

# Investor Presentation Early investors. Long-term partners.

August 2025 Investment Vehicle II

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### General partners



Steven Metcalfe
Managing Partner
(COO, Investor Liaison)

Extensive experience in advising on listings, fund raisings and capital markets in general.

Experienced board member. Previous experience includes:

- Hitchens Harrison
- Novum Securities



Stuart Nicol Managing Partner (Pre-Seed - Series A, Portfolio)

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

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

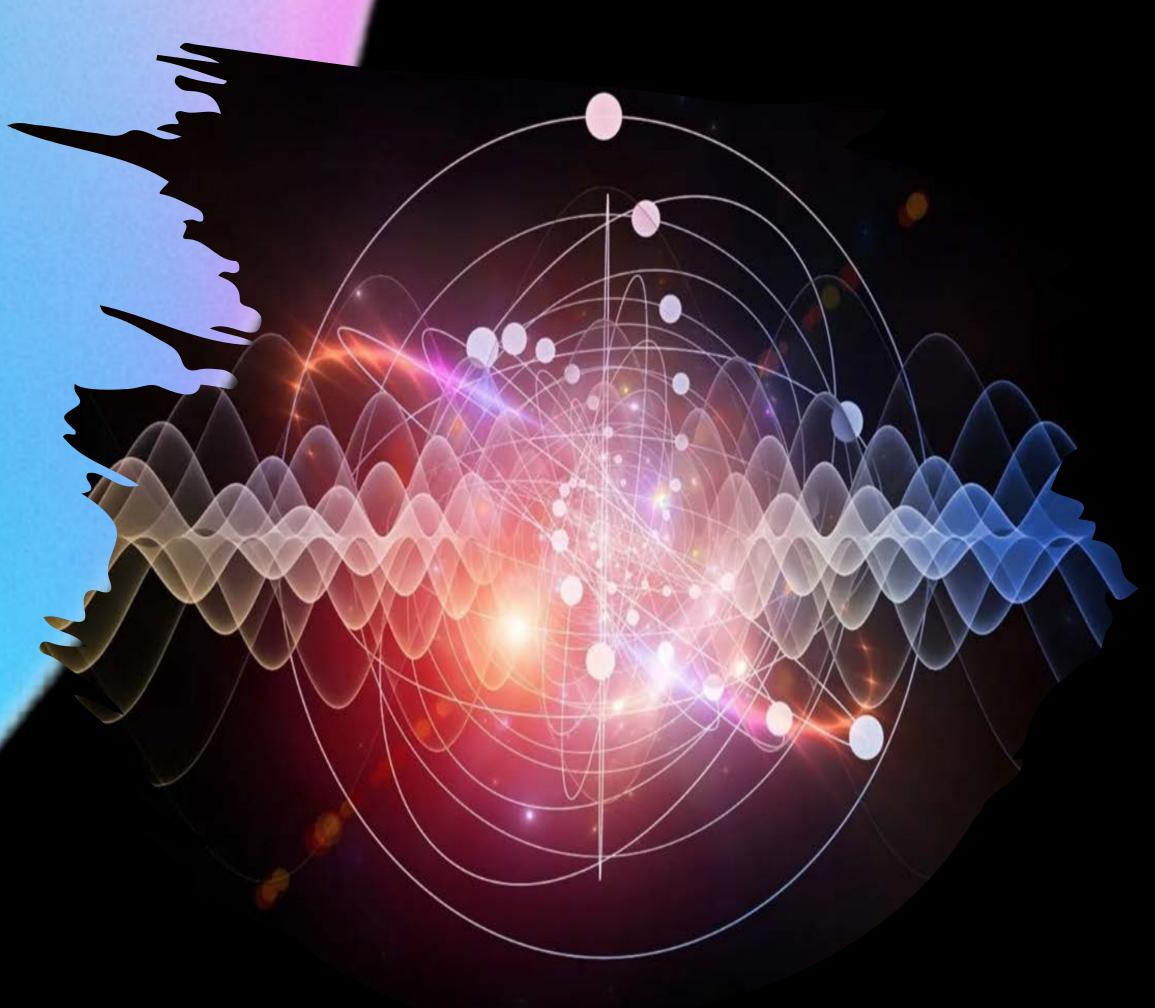


Kirill Pyshkin Managing Partner (Series A, Investor Liaison)

