

UKQuantum

The voice of the UK quantum

industry

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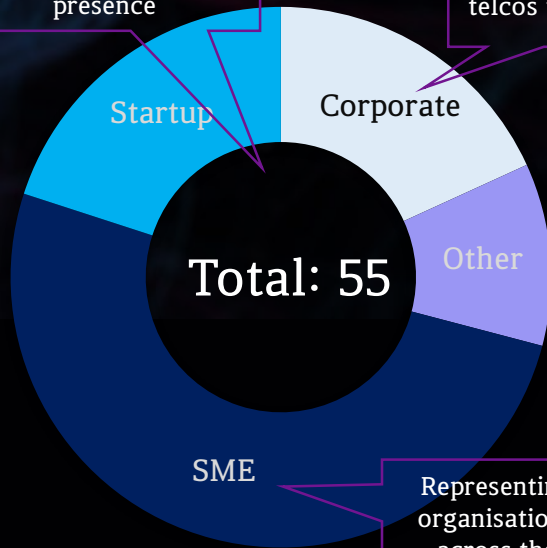


UKQuantum – the association for the UK's quantum industry

Member breakdown

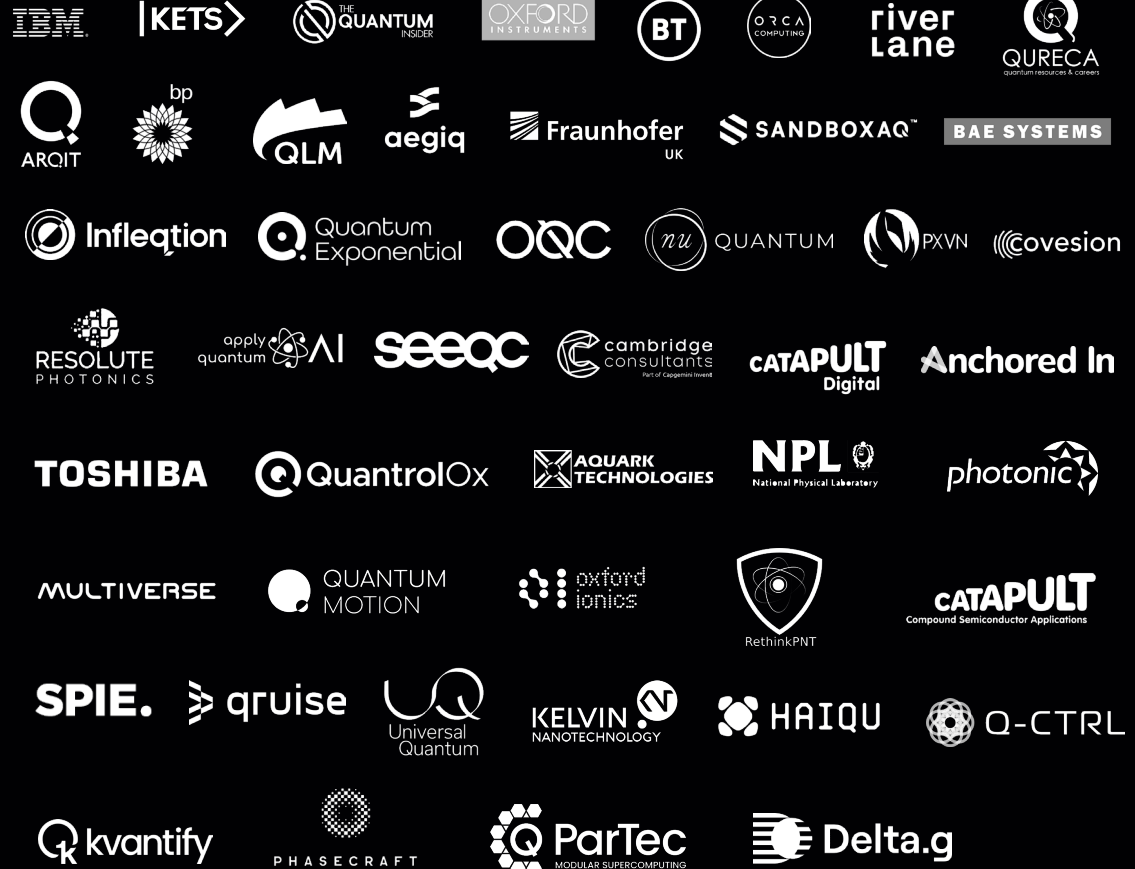
20% members with non-UK HQs with significant UK presence

