

News story: Leading the world in battery technology: apply for funding

New funding opportunities worth up to £85 million have been unveiled by Business Secretary, Greg Clark under the Industrial Strategy Challenge Fund's Faraday Challenge. These aim to make the UK a world leader in low carbon vehicle technology.

They include funding to:

- support the UK's position as a leader in the design, development and manufacture of future batteries for vehicle electrification
- set up a new facility to work on new technologies to propel the development of low carbon vehicles, through the [Advanced Propulsion Centre](#) (APC)

In addition to the Faraday Challenge opportunities, up to £25 million has been allocated for connected and autonomous vehicles.

A challenge to support the low carbon economy

The Faraday Challenge is one of a series of challenges set by the UK government as part of its Industrial Strategy. It will see £246 million invested in battery technologies over the next 4 years.

A total of £1 billion will be invested across all of the challenge areas.

Faraday Challenge competitions

Battery innovation for the electrification of vehicles

- the [Department for Business, Energy and Industrial Strategy](#) (BEIS) and Innovate UK have up to £30 million available for collaborative research and development projects for new battery technologies, and up to a further £10 million for feasibility studies
- the competitions open on 25 July 2017, and the deadline for applications is at midday on 14 September 2017
- we expect collaborative research and development projects to range in size from £1 million to £15 million and last up to 3 years
- we expect feasibility studies to range in size from £150,000 to £1 million and last between 3 and 12 months
- businesses could attract up to 70% of their project costs

National battery manufacturing development facility

- the APC has up to £45 million to support one project to develop a virtual centre for battery research to make technology more accessible and affordable for business
- the competition opens on 25 July, and the registration deadline is

midday on 13 September 2017

- work must be carried out in the UK
- project build is expected to last a maximum of 24 months, with the construction complete and the facility operational by early 2020
- you may be eligible for up to 100% of your project costs if you or the delivery organisation is a non-profit research organisation

Research into batteries

Separate to these competitions, the Faraday Challenge will support activities across research, innovation and scale up. This includes a call by the [Engineering and Physical Sciences Research Council](#) (EPSRC) to establish a virtual research institute, plus associated research into battery development.

Autonomous vehicles competitions

The Business Secretary also announced 2 competitions to encourage projects that show how connected and autonomous vehicles can work in the real world. These will be funded by the [Centre for Connected and Autonomous Vehicles](#) (CCAV).

New connected and autonomous vehicle technologies

- up to £23 million is being made available for collaborative research and development projects, and up to a further £2 million for feasibility studies
- the competitions open on 25 July 2017, and the deadline for applications is midday on 25 October 2017
- we expect collaborative research and development projects to range in size from £500,000 to £4 million and last between 18 and 30 months
- we expect feasibility studies to range in size up to £250,000 and last between 12 and 18 months
- businesses could attract up to 70% of their project costs

Speech: Boosting earning power everywhere

Introduction

Provost, Mr Mayor, David, ladies and gentlemen

It is an enormous pleasure to be back here in this great city of Birmingham, at this renowned University, and in the company of the new Mayor of the West Midlands to talk about Industrial Strategy. I'd like to welcome Bob Sleigh

and my ministers; Claire Perry, Margot James and David Prior.

A year and a week ago, on the evening of the day that I was appointed Secretary of State for Business, Energy and Industrial Strategy I came to this University for my first public engagement and it is great to be back.

During the last year I have been in the West Midlands on average every three weeks and there is good reason for that.

This city and this region, embody many of the opportunities that we have in creating an industrial strategy for the nation.

The city region with the strongest growth of all the big cities in the UK – including London.

A city region that has created over 100,000 private sector jobs since 2010.

A region of advanced manufacturing, of services, of education, of artistic and cultural excellence – all reinforcing each other.

Indeed this great university – one of a constellation of 12 in the region, which contribute over £1 billion to the economy – is a living embodiment of how civic leadership, business prosperity and educational excellence can work together. When Joseph Chamberlain as Mayor of Birmingham contemplated the prospect of this University he said:

I believe no greater project has ever been proposed to a city.

He would be very proud of this University today, in what it gives to the city and to the West Midlands, and indeed to the nation and to the world.

It is a particular thrill for me that the West Midlands now has, in Andy Street, an elected Mayor able to lead this region forward.

I say a particular thrill because my time in government has been motivated by the conviction that our future success, not just as an economy but as a society, should be founded on the regional strengths and local leadership that has been the source of prosperity in the past.

