Quantum Exponential Investor Presentation

Q4, 2023

Quantum Focused Fund

Quantum Exponential

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“We predict by 2027 over $16.4 Bn will be invested into quantum computing”

– IDC

Compared to under $5Bn today

Marketplace, Nov 2022

Introduction

Compared to today’s technology, quantum technology offers significant advantages in terms of processing speed, security, and accuracy.

In its fund, QE has constructed a portfolio of seven companies and has developed a reputation as an investor with thorough technical and fundamental due diligence. QE is expecting the majority of returns to come through traditional corporate M&A, but also has multiple revenue streams detailed in this presentation.

QE’s management and advisory team have deep market knowledge of quantum. Together with significant venture capital experience, this enables them to access, invest and support high-growth companies in this important sector, resulting in QE seeing a significant amount of quantum deals.

Our Investment Strategy

Quantum Exponential expects a ten-fold increase in deals in the next 5 years due to increased investment in global academic innovations in the sector. [1, 2, 3]

Goals

- Continue to be a preferred investor of Quantum innovators
- Target seed, Series A and Series B initial entry points
- Prioritise deals with solid underlying science ready to be commercialised in the near future with realistic cash needs
- NATO-friendly markets, often co-investing with trusted partners
- Continue to build the portfolio
- Investments will be between £100k - £500k
- Follow on in portfolio winners
- QE expects to “harvest” deals, typically by trade sale
- Co-Investment Opportunities ad hoc

Raise & Deploy

1 https://pitchbook.com/news/articles/quantum-computing-venture-capital-funding
2 https://www.bcg.com/press/21july2021-quantum-computing-transform-multiple-industries-create-850-billion-annual-value
3 https://www.ucl.ac.uk/quantum/news/2022/jan/uk-needs-investment-maintain-its-quantum-advantage

Team

Steven Metcalfe, CEO. 30 years of experience in regulated markets, with a focus on fundraising and advising on listings and capital markets. Raised +£75m from HNW, funds, and other institutions. Seasoned board member.

Stuart Nicol, CIO. Expert in leading UK venture teams for +20 years. Invested in over 70 VC deals (incl. Octopus), prior FUM +£100m. Graduate of RMA Sandhurst and London Business School

Stuart Woods, COO. Extensive deep tech commercialisation experience, including quantum. Managing Director at Oxford Instruments and VP Survey Solutions at Hexagon Geosystems. Graduate of North Carolina State University

Ian Pearson, Non-Executive Chair. 20-year tenure in government and institutional roles including former Minister of Trade, Science Minister and Chief Secretary to the Treasury.

Track record

Advisory Board

Advisory Board - In addition to its executive team, QE has strategically assembled an active Advisory Board covering Australia, Europe, and the US.

The Board includes **Martin Schwedler**, Senior Advisor Europe. Thirty years of TMT M&A and private equity investing amongst others with Lazard, GE Capital, Raiffeisen Investment Banking.

Helen Reynolds, a highly experienced VC investor, MD and CIO of the Bayes Entrepreneurship Fund at Bayes Business School, London, which invests in early-stage, high-growth UK businesses.

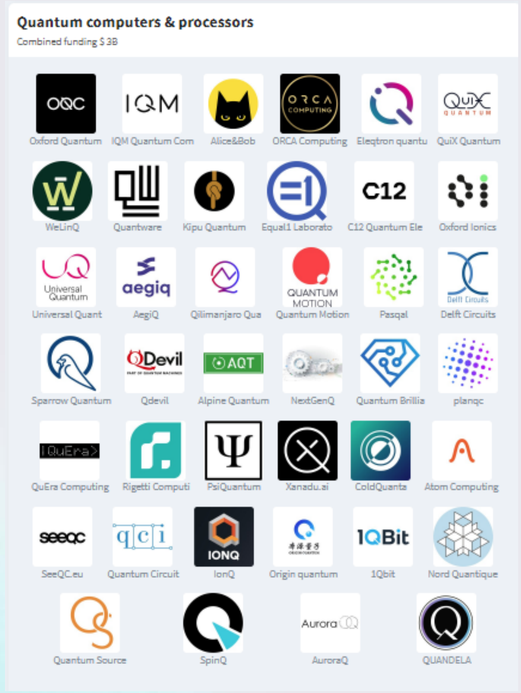
Other Advisers include the CEO of a publicly traded quantum company, the former Head of the UK Space Agency and senior university quantum scientists.