Includes end users from telcos to energy



Representing organisations across the value chain

Members



In the UK: Quantum is a critical area of emerging tech

Government policy context



Integrated Review



Innovation Strategy



Science & Technology Framework

Science & Technology Framework

5 Critical Technologies



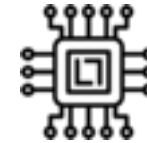
Artificial Intelligence



Engineering biology



Future telecoms



Semi-conductors



Quantum technologies

10 cross-cutting strands:

Identifying Critical Technologies

Signaling UK Strengths and Ambitions

Investment In R&D

Talent and Skills

Financing Innovative S&T Companies

Procurement

International Opportunities

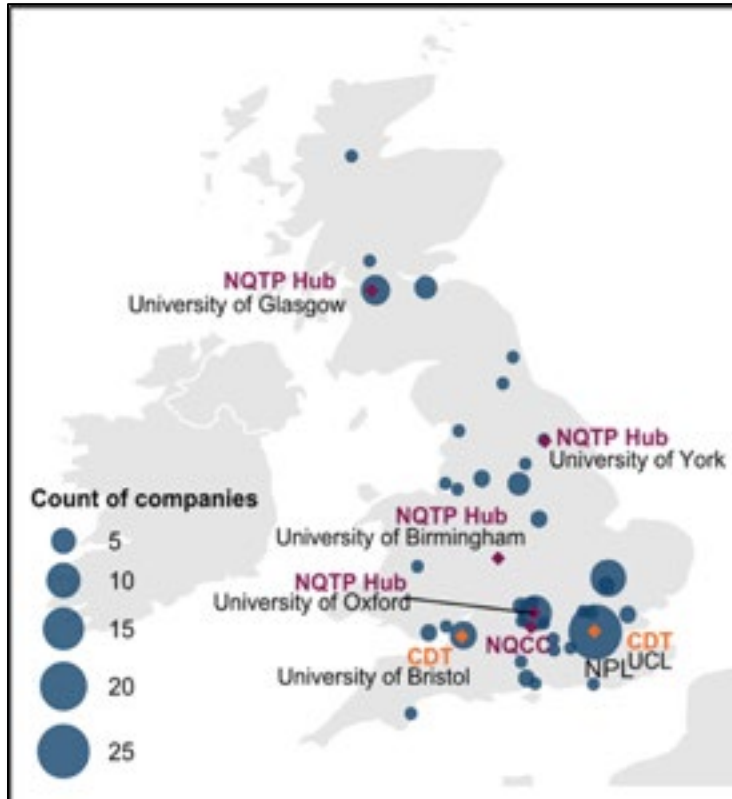
Access to Physical & Digital Infra

Regulations and Standards

Innovative Public Sector



10-year UK National Quantum Technologies Programme has resulted in a thriving Quantum sector...



World leading research and skills: 1st in Europe and 3rd in the world for the quality and impact of quantum research. More than 470 PhDs, 125 MSc candidates, and 85 apprenticeships funded through the NQTP

Thriving business community: UK is second for the number of quantum companies (11% of the world's quantum companies)

High-levels of private investment: UK is second in attracting private equity investment (12% of global private investment)

Broad capabilities: Quantum companies spanning computing, communications, sensing, timing, and imaging

Highly collaborative community: 180 quantum organisations working together through IUK challenges, and 140 Hub industry partners



UK Quantum Missions: vision for 2024-2035



By 2035, there will be accessible, UK-based quantum computers capable of running 1 trillion operations and supporting applications that provide benefits well in excess of classical supercomputers across key sectors of the economy.



By 2035, the UK will have deployed the world's most advanced quantum network at scale, pioneering the future quantum internet.



By 2030, every NHS Trust will benefit from quantum sensing-enabled solutions, helping those with chronic illness live healthier, longer lives through early diagnosis and treatment.