I proposed City Deals, which became Devolution Deals with the establishment not just of a Mayor but with devolved budgets and powers to make that leadership count.

Andy and I have always believed that the West Midlands Devolution Deal should be the foundation – not the end point – of further empowerment of the Region as a vital part of our Industrial Strategy.

The Mayor wrote to the government 2 weeks ago setting out proposals for further devolution of powers.

I am delighted to announce today that we will begin talks with the Mayor and the Local Authorities over the coming weeks, with a view to agreeing a

further devolution package that will ensure that he has the powers he needs to support delivery of the industrial strategy in the West Midlands.

Brexit

At the heart of the industrial strategy for the West Midlands is trade. The growing success of the economy here has been based on the rising demand for the goods and services produced by the people of the West Midlands to be sold to customers globally.

The Black Country promotes the strengths of its area under the slogan 'Made in the Black Country, Sold around the world'.

From cars to components, from financial services to computer games, from cultural excellence to food and drink, not forgetting the students who come from overseas to study at the universities, this region depends absolutely on trade with the world.

People who voted for Brexit did not vote to be less prosperous.

And similarly in a region of trade in a nation of trade, people did not vote to trade less – including with our European neighbours.

Often, when I travel overseas, I encounter the assumption that the vote for Brexit was part of a global move towards protectionism – for trading less, for retreating from the world.

I always say that in Britain nothing could be further from the truth.

Both the Leave and the Remain campaigns wanted Britain to trade more, not less.

That is why we have been clear at the outset of the negotiations with the European Union that we want to see a comprehensive free trade agreement that will maintain tariff and barrier free trade with our European partners.

And the West Midlands is one of the best examples in the country of how each product created, in services as well as manufacturing, is part of a network. There is scarcely a product or a service made here for export that is not an advanced combination of components, capital equipment, design, expertise and intellectual property from a wide range of countries.

Indeed, it is one of the triumphs of a modern, advanced economy that what we produce combines the output and ingenuity of so many different people and companies – most of them unknown to each other.

That's why our approach, as the Prime Minister has put it, to be a global champion of free trade, is to want to increase the complex exchange of products and services between countries, not to aim for a sort of national self-sufficiency.

Industrial Strategy

This theme will run through our modern Industrial Strategy. If every part of Britain is to prosper in the future we need to ensure that we become even more specialist and expert and that we have the right policies and institutions in place to drive the productivity – which is to say, the earning power – of the economy, and the people and places that make it up.

I want to thank all of the organisations represented here – and beyond – for the formidable response to the consultation that we have undertaken on our green paper [‘Building our Industrial Strategy’](#).

The title of the green paper was chosen deliberately to reflect the fact that this had to be a shared national endeavour.

An effective industrial strategy has to stand the test of time – a short term strategy is a contradiction in terms.

And if it is to endure it has to engage the experience and insights of the entrepreneurs, managers, workers, investors, consumers, scientists, researchers, local leaders – everyone who has a stake in a prosperous future.

The response has been extraordinary.

Over 1,900 written responses – full, thoughtful and creative. From all parts of the United Kingdom – because this must be a strategy for all 4 nations of the United Kingdom; from new start-ups to big businesses; from organisations from the Premier League to the Wellcome Trust and the Women’s Engineering Society.

Later in the year we will respond formally to the consultation with a white paper. But the shape of it is already becoming clear.

Our strategy

At its heart is a recognition that in order for all our citizens to be able to look forward with confidence to a prosperous future, we need to plan to improve our ability to earn that prosperity.

To enjoy a high and rising standard of living we must plan to be more productive than in the past.

Economists have pointed to what they have called a productivity puzzle in Britain. That we appear to generate less value for our efforts than, say, people in Germany or France. In other words, we have to work longer to get the same rewards.

It’s not that we want – or need – people to work longer hours. It’s that we need to ensure that we find and seize opportunities to work more productively – as a country, as cities and regions, as businesses and as individuals. If we can do so, we can increase the earning power of our country and our people.

We have great strengths. Our economy has been extraordinarily good at creating jobs. When we look at our closest neighbours, we can be truly proud of the fact almost everyone of working age in this country is in work and earning.

With the introduction of the National Living Wage we have boosted the weekly earnings of the lowest paid workers. To further this approach, we need to boost earning power, too.

Our strategy will create the conditions that boost earning power throughout the country – its people, places and companies.

