



# Investor Presentation

## Q4 2021

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# Introduction

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- Quantum Technology has the power to **revolutionise traditional technologies and industries**
- **New chapters** can be opened in the realms of AI, manufacturing and healthcare
- **Private capital** has flocked to back this potential
- Until now, **public market investors have had no means** to gain pure exposure to this growth
- Quantum Exponential aims to address this imbalance with **the first investment company focused solely on this field**
- Our strategy is to **assemble a portfolio of investments** in leading global Quantum Technology (QT) companies
- Under a management and advisory team with **unparalleled market knowledge** we believe we will have **unique access to deal flow**
- Our first deal has been signed - an option to acquire shares in Arqit Quantum Inc.

# Arqit option

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*QE has signed an option agreement to acquire 199,993 shares in Arqit Quantum Inc., a pioneering Quantum Technology company.*

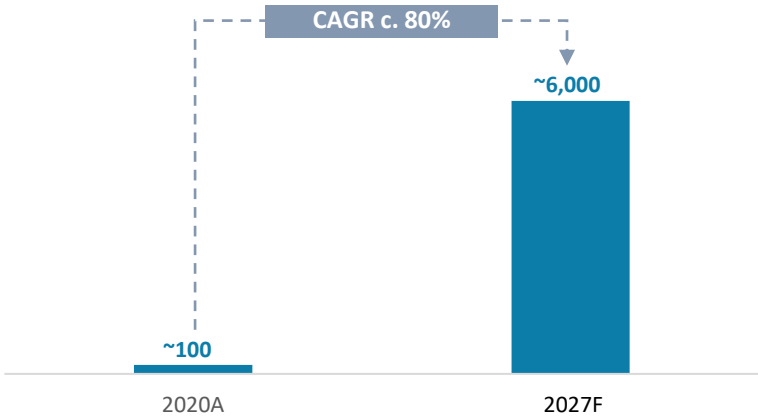
*UK based Arqit has invented a unique quantum encryption technology which makes the communications links of any networked device secure against current and future forms of hacking.*

*Arqit Ltd recently joined NASDAQ via a merger with a SPAC called Centricus Acquisition Corp (NASDAQ:CENH) The merged business is known as Arqit Quantum Inc. (ARQQ)*

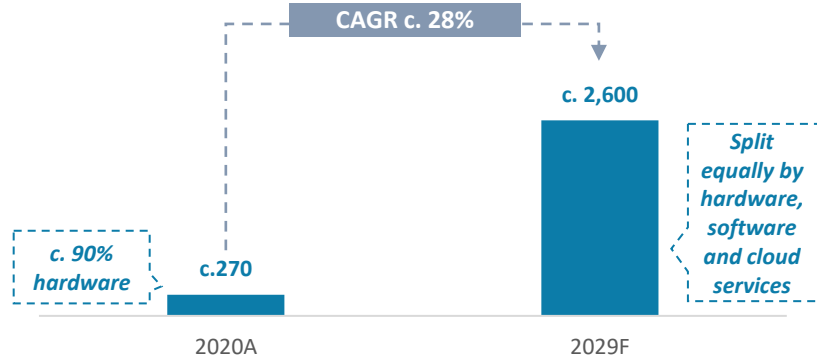
# Quantum Technology market overview

QT expected to accelerate its development significantly by 2030 driven by increased investments

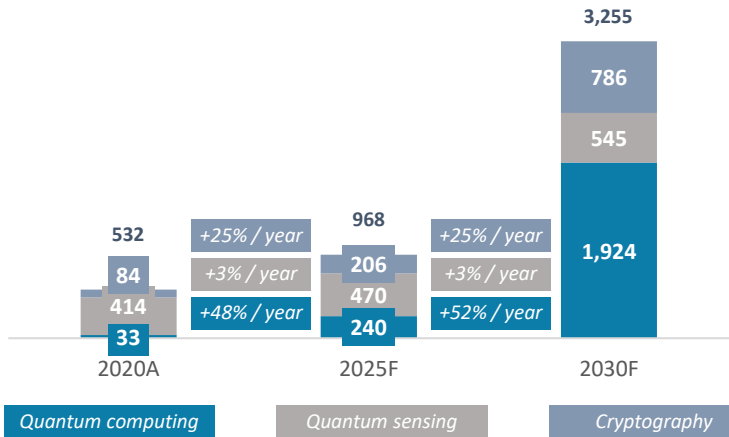
Forecasts of total QT spending (\$m)



