

[News story: Aviva deal boosts investment for UK breathalyser diagnosis firm](#)

An award-winning Cambridge company that is developing a breathalyser as a tool to diagnose cancer and infectious and inflammatory diseases has secured investment from the venture capital arm of Aviva plc.

[Aviva Ventures](#), which provides early-stage investment to high-growth businesses, will promote [Owlstone Medical](#) in the healthcare sector and build awareness of breath biopsy as a new standard in diagnostics.

Owlstone Medical has now raised £19.3 million (\$23.5 million USD) to commercialise its [Breath Biopsy®](#) platform since a spin-out from Owlstone Inc last year.

[Aviva invests in Owlstone Medical](#)

Highly sensitive and selective

Owlstone Medical's breathalyser can be programmed to detect volatile organic compound (VOC) biomarkers of disease in breath and other bodily fluids.

Highly sensitive and selective, these tests allow for early diagnosis so that treatments are more effective and more lives can be saved.

The company is currently developing tests for lung and colorectal cancer, 2 of the most common cancer killers worldwide. It also sells its research and development tools and services to academic, clinical and pharma partners who want to develop breath-based diagnostics for their own applications.

The Owlstone breathalyser can be programmed to detect biomarkers of disease in breath and other bodily fluids.

Billy Boyle, co-founder and CEO at Owlstone Medical, said:

Investment from Aviva as one of the major global insurance brands further validates our FAIMS technology and breath biopsy as a new approach to medical diagnostics.

We are very pleased that Aviva is supporting us in our mission to save 100,000 lives and \$1.5 billion in healthcare costs.

How Innovate UK has supported

Total funding of £277,000 from Innovate UK since 2013 helped the company develop its core technology, a microchip field asymmetric ion mobility spectrometer (FAIMS) sensor.

We first supported a 2013 [Biomedical Catalyst](#) feasibility study into developing a diagnostic test for Crohn's disease and ulcerative colitis.

That was followed by a funded [SBRI](#) contract in 2016 to match asthma patients to correct treatments. Wrong medication leads to 54,000 emergency hospital admissions for asthma sufferers every year in the UK – and some 1,200 deaths.

Invention of the Year

In December 2016, Owlstone Medical's breathalyser technology was recognised as Invention of the Year in the [Top 50 in Digital Health Awards](#) in San Francisco.

[Press release: £29 million boost for bioscience](#)

- Roslin Institute to benefit from £29 million of UK Government money
- New funding is part of £319 million investment in UK bioscience
- Announcement comes as Greg Clark meets businesses from across Scotland to discuss the Industrial Strategy

Business Secretary Greg Clark has today announced £29 million of funding for the Roslin Institute, part of the University of Edinburgh.

This investment is part of a total £319 million the UK government has today committed for UK bioscience funding over the next five years, delivering opportunities for highly-skilled jobs and cementing the UK as a world-leader in science and innovation as we build our Industrial Strategy.

The £29 million funding for the Roslin Institute will play a vital role in the government's and Biotechnology and Biological Sciences Research Council's (BBSRC) mission to further scientific knowledge, particularly around controlling infectious diseases, such as bird flu, and helping researchers develop solutions to modern healthcare challenges.

Business and Energy Secretary Greg Clark said:

Through our modern Industrial Strategy, we will build on Scotland's

exceptional strengths and use all the tools at our disposal to ensure every part of the country can reach its potential, ensuring that prosperity is spread across the UK.

Science, research and innovation are at the heart of the Industrial Strategy which is why we're providing more than £4.7 billion of additional funding over the next five years, including the £319 million for bioscience research. The Roslin Institute is a great example of Scotland's world class bioscience sector and exactly the sort of project our Industrial Strategy will support.

Welcoming the announcement of £29 million for the Roslin Institute, Professor Melanie Welham, Chief Executive from Biotechnology and Biological Sciences Research Council said:

Keeping the UK a global hub of vibrant research and innovation requires strategic investment in excellent research. I'm delighted that the Secretary of State, Greg Clark, is able to announce this significant investment in bioscience research. Alongside other disciplines, bioscience is vital for ensuring UK research and innovation remains competitive, addresses real world challenges and makes a difference to people's lives.