Working more productively requires higher skills, more investment, and business sectors raising their performance. The benefits must then feed through into higher pay, especially for people in parts of the country whose earnings have not kept pace with the best performing areas. And it means continuing with our success at boosting employment including by reaching people, such as those who are disabled, over-fifty, and in other groups, who find it harder to participate in the jobs market.

We will raise our earning power by focussing on five key foundations of a successful productive economy.

People matter most. Our ability to earn a good living – and, as [Matthew Taylor has pointed out recently](#), to have work that is of good quality, in terms not just of pay but of security, opportunities for advancement and fulfilment – depends on people everywhere having the education and training that helps them be productive and competitive.

So the first component of our modern Industrial Strategy will be to invest in skills, particularly through reforming technical education.

Next, innovation. Our earning power depends not just on our education and training but also our capacity then to innovate – to develop new ideas, absorb the ideas developed by others, and to apply them. We have great science and research in this country. But we have not always been so good at commercialising it by transforming it into new enterprises or innovating within existing enterprises.

Place is more important than ever: increasingly we cluster not around natural resources but around other people with skills and ideas which enable us to be more productive. At their strongest clusters of talent and expertise can become magnets to attract businesses and jobs. There is too great an unevenness in the earning power of different cities, towns and counties across the United Kingdom. Addressing the challenges – and the opportunities – faced by different places depends on local knowledge, commitment and leadership, and our industrial strategy will give a bigger role for that than has characterised Britain during decades past.

We need to make sure we have got the physical infrastructure we need to promote economic growth – from transport to super-fast broadband. We will invest in a world-class infrastructure. Efficient clean energy is

particularly important. We aim to increase public investment and encourage more business investment alongside it.

As well as physical infrastructure there is the invisible infrastructure of a modern liberal society. Because it is invisible we sometimes under-estimate how valuable this is and the UK is particularly richly endowed with it. For example, trust in the integrity and efficiency of our legal system encourages foreign investment here. The English language is one reason why overseas students want to study here and our creative industries are so successful.

A free press is crucial for tackling corruption and mismanagement of funds – private or public. There is a positive role for government in sustaining this kind of infrastructure as well. The government will ensure our regime for protecting intellectual property remains effective and up-to- date.

We can boost the performance of our businesses by opening up domestic and international markets and helping promising growing companies to scale up. Britain can be the best place in the world to start and grow a business.

We will work with key business sectors where there is a genuine appetite for partnership with government and where government has a useful contribution to make. Government needs to be more open and accessible to business. We can do better at using the sheer scale of public procurement to help SMEs and innovative new businesses. But industrial strategy means more than this – it means working closely with sectors where there is an appetite to join forces: companies large and small working together to create shared institutions and working with colleges, universities, local leaders and central government to align efforts.

Even as we have been developing our Industrial Strategy we've already made real progress on these fronts.

We have committed to the biggest increase in public science and innovation funding for nearly 40 years, providing £4.7 billion to 2020.

We are ensuring that businesses stay at the forefront of this innovation: our new Industrial Strategy Challenge Fund – worth almost £1 billion – will back areas where the UK has the potential to turn research strengths into a global industrial and commercial lead – I will have more to say about this in a moment.

We have set out how we will reform technical education in this country, implementing Lord Sainsbury's recommendations, simplifying the system and investing in high quality 'T' levels

We are working on sector deals which show how industries and government can work together to improve productivity and competitiveness of their sector.

And through local industrial strategies, the government will help the business leaders, community representatives in each local economy to put a plan together to build on their strength and stimulate local growth.

We have also hugely increased our investment in our infrastructure – new

runways, new railways and new car technologies, smart grids and green energy as well as 4G and 5G technologies – which make the country as a whole productive. Here in Birmingham, the galvanising effects of HS2 on investment in the city are already being felt even before the track has begun to be laid.

Industrial Strategy challenges

One of the strengths of an industrial strategy is to be able to bring together concerted effort on areas of opportunity that have previously been in different sectors, or which require joining forces between entrepreneurs, scientists and researchers, industries, and local and national government.

I want to describe 3 of those today.

The first is the [launch of the Faraday Challenge](#).

We know that in the future the potential for renewable energy is often limited by its intermittency – and so we know that the ability to store energy when it generated to be used when it is needed is the key to much greater deployment.

In Britain we have become a world leader in the deployment – and increasingly in the manufacture – of offshore wind energy systems.

Our automotive sector has also established itself as one of the most innovative and efficient in the world – not least in the cluster of firms large and small here in the Midlands. The United Kingdom is the largest consumer market for electric vehicles in the European Union.