Aggregate revenues for QT (by type, \$m)

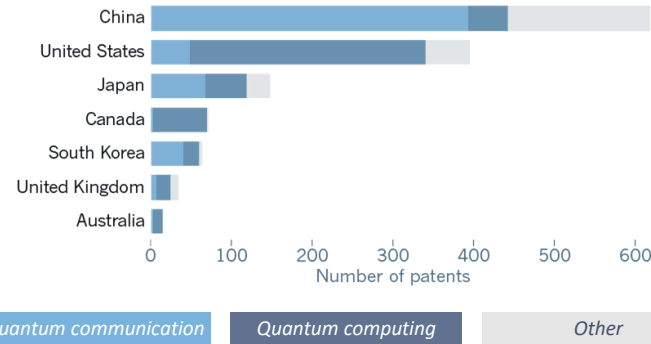


2020-2030 QT market value (\$m)



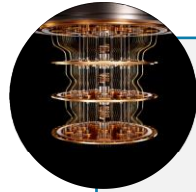
Quantum patents at a glance

An analysis of global patents in quantum technology since 2012 shows China dominating Quantum Communication, but North America ahead on Quantum Computing



# Quantum Technologies – Four key areas of QE's focus

*Several key QT technologies are already in use and will form the basis for our investment focus*



## Quantum Computing

Quantum Computers exploit “entanglement” of atoms to create an exponential amount of data that can be processed simultaneously.

- This will help create new chemicals, optimise manufacturing and simulate financial markets



## Quantum Communications

Quantum Mechanics can be used to create and distribute unhackable encryption keys.

Eventually, we will have a Quantum Internet where information is teleported globally using Quantum Mechanics, with astonishing power and speed



## Quantum Sensing

High-precision measurements of electric, magnetic, gravitational fields for applications in medical imaging, underground mapping, materials characterization etc.



## Quantum Metrology

Quantum mechanics can be used to create new standards for measurement of time and force.

Applications include miniature atomic clocks and accelerometers for signal-free navigation



# Vision and mission

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## Vision

Become a leading investor in the quantum sector, by bringing deep technical know-how and expertise in this field coupled with unparalleled market access, professional portfolio selection and due diligence

## Mission

Increase accessibility for private and institutional investors to a new investment category with a priority focus on the UK that stands to dominate all forms of technical innovation over next decade and one that is expected to deliver very strong returns for early investors

# The fund process

*Capturing the market opportunity effectively*

## Sourcing

Board and Advisory Board share deep expertise in the field of QT

They possess the necessary network to source of deals in key North American, western Europe and APAC markets

Cooperation with Notion Capital will provide additional benefit in sourcing opportunities

## Selecting

QE will be focused primarily on investments in companies able to deliver near-term applications to market

Primary Focus will be on UK and on NATO allied countries, reflecting deep relationships on a government level

Ticket size will be of £100k - £500k, with ability to invest more with outside partners.

## Growing

Operational expertise is in place to support investee companies through their growth phase and internationalization activities

QE founders also have relationships with British Government innovation funding programmes which stand ready to support qualifying investee companies

## Exiting

Our evergreen fund structure allows us to be free from limited holding period for investments.

Monetization envisaged to happen either via sale (strategic investor or IPO) or via dividends from investee companies, once they reach maturity phase



# QE Board and Management team

*Internationally experienced team of seasoned finance professionals, entrepreneurs and QC scientists*

**Martin Schwedler**  
CEO



- Previous work experience:
  - Lazard Freres
  - Raiffeisen Investment (Russia and Austria)
  - GE Capital
- Extensive knowledge and experience in M&A and private equity investing
- Extensive experience in Telecom and Technology sectors

**Stuart Nicol**  
Inv. Committee Chairman



- Highly experienced VC investor
- Previous work experience:
  - CIO At two regional UK venture funds
  - Director at Octopus Investments
  - Director at Crowdcube
- Extensive experience in corporate finance, including M&A, VC investing and capital markets