Professor Sir Timothy O'Shea, Principal and Vice-Chancellor of the University of Edinburgh, said:

This investment will help to ensure Roslin's continuing success over the next five years. The Institute plays a pivotal role in the University's mission to tackle the many pressing issues in animal health and welfare, including those which have implications for human health and sustainability of animals in the food chain.

With only one week to go until the end of the Industrial Strategy green paper consultation, the Business Secretary and the Scottish Secretary, David Mundell, will hold a meeting this morning in Edinburgh with a number of Scottish businesses from a range of sectors. The reception will be an opportunity for the business, science and academic community to discuss how the government's Plan for Britain and Industrial Strategy can benefit workers, entrepreneurs and businesses in the Scottish economy and across the U.K.

Secretary of State for Scotland David Mundell said:

The investment of £29 million of UK government funding for the Roslin Institute underpins our ambitious Industrial Strategy, as we ensure that innovative Scottish industries such as biosciences lead the way in research and development on a global scale.

As we prepare to negotiate our exit from the EU, the UK government are supporting Scottish businesses, from Harris Tweed to whisky, to compete in markets across the globe and create skilled, sustainable and secure jobs.

The Business Secretary started his two day tour by visiting Stornoway, where he met representatives of the Scottish Island Renewable Delivery forum to discuss renewable energy in the Outer Hebrides and also went to the Kenneth MacKenzie Harris Tweed mill, which plays a vital role in Scotland's textile industry, exporting to 60 countries.

Whisky is one of Scotland's great industries and world beating excellence, generating £3.95 billion for the UK economy in 2015 with nearly 100 million cases of whisky exported worldwide. To discuss the enduring success of the sector, the Business Secretary travelled to the Isle of Harris Whisky Distillery, which began distilling shortly after it was built in September 2015.

During his visit, the Business Secretary is due to meet Scottish Government Ministers Keith Brown and Paul Wheelhouse. They are expected to discuss how the UK and Scottish Governments can work together and how the Industrial Strategy will stimulate growth and boost prosperity across Scotland.

The engagement taking place follows the launch of the UK Government's green paper, 'Building our Industrial Strategy', in January which outlined 10 pillars of focus to be discussed as part of a 12 week consultation period. The pillars cover a broad range of themes including skills, infrastructure, affordable energy and clean growth.

The strategy proposes plans for driving growth across the UK, with a framework to build on local strengths and reduce regional disparities in opportunities and prosperity.

The UK government has issued an open invitation to industries, businesses and local groups to visit the [Industrial Strategy consultation](#) and help set the priorities for a modern Industrial Strategy.

The consultation period has just over 1 week remaining, closing on April 17, after which the UK Government will consider responses before publishing a white paper later in the year.

[Press release: Over £109 million of funding for driverless and low carbon](#)

projects

- £109 million of government investment into cutting-edge automotive research and development (R&D) projects
- seven low carbon vehicle projects set to receive a share of £62 million funding, safeguarding 2,370 jobs
- first winners of connected and autonomous vehicles (CAV2) competition set to receive £31 million

Business Secretary Greg Clark and Transport Minister John Hayes have today (11 April 2017) awarded £109.7 million of government funding, alongside significant funding from industry, to help develop the next generation of driverless and low-carbon vehicles, as part of the Industrial Strategy and the government's Plan for Britain.

Seven innovative projects will share grants from the latest round of funding from the Advanced Propulsion Centre (APC), the joint industry-government programme to put the UK at the forefront of low carbon vehicle technology.

The projects, led by BMW, CNH Industrial, Ford Motor Company, Jaguar Land Rover, Penso Consulting, Westfield Sportscars and Williams Advanced Engineering, cover a wide range of new innovations which will help the UK to continue to build on its excellence and become a global leader in low-emissions technology, and safeguard 2,370 jobs in the UK.

