

Press release: £1 billion investment makes UK a frontrunner in quantum technologies

- experimental quantum science is set to become a commercial reality thanks to government investment
- industry funding for quantum innovation programmes will overtake government investment for the first time
- combined investment hits a £1 billion milestone, showing the government's modern Industrial Strategy is boosting investment and helping the UK lead the world in new technologies

Experimental quantum science is set to become a commercial reality through planned joint government and industry investment of over £350 million, taking projects from research stage to product testing.

Total investment through the [National Quantum Technologies Programme](#) will pass a major £1 billion investment milestone since its inception in 2014. The investment has secured the UK's status as a world-leader in quantum science and technologies, keeping pace with the US and China.

The milestone comes as government confirms a £153 million funding boost through the [Industrial Strategy Challenge Fund](#). This has been more than matched by industry, with over £200 million of investment expected from the private sector.

Industry spending on quantum research and development through the fund will overtake government investment for the first time – showing business is confident in the commercial potential of the UK's world-leading research. This milestone shows the UK is moving in the right direction towards our target in the modern Industrial Strategy to invest 2.4% of GDP in research and development by 2027.

Science Minister Chris Skidmore said:

This milestone shows that Quantum is no longer an experimental science for the UK. Investment by government and businesses is paying off, as we become one of the world's leading nations for quantum science and technologies. Now industry is turning what was once a futuristic pipedream into life-changing products.

This is our modern Industrial Strategy in action – taking the most innovative ideas from our world-leading researchers and showing how they can be applied, from diagnosing diseases to detecting gas leaks.

Quantum technologies represent a new generation of high-performing devices. Quantum technologies could easily solve problems that would stump any existing supercomputer and tackle challenges that we can't meet any other way. Examples include simulating molecules to transform drug discovery to treat diseases, using sensors to see round corners and through walls, and helping engineers detect scentless gas leaks invisible to human eyes.

UK Research and Innovation Chief Executive, Professor Sir Mark Walport, said:

The UK is a world leader in quantum technologies. The funding announced today builds on the great progress we have made and lays the foundations for a quantum technology industry here in the UK.

It will ensure that we remain at the forefront of this exciting and evolving field and that we realise its potential, from improved healthcare to more accurate and reliable navigation, that is fundamental to so many services.

In the coming months, a new programme board will be set up, alongside an expert advisory group to set the strategy for the next phase of the National Quantum Technologies Programme, looking at developing technologies and identifying market opportunities.

Industry leaders have formed an independent Quantum Technology Leadership Group to represent the needs of industry with government and look at the commercial activity and economic impact of quantum technologies. The group will be co-chaired by Dr Trevor Cross, group chief technology officer at Teledyne e2v and Dr Graeme Malcolm, CEO and co-founder at MSquared Lasers.

Today's £1 billion funding milestone was part of a [speech made by Science Minister Chris Skidmore](#) during London Tech Week.

The speech on emerging technologies is the third in a series of speaking events from the minister on how the UK will reach its ambition to invest 2.4% of GDP on research and development by 2027.

Also in his speech today the Science Minister said he wants to ensure future investments in High Performance Computing deliver benefits across research and innovation, including tech start-ups and SMEs. The government will work with UKRI and Tech UK on UKRI's e-infrastructure strategy to engage with tech-SMEs on how they can access high-performance computing for the benefit of their businesses.