**Steve Metcalfe**  
Director & COO



- 30 years of experience in regulated markets
- Extensive experience in advising on listings, fund raisings and capital markets in general
- Board member of several companies

**Ian Pearson**  
Non-Exec Chairman



- Currently Chairman of Ekteq plc and Non-Exec Director of Thames Water
- Previous experience includes:
  - Minister of Trade
  - Science Minister
  - Economic Secretary for Treasury
  - Chairman of Octopus VCT2 plc
- Extensive experience in management of companies, excellent network to investors and government institutions

**Rodger Sargent**



- Qualified Chartered Accountant
- Previous experience includes:
  - Financial Director of several listed companies
  - Investment advisory for family offices and HNW individuals
- Extensive experience in corporate finance and investing

**Nigel McNair Scott**  
Non-Exec Director



- Experience senior manager with strong financial background
- Previous experience includes:
  - Chairman of Reaction Engines
  - Chairman Helical Bar
  - Chairman Avocet Mining
  - Director Govett Investment Trust

# QE Advisory Board

*Strong Advisory Board consisting of renowned scientists, university professors and entrepreneurs*

**David Williams**

Adviser



Founder of Arqit, Britain's most valuable quantum technology start up which recently announced a proposed listing on NASDAQ in connection with a business combination transaction with Centricus Acquisition Corporation (CNENH).

**Prof. Kai Bongs**

Adviser



Leader of the UK Quantum Technology Hub for Sensors and Metrology, Editor-in-Chief for the European Physical Journal (Quantum Technologies). Director of Innovation at the University of Birmingham

**Prof. Rupert Ursin**

Adviser



Senior Group Leader Institute for Quantum Optics and Quantum Information, Austrian Academy of Sciences. Holder of the World Record in Free Space Quantum Optics

**Dr. David Williams**

Adviser



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

**Dr. Justin Hill**

Adviser



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

**Stephen Chandler**

Adviser



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

**Dr. Oliver Cohen**

Adviser



PhD in Quantum Physics from the University of London and has numerous highly cited publications in the field of quantum information. Worked for 10 years in risk analysis for large financial institutions. Recently worked in quantitative analysis, statistical modelling, and risk and researching and developing cryptographic protocols.

**Katherine Courtney**

Adviser



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

**Dr. Tariq Ali**

Adviser



Deputy Pro-Vice-Chancellor, University of Birmingham and Vice-Provost, Research & Innovation University of Birmingham Dubai, Member of Council, Institute of Physics

# Pipeline of further deals

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- 1 QE's Advisory Board have to date helped to screen over 175 possible quantum deals of which over 60 potentially meet the Company's investment strategy
- 2 Our plan is to create an initial portfolio of 8-10 investments
- 3 QE will ensure adequate funding is reserved for follow-on rounds
- 4 It is envisaged that each investment will be between £100k - £500k
- 5 50% of investee companies made might be expected to get further investment
- 6 Portfolio progress permitting, these follow-on investments are likely to be larger than the initial investment
- 7 Active discussions are currently taking place with the investee market
- 8 All of these possible investments are pre a formal Due Diligence stage. While some of these investments won't subsequently complete, we are confident of finding other suitable deals

# Sample of potential investments by QE

Sector	Description	Stage	Country
Sensing	Touch-based sensor using quantum components	Seed	UK
Comms	Quantum repeater	Seed	USA
Computing	Medical device using photonic integrated circuits	Seed	UK
Other	Stealth mode	Seed	UK
Sensing	Magnetic field detectors	Seed	UK
Sensing	Enhanced location finding	Seed	UK
Sensing	Enhanced scanning	Seed	UK
Sensing	Photon camera	Seed	UK
Other	Stealth mode	Seed	D
Other	Consumables for quantum experiments	Seed	UK