Successful schemes include:

- the development of a high power battery suitable for high-performance vehicles
- a project to address gaps in and strengthen the UK supply chain
- the development of the fuelling system for a concept gas tractor
- technologies to reduce the weight and improve electrification in SUV vehicle platforms

A further 7 projects have won funding from the government's Office for Low Emissions Vehicles (OLEV) to advance the development of a range of ultra-low and zero emissions vehicle technologies in the UK. These projects will be led by Equipmake, Ford Motor Company, Great British Sports Cars, Jaguar Land Rover, Ricardo Innovations, Romax Technology and Wrightbus.

In a fresh commitment to supporting these innovative technologies, the government is also announcing today that people buying an electric vehicle will continue to benefit from up to £4,500 off the cost of an ultra-low emission car, up to £2,500 off a hybrid and receive £500 towards the installation of a charge point in their home.

Business and Energy Secretary Greg Clark said:

Low carbon and driverless cars are the future and as a Government

we are determined through the Industrial Strategy to build on our strengths and put the UK at the forefront of this revolution. Investment in this technology is an integral part of this Government's efforts, to ensure the UK auto sector remains competitive and world-leading.

The projects being awarded funding today will help extend our excellence in these cutting edge research fields, helping to safeguard jobs while ensuring the UK remains the go-to destination for automotive excellence.

Transport Minister John Hayes said:

I am absolutely committed to improving air quality and reducing pollution in towns and cities, which is essential for people's health and the environment.

This government is investing £109 million to support British businesses in developing innovative, important technologies which will greatly reduce our emissions footprint.

The number of ultra-low emission vehicles on our roads is at record levels and our renewed support for these exciting technologies is yet another significant milestone.

Ian Constance, Chief Executive of the APC, said:

The APC funding demonstrates the depth of low carbon development that is now possible in the UK. From powertrain, to lightweighting, to energy storage, these new projects will not only lower emissions but secure thousands of jobs, address supply chain gaps, and help the UK become a true global leader in advanced vehicle technology.

The government also announced the first set of winners of the second round of its connected autonomous vehicles competition, CAV2, with projects set to receive a share of up to £31 million, match funded by industry. Twenty-four projects demonstrated clear commercial value and identified technical solutions for CAV technology, including how these vehicles will work within the UK transport system. Further successful projects from this competition round will be announced soon.

Funding is divided into four streams and ideas include projects using cars and pods platooning, or going in formation, to transport passengers from Stockport train station to Manchester Airport, create vehicles capable of driving in a range of road environments and technology which could make any car operate autonomously.

The CAV2 competition includes funding from the UK's innovation agency,

Innovate UK, for four one-year research and development projects supporting CAV vehicle developments, specifically in the areas of energy reduction and air quality improvements. The government will launch its third CAV competition, CAV3, to fund further industry-led research and development projects later in the year.

Innovate UK Chief Executive Ruth McKernan said:

These successful industry-led R&D projects will further spearhead UK development of low emission, and connected and autonomous vehicle technology, building on our world-leading research and innovation capability in this area and the significant strength of UK businesses large and small in this field.

Today's announcements follow the launch of the first phase of government's £100 million CAV test bed programme at the end of March with a competition worth £55 million. In a speech to the Society of Motor Manufacturers and Traders Connected Conference in London, the Business Secretary outlined plans to create a cluster of excellence in CAV testing along the M40 corridor between Birmingham and London.

The test bed programme forms part of the government's Industrial Strategy commitment to develop world-class CAV testing infrastructure. The programme will use some of the UK's existing CAV testing centres to create a concentrated cluster of testing facilities in the UK's automotive heartland in the West Midlands, including; Coventry, Birmingham, Milton Keynes as well as Oxford and London.

Through the launch of the Industrial Strategy green paper and the Plan for Britain, the government has significantly increased investment in research and development and reaffirmed its commitment to ensuring the UK remains a world-leader in science and innovation ahead of the UK leaving the EU. This year OLEV will be publishing its long term strategy for the UK's transition to zero emission vehicles.