Our universities have world-class expertise in new energy technologies – not least at this University's Energy Institute and the Energy Systems Catapult and the Energy Research Accelerator located here in the West Midlands.

Joining together the research, development, application and manufacture of energy storage technologies – and specifically battery storage – is a huge opportunity for the energy sector and the automotive sector alike.

So as part of our Industrial Strategy Challenge Fund I am today launching the Faraday Challenge, which will put £246 million into research, innovation and scale-up of battery technology.

The first element will be a competition led by the Engineering and Physical Sciences Research Council to bring the best minds and facilities together to create a Battery Institute.

The most promising research completed by the Institute will be moved closer to the market through industrial collaborations led by Innovate UK.

And the Advanced Propulsion Centre will work with the automotive sector to identify the best proposition for a new state-of-the-art open access National Battery Manufacturing Development facility.

The work that we do through the Faraday Challenge will – quite literally – power the automotive and energy revolution where, already, the UK is leading the world.

We have an automotive industry of global renown. Last year, car production hit a ten year high at 1.7 million units.

And to make sure we are ready for the industry's next stage, to advance our position at the forefront of design and manufacturing, we have invested heavily in expertise and research around autonomous electronic vehicles.

So as my second piece of good news, I'm happy to announce the next phase of that investment. The next wave of our collaborative research and development competition – Connected and Autonomous Vehicles Fund, worth £25 million – is open today.

For the first time we will open proposals to off-road vehicles. We could be ushering in the future vehicles and farming machinery which will not only revolutionise the way we produce food but could greatly improve our productivity.

But the advantages of electrification of transport will also mean a reduction in greenhouse gas emissions, as well as increasing quality of life through reduced pollution and noise.

As is evident from what I have said so far, among the most exciting opportunities facing the world today is in the ability to generate and consume energy much more flexibly than in the past. So this is why I'm pleased to set out my third and final announcement of this speech.

Today we are publishing '[Smart Systems and Flexibility](#)' – a plan to make the UK's energy system smarter will help reduce energy bills, balance demand on the grid and realise up to £40 billion of benefits. It will allow homes and businesses to better manage their electricity use and open up the possibility of flexible energy tariffs to reduce bills and increase efficiency of the energy system.

But, importantly, it will open up new markets by addressing regulatory barriers to electricity storage, driving down costs for consumers through better demand management, and improving the market for new, innovative systems and business models.

Already energy companies are putting forward some innovative ideas, like E.ON offering a solar panels and storage that lets customers store their solar energy which they can now use day or night, potentially cutting their electricity bill in half.

With each of these announcements, we're seeing earning power made a reality. Because it's not just about batteries and storage – it is about all the technologies that will be needed for a clean, cheap, secure energy future – from big pieces of electrical engineering kit to tiny sensors and intelligent devices that will make up the Smart grid. And we see a determined, joined-up, far-sighted and deliberate approach from government.

And that's why the goal of the Industrial Strategy must always be, ultimately, the creation of good jobs for all, everywhere in the country.

The Faraday Challenge to make Britain the go-to place in the world for battery storage.

A 'Smart Systems Plan' to make Britain one of the best places on earth for energy innovation – to them benefit of consumers, workers, investors and the environment.

Investment in autonomous vehicles so we can lead the world's transition to new ways of transport, as well as its energy transition.

A further Devolution Deal for the West Midland, reinforcing the opportunities spearheaded by its excellent Mayor.

All part of a modern industrial strategy that is proving a rallying point for confidence and optimism across all sectors and businesses.

The motto of this great city of Birmingham is a single word: 'Forward'.

It is the perfect encapsulation of our aims for our modern industrial strategy and this is the perfect place to talk about those ambitions today.

Press release: Plan launched to bring smart energy technology into homes and businesses

A plan to give homes and businesses more control over their energy use and support innovative new technologies, as part of the Industrial Strategy, was set out by Business and Energy Secretary Greg Clark today (24 July 2017).

The innovative plan will transform how homes and businesses store and use energy. It will deliver a smarter, more flexible energy system by removing barriers to smart and battery technology, reducing costs for consumers. The report, '[Upgrading our energy system](#)' describes how the UK energy system is changing and how it can ensure economic benefits for businesses and households. Over a quarter of the UK's electricity is being generated through renewables such as wind and solar, much of it located close to homes and businesses. New technologies that help store and manage energy are emerging and the costs are falling.

