News story: Fast Track 2018 opening 28 February

We are pleased to announce that the Civil Service Fast Track Apprenticeship will be opening for applications on 28 February 2018 at 12PM (midday).

Before the window opens we invite you take a look at the 6 choices on offer including the Policy apprenticeship, available for the first time this year.

Please remember to pre-register your interest and we send you a reminder we have opened.

You can follow us on Facebook, Twitter, Instagram and Snapchat: csfasttrack.

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News story: Britain set to launch Combat Air Strategy, Defence Secretary announces

The MOD will work across Government and closely with industry and international partners to explore the UK's future Combat Air capabilities, building on the Industrial Strategy and refreshed Defence Industrial Policy launched last year.

The strategy will examine the operational capability needed in the future and the skills and resource required to deliver it. The work will take new and emerging technology into account, as well as export potential, whilst testing British industry's ability to deliver our future requirements. It is expected to be launched in the summer.

Defence Secretary Gavin Williamson said:

> Since the birth of airpower, British industry has been crucial to

> maintaining our military's world-leading position. As we celebrate 100 years of the RAF protecting our skies, it is fitting that we create bold and ambitious plans to help our brave Armed Forces keep us safe in the face of intensifying threats. The Combat Air Strategy will bring together the best of British engineering, skill and design, and deliver a compelling vision for the future of air power.

Chief of the Air Staff, Air Chief Marshal Sir Stephen Hillier, said:

> It is especially fitting that we launch the Combat Air Strategy as our Royal Air Force marks its 100th anniversary. Combat Air capabilities have been at the heart of the RAF's capabilities throughout its history, and are constantly employed on operations across the world today.
>
> This strategy will ensure that the RAF can continue to remain at the forefront of the high-end airpower technology and innovation we need to deal with future threats, working in close collaboration with UK industry and our international partners.

The UK is already a world-leader in the air sector which accounts for 85% of the Britain's defence export orders. The industry is made up of close to 2,500 companies, generating more than £33.5bn in turnover and employing more than 128,000 people – some 26,000 of them in highly skilled research, design and engineering jobs.

Investment in combat air technology combined with the strengths of UK industry has resulted in the UK being the US' only Tier 1 partner on the F-35 Lightning II programme, with British industry building around 15% of every F-35 which is built. The UK has been able exploit the operational capabilities of the aircraft, while reinforcing UK industrial capability, skills and wider economic prosperity.

The UK also continues to lead the way in combat air power as one of the four partner nations in the Eurofighter Typhoon programme. With more than 20,000 flying hours on global operations to date, the Typhoon has offered unparalleled reliability and proven interoperability with our allies.

The F-35 Lightning II and the Typhoon are two complimentary multi-role combat aircraft that will make up the RAF's combat air fleet, placing the UK at the forefront of fighter jet technology – with the Typhoon expected to remain in UK service until at least 2040.

Just last week the UK led the bid to replace Belgium's fighter jets with 34 Typhoons with the offer to include a comprehensive defence and industrial partnership between the Governments of Belgium and the UK. The Defence Secretary Gavin Williamson was also in Qatar at the end of last year to oversee Qatar's multi-billion pound purchase of 24 Typhoon aircraft, supporting thousands of jobs across the UK.

The announcement of the strategy comes after an initial review of the defence aerospace sector by the MOD, which involved engaging across Government and with industry. The development of a Combat Air Strategy is consistent with the themes of the Modernising Defence Programme. It will set out in practical terms how the MOD can deliver its critical military capability requirements whilst considering wider economic and international factors, and our national security objectives.

Speech: EEF Manufacturing Conference 2018

Ladies and gentlemen,

There is a manufacturing renaissance gathering pace in Britain today.

With the right support, it can transform not just the prospects of the British economy but the lives of a new generation of men and women for whom a career in engineering will be part of a revolution in the way the world lives.

Because from how we travel to how we generate power.

From technologies that help detect and diagnose diseases to processes that cure them.

From machine learning to new outlets for human creativity.

The transformations that the world is going through are areas where British capability is renowned.

Earlier this month I opened a new manufacturing facility near Oxford for a company called YASA Motors.

It will produce 100,000 electric motors a year. Cutting the ribbon I was standing next to a vehicle powered by YASA Motors.

A hybrid C-X75 built by Jaguar Land Rover whose Chief Executive Ralf Speth is here tonight.