Government support

- APC – 7 projects with support up to £62 million
- CAV2 – 24 projects with support up to £31 million
- OLEV – 7 projects with support up to £16.7 million

Total combined support is £109.7 million subject to due diligence

Further information

The Advanced Propulsion Centre (APC)

www.apcuk.co.uk

The APC is a £1 billion, 10-year programme to position the UK as a global

centre of excellence for low carbon powertrain development and production. It was formed in 2013 in a joint commitment by government and the automotive industry, through the Automotive Council, and aims to save 50 million tonnes CO2 by 2023.

APC facilitates partnerships between those who have good ideas and those who can bring them to market. The services provided by the APC enable projects which provide profitable growth and sustainable opportunities for the partners involved. Each programme enhances the UK's position as a propulsion nation and contributes to the country's economic prosperity.

So far, APC has launched and awarded 6 funding competitions to more than 100 organisations, with investment totalling £475 million. The awarded projects have safeguarded more than 14,000 automotive supply chain jobs and saved more than 20 million tonnes CO2.

The activity in this £1 billion project is delivered through a small team working across the UK from a central Hub located at the University of Warwick and regional Spoke locations.

APC projects awarded funding will be led by:

- BMW – South East
- CNH Industrial – East of England
- Ford Motor Company Ltd – East of England
- Jaguar Land Rover – West Midlands
- Penso Consulting Ltd – West Midlands
- Westfield Sportscars Ltd – West Midlands
- Williams Advanced Engineering – South East

Centre for Connected and Autonomous Vehicles (CCAV)

www.gov.uk/government/collections/driverless-vehicles-connected-and-autonomous-technologies

The Centre for Connected and Autonomous Vehicles (CCAV) is a joint unit of the Department for Business, Energy and Industrial Strategy and the Department for Transport. CCAV is a single point of contact for those in industry, academia and internationally set up to keep the UK at the forefront of the development of connected and autonomous vehicle technology. For further information and to stay updated on the latest news and government activity on connected and autonomous vehicles visit www.gov.uk and follow us on twitter at [@ccavgovuk](https://twitter.com/ccavgovuk).

CAV2 projects awarded funding

- HumanDrive
- 5*StarS: Automotive Cyber Security through Assurance
- Smart ADAS Verification and Validation Methodology
- Multi-Car Collision Avoidance
- Self-organising Wide area Autonomous vehicle Real time Marshalling
- CAPRI

- Project Synergy
- Connected Fully Integrated Driver Ecosystem
- Anytime, Anywhere Low Cost Localisation
- Vote3Deep
- Non-Intrusive Vehicle Monitoring System (NiVMS)
- Connected Autonomous Sensing Service Delivery Vehicles
- Using Machine Learning and AI to explore systems for costing and managing Mobility as a Service
- Cambridge Autonomous Bus System Feasibility Study
- Advancing UK Autonomous Vehicle Radar Sensing Technology
- Secure CAN with Q-PUF
- 5G Millimetre-Wave Connectivity to Cars
- Quantum-based secure communication for CAVs
- Project Alloyed
- Requirement Evaluation of CAV Location Performance and Platform Development
- City-Compatible Commercial Automated Ride Sharing
- Real Time NOx calculation in LCV and HGV diesel vehicles using OBD real time engine data
- ESCIPODS
- Autonomous and Connected vehicles for Cleaner Air

The announcement of CAV2 winners builds on the £20 million allocated to projects in the first competition, CAV1, and the further £19 million invested by government in 2016 in three driverless car trials in Greenwich, Bristol, Milton Keynes and Coventry.

[Press release: £50 million for satellite solutions to help developing countries](#)

The Agency's International Partnerships Programme (IPP) is a five-year, £152 million programme, designed to partner UK space expertise with overseas governments and organisations. It is part of the Global Challenges Research Fund (GCRF), which aims to support cutting-edge research and innovation that addresses the challenges faced by developing countries.