Previous experience includes:

- Lead fund manager of multi-billion equity funds at Credit Suisse and Aviva Investors;
- Semiconductor and global tech analyst at JPMorgan, AllianceBernstein, and Amundi;
- Investment and Venture Committee member at Ufi Trust (early-stage VC);
- CIO of a fintech platform;
- PhD in Physics (Induced Quantum Wires) from the University of Cambridge.





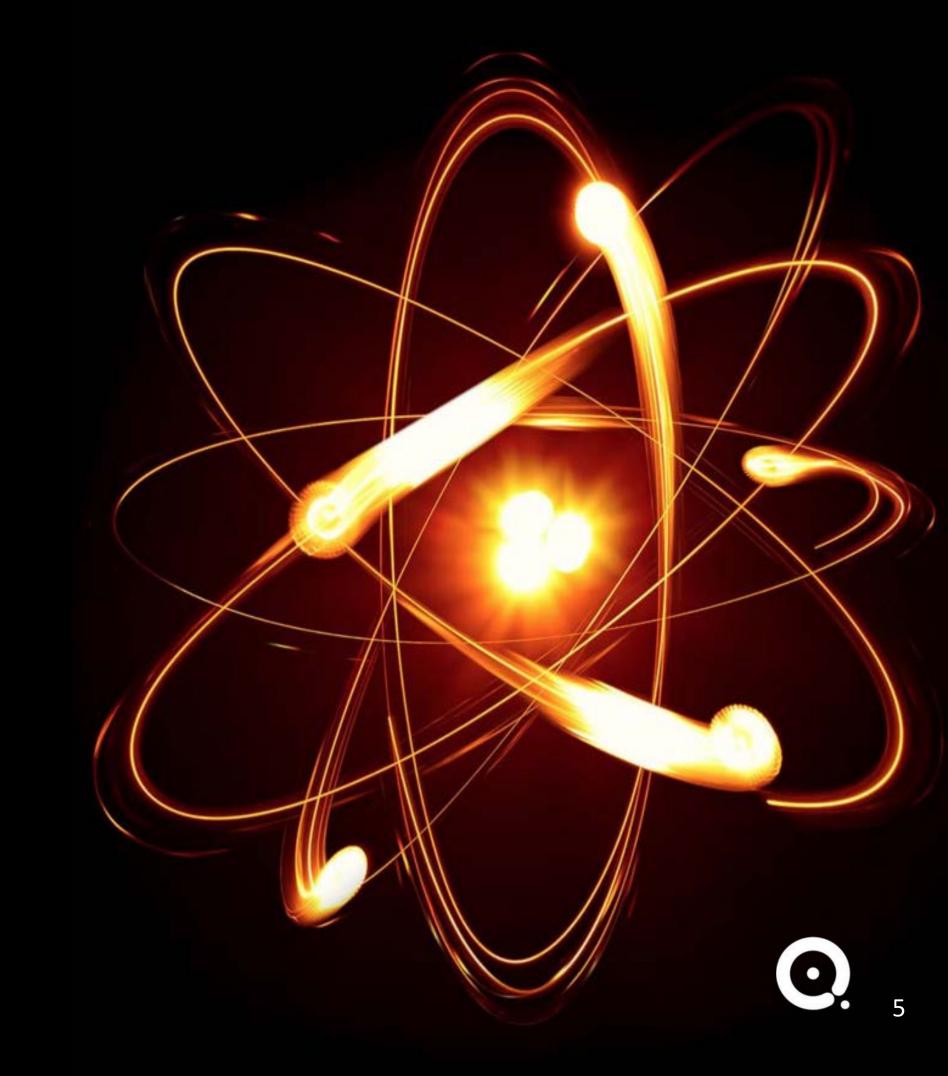
### Who we are

- Niche specialist. One of only three Quantum VC funds in the sector, now fundraising a large dedicated fund.
- World leading team. VC investors, quantum physicists, patent lawyers and former Government officials.
- 25-33% IRR in the current portfolio after 4 years with well-diversified exposure across quantum tech.



