

Commercialising quantum technologies: opportunity to invest

New quantum technologies could transform products and services in many business sectors including automotive, healthcare, infrastructure, telecommunications, cybersecurity and defence.

Quantum physics is at the heart of the electronics, media, computing and infrastructure systems we use in everyday life.

A second generation of quantum technologies based on new quantum effects could lead to more secure digital communication, improved construction and radical increases in computing power.

The UK government's Industrial Strategy Challenge Fund (ISCF) Commercialising Quantum Technologies Challenge is a £153 million investment in projects that will help the UK to lead the world in development of these new technologies.

Innovate UK, as part of UK Research and Innovation, has up to £12 million from the fund to invest in innovative research and development projects in the field. It is seeking investors willing to partner it by helping to find suitable businesses, managing the grant allocation and investing their own private equity capital.

The aim is to improve access to financial and commercial support for SMEs developing innovative quantum technologies.

Aim is to invest in quantum technologies with clear potential

The aim of the partnership is to invest in quantum technologies that would not otherwise be supported within an investor's risk strategy and to support innovations that have clear potential to be adopted at scale. Innovate UK is seeking investors that:

- demonstrate the interest, capability and capacity needed to invest in early-stage companies, including university spin-outs and businesses looking for their first investment opportunities
- demonstrate the ability to add value beyond their investment
- commit to helping the company grow and scale
- have access to relevant sector and technology-specific expertise

Phase 2 of the competition will see successful investors work with Innovate UKthe ISCF to fund a broad range of SMEs working on promising projects that exploit the new generation of quantum technologies including:

- connectivity: techniques for securing data in storage and in flight
- situational awareness: this includes autonomous systems, sensors and detectors for the built environment, transport and infrastructure, and

imaging and sensing to “see things currently invisible”

- computing: transformational computers for solving currently intractable problems

Funded business projects are expected to range in size between £250,000 and £2 million.

Competition information

- the competition opens on 19 August 2019, and the deadline for registration is at midday on 25 September 2019
- it is open to equity providers holding a full UK registration at Companies House including charities and trusts with the power to make investments
- investors can apply for a grant allocation of between £2 million and £12 million and must demonstrate they can invest at least an equal sum into companies
- a briefing event takes place on 27 August 2019

UK and Norway Reinforce North Atlantic Security

Defence Minister Anne-Marie Trevelyan hosted Norwegian State Secretary Tone Skogen to discuss NATO and the UK’s role in the North Atlantic.

The UK is investing £3 billion in nine new Boeing Poseidon P-8A maritime patrol aircraft, with Norway committing to a further five. The aircraft are sophisticated submarine-hunters designed to scout complex undersea threats.

The aircraft will work together, and with NATO allies, to combat a range of intensifying threats in the North Atlantic, including increased hostile submarine activity.

Defence Minister Anne-Marie Trevelyan said:

The UK’s maritime patrol aircraft programme demonstrates our ongoing commitment to working with international allies in the North Atlantic, strengthening our alliances with valued partners such as Norway.

Our two nations share basing facilities, undergo cold weather training together and patrol the seas and skies side-by-side allowing us to successfully face down the growing threats from adversaries in the North Atlantic region.

During the visit, the defence ministers experienced a demonstration flight in a US Navy Poseidon P-8A aircraft.

Norwegian State Secretary Tone Skogen said:

The UK and Norway have a long history of cooperation on maritime surveillance and operations. This close relationship will only improve now that we will operate the same type of MPA, the P-8 Poseidon. UK and Norwegian priorities are aligned in the North Atlantic, and we look forward to a close and integrated partnership in meeting common challenges within the realm of maritime security.

Defence Minister Anne-Marie Trevelyan at RAF Lossiemouth. Crown copyright.

The entire nine-strong UK Poseidon P-8A fleet will be based at RAF Lossiemouth. The first aircraft has been built and has just completed its first test flight. It will be handed over to the RAF in the United States later this year and arrive in Scotland early in 2020.

Last year, the station broke ground on construction of a £132 million strategic facility for the new fleet, to be completed in 2020. The new facility is being constructed by Elgin-based Robertson Northern and will comprise a tactical operations centre, an operational conversion unit, squadron accommodation, training and simulation facilities and a three-bay aircraft hangar.