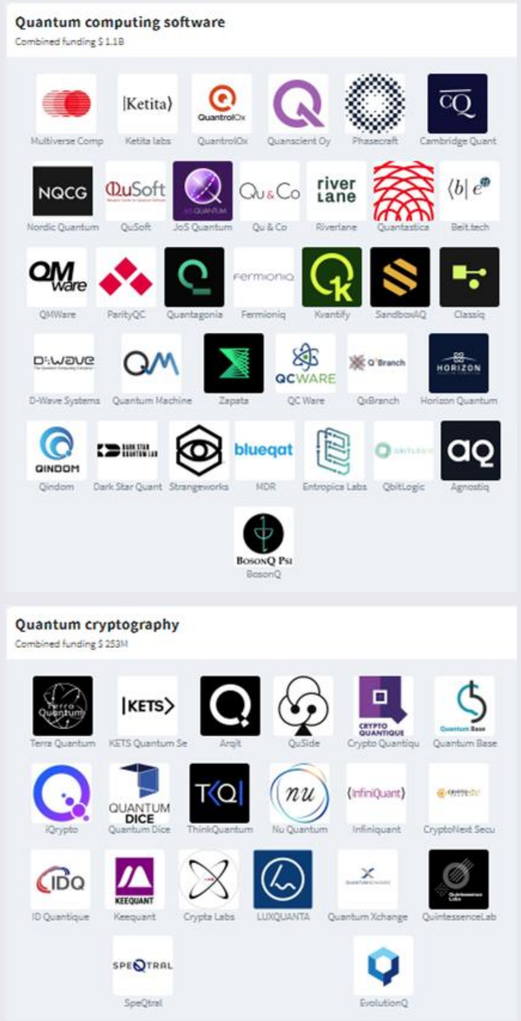
QE has created a broad-based diversified portfolio by company stage, target markets, technology type, and even method of quantum computing. All are achieving revenue and scaling their operations.

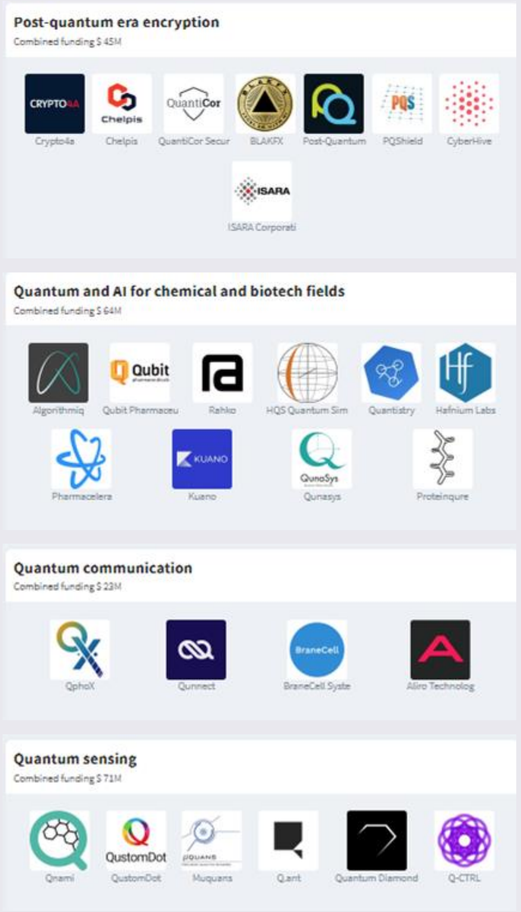
Additional funds would allow QE to expand our efforts and not only support the companies we have already selected but also find other investable quantum technology companies through our process of extensive technical and fundamental due diligence.