### Why now

- \$2trln\* market by 2035 with over \$44bn invested to date with \$1.1bn flowing into quantum tech startups in 2024 alone.
- We are at an inflection point. Quantum sensing is commercially available now. IBM sees Quantum advantage already in 2026\*
- **UK has an early lead** and is 2nd only to the US by the number of quantum companies. We are the pivot in the UK ecosystem.



<sup>\*</sup> McKinsey's Quantum Technology report 2024

<sup>\*\*</sup>IBM <u>https://www.ibm.com/roadmaps/quantum/</u>.

### World Leading Team

Our team combines deep scientific expertise with proven investment leadership and unrivalled access.

Scientific expertise<sup>1</sup>

Unrivalled access<sup>2</sup>

Investment leadership<sup>3</sup>

1 = Dr Cohen, Dr Pyshkin, Dr Hill, Professor Ali and Professor Ursin are PhDs in Physics with expertise in Quantum Physics, optics and advanced materials and Dr Hill is a patents expert.

3= Stuart Nicol, Steven Metcalfe, Ian Pearson, Helen Reynolds, Stephen Chandler are experienced VC investors. Dr Pyshkin is the former manager of the largest in the world \$1.85bn EdTech equity fund.



<sup>2 =</sup> Ian Pearson in the former UK Government Science and Trade minister. Katherine Courtney and Dave Williams are former CEOs of UK Space agency. Professor Ali is Pro-Vice-Chancellor of Liverpool University. Professor Ursin is from Austrian Academy of Sciences. Dr Williams worked for Australian Government. Martin Schwendler held senior positions at Lazard, Reiffeisen and GE Capital.