When all of these developments are complete there will be 470 additional service personnel based at RAF Lossiemouth, taking the total number of people employed there to 2,200.

RAF Lossiemouth is one of the most important air stations in the UK: it is already home to four RAF Typhoon squadrons – half of the RAF Typhoon Force – which conducts air policing work to protect the UK's airspace from unwanted intrusion, and also on behalf of NATO in Eastern Europe to reassure allies.

The UK's NATO commitments also include sending four RAF Typhoons to conduct air policing in Icelandic skies for the first time later this year. Such operations allow the RAF to develop valuable skills in new and challenging environments, as well as working closely with allies to protect Euro Atlantic security.

Earlier this month, RAF Typhoons benefitted from a £350 million contract with Rolls-Royce to support the maintenance of their EJ200 engines up to 2024.

Norwich – Ely rail passengers to be protected by fare caps

Earlier this year, Abellio was awarded the East Midlands rail franchise by the Department of Transport. The Competition and Markets Authority (CMA) subsequently reviewed whether any competition issues arose from this award as part of its mergers work.

This [investigation](#) identified competition concerns on the Norwich and Ely and Thetford and Ely routes, as Abellio would operate both East Midlands Trains and Greater Anglia, and so provide the only services on this line. The CMA was concerned this could reduce competition, as passengers would have no other rail options, which could lead to higher fares. The CMA has found no competition concerns on the other routes Abellio would operate.

After careful consideration, the CMA has now accepted proposals from Abellio, called Undertakings in Lieu, to overcome its concerns. These measures include inflation-linked fare caps on advance fares on the Norwich to Ely route, and on all unregulated fares on the Thetford to Ely route. The operators have also agreed to maintain the availability of advance fares on both routes at existing levels. They will be required to submit regular reports to the CMA to show they are complying.

Colin Raftery, Senior Director of Mergers at the CMA, said:

Thousands of people use this route, so it's vital they don't lose out due to reduced competition.

We've thoroughly examined Abellio's proposals to make sure they address all of our concerns, and believe these price caps will protect passengers from potentially facing higher fares.

These measures mean the award of the franchise is able to go ahead without a more in-depth merger investigation, referred to as a 'Phase 2' investigation.

All information relating to this case can be found on the [Abellio East Midlands Limited / East Midlands rail franchise page](#).

Notes to editors

1. The CMA is the UK's primary competition and consumer authority. It is an independent non-ministerial government department with responsibility for carrying out investigations into mergers, markets and the regulated industries and enforcing competition and consumer law.
2. Earlier this year, the Department for Transport awarded the East Midlands rail franchise to Abellio East Midlands Limited (AEML), a subsidiary of Abellio Transport Group Limited (Abellio).
3. The CMA investigates possible competition concerns that could arise from

the award of a rail franchise to a particular operator. It does not review the franchise award process.

4. For CMA updates, follow us on [Twitter](#), [Facebook](#), and [LinkedIn](#).

[Study to look at barbel and chub numbers](#)

The 12 month study has been launched after anglers have claimed that stocks of the fish in the River's Dove and Upper Trent have declined in recent years.

Anglers are being asked to complete a questionnaire about their catches, rods, bait and angling location and to send in scales from any barbel or chub they catch, which will be tested by the Environment Agency to determine the health of the fish.

Darin Alberry, Fisheries Officer with the Environment Agency, who is leading the study, said:

We've listened to what anglers have told us about falling stocks of barbel and chub.

There could be a number of environmental factors that are having an effect on numbers, but I hope we can get a good picture of the numbers and health of these popular fish.

Anyone wishing to take part in the study should contact Darin Alberry at darin.alberry@environment-agency.gov.uk.

[Government sets out position on shale gas exploration](#)

The government today set out its position on shale gas exploration as Cuadrilla resumed hydraulic fracturing (fracking) operations at its site in Preston New Road, Lancashire.

A BEIS spokesperson said:

Shale gas could be an important new domestic energy source reducing the level of gas imports while delivering broad economic benefits, including through the creation of well-paid, quality jobs. It could also support our transition to net zero emissions by 2050.

We have world-leading regulations that ensure shale gas exploration happens in a safe and environmentally responsible way. The Oil and Gas Authority is currently undertaking a scientific assessment of recent industry data which we will consider once completed.

For more information on shale gas exploration visit the government's [guidance on fracking page](#).