It’s a car with the speed of a Bugatti Veyron and the emissions of a Toyota Prius.

An astonishing example of British innovation and British manufacturing genius.

But, because the motor is just one component of a complex product you could be forgiven for not knowing about it.

And it is a problem that too few people know how successful British engineering is and what opportunities there are within it.

For about 40 years now, too many young people in schools have been put off a career in manufacturing by a tacit, but pervasive, assumption that this was a sector in decline.

That prospects were waning and jobs would be uncertain.

That things would be made overseas and not here in the UK.

That if you were bright and ambitious you should think about finance, not engineering.

Well, that couldn't be more wrong.

We are not experiencing the end of engineering but its rise to primacy.

The domination of design, engineering and technology into every aspect of commercial and consumer life from food production to retailing to healthcare.

And we are already experiencing the benefits.

At the end of 2017, UK manufacturing output was at its highest level for 10 years with the longest run of sustained growth for 20 years.

Employment in manufacturing is on the rise and from conversations I've had with many people in this room would rise further if only you could lay your hands on enough people with the skills you need.

We know, as a nation, that to be more prosperous we have to raise productivity and you in this room show how it can be done.

Productivity in manufacturing rose four times faster than the economy as a whole over the last decade.

At this time of growth for engineering I am determined that your government must be activist in helping you seize the opportunities it presents.

To do that we need to listen to what you say and act on it.

So let me respond directly to Judith Hackitt's 3 challenges:

- Brexit
- Industrial Strategy
- skills

Brexit

First, Brexit.

The first requirement for business is an agreed transition deal.

The EEF, under Terry Scuoler's leadership was instrumental in making the case

for the implementation period.

And every Wednesday morning I meet your new Chief Executive Stephen Phipson and other business leaders.

The unambiguous view of businesses – large and small is that there must be no sudden change.

And that businesses must have around 2 years to prepare for our new relationship.

This is what was the Prime Minister committed to in her Florence Speech and it is what was agreed in the joint report with the EU in December.

During this period business wants to count on continuity rather than endure a double change.

So during this time firms of all sizes, will still be able to trade with the EU in the same way, as now.

The rules and standards that govern that trade will apply, as now.

EU citizens will still be able to work in the UK, as now.

And if, as I believe will be the case, this is formally agreed next month that continuity will be available for around 3 years from now.

But I also hear loud and clear from business that an implementation period is necessary but not sufficient.

As Judith said, “ultimately, we need clarity and certainty”.

And I agree with those who say that ultimately what businesses need is clarity and certainty of a good deal.

We could have total clarity and certainty tomorrow if we chose to duck the job of getting into weeks of difficult negotiations and opted instead for exit on default WTO terms.

That is not, in my experience the clarity that business wants.

Instead, I believe we need to take the approach of building a good deal.

Building this good deal will mean:

- testing proposals with our counterparties and assessing the response
- harnessing the insights and understanding that come from good personal relationships
- making adjustments and exploring common ground

What do we want to achieve in that good deal?

The ability to trade with a now growing European market without tariffs or complex customs requirements.

And having confidence that non-tariff barriers like regulatory and product standards won't be used to exclude us.

In so many areas, the UK sets the standard on standards.

Our expertise and rigour is renowned around the world and we want to keep British experts influential in international and European standards organisations wherever it makes sense to do so.

We are determined that taking back control should not mean giving up our influence.

And – of course, modern manufacturing depends on thrives on complex and specialist supply chains in which your products are the accumulation of products from all over Europe.

If you believe, as I do, that British manufacturing has a golden period ahead of it, then it follows that its ability to continue unhindered is foundational.

Brexit isn't the only area in which the government and manufacturers need to work in partnership.

Industrial Strategy

It is crucial to our Industrial Strategy.

The new, independent Industrial Strategy Council will do precisely that:

- set the metrics
- measure progress
- report publicly on that progress; and
- make recommendations to government

And let me say just a word about the objective of our Industrial Strategy.

At a time when new technologies are creating new industries, changing existing ones and transforming the way we live our lives. And when Britain has an outstanding position in so many of them we would be crazy not to prepare ourselves to seize the opportunities of the future.

To help with this our Industrial Strategy sets out 4 Grand Challenges

- AI and the data-driven economy
- clean growth
- the future of mobility; and
- meeting the needs of an ageing society

Now – we need Britain's public and private sectors our outstanding businesses and universities to join forces and lead the world in seizing these opportunities.

