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

Press release: First self-service licences issued

A number of customers have now benefitted from the automated approach to marine licensing introduced by the MMO in mid-July. These include the Royal National Lifeboat Institution (RNLI) in Devon and Fathoms Free, a volunteer marine conservation organisation in the South West.

Where activities are a low risk to the marine environment and sufficiently consistent in nature and extent applicants may be able to get a marine licence through the new self-service online process. This new digital tool is

making it quicker, cheaper and more convenient for applicants to get a licence permitting their activity.

Fathoms Free removal of fishing gear

Part of the work of Fathoms Free is clearing up marine debris including Abandoned, Lost and Discarded Fishing Gear (ALDFG). They conduct underwater litter picks, which include the removal of ALDFG.

Some litter removal activities would not normally need a marine licence, but the larger objects that do would have been subject to the normal marine licensing process which attracts a higher fee and longer processing time (potentially up to 13 weeks).

Fathoms Free obtained licences to recover ALDFG objects:

- over 12 months old
- that might affect an area or feature of nature conservation
- the recovery of which requires use of a lifting bag(s) of 100kg total lifting capacity per object or more

The objects potentially include trawler nets, monofilament nets, ropes, lobster pots, crab pots, bivalve dredging gear and other similar man-made objects that pose a threat to marine life due to being designed for, or capable of, entrapment, entangling or injury.

To make sure the work would not have any unintended impacts on wreck sites or the environment the charity agreed a method with Natural England and Historic England in advance of applying.

The licences allow the charity to remove ALDFG from 8 different wreck sites, each cost £50 and were issued instantly.

Robert Thompson from Fathoms Free explained:

> We plan to remove abandoned, lost or discarded fishing gear from numerous sites which require boat access and divers for their removal. These sites have various types of gear negatively impacting on a range of different habitats.
>
> We were pleased to learn that the process for obtaining permission was being simplified by the MMO and that they involved us in testing the system prior to its launch.

More information about self-service marine licensing is available on the MMO's website. Details of all self-service licences issued are available on the MMO's public register.

Notice: BH20 5AR, Perenco UK Limited: environmental permit application advertisement

The Environment Agency consults the public on certain applications for waste operations, mining waste operations, installations, water discharge and groundwater activities. The arrangements are explained in its Public Participation Statement

These notices explain:

- what the application is about
- where you can visit to see the application documents
- when you need to comment by

The Environment Agency will decide:

- whether to grant or refuse the application
- what conditions to include in the permit (if granted)

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 is 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.

Notice: DE12 7DT, AB Produce plc: environmental permit issued (EPR/JP3532DH)

The Environment Agency publish permits that they issue under the Industrial Emissions Directive (IED).

This decision includes the permit and decision document for:

- Operator name: AB Produce plc
- Installation name: AD Enterprise House, Measham
- Permit number: EPR/JP3532DH