### We are the pivot of the quantum ecosystem







Innovate UK













Department for Science, Innovation, & Technology



Fraunhofer





NOTION









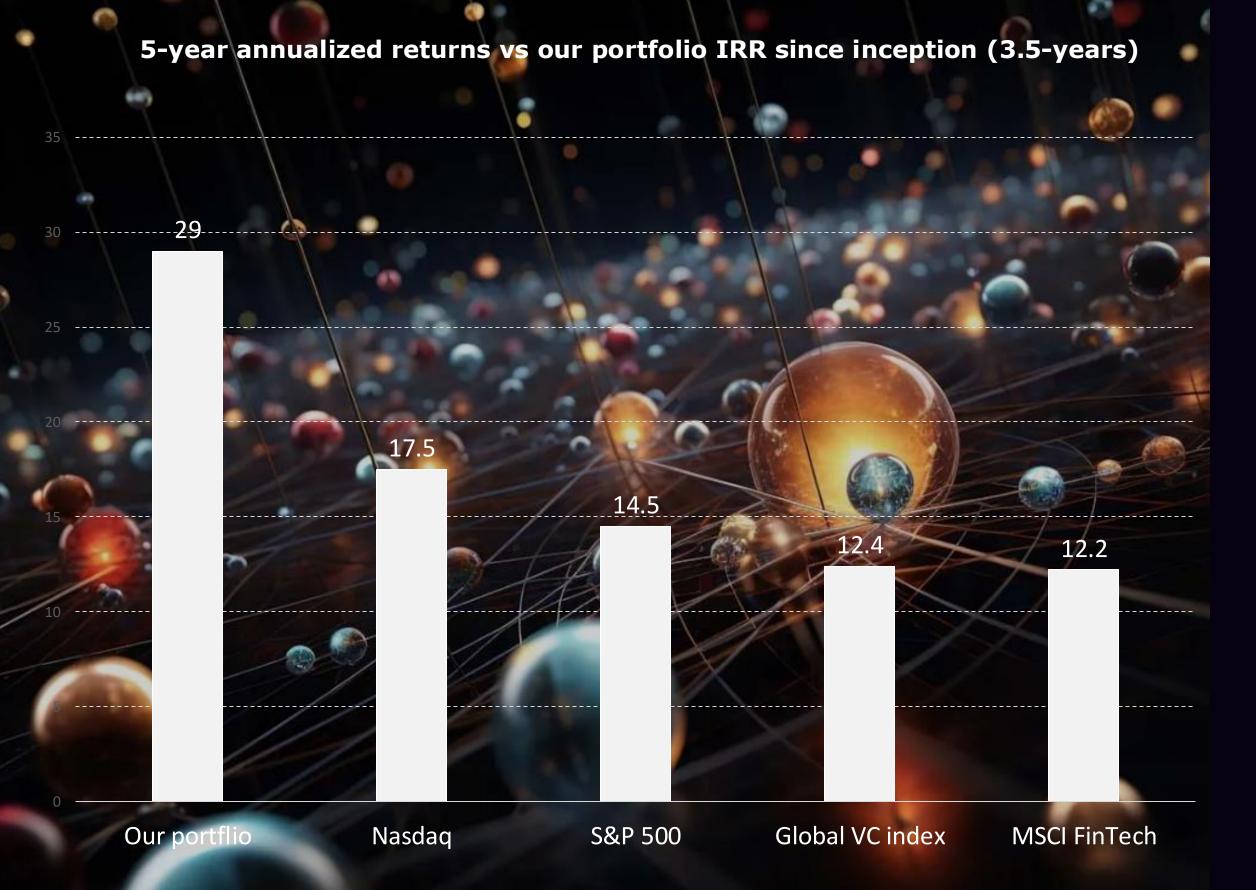








### Indicated returns from our invest. vehicle I



Total Value to Paid in Capital (TVPI)

90%

Capital Invested since inception IRR (ann.)

25-33%

MoIC (since inception)

1.7x



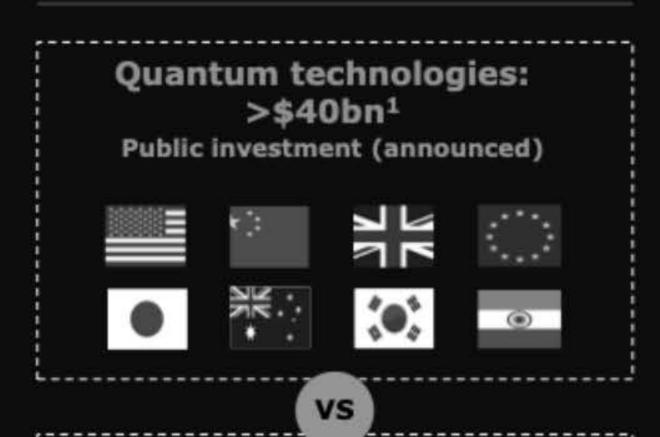
### Excellent Track Record – invest. vehicle I

- 75% valuation uplift in the current portfolio (investment vehicle 1) after 3 1/2 years targeting 25-33% annual IRR over the investing period
- well-diversified exposure across quantum computing, sensing and communications well positioned for rapid growth in a \$2trln market opportunity
- Revenue and rapid scaling. Portfolio companies are revenue generating, with robust cash, clear pathway, strong IP, grants and strategic partnerships.



### For investors the time to act is now but...

### Government funding surpassing total spend of Manhattan Project



Manhattan Project: ~\$35bn (2025 dollars) Corporates have established dedicated teams and are exploring use cases

J.P.Morgan ~50+ scientists hired; dedicated quantum team



HSBC Quantum Key Distribution transactions pioneer (FX)

**AIRBUS** 

Quantum Simulation of fuel cells

And many more...