## Conclusion – Unique opportunity

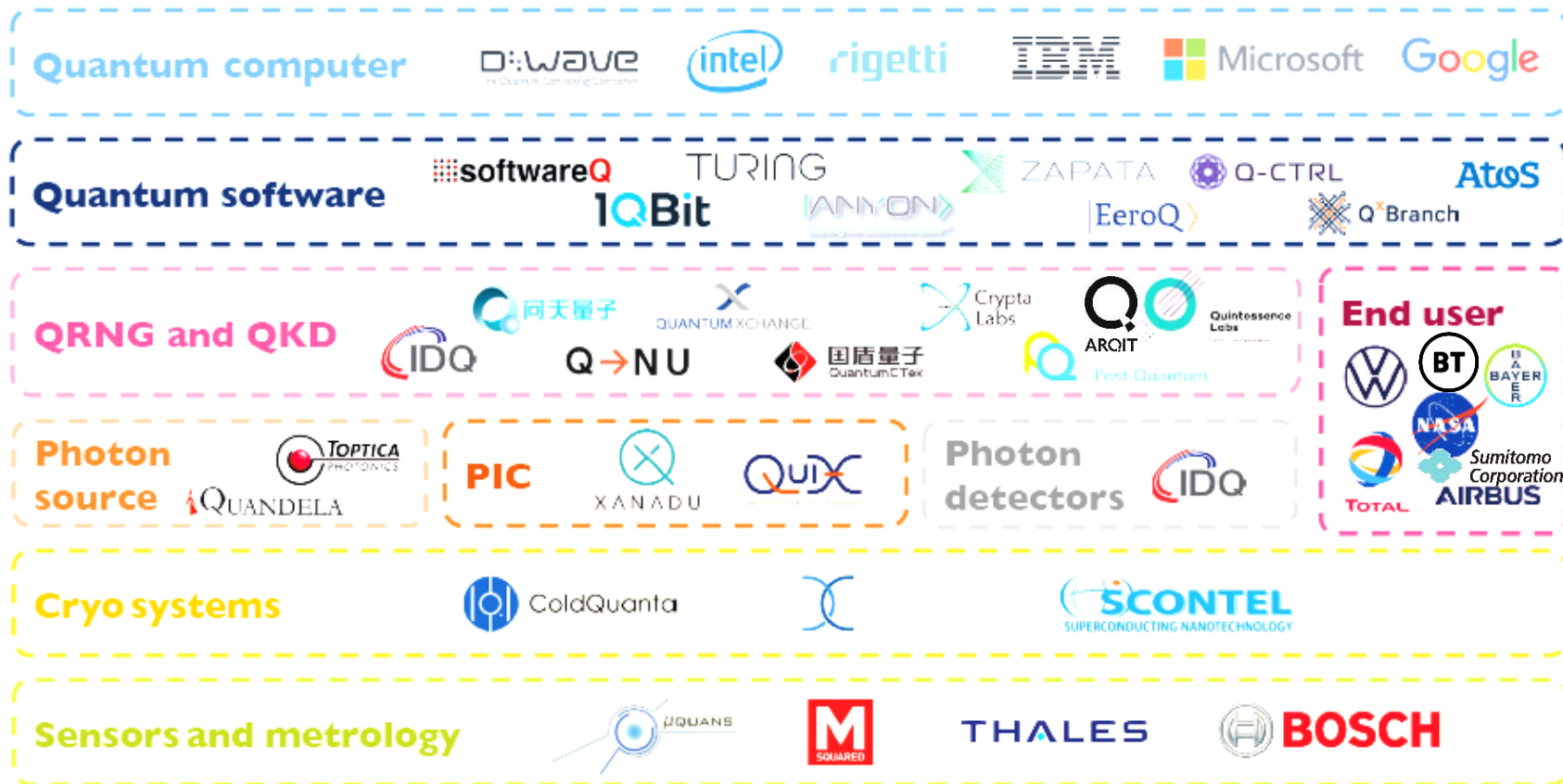
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- 1 Massive growth in quantum technology is expected to take place over next few years as governments start racing to invest
- 2 Developments expected to present lucrative opportunities with a development of whole ecosystem around QT
- 3 QE is a unique way to capture that as an evergreen public structure
- 4 Strong portfolio selection to yield very attractive risk-adjusted returns for early investors
- 5 Lean operating model with costs covered for initial three years of operations and a strong balance sheet
- 6 Pipeline of potential investments post admission expected to result in rise in company valuation

# Appendix

# QT market overview (cont'd)

## Quantum Technology supply chain



QRNG – Quantum Random Number Generator

QKD – Quantum Key Distribution

PIC – Photonic Integrated Circuit

# Quantum Exponential overview

*One of the first companies investing in the highly attractive sector of quantum technology*

