

Innovate UK

Innovation With Impact

50 companies succeeding with Innovate UK



Innovation With Impact



A selection of companies succeeding with Innovate UK

Since 2007 Innovate UK has helped thousands of innovative companies to bring new ideas, products and services closer to market.

Among these companies and projects there are many kinds of success stories. Some firms have grown dramatically, or entered new markets. Some have attracted major new investment or floated their business. Read on for some outstanding examples of the innovative companies we have worked with.

Notes – see page 14

Cover photos (left to right): AlertMe; Jelly Products; BuffaloGrid; Unmade; Shadow Robot; Igeolise; Magnomatics; Signal Media; Snap Fashion; Gordon Murray Design; Oxford Space Systems; Isansys Lifecare; Bladon Jets

Photographs linked to the company stories are shown by a camera icon and an arrow:  

First edition – May 2016

AlertMe.com

Emerging and enabling technologies

● Sale to corporate

Founded in 2006, AlertMe gained Innovate UK grants totalling £460,000, including funding to develop an ‘internet of things’ system connecting devices in the home. The company had 100 staff and products installed in over 200,000 homes when its biggest customer, British Gas, acquired the business for £65 million in 2015. 📷▶

Anacail

Health and life sciences

● Follow-on investment

This spin-out from Glasgow University’s astrophysics department has received Innovate UK and Biomedical Catalyst funding of £364,000 to develop ‘cold plasma’ ozone technology to improve food safety and for sterilising medical devices. In 2015 the company secured £2 million from a consortium of new and existing investors.

Ashwoods Automotive

Manufacturing and materials

● Productivity and growth

£2.5 million in funding helped Ashwoods transform itself from an LPG conversion business into a leading cleantech innovator. It has now supplied more than 700 retrofit hybrid kits to public sector vehicle fleets, developed a driving efficiency system and expanded into off-highway,



marine and industrial power. Ashwoods is moving into a new manufacturing plant in 2016.

Atlas Genetics

Health and life sciences

● Follow-on investment

Since 2010 the Wiltshire firm has won a total of £1.23 million from Innovate UK for projects to develop a simple, rapid diagnostic platform for clinicians. In 2014 and 2015 it closed two rounds of funding to raise some £30 million from investors, including Johnson & Johnson Innovation and Novartis Venture Fund.

ASV

Emerging and enabling technologies

● Productivity and growth

Funding awards by Innovate UK

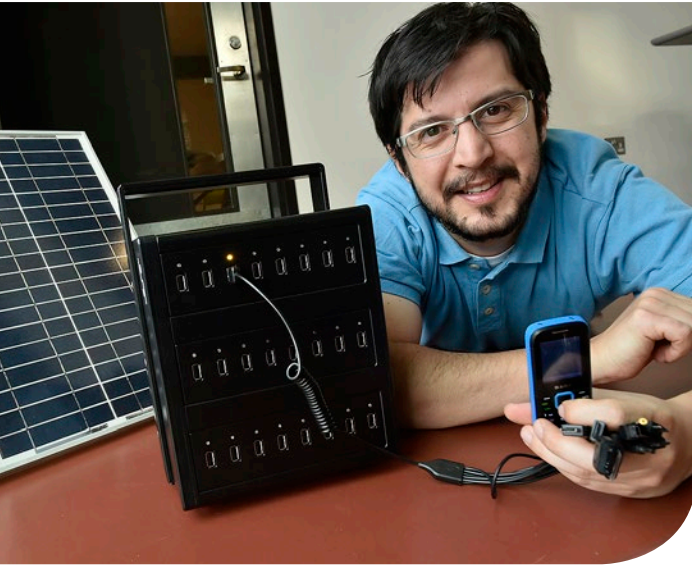
of around £1 million since 2013 have helped ASV develop autonomous marine vessels and technology for commercial, scientific, and military clients around the world. In just six years, ASV has produced more than 75 vehicles and developed over 30 different payload packages while employee numbers have grown from five to 70.

Bladon Jets

Manufacturing and materials

● Follow-on investment

Since 2011 Innovate UK has awarded the firm £1.36 million for two projects with Jaguar Land Rover (JLR), to develop a micro gas turbine as a range extender for hybrid electric cars. Employee numbers have grown from 10 to nearly 60 at a new HQ in Coventry, also focusing



on electrical power generation. TATA, owner of JLR, has taken a £2 million stake.