Private sector has invested over \$10B to date

BlackRock

DE Shaw & Co

Goldman Sachs

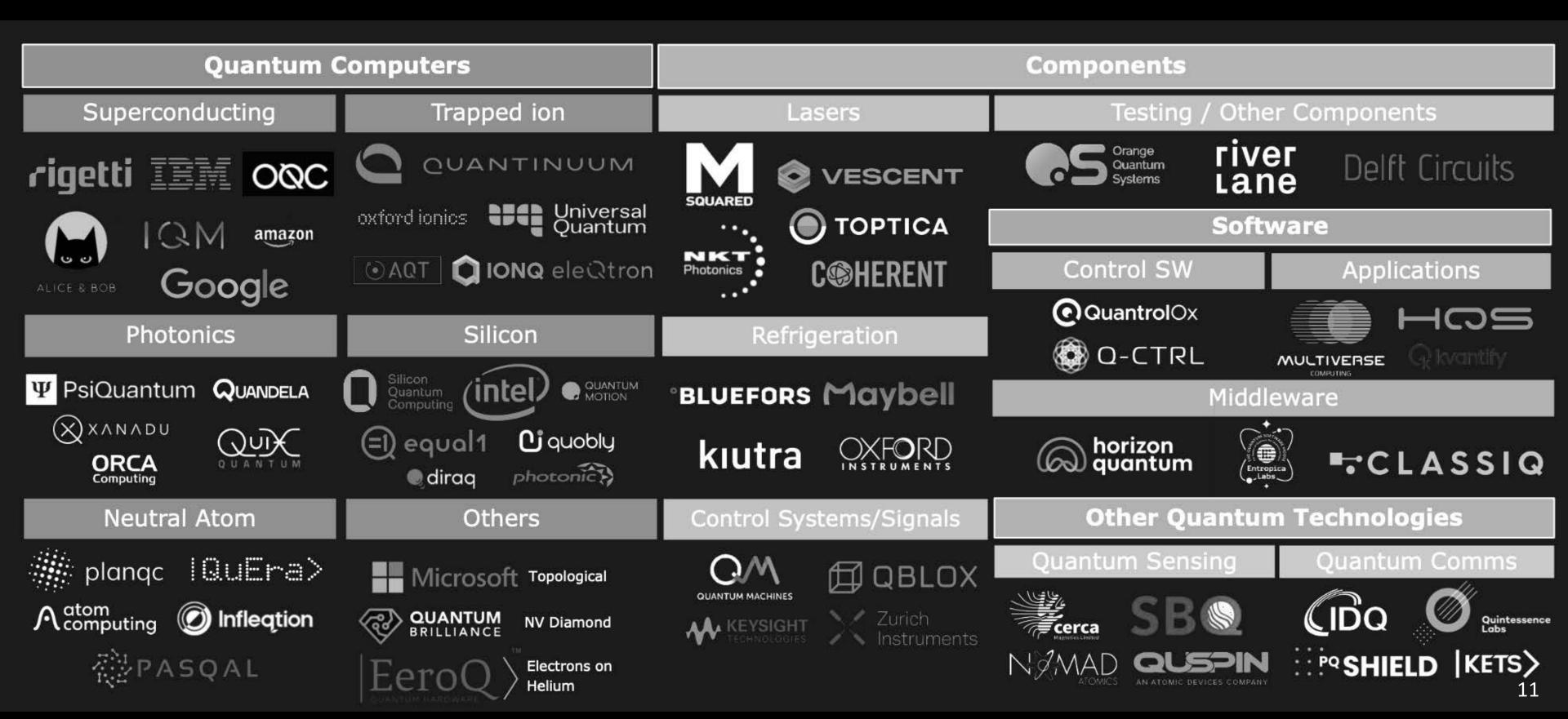
Honeywell

J.P.Morgan



TEMASEK

### ... deep sector expertise is required



Source: The Quantum Insider

### QC represents up to \$2trln market opportunity

Biggest end markets: financials, materials, transport, pharma, defence



<sup>1.</sup> Economic value is defined as the additional revenue and saved costs that the application of QC can unlock. These industries are the most likely to realize this value earlier than other industries; therefore, they are examined in more depth. 12

Value estimates are approximative, not definitive projections for business value.