It's backed by the biggest increase in public R&D investment this country has

ever seen.

Three billion pounds more invested every year to build on our reputation for excellence.

But we don't want to do what we've done too much in the past.

Come up with the ideas here and then see these applied and developed elsewhere.

One of the tests of the use of this money is to see the impact on manufacturing here in the UK.

It's why as part of our Faraday Battery Challenge we're working with industries to build a Battery Manufacturing Development facility in the West Midlands.

And it's not all about the brand new.

There are so many practices and techniques that the best performing companies in Britain employ that can be spread more widely through supply chains.

I was chatting to John Neill from Unipart earlier.

When I visited their HQ recently the sign on the door said:

> Join the productivity revolution.

That's what the Made Smarter Review led by Juergen Maier of Siemens has set out: how we can diffuse good practice throughout manufacturing.

I'd like to thank Juergen for his personal leadership of this.

It is brimming with ambition to create 175,000 new manufacturing jobs and raise productivity by a quarter.

We're backing his analysis.

We need to do more to spread innovation.

So I have asked Sir Mark Walport, Chief Executive of UK Research and Innovation, to work with Juergen Maier on the development of an Industrial Strategy Challenge on the digitalisation of our manufacturing industry as Mark previously did for the Faraday Challenge.

Skills

But if Britain's manufacturers are to lead the world they'll need people with the right skills.

Last November I visited EEF's Technology Training Centre in Aston.

There, I met apprentices learning about robotics, smart factories and Computer-Aided Design.

EEF does some stellar work with young people including providing apprenticeships for companies like Mondalez who are here tonight.

The reforms to apprenticeship are the largest government has ever made and they are still young but we need to make sure the programme achieves all its aims.

We will listen to you and continue to work with you on how the Levy can spent so that it works effectively for industry.

And – crucially – so that it supports productivity growth.

But there's another crucial challenge we still need to overcome.

So many of you here tonight have one thing in common.

You're engineers.

Yet today, at the exact moment we need the next generation of engineers to help develop tomorrow's technologies we're facing a shortage.

We need to seize 2018 – the Year of Engineering to dispel some of the myths around this profession like the ones I mentioned earlier.

Part of the answer is about showing our young people the true faces of modern manufacturing. People right here in this room.

So let's tell them how – on Deeside Toyota produce a new engine every 57 seconds.

How – In Hull, Siemens are building wind turbine blades as long as six double-decker buses.

And how – In Stevenage, Airbus Space and Defence built a spacecraft, which travelled nearly 4 billion miles to land a probe on a comet.

Above all – let's send a clear message that whatever part of the UK you're from there's an amazing engineering story right on your doorstep.

Making things runs in our veins.

Again and again, the UK has literally manufactured the future.

The light bulb, the passenger railway, the CT scanner, graphene, the lithium-ion battery, the list goes on and on.

I'm an optimist.

I truly believe that there's no problem that can't be solved by the ingenuity of our engineers.

And no product that can’t be made by the sheer determination of our manufacturers.

So let’s harness the unbridled brilliance of Britain’s makers.

As we put into practice a modern Industrial Strategy for modern British manufacturing.

And let’s make the technologies the rest of the world will use tomorrow right here in the UK.

Thank you.

Speech: Liam Fox highlights success of British manufacturing

Good morning.

It is a great pleasure to be here with you all at the EEF Manufacturing Conference.

In the course of my job as Secretary of State for International Trade, I have been invited to address representatives of all of Britain’s major industries.

Each has their own innovators, and each of them has a number of world-leading companies, breaking new ground and raising this country’s profile overseas.

None of them, though, boasts quite the same concentration of talent, of drive, and of cutting-edge technology as manufacturing.

And few other industries are doing as much to enhance the UK’s global reputation.

Since the Department for International Trade was created in July 2016, the ministerial team and I have conducted around 150 overseas visits.

Everywhere we go, the British manufacturing stamp is a kitemark of quality, innovation, and world-leading technological advances.

Our industrial heritage, of course, plays no small part in this.

But all too often we encounters the lazy assertion that ‘Britain doesn’t make anything anymore’.

How many here today have, like me, gritted their teeth when confronted by such ill informed negativity.

So let’s today send out a loud and clear message that British manufacturing is not only alive and well but capable, cutting-edge and confident.