## Company overview

Quantum Exponential Group plc is the first company of its kind to be quoted on a UK market:

- 1 QT as new and untapped investment category that is expected to grow rapidly over next decade
- 2 Deep technical expertise from renowned QT scientists and unparalleled market access of key stakeholders to help identify best in class investment opportunities and capital allocation
- 3 Massive growth in quantum technology expected to take place over next few years as governments start racing to invest into this space
- 4 Market developments expected to present lucrative opportunities with a development of whole ecosystem around QT with software development and applications following suit
- 5 Evergreen investment structure with no constraints to invest capital or divest stakes within a specified timeframe
- 6 Strong portfolio selection to yield very attractive risk-adjusted returns for early investors
- 7 Lean operating model with costs covered for initial three years of operations and a strong balance sheet
- 8 Pipeline of potential investments post admission expected to result in rise in company valuation

## Investment strategy

Rigorous due diligence and strict portfolio selection to ensure successful investments for the firm and its shareholders:

- 1 Quantum Exponential's Board and Advisory Board share deep and highly relevant expertise in the field of QT, venture investing, capital markets and financings. Moreover, they possess the necessary network to tap sourcing of deals in the key markets of North America, western Europe and APAC region
- 2 Investments cooperation with Notion Capital, a leading European Tech VC investor
- 3 Investments expected to be in following key categories:
  - a Quantum communications
  - b Quantum sensing
  - c Quantum metrology
  - d Quantum computing software
- 4 Ensure investments only in companies able to deliver near term applications to market
- 5 Primary Focus on UK investees, secondary on NATO allied countries
- 6 Ticket size of £100k - £500k with ability to invest more with outside partners. Focus on seed rounds for start-ups. Will evolve with second stage funding plans
- 7 Operational expertise in place to support investee companies through their growth phase or internationalization activities



# Competitive positioning of Quantum Exponential

*Cooperation with Notion Capital to provide additional benefit in sourcing opportunities*



# Partnerships and cooperation

*Quantum Exponential has formed cooperation with Notion Capital for usage of RISTA to help in sourcing the right deals*



## Digital deal flow sourcing partner

In collaboration with our partner and IPO investor Notion Capital ([www.notion.vc](http://www.notion.vc)) we use a proprietary digital sourcing technology which applies heuristics to signals from multiple public data sources and augments these with our internal data sets to identify those companies most suited to QE's investment strategy. Notion are one of Europe's leading tech VC investors mainly at Series A-D stage, and will refer very early stage Quantum tech companies to QE, and look to assist in subsequent rounds.

QE founders have very deep relationships with British Government innovation funding programmes which stand ready to support qualifying investee companies

“The UK is leading the world in establishing a quantum-ready economy through public and private collaboration. UKRI are keen to see more such successes, and there is significant innovation funding available for British quantum start ups and for innovators who want to come to Britain to develop their technology. We therefore encourage the development of venture capital plans consistent with our objectives.

Roger McKinlay, UKRI Challenge Director Quantum Technologies”

# Rigorous investment process to ensure successful investments

*Strong pipeline with more than 175 investment opportunities screened*

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## Phase I: Launch and initial investments

- 1) Review of pipeline of investment opportunities in various QT sub-categories (component manufacturers, software, application algorithms, manufacturers or users of quantum sensors and dots, manufacturers or users of quantum cryptography hardware)
- 2) Assess viability and attractiveness of investment; confirm fit of technical and business concept with Quantum Exponential's investment strategy (done by Investment Committee and Advisory Board)
- 3) Initial due diligence; review financial, technical, legal and operational data of contemplated target(s)
- 4) Management meetings to re-confirm understanding of business case, operating model and use of funds
- 5) White paper on specific target produced by Advisory Board identifying strengths and weaknesses
- 6) Initial negotiations and term-sheet discussions
- 7) Final due diligence and Investment Committee approval
- 8) Signing of transaction

## Phase II: Follow-on investments and support

- 1) Further investments as needed to support investee companies' growth and internationalization
- 2) Internal network to provide non-financial support by establishing links to cooperation partners, vendors and potential other investors

## Phase III: Returns to investors via dividends or exit

- 1) No defined holding period for investments; monetization to happen either via sale (strategic/financial investor or IPO) or via dividends from investee companies, once they reach maturity phase