Sustainable energy market is expected to grow rapidly from 2022 to 2035. However, the 2035 market size is influenced by numerous factors and challenging to predict.
 Source: Oxford Economics; McKinsey analysis

### Revenue of QC companies are growing at 40%

Computing, Communications and Sensing are the biggest segments

#### Quantum technology market size scenarios in 2035 and 2040

Based on existing development road maps and assumed adoption curve

	QC	QComm	QS <sup>1</sup>
2035	\$28B-\$72B	\$11B-\$15B	\$7B-\$10B
2040	\$45B-\$131B	\$24B-\$36B	\$18B-\$31B

Potential economic value<sup>2</sup> from QC in 2035:

$$\sim $0.9T - $2.0T$$

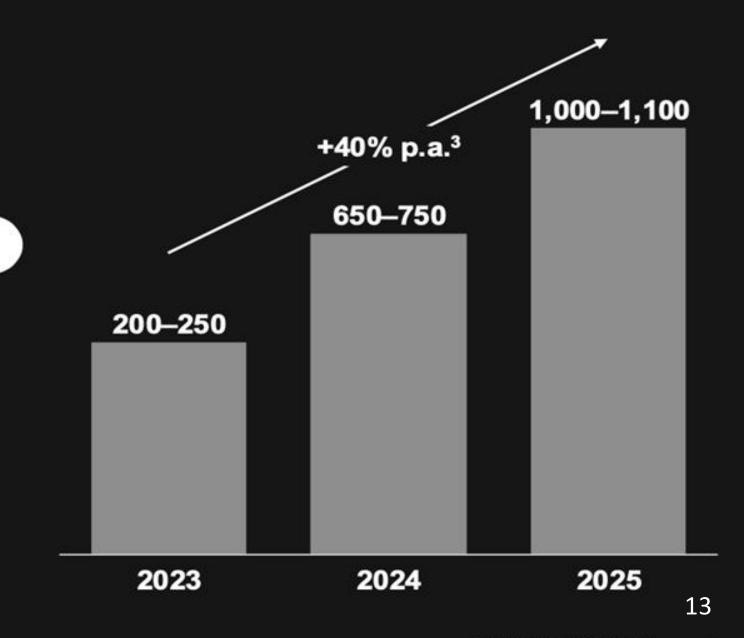
Potential value driven by four industries by 2035: global energy and materials, pharmaceuticals and medical products, financial industry, and travel, transport, and logistics

Approach for QS updated through clusters of use cases based on recent development, announcements, and breakthroughs.

Source: Crunchbase; expert interviews; Oxford Economics; PitchBook; Quantum Computing Report; S&P Capital IQ; McKinsey analysis

- omic value is defined as the additional revenue and saved costs that the application of QC can unlock.

#### Revenue estimates of QC companies, \$ million



### Disrupting large end markets

Quantum Advantage year is already in 2026, according to IBM

#### Why is quantum computing so powerful?

It leverages the phenomena of quantum mechanics:

- Superposition: The possibility of quantum systems to not be in a single defined state (left or right, up or down, etc)
- Entanglement: The possibility of two or more (even physically separate) systems to form an inseparable combined state
- Interference: The potential of quantum states to combine

#### Which problems can a quantum computer solve?

- Linear algebra (machine learning and Al) for, eg, reduction of large data for better decisions, predictions, and automation
- Simulation of quantum systems and processes—eg, molecular processes, material sciences, and life sciences
- Mathematical optimization with algorithms that can enable near real-time optimization for, eg, financial modeling
- Factorization (security) of large numbers with exponential speedup—eg, to break mainstream encryption protocols

