

Press release: Business Secretary to establish UK as world leader in battery technology as part of modern Industrial Strategy

- Business Secretary announces first phase of its £246 million investment in battery technology as he launches Industrial Strategy's landmark 'Faraday Challenge'
- first phase includes launch of £45 million 'Battery Institute' competition to establish a centre for battery research to make technology more accessible and affordable
- Business Secretary to give keynote Industrial Strategy speech later today in Birmingham where he will also outline cutting-edge energy plans to break down barriers to new technologies and business models

Business and Energy Secretary Greg Clark will today (24 July 2017) announce in a keynote speech on the Industrial Strategy the launch of the first phase of a £246 million government investment into battery technology to ensure the UK builds on its strengths and leads the world in the design, development and manufacture of electric batteries.

Known as the Faraday Challenge, the 4-year investment round is a key part of the government's [Industrial Strategy](#). It will deliver a coordinated programme of competitions that will aim to boost both the research and development of expertise in battery technology.

An overarching Faraday Challenge Advisory Board will be established to ensure the coherence and impact of the challenge. The board will be chaired by Professor Richard Parry-Jones, a senior engineering leader with many decades of senior automotive industry experience and recently chaired the UK Automotive Council for 6 years.

At a speech hosted by the Resolution Foundation in Birmingham, Greg Clark is expected to say on the need for an Industrial 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.

Greg Clark is expected to say on the government's approach:

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

If every part of Britain is to prosper in the future we need to ensure 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 across the UK for the formidable response to the consultation that we have undertaken on our green paper 'Building our Industrial Strategy'. The response has been extraordinary.

Over 1,900 written responses – full, thoughtful and creative. From all parts of the United Kingdom; from new start-ups to big businesses; from organisations as diverse as 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.

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.

So as part of our 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.

The Faraday Challenge's competitions are divided into 3 streams – research, innovation and scale-up – designed to drive a step-change in translating the UK's world-leading research into market-ready technology that ensures economic success for the UK:

- **Research:** To support world class research and training in battery materials, technologies and manufacturing processes, the government has opened a £45m competition, led by the Engineering and Physical Sciences Research Council (EPSRC), to bring the best minds and facilities together to create a virtual Battery Institute. The successful consortium of universities will be responsible for undertaking research looking to address the key industrial challenges in this area.
- **Innovation:** The most promising research completed by the Institute will be moved closer to the market through collaborative research and development competitions, led by Innovate UK. The initial competitions will build on the best of current world-leading science already happening in the UK and helping make the technology more accessible for UK businesses.
- **Scale-up:** To further develop the real-world use and application of battery technology the government has opened a competition, led by the Advanced Propulsion Centre, to identify the best proposition for a new state-of-the-art open access National Battery Manufacturing Development facility.

Today's announcement follows a [review](#), commissioned as part of the Industrial Strategy green paper, by Sir Mark Walport in which he identified areas where the UK had strengths in battery technology and could benefit from linkage through this challenge fund.

The Faraday Challenge forms 1 of 6 key challenge areas that the government, together with business and academia, has identified through its flagship [Industrial Strategy Challenge Fund \(ISCF\)](#) as being one of the UK's core industrial challenges, where research and innovation can help unlock markets and industries of the future in which the UK can become world-leading.

Ruth McKernan, Innovate UK Chief Executive said:

By any scale, the Faraday Challenge is a game changing investment in the UK and will make people around the globe take notice of what the UK is doing in terms of battery development for the automotive sector.

The competitions opening this week present huge opportunities for

UK businesses, helping to generate further jobs and growth in the UK's low carbon economy.

Professor Philip Nelson, Chief Executive of the Engineering and Physical Sciences Research Council (EPSRC), said:

Batteries will form a cornerstone of a low carbon economy, whether in cars, aircraft, consumer electronics, district or grid storage. To deliver the UK's low carbon economy we must consolidate and grow our capabilities in novel battery technology. EPSRC's previous research investments mean we are in a world-leading position.

The Faraday Challenge is a new way of working. It will bring together the best minds in the field, draw on others from different disciplines, and link intimately with industry, innovators and other funders, such as InnovateUK, to ensure we maintain that our world leading position and keep the pipeline of fundamental science to innovation flowing.

Richard Parry-Jones, newly appointed Chair of the Faraday Challenge Advisory Board said:

The power of the Faraday Challenge derives from the joining-up of all 3 stages of research from the brilliant research in the university base, through innovation in commercial applications to scaling up for production. It will focus our best minds on the critical industrial challenges that are needed to establish the UK as one of the world leaders in advanced battery technologies and associated manufacturing capability.

In April, the government announced £1 billion of investment through the fund in cutting-edge technologies to create jobs and raise living standards. Other areas receiving government support through the ISCF in 2017 to 2018 include cutting edge healthcare and medicine, robotics and artificial intelligence, and satellite and space technology.

Richard Scudamore, Premier League Executive Chairman, welcomes the opportunity for business to work with government to shape policy:

Even economically successful sectors could contribute more to the UK's economic growth in the right public policy environment, especially as we approach Brexit. Elite sport is one of the UK's great international success stories but its economic impact has often been under-estimated. That is why the Premier League welcomes the Industrial Strategy as an important opportunity for enterprises like us to help shape government policy.

Simon Gillespie, Chief Executive of the British Heart Foundation (BHF) welcomes the government's commitment to a modern Industrial Strategy:

We are pleased to see the government recognising the importance of scientific research as part of the Industrial Strategy. This research has not only boosted the UK economy but has also led to the development of treatments and technologies that have transformed millions of lives around the world.

Medical research charities play a particularly important part in this success: the BHF funds more than half the UK's independent research into heart and circulatory diseases. We look forward to continuing to work with government to deliver an Industrial Strategy that supports world-leading research that improves the lives of patients across the UK and globally.

The Business Secretary will also be confirming today the launch of the third Connected Autonomous Vehicles research and development competition, with £25 million of funding being made available to new projects.

For the first time the government is making funding available to off-road driverless innovation, with investments earmarked for cutting-edge projects that will grow the commercial potential of off-road driverless technology and develop technologies that will increase productivity and improve mobility in a range of sectors including construction, farming and mining.

Government has already invested more than £100 million of research and development funding in over 50 connected and autonomous vehicle projects across the country to help UK businesses and Universities take advantage of the huge commercial opportunities in this area.