Those of us familiar with the UK’s manufacturing capabilities know that the United Kingdom is one of the largest manufacturing economies in the world, with nearly £270 billion in exports.

It would be nice to see more of this reflected in our media.

Last year saw a particularly robust performance, with manufacturing growing by 2.8%, compared to 1.8% for the economy as a whole.

We’ve had the longest period of consecutive monthly manufacturing growth for 30 years, and order books for British manufacturers are well above their long term trend.

And this in an economy that has record levels of employment and saw the highest FDI in our history in 2017.

The mills and foundries of the last century may have largely disappeared. But in their place has emerged an industry built upon expertise, research and development, fuelled by a world-class education system.

Sheffield, for example, is a city long famed for the quality of its steel.

Now, Sheffield University’s Advanced Manufacturing Research Centre has built Europe’s largest aerospace castings facility, and is producing some of the biggest castings in the world today.

This is just one success story among many. The sheer diversity of businesses represented in the UK is testament to this.

From automotive and aerospace, to energy and engineering, the UK offer is as diverse as it is deep.

The advent of digitalisation, the adoption of automation, and an increasing pressure on companies to create more energy-efficient products is driving a revolution in global manufacturing.

British companies are at its forefront.

The UK composite materials sector, for example, predicts that the UK domestic market will grow 6 times by 2030, to some £12 billion, driven by the need to develop lightweight structures for energy efficiency.

In aerospace, the government has worked in partnership with UK primes and tier 1s to identify new supply chain opportunities for fuel systems and cockpit assemblies.

And last year, the automotive sector manufactured more than 2.7 million engines in the UK.

Car production remains one of the prides of British manufacturing. Last year,

around 15% of the total UK r&d spend was generated by automotive companies.

Firms like Nissan, who have announced another £250 million investment in their Sunderland plant, are here because of that access to new technology and industry developments.

It is small wonder that, in 2017, a new car rolled off a British production line every 19 seconds.

The government is keen to further its support for critical, cutting-edge technologies.

We have committed to raising the UK's r&d spend to 3% of GDP, putting us in the top quartile of OECD countries.

This has been backed with substantial government support.

Many of you will be familiar with the £246 million Faraday Challenge, designed to boost the development of the next generation of battery technology.

We have also committed £100 million of spending for connected and autonomous research and development for the automotive sector.

And, together with the aircraft industry, we have devoted a combined £3.9 billion towards aerospace r&d.

This level of government support is unprecedented. It demonstrates a real and sustained commitment to attract the right investment in the right areas, in line with our Industrial Strategy.

Indeed, manufacturing courses through the Industrial Strategy, whether it's our ambition for pharmaceutical production in the Life Sciences Sector Deal, or the vision for advanced manufacturing in Juergen Maier's Industrial Digitalisation review.

So does trade, with the Industrial Strategy keeping us at the forefront of crucial areas of comparative advantage, such as clean growth, artificial intelligence and the automotive industry.

But we shouldn't be surprised that trade and manufacturing are central to our plan to improve productivity, when manufacturing productivity has been growing up to 3 times faster than the wider economy and the 9% of businesses that export play such a central role in our productivity growth.

Our approach is already paying off. Companies like Airbus, who are jointly investing with the government to create a new research facility in the South West, are continuing to show their confidence in the strength of the United Kingdom.

As the MP for North Somerset, I particularly welcome Airbus's expansion in the South West. Their new wing-testing centre near Bristol will serve as an innovation space for supply chain companies across the region. It has also

cemented the UK aerospace industry as the second-largest in the world.

Investments such as these demonstrate the high esteem in which British manufacturing is held around the world. But as well as attracting inward investment, my department stands ready to ensure that this capability is shared beyond the borders of the UK.

Time and again, research has shown that companies which export their products are more profitable, resilient and productive.

In short, exporting can increase your bottom line, driving up profits which then in turn allows businesses to invest more.

It is a virtuous cycle, which can be kicked off by the right government support.

My department's ultimate aim is to open up the world's fastest-growing markets for UK companies.

Soon, for the first time in more than 4 decades, we will be able to develop a trade policy framework that works, first and foremost, for the UK economy, UK firms, and UK citizens.

Already, we are laying the groundwork for new trading relationships with countries across Africa and Asia.

Many of these economies will be the drivers of global growth in the 21st century. In fact, the IMF projects that 90% of global growth in the next 10 to 15 years is likely to come from outside the EU.