BuffaloGrid

Emerging and enabling technologies

● Export sales

An Innovate UK grant of £190,000 helped development of a low-cost solar-powered 'Hub' for mobile phone charging and wireless internet access in communities with no access to electricity. BuffaloGrid now operates 24 Hubs in the Indian states of Bihar and Karnataka. In March 2016, BuffaloGrid raised over £500,000 through CrowdCube. 📷 ▲

Cell Medica

Health and life sciences

● Follow-on investment

£2 million of Innovate UK

funding helped the firm to develop cell-based immunotherapies for viral infections that can occur following a bone marrow transplant. Cell Medica is collaborating with the Cell and Gene Therapy Catapult to make its treatments ready for use by the NHS. In 2014 it raised £50 million to advance its cancer immunotherapy programme.

Ceres Power

Infrastructure systems

● Productivity and growth

Founded as a spin-out from Imperial College 15 years ago, this Horsham business has received a total of £3.7 million from Innovate UK to help develop an innovative fuel cell. It now employs around 100 people and has a joint development agreement with Honda. A new production line

has demonstrated that the firm can manufacture its fuel cell 10 times faster than before.

Chronos Technology

Emerging and enabling technologies

● Export sales

A total of £1.75 million in Innovate UK funding since 2008 has helped Chronos develop and supply a range of precise timing technologies for the telecoms, energy, financial, defence and security markets. Chronos offers round-the-clock support for users in more than 50 countries and is now a global leader in GPS jamming and interference detection.

Dearman

Manufacturing and materials

● Follow-on investment

Innovate UK funding totalling £1.6 million has supported development of a piston engine powered by liquid air or liquid nitrogen to deliver zero-emission cold and power. It is now being tested, powering truck refrigeration units. Founded in 2011, Dearman employs more than 70 people in Croydon and in 2015 attracted £19 million of investment other than grants. 📷 ▶

Demand Logic

Infrastructure systems

● Productivity and growth

This startup has received £263,000 from Innovate UK to develop its building performance analysis tool.

After two Innovate UK trade missions – to San Francisco and South East Asia – the technology is on trial in the US. In the UK it is already saving energy for clients such as Canary Wharf Group, Land Securities, The Crown Estate and Transport for London.

Desktop Genetics

Health and life sciences

● Follow-on investment

Awards from Innovate UK totalling £320,000 have helped this bioinformatics startup develop DESKGEN, a software platform that allows scientists to design and execute CRISPR genome editing experiments from their computers. The

An Innovate UK award helped Discuva to attract a further £1.1 million in private investment followed in 2014 by a deal with pharma giant Roche

company has gone on to develop a range of services, raised £1.37 from venture capitalists and angel investors in September 2015 and attracted further investment from NASDAQ-quoted Illumina in December.

Discuva

Health and life sciences

● Follow-on investment

£1.6 million from the Innovate

UK / MRC Biomedical Catalyst in 2012 has helped Discuva speed up the search for new antibiotics to fight drug-resistant infections. The award helped it to attract a further £1.1 million in private investment – followed in 2014 by a deal with pharma giant Roche on multiple products each worth £116 million in milestones, plus royalties for each product brought to market.

Endomag

Health and life sciences

● Productivity and growth

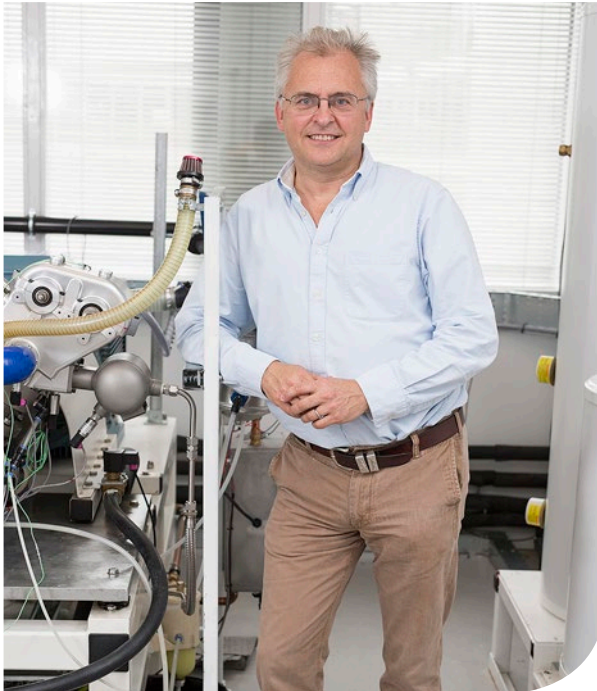
Innovate UK awarded nearly £400,000 for projects to help the Cambridge company develop a magnetic tracer system as a safe and efficient alternative to traditional cancer treatment. From the first sale in 2011, turnover grew to £2.5 million last year; the system has now treated over 12,500 patients and successfully completed its key clinical trial in the US with FDA approval expected in 2017.