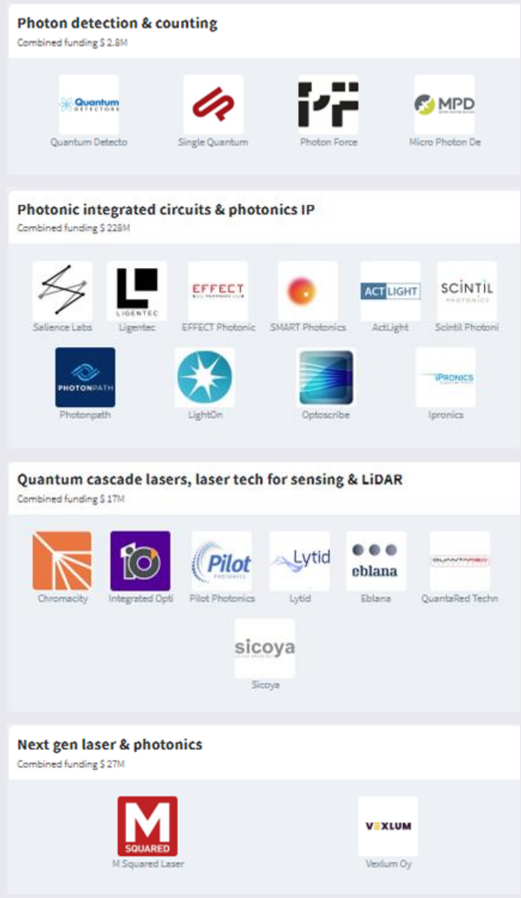
Track record

The Quantum Landscape is Complex, Important and Valuable









You need an expert to evaluate these complex companies to determine what is investable

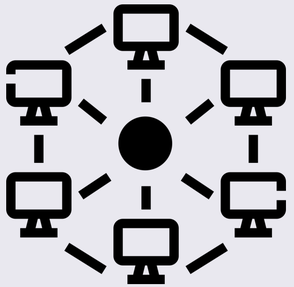
Dealroom, 2023 reference source

Global Landscape

- There is a Global Quantum “arms race” to develop and own this emerging and quickly establishing array of technology. The technology should be viewed as a critical enabler for industries in the future with applications including better cybersecurity, better methods of drug discovery and modelling financial markets amongst just a few examples [1]
- Quantum computing is a new technology that leverages the laws of quantum mechanics to produce exponentially higher performance for certain types of calculations, offering the possibility of major breakthroughs across several end markets
- Corporates are also increasing their activity in the quantum space. 70% of business leaders are using and developing real-life use cases for quantum computing and 91% are investing or planning to invest in quantum computing [2]
- CHIPS Act and National Quantum Initiative Supplement to the President's FY 2023 Budget [3]
- More than 2/3 of QC startups have been started in the last 5 years, signalling strong potential for growth of the sector [4]
- 17 countries have invested in national programs of quantum technology research and development with an estimated spending of over $30B. China is leading followed by the EU. More than 150 countries still have no dedicated quantum program, risking a large quantum divide [5,6]

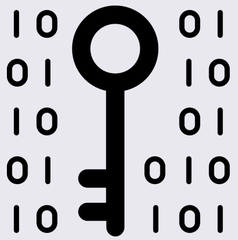
1 https://www.forbes.com/sites/forbestechcouncil/2021/07/30/four-ways-quantum-computing-could-change-the-world/?sh=518d70284602
2 https://thequantuminsider.com/2022/11/16/openocean-iqm-lakestar-state-of-quantum-2022-63-of-business-leaders-believe-commercialised-quantum-computing-to-hit-market-in-five-years/
3 https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/04/national-security-memorandum-on-promoting-united-states-leadership-in-quantum-computing-while-mitigating-risks-to-vulnerable-cryptographic-systems/
4 Source
5 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1062486/Spring_Statement_2022_Web_Accessible.pdf
6 https://www.gov.uk/government/news/budget-2021-what-you-need-to-know

Focus Areas



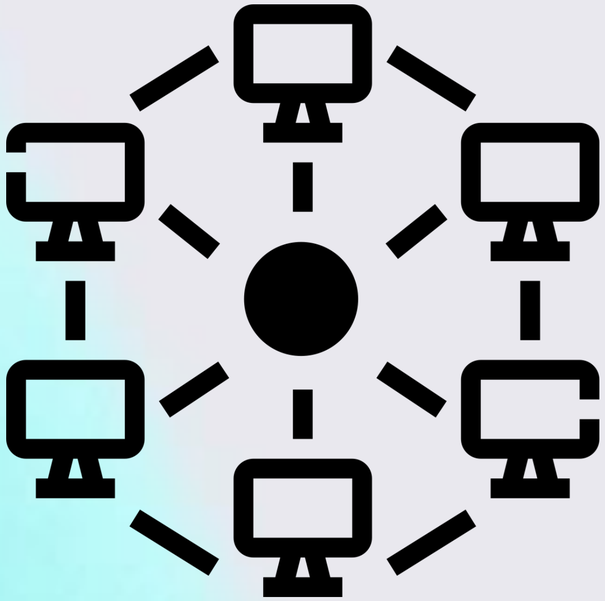
Quantum Computing

Quantum Imaging & Sensing



Quantum Communications & Security

1



Quantum Computing

Quantum Computers rely on atomic level interactions to create systems that can simulate the real world at speed