#### What do potential use cases look like?



#### **Automotive**

Linear algebra for battery optimization: Efficiently predict the lifetime of batteries



Pharma and chemicals

Simulation of molecules: Simulate molecular processes for drug discovery



#### **Finance**

Optimization of collaterals: Consider more collaterals and solve with higher accuracy



#### Security

Factorization: Use quantum random number generators to enhance security

Source: McKinsey Quantum monitor 2025

### Management team



#### Steven Metcalfe

Managing Partner (COO, Investor Liaison)

Extensive experience in advising on listings, fund raisings and capital markets in general. Experienced board member. Previous experience includes:

- Hitchens Harrison
- Novum Securities



#### Simon Frost

CFC

Qualified Chartered Accountant; Previous experience includes:

- Partner at Keith, Bayley, Rogers & Co. (KBR)
- Head of the KBR, the Corporate Finance division of Walker Crips Group plc



#### 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 includes:

- 10 years in risk analysis for large financial institutions
- ArqitQuantum Inc employee



#### Stuart Nicol

Managing Partner (Pre-Seed - Series A, Portfolio)

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

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



#### Helen Reynolds

IC member

Independent Investment Committee Member at QE, MD & Investment Director at Bayes Entrepreneurship Fund, Director and Founder at Expert Ventures. Previous experience includes:

- Investment Director at Crowdcube
- Principal Consultant at Larpent Newton & CO



#### Joe Cox

Investment Analyst

Assisting with research and Investment Administration and Due Diligence. PhD student at Imperial College London and University of Bristol



#### Kirill Pyshkin

Managing Partner (Series A, Investor Liaison)

Previous experience includes:

- Lead fund manager of multi-billion equity funds at Credit Suisse and Aviva Investors;
- Semiconductors and global tech analyst at JPMorgan, AllianceBernstein, and Amundi;
- Investment & Venture Committee member at Ufi Trust (early-stage VC),
- CIO of a fintech platform;
- PhD in Physics (Induced Quantum Wires) from the University of Cambridge.



#### Ian Pearson

Non-executive chairman

Experienced senior politician, Chairman of Eqteq plc and Non-Exec Director of Thames Water. Previous experience includes:

- MP 1994-2010 (Labour Party)
- Minister of Trade, Science Minister
- Chief Secretary to the Treasury
- Chairman of Octopus VCT2 plc
- Extensive experience in management of companies, excellent network to investors and government institutions



### Advisory Board



#### Dr. Tariq Ali

Advise

Pro-Vice-Chancellor, University of Liverpool, Member of Council at the Foundation for Science and Technology, Adviser at UKRI and 360ip



#### **David Williams**

Adviser

Former Founder CEO & Chairman of Arqit, Britain's most valuable quantum technology startup which listed on NASDAQ in Sep 21 to become Arqit Quantum Inc.



#### Stephen Chandler

Advise

Experienced Venture Investor. Managing Partner at Notion Capital. Investor AllStars Investor of the Year 2020. Previously President & CFO at MessageLabs. Ex UBS Investment Bank



#### Katherine Courtney

Adviser

Former CEO UK Space Agency, over 20 years' experience in innovation, critical national infrastructure and economic growth



#### Dr. Justin Hill

Adviser

Head of Patents, Dentons Europe. Global leader in deep tech physics related patents. PhD Physics



#### Dr. Dave Williams

Prof. Rupert Ursin

Adviser

Adviser

Former Executive Director Government of Australia CSIRO Digital, National Facilities Group, Includes leading research in Quantum Technology. Ex CEO UK Space Agency & Chair of ESA Council

Senior Group Leader Institute for Quantum

Optics and Quantum Information, Austrian

Academy of Sciences. Holder of the World

Record in Free Space Quantum Optics



#### Anna Spandl

Adviser

Former Investment Associate at QE, Supporting European expansion and Network



#### Martin Schwedler

Senior Adviser for Europe

Previous work experience: Lazard Freres, Raiffeisen Investment (Russia and Austria),GE Capital. Extensive knowledge and experience in TMT M&A and private equity investing



## Portfolio companies – investment vehicle I



### Portfolio Companies – investment vehicle I



OQC is a leading superconducting quantum computer company. Users can access OQC's compute power via their online portal and partner datacenters, making its computers available to millions of users.

