and governance is key (Ten Holter et al. 2023; Inglesant et al. 2021).
- **Diplomacy, Institutional Resilience, and International Relations:** Quantum computing will have fundamental implications for encryption, security, and critical infrastructure, forcing a re-examination of cybersecurity, trust, and institutional resilience. The ability to eventually break current and widely used cryptographic systems is a geopolitical and reputational risk. Data encrypted today may be vulnerable tomorrow, creating an asymmetric risk. Early preparation is visible and immediate; inaction is invisible and catastrophic.

The following table provides a summary of the key themes related to quantum leadership within the new digital economy landscape. The table highlights the main areas of focus (themes) and the associated topics that shape effective and cutting-edge leadership in this emerging field. The table aims at providing a structured, non-exhaustive overview of the critical perspectives and considerations required for navigating the complexities of quantum computing (and the quantum technologies landscape, as a whole). These themes aim at illustrating the multifaceted and multidisciplinary nature of the leadership quotient required to inspire, nurture, shape, and guide quantum innovation and adoption.

Theme	Topics
Computation as strategic capability	• From deterministic problem-solving to probabilistic exploration of reality. • Competitive advantage and modelling depth. • Computation as a core strategic asset. • Decision-making with optimal answers not fully explained.
Organizational readiness	• Quantum fluency among executives. • Reasoning with uncertainty and probabilistic outcomes. • Multidisciplinary teams. • Organizational culture that rewards exploration.
Value creation frontiers	• Innovation beyond computational intractability. • New business models enabled by quantum capabilities. • Quantum advantage across sectors. • Shifts in market power driven by asymmetric quantum capabilities.
Systemic resilience	• Transitioning from classical to post-quantum cryptography. • Protecting data beyond current encryption lifetimes. • Uneven access to quantum capabilities. • Resilience against disrupted cryptographic trust.

Ethics and governance	• Optimization embedding values, priorities, and exclusions. • Governing opaque, probabilistic systems beyond human intuition. • Accountability for statistically dominant outcomes. • Oversight of centralized quantum-enhanced power.
Geopolitics	• Quantum computing as a geopolitical and economic infrastructure. • National security, quantum computing data sovereignty, and global collaborations. • Open ecosystems vs. monopolies. • Quantum capability as a long-term stewardship responsibility.
Board-level preparedness	• Standing board agenda item. • Fiduciary responsibility due to long-horizon, asymmetric technological risk. • Oversight models for frontier technologies. • Capital/resource allocation decisions under deep technological uncertainty.

Table 1. Strategic Themes for Quantum Leadership in the Digital Economy

7.

Leading Through Quantum Uncertainty

Quantum computing represents a proactive, forward-looking step toward shaping the trajectory of one of the most transformative technologies of our time. By uniting science, business, government, diplomacy, and ethics under one collaborative framework, The Digital Economist contributes to the global discourse working toward the direction that quantum computing develops in ways that maximize societal benefit, foster innovation, and reinforce global leadership. The future cannot be planned in linear terms any longer. Leaders should build optionality, learning capacity, and ethical foresight into their strategies while becoming comfortable making decisions in probabilistic landscapes.

References

1. Auer, R., Dupont, A., Gambacorta, L., Park, S.J., Takahashi, K., and Andras, V. 2024. "Quantum Computing and the Financial System: Opportunities and Risks." Bank for International Settlements Papers, no. 149. https://www.bis.org/publ/bppdf/bispap149.htm.
2. FINRA. 2023. Quantum Computing and the Implications for the Securities Industry." https://www.finra.org/rules-guidance/key-topics/fintech/report/quantum-computing.
3. Georges, C. and Al Saiyari, M. 2025. "How Upskilling Quantum Talent Will Prepare Us for a Quantum-Safe Future." World Economic Forum. https://www.weforum.org/stories/2025/11/upskilling-quantum-talent/.
4. Inglesant, P., Ten Holter, C., Jirotka, M., and Williams, R. 2021. "Asleep at the Wheel? Responsible Innovation in Quantum Computing." Technology Analysis & Strategic Management 33 (11): 1364–1376. https://doi.org/10.1080/09537325.2021.1988557.
5. Liman, A., and Weber, K. 2023. "Quantum Computing: Bridging the National Security–Digital Sovereignty Divide." European Journal of Risk Regulation 14 (3): 476–483. https://doi.org/10.1017/err.2023.44.
6. Lin, B. 2025. "D-Wave Claims 'Quantum Supremacy,' Beating Traditional Computers." The Wall Street Journal. https://www.wsj.com/articles/d-wave-claims-quantum-supremacy-beating-traditional-computers-155ca634?mod=djemCIO.
7. MIT Sloan Office of Communication. 2023. "Will Quantum Computing Be Better for Your Business?" MIT Sloan Management School. https://mitsloan.mit.edu/press/will-quantum-computing-be-better-your-business.
8. Munoz, J. M., García-Castro, R., and Mugel, S. 2023. "Quantum Computing and the Business Transformation Journey." California Management Review. https://cmr.berkeley.edu/2023/12/quantum-computing-and-the-business-transformation-journey/.