Flybrid

Manufacturing and materials

● Sale to corporate

Since 2008 Flybrid has won Innovate UK grants totalling nearly £1 million to exploit the potential of flywheel energy storage in various vehicles.



Founded by two ex-F1 engineers, Flybrid grew rapidly and was taken over by Torotrak Group in January 2014. Flybrid is now working on multiple projects in different markets including a major off-road vehicle project with JCB, supported by the APC.

Funding Options

Emerging and enabling technologies

● Follow-on investment

This startup won £100,000 of Innovate UK Launchpad funding in 2012 to offer an online matchmaking service for small businesses looking for finance. In April 2015 GLI

Finance took a 29% (£2 million) stake in the business, which has now been recommended as one of three finance platforms to be designated by HM Treasury for the UK's Bank Referral Scheme.

Gordon Murray Design

Manufacturing and materials

● Productivity and growth

A total of £6 million from Innovate UK has supported a series of low-carbon vehicle projects, the latest being iStream®, making F1 design principles affordable for mass production of everyday vehicles.

It could also significantly cut manufacturing costs and fuel emissions. Staff numbers at the Surrey company have grown from 8 in 2008 to 130 today. 📷 ▼

Green Biologics

Health and life sciences

● Productivity and growth

Since 2009, this Oxford company has received £1.7 million from Innovate UK for projects including development of a sustainable biological process to convert feedstocks such as corn waste and sugar into 'green chemicals' to replace everyday products. In 2014 it raised \$76 million to convert an ethanol facility in Minnesota into a biobutanol/bioacetone plant.

Innovate UK has supported Gordon Murray Design in developing a series of low-carbon vehicle projects.



Helitune

Manufacturing and materials

● Productivity and growth

Nearly £2 million of Innovate UK funding, including a KTP, has helped develop novel technology addressing rotor vibration problems in helicopters, halving flight testing hours. Helitune secured contracts with the German MoD and the South African Air Force, and in October 2015 launched a next-generation system at HeliTech Europe.

Igeolise

Emerging and enabling technologies

● Export sales

This London company has received grants totalling £257,000 to develop 'map



search' software that measures travel time rather than distance. Since gaining the first customer in late 2013 the business has grown from just two founders to 14 people serving clients in eight countries. Revenue topped £0.5 million in 2015. 📷 ▲

Indestructible Paint

Manufacturing and materials

● **Productivity and growth**
 Funding awards of £765,000 from Innovate UK have helped this family business in Birmingham to develop novel protective coating technologies for aerospace, defence and other engineering markets worldwide. Staff numbers have grown year-on-year to more than 40 in 2015 and the firm recently increased warehousing capacity by 60% to meet demand.

Industrial Light and Magic

Emerging and enabling technologies

● **Productivity and growth**
 Lucasfilm's renowned visual effects and animation studio, Industrial Light & Magic was awarded a grant of £1.52 million in an Innovate UK cross-platform media competition. The grant furthers the London studio's cutting-edge research and development efforts around two key initiatives: real time digital performance and the creation of a viable cloud-based production pipeline for visual effects.

Ingenza

● **Productivity and growth**
 Innovate UK funding awards of over £4 million since 2009 have

helped Ingenza to develop novel synthetic biology and industrial biotechnology services. Staffing has risen from 10 to 42 now and annual revenue has grown tenfold to more than £4 million. Ingenza sells globally to the chemicals, pharmaceuticals, food, feed and fuel industries as well as providing capabilities in biomanufacturing.