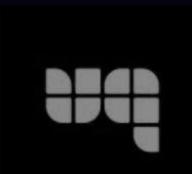
OQC continues to construct ever more powerful quantum computers and is also developing the ability to supply commonly-used parts to the sector.

It is based in UK but has operations in and investors from several countries including Spain & Japan. Recent investors, as part of a Series B round, include Softbank, Chevron Ventures, Amadeus Capital and others. This round is at an increased valuation to QE's investment.



Aegiq is building a proprietary photonic quantum computer together with high quality single photon sources. The Company believes that this architecture will be more useful with a small number of qubits & more energy efficient than competing companies/ technologies.

The Company recently closed an oversubscribed £6m pre—Series A round & is also busy fulfilling contracts with the Royal Navy, the UK's national quantum computing centre & BT. The most recent investment is at a significantly increased valuation to QE's investment.



Universal Quantum Limited is constructing fault tolerant quantum computers using trapped ion technology that the founders created at the University of Sussex.

After QE invested the company won a cometitve tender to supply the German Air Force with two quantum computers. This contract is worth over £70m. This has removed the Company's need to fundraise & it has successfully met all development goals to which payments are tied.



### Portfolio Companies – investment vehicle I



Siloton, UK based, uses quantum techniques and photonic integrated circuits for use in sub-surface optical scanning devices with applications across healthcare, and non-destructive testing. Siloton uses quantum-aligned technology to create a new generation of equipment to deliver a service to monitor disease status of those with age related macular degeneration. The Market for age-related monitoring of age-related macular degeneration expected to reach some 288 million patients by 2040. In late 2023 and through 2024 the Company raised a modest amount of external funding to enable it to take advantage of generous grants that it has won.

The most recent £1m investment round is at a significantly increased valuation to QE's investment.



QLM Technology Limited is a UK-based photonics hardware and technology development company that has developed a cutting-edge gas imaging camera based on quantum technology termed a Quantum Gas Imaging Lidar. This novel imaging technology can detect, visualize, localize and accurately quantify emission rates of greenhouse gases (GHGs).

The funding round was led by Schlumberger and included new investment from existing investors Green Angel Syndicate, Enterprise 100 Syndicate, the Development Bank of Wales, Newable, BritBots, and BPEC.

The company raised an additional £5m round from SLB (Schlumberger).



### Portfolio Companies – investment vehicle I



Delta g is a UK-based gravity sensing hardware and technology development company that has developed a cutting-edge underground imaging system that leverages quantum technology to measure gravity gradients. Its gravity gradiometer has already received significant performance acclaim, demonstrated within a paper published in Nature (https://doi.org/10.1038/s41586-021-04315-3), and has attracted interest from large industrial end users across many industrial verticals.

The quantum gravity gradiometer has the potential to transform underground mapping for several industries such as utility mapping for smart cities and smart cities and smart mining as it can be used in real-time monitoring and is a direct measurement. Delta g raised a further £3m upround in 2024.

### ARQIT

Arqit supplies a unique quantum encryption Platform-as-a-Service which makes the communications links of any networked device secure against current and future forms of attack – even from a quantum computer. Arqit's product, QuantumCloud™, enables any device to download a lightweight software agent of less than 200 lines of code, which can create encryption keys in partnership with any other device. The keys are computationally secure, one-time use and zero trust. QuantumCloud™ can create limitless volumes of keys in limitless group sizes and can regulate the secure entrance and exit of a device in a group. The addressable market for QuantumCloud™ is every connected device.

Arqit trades on Nasdaq under the ticker symbols 'ARQQ' and 'ARQQW. Quantum Exponential have an option to be transferred 199,993 ordinary Arqit shares.