Applications include creating new chemicals, manufacturing optimisation and financial markets simulation

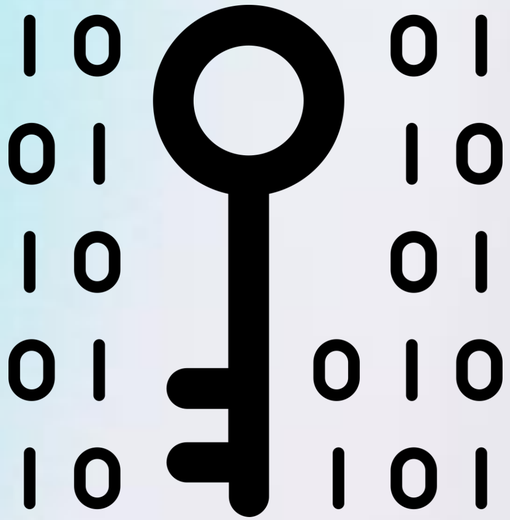
2

Quantum Imaging & Sensing

High-performance measurements of electric, magnetic, and gravitational fields, promising to greatly increasing the efficacy of today’s tools

Application in navigation, timing, medical imaging, underground mapping, materials characterisation

3



Quantum Communications & Security

Technologies can be used to create and distribute unhackable encryption keys through a range of processes

Future possible applications include a “Quantum Internet”, increasing security

Solving Important Problems

Climate Change

- “Quantum computing will revolutionize chemistry, enabling breakthrough innovations and advancements in low-carbon technologies.”
- “Use cases in quantum computing could account for a substantial amount of emissions reductions needed to achieve a 1.5°C pathway.”
- **QE’s QLM** has made substantial progress on this issue

- Mckinsey, 2022

Food Security

- “As we live in an age of data-driven [insights], classical computers are finding it much harder to handle the amount of information that comes their way. Quantum computers, on the other hand, can handle this complexity with ease.”
- “No longer would we see food wasted over route planning mistakes or badly designed traffic counter-flow simulations run on classical models.

- The Quantum Insider, 2020

Solving Important Problems

Defence

- “Given the potential implications of novel quantum technologies for defence and security, NATO has identified quantum as one of its key emerging and disruptive technologies.”
- “Quantum sensors have some promising military applications. For example, quantum sensors could be used to detect submarines and stealth aircraft, and quantum sensors could be used for Position, Navigation and Timing (PNT)”
- QE’s Arqit is the leader in quantum secure comms, a key application.

- NATO, 2021

Future of Health

- Looking at the impact that pandemics have on society, economy, and healthcare, we can envision future use cases for the role of quantum computing in vaccine development, drug discovery, optimization solutions, and in identifying and managing the spread of viruses.
- QE’s Siloton has demonstrated the quantum benefit for healthcare applications through their macular degeneration use case

- Capgemini, 2022

Investments to date

Quantum Computing

Quantum Imaging & Sensing

Quantum Communications & Security

QE's portfolio is diversified by stage, from pre-seed to Series B, and by technology.

All investments are generating revenue and scaling with ample opportunity for up-rounds in the near future.

An investee company has begun selling its beta product ahead of large-scale production in 2023.

Another, previously pre-revenue investee company, has signed contracts for £67m in sales since QE invested.

Special Purpose Vehicles (SPVs)

In light of prevailing market conditions, QE is strategically positioned to offer Special Purpose Vehicle (SPV) opportunities in Quantum Technology that are structured around one-off deals, enabling targeted capital deployment into top-tier companies.

This approach not only allows for a focused and tailored investment strategy but also serves as a robust fee-generating avenue that significantly contributes to the cash flow of our entity. A 2% operating fee contributes to QE's operational expenses, and a 20% carried interest fee is charged, aligning our interests with those of our investors and fostering a performance-driven culture.

Pledge Fund

Additionally, we have structured a Pledge Fund opportunity tailored for investors seeking more regular deal-flow and harbouring broader investment ambitions.