9. Noyes, K. 2025. “The Quantum Era Is Nigh. Are You Ready?” The Wall Street Journal. https://deloitte.wsj.com/cio/the-quantum-era-is-nigh-are-you-ready-14de3ba0.
10. OECD. 2025a. “A Quantum Technologies Policy Primer.” OECD Digital Economy Papers. OECD Publishing. https://www.oecd.org/en/publications/a-quantum-technologies-policy-primer_fd1153c3-en.html.
11. OECD. 2025b. “An Overview of National Strategies and Policies for Quantum Technologies.” OECD Digital Economy Papers, no. 379, OECD Publishing, Paris. https://doi.org/10.1787/5e55e7ab-en.
12. Possati, L. M. 2023. “Ethics of Quantum Computing: An Outline.” Philosophy & Technology 36 (3): 48. https://doi.org/10.1007/s13347-023-00651-6.
13. Roberson, T., Leach, J., and Raman, S. 2021. “Talking About Public Good for the Second Quantum Revolution: Analysing Quantum Technology Narratives in the Context of National Strategies.” Quantum Science & Technology 6 (2): 025001.
14. Salampasis, D. 2026. “Making AI Make Sense: Explainable AI for Trustworthy Intelligence.” Research-Technology Management 69 (2): 57–62. https://doi.org/10.1080/08956308.2026.2614274.
15. Salampasis, D. 2025. “Preparing for the Quantum Computing Revolution.” Research-Technology Management 68 (5): 69–72. https://doi.org/10.1080/08956308.2025.2532324.
16. Soller, H. 2025. “The Year of Quantum: From Concept to Reality in 2025.” June 23. McKinsey & Company. https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/the-year-of-quantum-from-concept-to-reality-in-2025.
17. Stackpole, B. 2025. “Quantum Report Charts Growing Business Interest, Varied Public Awareness.” MIT Sloan School of Management Ideas Made to Matter. https://mitsloan.mit.edu/ideas-made-to-matter/quantum-report-charts-growing-business-interest-varied-public-awareness.

18. Ten Holter, C., Inglesant, P., and Jirotka, M. 2023. "Reading the Road: Challenges and Opportunities on the Path to Responsible Innovation in Quantum Computing." Technology Analysis & Strategic Management 35 (7): 844–856. https://doi.org/10.1080/09537325.2021.1988070.
19. The Quantum Error Correction Report 2025: The Essential Guide to Unlocking Utility-Scale Quantum Computing. https://www.riverlane.com/quantum-error-correction-report-2025.
20. World Economic Forum. 2025. "Quantum Technologies: Key Strategies and Opportunities for ICT Leaders." White Paper (In collaboration with Accenture). https://www.weforum.org/publications/quantum-technologies-key-strategies-and-opportunities-for-ict-leaders/.
21. World Economic Forum. 2022. "Quantum Computing Governance Principles." Insight Report. https://www.weforum.org/publications/quantum-computing-governance-principles/.

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- Build narrative power in a volatile environment
- Co-author high-signal research with global experts
- Gain visibility at the world's most influential convenings
- Anchor strategy in human-centered, future-forward frameworks

Co-Authorship & Knowledge Pathways

Through structured co-authorship across eight priority domains—Tech Policy and Governance, Digital Assets & Blockchain, Sustainability in Tech, Applied Artificial Intelligence, Cyber Studio, Quantum Computing, Regenerative Digital Infrastructure, and Healthcare Innovation—institutions contribute to high-level research that informs policy dialogue, regulatory development, and strategic decision-making.

Participation extends beyond commentary. Institutions are integrated into published research, roundtable dialogues, and domain-specific working groups that inform regulatory discussions and industry standards. This structured engagement enables organizations to contribute at the research and drafting stage, engage directly with policymakers and industry leaders, and align internal strategy with emerging policy and market developments, resulting in active presence within decision-making environments rather than passive visibility.

We invite your organization to schedule a strategic briefing to map research priorities and determine the appropriate integration pathway within the Institutional Research Network.

Reach us at partnerships@thedigitaleconomist.com.
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The Digital Economist Ventures

Applied Platforms. Strategic Domains. Real-World Implementation.

Research defines the questions. Ventures test the answers.

In addition to research and convening, The Digital Economist advances a portfolio of venture platforms that extend inquiry into applied domains, where governance, infrastructure, and market design move from dialogue to deployment.

Each venture operates with a defined mandate while remaining integrated within the broader institutional ecosystem.

Tech for Transparency

Financial integrity in the digital age

Advances financial accountability and anti-corruption frameworks through distributed technologies and data-driven transparency systems. Positioned at the intersection of blockchain infrastructure and institutional reform, it translates transparency principles into operational tools.

The Ostrom Project

Reimagining digital commons governance

Explores collective stewardship models for emerging digital systems. Drawing on principles of shared resource governance, it develops frameworks for sustainable digital infrastructure and cooperative system design.

ANER-G

Energy systems innovation

Focuses on decentralized infrastructure, programmable energy markets, and next-generation grid integration. It addresses the structural evolution of energy systems within digital and blockchain-enabled environments.

Africa Coalition

Continental coordination for strategic sectors

Convening leaders across energy, infrastructure, finance, health innovation, education, and future capabilities, the Coalition creates structured engagement pathways for continental collaboration.

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