More than £70 million in funding has already been given to projects in partnership with the UK space industry, applying inventive satellite solutions to a range of areas such as deforestation, illegal fishing, marine pollution, disaster recovery, drought and flooding. The latest tranche of funding will focus on issues around health and education.

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Universities and Science Minister Jo Johnson said:

“The UK space sector is thriving with innovative developments and technologies that can be used to solve some of the most pressing global challenges of our time.

“The International Partnerships Programme has already harnessed Britain’s world-leading expertise in analysing satellite data to make a real difference to a number of countries. The latest round of funding is exactly the sort of project our Industrial Strategy is looking to support – boosting the UK space sector and delivering benefits to millions around the world.”

Call 2 for funding opens today (11 April 2017) and will close on 5 September 2017. The assessment is due to take place in October 2017 and successful projects will begin by the end of the year.

During the first round of funding, announced in January 2017, 20 projects were selected to provide solutions for local issues in countries across Africa, Asia and Central and South America. All of the projects will have a sustainable impact in the country they are working with, which is a vital element of IPP.

The programme’s current projects include providing communications in remote areas for education in Tanzania, improving maritime safety for small fishing vessels in South Africa and Madagascar and reducing illegal logging in Guatemala.

Projects funded in Call 1 included:

1. Forests 2020: A £23.8 million project led by Ecometrica UK in conjunction with a large consortium of national and international partners to protect and restore forests across the globe.

The Forests 2020 project aims to help protect and restore up to 300 million hectares of tropical forests by improving national forest monitoring systems for the use of governments, universities and Non-Governmental Organisations (NGOs) in the 6 partner countries: Brazil, Colombia, Mexico, Ghana, Kenya and Indonesia. By using freely available Earth Observation data to address critical gaps in current systems, Forests 2020 will improve partners’ capacity to:

- measure forest change

- provide information on the risks and drivers of forest loss (such as forest fires)
- map suitable areas for restoration

It will also build in-country capacity for the international partners by improving digital infrastructure to manage forest data more effectively and establishing a network of Earth Observation Labs.

1. Satellite connectivity for Nigerian healthcare: A £6.1 million project between Inmarsat UK, InStat and the end customer, Nigerian Federal Ministry of Health, to extend health services to remote populations using satellite communications.

This project addresses a key development need for Nigeria by extending the reach of basic medical services into remote areas of the country (84 clinics in 3 states) using a satellite-based system. This will deliver professional training, data collection and disease monitoring in areas which are inaccessible by conventional methods.

It aims to reduce the mortality rate in rural Nigeria by providing access to better health information and training for health workers by:

- providing video-based training to health workers to an agreed government standard
- improving health systems management and governance using an information system application
- improving disease surveillance capabilities

News story: DPRTE 2017: the best and busiest yet for DIT DSO

The 2017 Defence Procurement, Research, Technology and Exportability (DPRTE) conference and exhibition, took place at the Motorpoint Arena, Cardiff on 28 March.

Department for International Trade Defence and Security Organisation (DIT DSO) is a main partner in this highly successful annual event.

This event gave DIT DSO an excellent opportunity to showcase government engagement with UK industry, in support of winning overseas defence and security business.

DIT DSO offered advice, information and support from their business growth and exportability knowledge transfer zone, and more hands on support from the adjacent exhibition stand.

The themed presentations, which attracted over 230 delegates throughout the

day, focused on export support aimed at:

- UK SMEs
- regional marketing advice
- military support
- the [Defence Growth Partnership](#) initiative
- media engagement and
- export licensing regulations

The DIT DSO exhibition stand, staffed by members of the DIT DSO Small Business Unit, Events Team and Military Export Support Team, received a constant stream of enquiries from UK companies. Many of which were considering military and security markets as an outlet for overseas trade for the first time.

Post event engagement with these companies has been significant and DPRTE remains a priority occasion for us to promote our support and services for the benefit of UK compaies.