Through this model, investors can pledge a certain capital commitment without being obligated to invest that pledged amount, giving them access to a continuous stream of meticulously vetted investment opportunities. The Pledge Fund operates under a similar fee structure with a 2% operating fee on invested capital ensuring adept management, alongside a 20% carried interest fee that cultivates a performance-centric investment environment. references, while simultaneously fostering a stable and lucrative financial framework amidst the evolving market landscape

Consulting

Finally, QE has built a solid reputation as a technical lead in the quantum technology sector, which has led to consulting opportunities, resulting in cashflow for the PLC. This aspect of our operations, centred around enabling fundraising, complements our SPV and Pledge Fund offerings, providing a well-rounded financial model that enhances our firm's cash flow and overall financial health. A recent example is an awarded co-consulting contract with the UK Department for Science, Innovation and Technology (DSIT). Press release

> Fee deriving opportunities

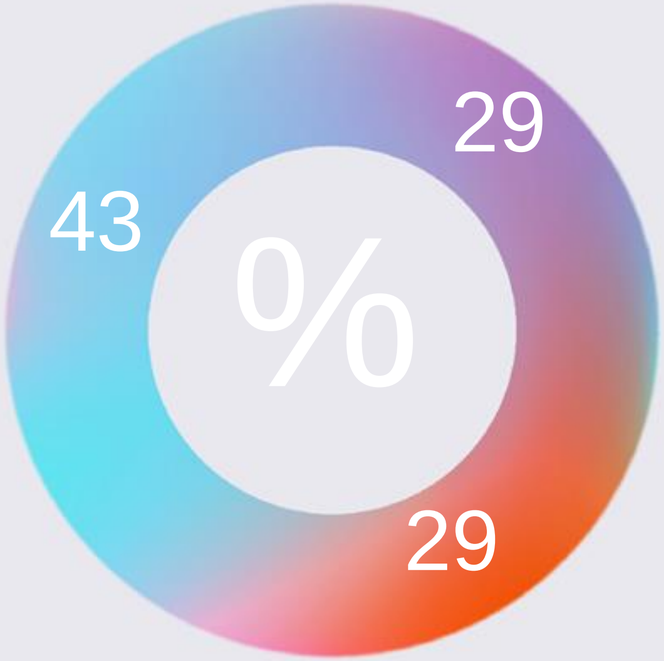
500 deals

QE’s network provides a unique high-quality deal flow through referrals, databases, universities, quantum centres of excellence, and organisations such as the Institute of Physics.

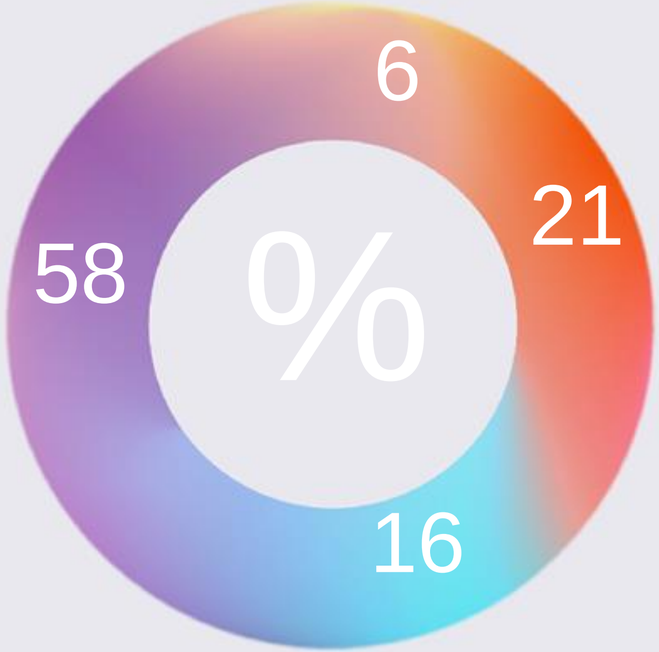
QE has identified over 500 potential deals globally from early to late stage source and has first sight of potential deals before they appear on third party databases. These are refined to produce a target list of potential investable opportunities consisting of a variety of stages, geographies, tech types, and other aspects.