These changes provide an opportunity to create new businesses and jobs in the UK. At the same time new smart technologies like smart meters – and appliances you can control from your mobile phone – along with other

improvements to manage the energy system will help the country save up to £40 billion on energy costs over decades to come.

Business and Energy Secretary Greg Clark said:

Upgrading our energy system to make sure it is fit for the future is a key part of our Industrial Strategy. A smarter energy system will create opportunities to reduce energy costs, increase productivity and put UK businesses in a leading position to export smart energy technology and services to the rest of the world.

By rolling out smart meters, enabling suppliers to offer lower tariffs and making it easier for firms to develop smart appliances and gadgets, the plan will help consumers use energy when it is cheapest or get rewarded for returning it to the grid when it is needed.

The plan also recognises the role that energy storage can play in a smart energy grid and the opportunities presented by falling costs of battery technologies designed to store surplus energy. To allow industry to exploit these new technologies government and Ofgem have committed to removing barriers to the introduction of this technology into our power network.

Andrew Wright, Senior Partner, Energy Systems, Ofgem, said:

The way we are generating and using energy in Britain is changing rapidly. Today's plan sets out how Ofgem, government and the industry will work together to modernise the energy system and make sure consumers get the benefits of the changes.

We want to open the door to new technologies and services so that they can help to reduce bills for consumers in the long term. It is vital that we get the changes in place as there is potential for a smarter system to save consumers billions between now and 2050.

The plan will also make it easier for new businesses to help customers that are interested in reducing, or increasing, their energy use at certain times, which can help balance the calls on the electricity network.

As part of the Industrial Strategy, the government has committed to modernising the UK's energy system and developing a business environment where new entrants to the market can compete. This will also allow industry to develop innovative new products and services, creating thousands of jobs.

Chairman of the National Infrastructure Commission Lord Adonis said:

Upgrading our energy systems is vital if we are to have clean, affordable and secure supply for the long-term and meet our targets for reducing carbon emissions.

This plan is a clear step forward, and was one of the 12 key infrastructure decisions we said needed to be made as a matter of urgency. I'm particularly pleased that many of the 29 points listed today directly follow recommendations in our Smart Power report.

Our study demonstrated the revolution our energy sector is going through, and the real benefits we can get from that in terms of greater efficiency, flexibility and value for money for customers. The measures announced today will lead to exciting innovations in the industry to help make that happen.

The full implementation of the plan to move to a smarter energy system alongside other changes could help save the country up to £40 billion over the coming decades, according to [research conducted for BEIS by Imperial College and the Carbon Trust](#).

British company Moixa offers residential battery systems which can help manage energy demands across the electricity network, make better use of energy generated by rooftop solar panels, and enable suppliers to reward consumers who charge their batteries during periods of low demand, when prices are lower. These systems have been deployed in nearly 1,000 homes across the UK, and Moixa calculate that they could help consumers save up to 60% on their electricity bills.

Simon Daniel, CEO of Moixa Energy Holdings said:

Moixa welcomes this plan which recognises the central importance of energy storage in upgrading the UK Energy System – and the potential to save £40 billion off future customer bills. The regulatory improvements proposed and Industrial Strategy Challenge Fund will help storage providers like Moixa participate better in energy markets, and enable our Utility partners to deliver smart tariffs to customers. The actions will make the UK a global leader for new smart technologies and accelerate the transition to a cost-effective, resilient and low carbon energy system.

[News story: Crossrail 2: a way forward](#)

Joint statement on Crossrail 2 from the Secretary of State for Transport, Chris Grayling MP, and the Mayor of London, Sadiq Khan.

Last week the Transport Secretary Chris Grayling and Mayor of London Sadiq Khan had a productive meeting to discuss the way forward for Crossrail 2. They agreed that there is no doubt London needs new infrastructure to support

its growth and ensure it continues as the UK's economic powerhouse – boosting productivity and attracting investment. While London has shown how it could pay for half of the scheme over its life, the Mayor and Transport Secretary want to see how London could fund half of the scheme during construction. They agree on the need to ensure a funding package which works for both London and the rest of the country and recognises other priorities, but also delivers the new capacity and connectivity that London needs.

They agreed a way forward in the coming months to examine ways to improve affordability while maximising the key benefits of the scheme, learning lessons from Crossrail 1, ahead of this autumn's Budget.

