

[News story: £14 million for ground-breaking quantum technologies](#)

The winners have been announced in the latest round of a grant funding quantum technologies competition, totalling £13.8 million.

This competition was co-funded by Innovate UK and the Engineering and Physical Sciences Research Council (EPSRC). Of the funding, 65% will go towards supporting company activities, and the remaining 35% to academic research.

Quantum technologies in different applications and markets

The winning projects cover a huge variety of different applications and markets. This includes using quantum technologies for:

- securing drone data: a consortium of [Airbus](#), [KETS](#), [ID Quantique](#), [University of Bristol](#) and [University of Oxford](#) will look at the security of data transmitted between unmanned aerial vehicles (UAVs) and the ground. The project will use a low-weight, high-speed optical communication system with secure quantum encryption
- brain scanning and mental health: [Unitive Design & Analysis](#) is working with [University of Nottingham](#) to develop a brain scanning magnetoencephalography (MEG) device. By using quantum technology it has the potential to be smaller, simpler, more flexible and cheaper than other devices
- buried assets and rail infrastructure: a collaborative project by [RSK Environment](#), [Network Rail](#), [Atkins](#) and [University of Birmingham](#) will establish how quantum technology could be used in gravity sensors to detect and assess infrastructure buried below the railway network, such as drains
- gas sensing: ID Quantique will lead QLM technology, [Sky-Futures](#) and University of Bristol in a project to explore how photon sources – an essential component of quantum communications systems – could be used to detect gas leaks with high levels of accuracy
- authenticating wine: startup [VeriVin](#) and University of Oxford will explore the use of quantum sensing to faults in unopened bottles of wine, monitor ageing and ensure authenticity

Into the hands of companies and consumers

Paul Mason, Director – Emerging and Enabling Technologies, Innovate UK said:

The world is on the brink of a second quantum revolution, which will bring quantum sensors, cameras, communications and computers out of the lab and into the hands of companies and consumers.

This competition brings the total grant offered to companies to up to £28 million since 2014, funding 55 individual companies and leveraging £15 million of private investment.

Bearing in mind that industrial activities were more or less zero when the UK quantum programme started back in 2013, this is an incredible achievement that sees no signs of slowing down.

Professor Philip Nelson, EPSRC's Chief Executive, said:

The announcement of the competition winners represents an exciting next step in the development and establishment of quantum technologies.

These new technologies, that have the potential to transform so many aspects of our lives, are the result of more than two decades of research. Sustained support for research in this area is vital to ensuring that the opportunities on offer can be fully exploited.