QE’s network

Investment portfolio 10.2023



Identified deal sourcing 10.2023



- Quantum Sensing & Imaging
- Quantum Communications & Security
- Quantum Computing
- Quantum - Other

Selected Pipeline

Sector	Description	Stage	Country
Comms & Security	Quantum Random Number Generators (QRNGs)	Series A	EU
Sensing & Imaging	Solutions to enable positioning and time, regardless of connectivity, for GPS	Seed	UK
Comms & Security	Quantum Memory	Preseed	UK
Software	Chemistry Algorithm Platform	Seed	EU
Comms & Security	Single-photon detectors	Seed	EU
Sensing & Imagining	Magnetometer	Series A	US
Computing	Silicon Spin Quantum Computing	Series A	APAC
Hardware	Dilution Refrigerator	Seed	NA
Hardware	QKD	Preseed	EU

Pipeline Sample

The Investment Team

Stuart Nicol

Chief Investment Officer

Overall responsibility for investments Extensive experience in leading VC teams, mentoring entrepreneurs & corporate finance.

Previous experience

- CIO at two regional UK venture funds
- Director at Octopus Investments & Crowdcube

Stuart Woods

Chief Operating and Strategy Officer

COO. Extensive deep tech commercialisation experience, including quantum. Graduate of North Carolina State University.

Previous experience

- Managing Director at Oxford Instruments
- VP Survey Solutions at Hexagon Geosystems.

Steve Metcalfe

Chief Executive Officer

30 years of experience in regulated markets. Extensive experience in advising on listings, fund raisings and capital markets in general.

Previous experience

- Board member of several companies

The Investment Team

Anthony Lyall

Investment Manager

Leads transaction execution
Family Office Investor with extensive knowledge and investment experience regarding technology start-ups.
Graduated New York University.

Previous experience

- Founder of several start-up companies
- Investor Relations Consultant

Dr Oliver Cohen

Quantum Physicist

Provider of technical deal reviews
PhD in Quantum Physics – numerous cited academic papers in quantum information. PhD in Quantum Physics from the University of London.

Previous experience

- 10 years in risk analysis for large financial institutions
- Arqit Quantum Inc employee seconded to Quantum Exponential

Anna Spandl

Investment Analyst

Assisting with research and Investment Administration
Supporting European expansion Fluency in German, English and Italian. Graduated University of Vienna.

Previous experience

- Legal graduate - Previously worked for a corporate law firm in Austria

Our Investment Process

Capturing the market opportunity effectively

Sourcing → Selecting → Growing → Exiting

Proven ability to source, approach & complete first-round equity deals.

Collaboration with Institute of Physics and other Quantum Institutions of excellence.

Access to proprietary data streams of The Quantum Insider and Notion Capital.

QE has invested in a portfolio of companies that have realistic cash requirements to reach profitability or exit.

QE expects the portfolio to contain a mix of companies that can deliver near-term applications to market

or are likely to be acquired after certain product milestones are achieved through funding.

Scientific, operational and commercialisation expertise at QE is in place to support investee companies through their growth phase and internationalization activities.

Active participation in Boards via NED or Observer position & intra portfolio networking. Patent and IP consultation, support and advisory services.

Liquidity events are expected to be via sale to leading enterprises engaging in M&A (Trade) or strategic investors such as Private Equity.

IPOs can be considered as well (given our expertise in fundraising and capital markets) but is not part of the primary strategy

Why Quantum Exponential?

Clear focus, quick identification of deals, trusted team with a reputation for adding value

Focused

Quantum Tech sector is still relatively new to investment, but is predicted to see huge inflows of high-growth innovative companies as a result of the commercialisation of governments' research funding & market need

Strong Team & Advisory Board

Strong team of industry advisors, entrepreneurs and tech investment professionals with excellent access to opportunities, networks and markets. Thorough understanding of investment process, portfolio selection, due diligence, deal structuring, team motivation & exit optimization. Cooperation in place with Institute of Physics, regional Universities & Quantum Hubs. Deal introductions from other Co-Investors & data advantage via Notion & Quantum Insider data sources

Value Added Investor

At the outset we establish explicit ways to help the investee - such as commercial introductions, growth company admin, grant writing introductions, growth coaching, portfolio peer-to-peer networking among other value-adds. Follow-on investing & further investor introductions (subject to suitable progress being made)

Diverse Geography (NATO-Friendly)

QE can invest in deals in any geography. This is being done in association with trusted partners, such as hubs and universities to rely on their local market knowledge and expertise.