Secretary of State for Transport, Chris Grayling said:

I am a supporter of Crossrail 2 but given its price tag we have to ensure that we get this right. The Mayor and I have agreed to work together on it over the coming months to develop plans that are as strong as possible, so that the public gets an affordable scheme that is fair to the UK taxpayer. Following a successful outcome being reached I am keen to launch a fresh public consultation to help gather views to improve the scheme and clarify the position around the safeguarded route.

Mayor of London, Sadiq Khan said:

Crossrail 2 is essential for the future prosperity of London and the south-east, so I'm pleased that the Transport Secretary and I have reached an agreement to take this vital project forward. We will continue to work together to ensure the project is value for money and provides the maximum benefits for jobs and growth in the region over the coming decades. I look forward to moving to the next stage of consultation.

[News story: World Class Innovators at the MOD](#)

Announced by the Defence Secretary in Oxford in February, the Panel will be charged with driving forward the MOD's Innovation Initiative, which aims to encourage imagination, ingenuity and entrepreneurship, in pursuit of maintaining a military advantage in the future. Today's session introduced the panel to key aspects of the MOD's work: from operations and research to partnerships with business and support for jobs and the economy.

The panel members are:

- Former Chairman of McLaren Technology Group, Ron Dennis CBE (co-Chair)
- Former CEO of GlaxoSmithKline, Sir Andrew Witty (co-Chair)
- Army Air Corps officer and European Space Agency astronaut, Major Tim Peake CMG,
- Former Director of GCHQ, Robert Hannigan CMG, and
- Chief Executive of Innovate UK Dr Ruth McKernan CBE.

Minister for Defence Procurement Harriett Baldwin said:

Our £800 million Innovation Initiative will help our Armed Forces maintain their edge into the future, where ever-evolving technologies present new challenges and opportunities. That's why we have committed to spending 1.2% of our £36 billion growing defence budget on science and technology.

The Innovation Panel will help meet the complex challenges of the 21st Century, while delivering the high-wage, high-skills jobs of the future; and it's particularly fitting that we welcome astronaut Major Tim Peake as I announce the UK's leading role in cutting-edge satellite research.

The Panel will drive the MOD's partnerships with the UK's most-influential and forward-looking innovators and ensure the Department is driving the right change at the necessary pace to meet its goals for the future. This might involve advising on individual projects, promoting dialogue with industry, or reviewing the MOD's Innovation strategy.

Chairman of McLaren Technology Group, Ron Dennis said:

Innovation is at the heart of what keeps the UK safe, so I'm delighted to join my fellow Panel Members—all world-leaders in their fields—to get to grips with the challenge of guaranteeing our security through innovation in Defence's technology, culture, and research.

UK Space Innovation

UK space scientists at the Defence Science and Technology Laboratory (Dstl) are at the forefront of this drive for innovation; and Mrs Baldwin announced today that the UK is leading an innovative experiment to tackle the growing problem of space junk. If this problem is not addressed, space junk threatens to make space exploration and satellite launches impossible. It also poses a hazard to existing satellites, which make an important contribution to the UK's military capability.

To tackle this problem, Dstl is leading the UK element of the Daedalus experiment – part of the Space Situational Awareness Project in Dstl's Space

Programme – which is exploring the effect on satellites of so-called Icarus ‘de-orbit sails’. When deployed, the sail increases drag, causing a controlled descent into the Earth’s atmosphere where the satellite will burn up.

Innovation driving UK prosperity

Defence Innovation drives UK prosperity. This is demonstrated in a new report by independent economics consultancy SQW, which shows how Ploughshare Innovations, Dstl’s commercialisation arm, has directly contributed to UK growth through the creation of hundreds of jobs and multi-million pound export deals. They have:

- Created 585 jobs since 2005;
- Seen an increase of 70% in exports from £44 million to £75 million since 2015;
- Attracted £140 million worth of investment for spin-out companies.

Ploughshare’s work has contributed to the development of advanced vehicle armour, electronic warfare software, and bio and chemical threat detection. This also supports UK supply chains: 85% of the suppliers for the vehicle armour are UK-based. Ploughshare’s achievements include:

- Ebola Detection Kit – Ploughshare helped to market Dstl technology that provides a screening test for the Ebola virus, trialled in Sierra Leone to support those affected.
- Rapid Biothreat and Explosives Detection – Ploughshare licensed technology for a device to identify powders or liquids in just 15 minutes.
- Autonomous Boats – licensed to ASV Global, this technology provides an autonomous navigation system which allows Unmanned Surface Vessels (USVs) to operate safely and remotely at high speed.