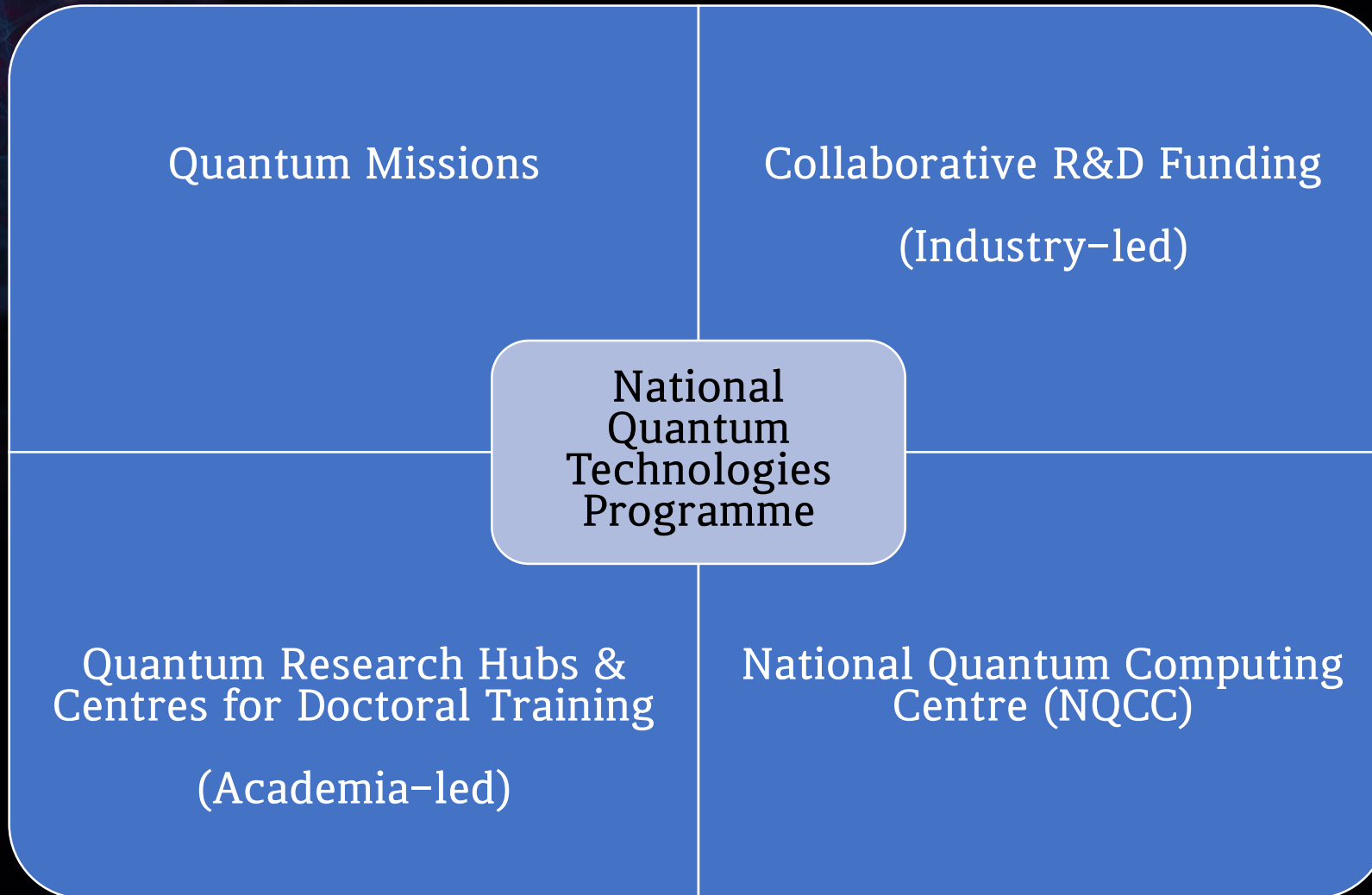
By 2030, quantum navigation systems, including clocks, will be deployed on aircraft, providing next-generation accuracy for resilience that is independent of satellite signals.



By 2030, mobile, networked quantum sensors will have unlocked new situational awareness capabilities, exploited across critical infrastructure in the transport, telecoms, energy, and defence sectors.



Key elements of the UK ecosystem





Priorities for international collaboration

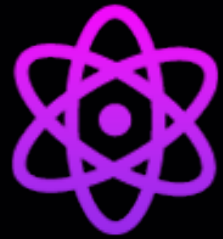
Priority areas for industry

- Policy & National Strategy
- International cooperation & trade
- Roadmapping, markets & use cases
- Skills
- Responsible Innovation
- Standards

UK Government engagements

- UK Quantum Skills Taskforce
- UK Quantum Standards Pilot
- Regulation
- Responsible Innovation in Quantum
- International Missions
- Export Controls





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