

Quantum Utility Will be Achieved Within A Decade, According to Majority of Industry Professionals

Quantum professionals are overwhelmingly optimistic that quantum utility will be achieved within the next decade, research from Economist Impact today reveals.

LONDON, UNITED KINGDOM, April 14, 2025 /EINPresswire.com/ -- 83% believe it will be reached in next 10 years, research from <u>Economist Impact</u> reveals. Lack of understanding at board level one of the top three challenges, with 57% believing



misconceptions about quantum are hindering its adoption

Quantum industry professionals are overwhelmingly optimistic that quantum utility will be achieved within the next decade, research from Economist Impact today reveals. According to the study, which surveyed quantum professionals across the UK, Europe, North America and Asia, a huge 83% think quantum utility - when quantum computers will overcome hardware and error correction challenges to perform better than classical computers - will be realised within ten years or fewer.

Of this figure, one third believe it will be reached within one to five years. Just 3% of respondents believe quantum utility remains more than 30 years away, countering claims made - and then rescinded - from NVIDIA CEO Jensen Huang earlier this year.

However, despite this optimism, challenges in technical development, talent acquisition, and executive-level understanding persist, which must be overcome to support quantum's development. The research - which aims to provide a benchmark for distinguishing between quantum hype and reality - comes ahead of the Economist Impact's upcoming <u>4th annual</u> <u>Commercialising Quantum Global summit</u> in London on May 13-14, which will explore these issues in more depth.

Board-level understanding a barrier to progress

The survey highlights three major challenges facing quantum advantage - the moment when quantum technologies will be ready to implement into business end-users' daily operations:

82% cite overcoming technical challenges, particularly error correction, as a key hurdle 75% identify a shortage of talent and expertise as a critical issue 75% say lack of understanding at board level is holding back adoption

In addition, 57% of respondents believe misconceptions about quantum computing are actively hindering advancement. The findings suggest a disconnect between technological development and business readiness, reinforcing the need for better communication, education, and alignment at the executive level to maintain the momentum of progress.

To shine a light on these challenges, Commercialising Quantum Global will run sessions dedicated to demystifying the technology. These include how to communicate quantum to the board, and what strategies are in place to ensure that the public, industries, and policymakers are better prepared to understand and harness the benefits of quantum technology.

Quantum to drive advances in sustainability goals and energy optimisation

The potential impact of quantum computing is not limited to commercial gains. It is increasingly viewed as a critical enabler of sustainability and energy resilience - a key priority for global infrastructure as energy demands and decentralisation increase.

Three-quarters of respondents identified climate modelling and monitoring and power grid optimisation as two core ways quantum computing will boost sustainability. These applications support the United Nation's Sustainable Development Goals (SDGs), including ensuring access to affordable and reliable energy for all and taking urgent action to combat climate change and its impact.

Beyond sustainability, the earliest use cases are forecasted in drug discovery and materials science (62%), and communication networks and cybersecurity (57%). These are sectors where the need for complex simulation and optimisation is well aligned with quantum's unique capabilities. We are already seeing industry giants like HSBC and BT and global messaging apps like Signal introduce quantum-safe cryptography into their operations.

Bridging technology potential and business value at Commercialising Quantum

Helen Ponsford, Head of trade, technology, and industry events programming at Economist Impact, comments: "With 80% of respondents stating that demonstrating industry-specific use cases is essential to accelerating adoption, and two-thirds highlighting the importance of proving return on investment, the message is clear: commercial relevance must closely follow scientific breakthroughs for quantum to sustain its growth. This is exactly what we aim to achieve at Commercialising Quantum. Here, we will bring together industry, government, end-users and investors to showcase how theoretical potential is translating into business outcomes and highlight the practical pathways to adoption."

Steve Suarez, Chief Executive Officer at HorizonX Consulting, a sponsor of Commercialising Quantum Global, added: "The time to embrace quantum is now. Be the organisation that leads the future, not the one left chasing it."

To register for the event:

Press Registration

Key information:

When: May 13th - 14th, 2025 Where: Business Design Centre, 52 Upper St, London N1 0QH, in-person

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Our track record spans 75 years across 205 countries. Along with creative storytelling, events expertise, design-thinking solutions and market-leading media products, we produce framework design, benchmarking, economic and social impact analysis, forecasting and scenario modelling, making Economist Impact's offering unique in the marketplace. Visit <u>www.economistimpact.com</u> for more information.

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Notes to editors:

Research conducted by Economist Impact between 18.03.2025 and 03.04.2025. Economist Impact surveyed 72 people with careers in quantum technology or research. Respondents' demographic include the UK (41 respondents), Europe (9 respondents), North America (9 respondents), and Asia (9 respondents). (4 respondents selected Other). Respondents' demographic profile is determined by natural fall out as there is no reliable data available to represent the national population. All data based on this survey unless otherwise stated.

This year's Commercialising Quantum summit, taking place in London, 13-14 May, will bring together quantum pioneers, industry end-users, and enterprise decision-makers to showcase how theoretical potential is translating into business outcomes.

Guided by The Economist's editors, the event will gather over 1,000 global leaders, policy makers and business executives from over 40 countries and explore the promise, peril, applications, limitations, hype, and reality of quantum and highlight the practical pathways to adoption.

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