Isansys Lifecare

● **Productivity and growth**
 Isansys Lifecare won a £100,000 Smart award from Innovate UK in 2013 to develop a prototype wireless monitor for the care of seriously ill children. It has also won a £1.2 million SBRI contract with the NHS to develop monitoring systems for patients young or old, in hospital or at home. The Abingdon firm's technology is

now in use at Birmingham Children's Hospital in a £1.8 million project funded by Wellcome Trust and the Department of Health, and is being used by healthcare providers globally.

Jaguar Land Rover

Manufacturing and materials

● Productivity and growth

£1.3 million in support for the REALCAR project helped Jaguar Cars, with its suppliers and Brunel University, significantly boost the use of recycled aluminium in manufacture of the Jaguar XE, XF and F-Pace. Jaguar invested over £6 million to install the system on 3 sites; and the supply chain firms took on new staff and invested around £6 million in new equipment.

Jelly Products

Manufacturing and materials

● Export sales growth

£24,000 from Innovate UK in 2013 helped industrial designers Jelly Products develop the Loopwheel, a prototype bicycle wheel that is its own shock absorber. Manufacturing soon began and a Kickstarter crowdfunding campaign in 2015 launched a wheelchair version. There are now stockists across Europe and in the US, Australia, New Zealand and Korea. 

M Squared Lasers

Emerging and enabling technologies

● Productivity and growth

Nearly £3.3 million in grants

from Innovate UK since 2008 has supported development of next-generation lasers and photonic instruments for a range of scientific and industrial applications, including quantum devices. With 40% growth for the third consecutive year and a turnover exceeding £10 million, this fast growth firm now employs more than 75 staff globally.

Magma Global

Infrastructure systems

● Productivity and growth

Since 2011 Magma Global has won awards worth £490,000 to develop prototypes for its oil and gas composite pipe technology, and more recently £1.76 million in Energy Catalyst funding. The Portsmouth-based

Portsmouth-based Magma Global has expanded from 50 staff in 2013 to more than 200 worldwide

firm has expanded from 50 staff in 2013 to more than 200 worldwide. It recently raised \$60 million from investors to support further growth.

Magnomatics

Manufacturing and materials

● Follow-on investment

Innovate UK funding totalling £2.6 million has helped this Sheffield University spin-out develop pioneering transmission technology for



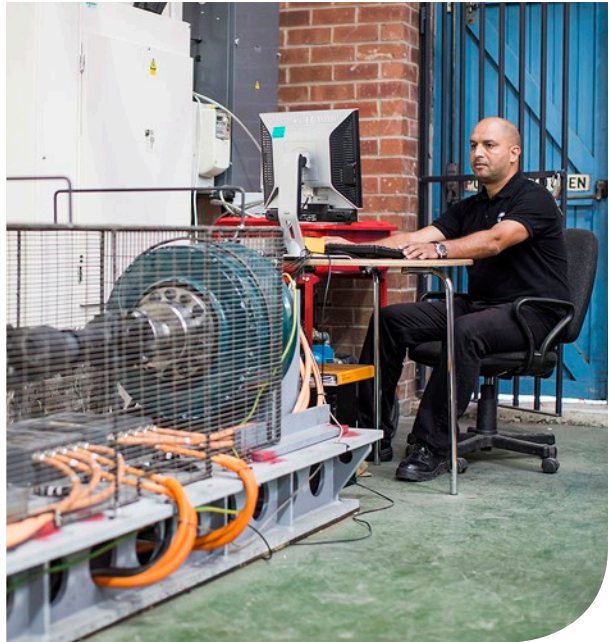
transport and industrial applications. Ford and Volvo collaborated on R&D projects. Magnomatics, grown from 12 staff in 2012 to 28 now, has attracted £4.5 million of venture capital. 

Materials Solutions

Manufacturing and materials

● Follow-on investment

This '3D-printing' pioneer was set up in 2006, with £4.5 million of funding, as a micro and nano technology centre to accelerate commercialisation of additive layer manufacturing. Now, customers include Rolls-Royce aero-engines 50% of sales are overseas. In 2015 Siemens took a stake in the firm, which employs 20 people in Worcester.



NaturalMotion

Emerging and enabling technologies

● Sale to corporate

This spin-out from Oxford University zoology department received £40,000 from Innovate UK in 2009 to integrate an improved physics solver into digital games characters that mimicked natural animal movement. NaturalMotion had grown to 260 staff in the UK and San Francisco when it was acquired by US gaming giant Zynga for \$527 million in 2014.

Nexeon

Infrastructure systems

● Follow-on investment

Awarded £257,000 by Innovate UK in 2010, this Abingdon company has developed a

silicon anode solution for a new generation of Lithium-ion batteries. It has raised £85 million from investors and global chemicals company Wacker became a strategic investor in 2013. It has a portfolio of 50 patent families and commissioned a new manufacturing plant in 2014.

Owlstone

Health and life sciences

● Productivity and growth

£83,000 from the Innovate UK / MRC Biomedical Catalyst helped Owlstone adapt its

chemical detection and sensing technology for medical diagnostics. The NHS awarded Owlstone a £1 million contract in 2014 to trial a cancer 'breathalyser,' and is investing a further £10 million, through SBRI, in developing diagnostic products and services for asthma sufferers.

Oxford Biomedica

Health and life sciences

● Follow-on investment

£4 million of Innovate UK and Biomedical Catalyst funding has supported clinical trials

Materials Solutions' customers include Rolls-Royce aero-engines and 50% of sales are overseas



Funding from Innovate UK is supporting Oxford Space Systems' ambition to become a leading global supplier of lightweight, low-cost deployable space structures.

and manufacturing of gene therapy-based medicines for Parkinson's disease and corneal graft rejection. In 2014 the company raised £20 million to develop its eye medicines, and agreed a \$90 million deal for Novartis to use the company's gene delivery technology.

Oxford Space Systems

Emerging and enabling technologies

● Follow-on investment

Funding from Innovate UK totalling £600,000 is supporting

this award-winning company's ambition to become a leading global supplier of lightweight, low-cost deployable space structures. By August 2015, just 18 months after starting up, the firm employed 12 staff and had secured £1.9 million from private investors in a second round of fundraising. 📷 ▲

OXIS Energy

Manufacturing and materials

● Follow-on investment

A total of £1.5 million in Innovate UK funding since 2011 has helped OXIS develop

cheaper, safer and more efficient battery technology using lithium-sulphur chemistry. OXIS has gained £15 million of investment from South African energy and chemicals group SASOL and staffing at the Oxfordshire firm has risen from 11 to nearly 60 in 6 years.

Oxitec

Health and life sciences

● Sale to corporate

£1 million of Innovate UK funding across a range of projects supported Oxitec's development of new ways to control insect pests, including disease-carrying mosquitoes, using genetic modification. In August 2015 the Oxford University spin-out was sold to US synthetic biology specialist Intrexon Corporation for \$160 million.

PixelPin

Emerging and enabling technologies

● **Follow-on investment**

Innovate UK funding of £410,000 has helped this TechCity-based cyber security company develop an intuitive authentication system that uses pictures rather than passwords. Founded in 2011, PixelPin raised £600,000 from angel investors in the most recent of several successful funding rounds in late 2015.

PolyPhotonix

Emerging and enabling technologies

● **Jobs growth**

Innovate UK grants totalling


£2 million since 2008 have helped this SME to develop organic light-emitting diode technology to prevent sight loss in diabetes patients. In 2014 the NHS awarded the firm a £1.4 million SBRI contract to develop a therapeutic ‘sleep mask’ using the technology – with the potential to save billions for the Health Service. Staffing has grown from three in 2011 to 23 now.

Shadow Robot

Emerging and enabling technologies

● **Productivity and growth**

Innovate UK grants totalling £214,000 have helped to develop an autonomous robot hand, with potential in manufacturing

and service industries. Shadow Robot is also part of a new £2 million SBRI project to use home-based robotics in long-term care and of a €3.8 million European consortium with similar aims. The business has grown to 25 employees. 

Signal Media

Emerging and enabling technologies

● **Productivity and growth**

This London-based media intelligence startup received Innovate UK funding for a Knowledge Transfer Partnership with Essex University to develop natural language processing applications to analyse millions of blogs and news sources daily. Staff



numbers grew from 3 to 38 in 3 years and the firm raised £1.2 million through private investors in 2015. 📷 ▼

Sky Medical Technology

Health and life sciences

● Follow-on investment

Developing a new nerve-stimulating device to prevent blood clots after surgery, Sky attracted £1 million in Innovate UK funding from 2012-2015. The device has been cleared for use in the NHS to prevent deep vein thrombosis and an elite sports version is now on sale.

The Swiftkey app was downloaded by 100,000 people in the first week of its launch in 2010 and in February 2016 Microsoft bought the business in a \$250 million deal.

The firm now has 25 employees; a Japanese company made a £3 million equity investment in December 2015.

Snap Fashion

Emerging and enabling technologies

● Follow-on investment

Received Innovate UK funding

of £100,000 in 2011 to develop a retail fashion app, followed by a £1 million 're-imagining the High Street' SBRI development contract. Snap Fashion won a Cisco British Innovation Gateway award in 2012 and an SME Innovation Award in 2015. International publisher Time Inc has now made a strategic investment in the company. 📷 ▶



Sphere Fluidics

Health and life sciences

● Export sales

Innovate UK has awarded grants totalling £670,000 for this firm to develop a single-cell analysis system, due to launch Q4 of 2016, that will help biopharmaceutical businesses create new drugs for cancer and other diseases. Founded in 2010, the Cambridge firm now has 160 international customers and has launched 40 products, been granted 52 patents and attracted £9 million investment funding.

Swiftkey

Emerging and enabling technologies

● Sale to corporate

A £15,000 Innovate UK grant got Swiftkey's predictive keyboard app off the ground, and a second award of £50,000 helped the two founders develop a prototype. The



app was downloaded by 100,000 people in the first week of its launch in 2010. Swiftkey grew rapidly and in February 2016 Microsoft bought the business in a \$250 million deal.

Synapse Information

Emerging and enabling technologies

● **Productivity and growth**
 Innovate UK awarded a total of £499,000 to help this Birmingham business develop a cloud-based solution so that staff working on the same financial data could share a single version of a spreadsheet. The firm has grown from six

In 3 years, Versarien has grown from pre-revenue to £5m turnover.

to 31 people since 2013 and revenues have risen from £300,000 to £1.8 million. Clients include a major bank and a Swedish retailer.

Unmade

Emerging and enabling technologies

● **Productivity and growth**
 Founded in April 2013, the company's technology enables industrial knitting machines to become '3D-printers' producing knitwear on-demand. Feasibility study funding from Innovate UK got the business off the ground and it has since attracted £2 million in seed funding. Unmade already employs 22 people in London.

Versarien

Manufacturing and materials

● **Productivity and growth**
 A £74,000 grant in 2012 to develop a metal foam

prototype led to further Innovate UK funding for advanced materials innovation totalling around £800,000. Versarien was listed on AIM in June 2013. It has since acquired two other businesses and now employs more than 100 across four sites. In 3 years, the company has grown from pre-revenue to £5m turnover.

Videregen

Health and life sciences

● **Productivity and growth**
 This Liverpool company aims to offer the world's first commercially available organ replacement products. Working with the Cell and Gene Therapy Catapult, it was awarded £1.9 million in 2013 to generate a stem cell-based tracheal replacement. In December 2015 a Videregen-led consortium received €6.5 million of EU funding for a Phase 2 clinical trial.

Notes

Although this booklet focuses on individual companies, much of the Innovate UK support featured was for collaborative projects involving several companies working together, often with academic partners as well. Such collaboration is a strong factor in successful innovation. We don't have space here to mention all participants in these projects but the success stories on our website at www.innovateuk.gov.uk give many examples.

Many of these companies are also excellent examples of business and research working together. Some were spin-outs from research council funded work, and in many cases the research councils are partners with Innovate UK in the funding programmes – such as the BioMedical Catalyst.

Grant funding amounts shown are totals for that company and in some cases were across a number of projects, sometimes in different technology areas. Most Innovate UK grant programmes require recipient companies to match-fund the award.

Information on Innovate UK grants is published regularly on our website at www.innovateuk.gov.uk. Companies applying to funding competitions accept that these details will be published.

Abbreviations

- AIM** – Alternative Investment Market
- APC** – Advanced Propulsion Centre
- KTP** – Knowledge Transfer Partnership
- MRC** – Medical Research Council
- SBRI** – Small Business Research Initiative

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Innovate UK

Innovate UK is the UK's innovation agency. Innovate UK works with people, companies and partner organisations to find and drive the science and technology innovations that will grow the UK economy - delivering productivity, new jobs and exports. Our aim at Innovate UK is to keep the UK globally competitive in the race for future prosperity.

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