As their people become more affluent, and their domestic industries more mature, demand for British manufacturing expertise will grow exponentially.

We know that the UK is in a unique position to partner these countries, and that our manufacturing firms stand ready to help realise their ambitions.

Already, my department is deploying our extensive overseas network, stretching across 108 countries, to seek opportunities and provide in-market support for UK firms.

This network is being bolstered by 9 HM Trade Commissioners to promote UK industry abroad. I was delighted to recently announce our commissioners for South Asia, China and North America: Crispin Simon, Richard Burn and Antony Phillipson.

These new Commissioners will lead our overseas teams, and will develop a regional trade plan that will set out the priorities to be delivered across export promotion, investment and trade policy. They will have more autonomy to do what works best in their region to improve trade with key markets of the future.

And UK Export Finance is one of the unsung heroes of our economy, working to ensure that no viable manufacturing export fails due to a lack of financing

or insurance options, so that once firms do decide to export, there are no unnecessary barriers in their way.

In the last financial year they made £3 billion available to help boost UK exports; at the same time we have seen exports of UK goods increase by over 11%.

And it's not just for big business. Accessing government-backed export finance is faster and easier for SMEs than ever before.

As of October 2017, small and medium-sized businesses can get UKEF bonds and working capital support for up to £2 million in a matter of seconds directly from their bank, without having to apply separately.

But trade doesn't just benefit exporters themselves.

Supplying to exporters allows smaller companies to access new markets and benefit from the worldwide demand for UK goods and services while they're still growing. And the benefits from trade have positive spill-over effects across the supply chain.

Capital is the lifeblood of commerce. If companies can't get export finance it doesn't matter where along the supply chain it happens – it still clots. But if finance flows freely the benefits do not just accrue to those actually doing the exporting.

They circulate to their suppliers and throughout the economy, better practices and higher productivity from contact with overseas markets and better returns from selling abroad.

That's why small UK businesses who are not yet exporting themselves, but sell to other UK companies that do, can now also benefit from UKEF's trade finance support.

And that's why in the 2017 Autumn Budget we announced a new supply chain product for exporters, which will help exporters access financing to pay their suppliers.

This allows smaller companies in exporters' supply chains to receive early payment to support their cash flow, at the same time as giving the exporter time to pay for supplies of goods and raw materials.

UK Export Finance is here today: if you're considering exporting, they could be the help you need to start selling overseas.

All of these innovations come, of course, at a time when we are seeking a new partnership with the European Union.

I understand that every business here today will be hoping for a glimpse of what this new relationship will look like.

I know that businesses value certainty and stability above all else.

I cannot comment on the negotiations that are still underway. I can, however, tell you that this government opposes erecting barriers to trade where none yet exist, or disrupting the commercial relationships that exist between this country and our continental partners.

I am currently taking the Trade Bill through Parliament, to give you the certainty you need that there will be a functioning trade regime on day one. The implementation period will also provide time to adjust, which manufacturers tell us they need.

Our Trade and Customs Bills will give us the powers we need to transfer the EU's existing trade arrangements with third countries, which will allow us to protect your access to overseas markets.

They will also give us the tools we need to fight back against any unfair subsidies or dumping from abroad.

We are currently consulting on which of the EU's existing trade defence measures we should keep. I want the interests of UK businesses and consumers to be foremost in the government's mind, so I encourage you to contribute your views.

We want to protect the interests of British manufacturing. We want to maintain your access to markets across Europe, and beyond. And we want to ensure that the UK continues to attract the best and brightest talent from across the world.

I am greatly encouraged by new data from UCAS that shows a record number of European students applying to study in the UK's world-leading universities, despite the dire predictions being made.

The UK will always be the finest place in the world to live, study, or do business.

Outside the EU we have now established a series of working groups and high-level dialogues with key trade partners from the USA to Australia and China to explore the best ways to progress our trade relationships for the future.

The efforts of the manufacturing industry have ensured that Britain will remain a world-leading technology hub far into this century.

We are a nation of innovators. And, as government and industry work together, we can build a brighter and more prosperous future, for the UK and the world.

So let's talk up the success of a UK manufacturing sector that is not only investing and exporting, but is a confident and key player in building that more prosperous future.

There is a big world out there – and British manufacturing can lead the charge to ensure that the people of this country can take their rightful place in the global prosperity of the future.

Thank you.

Press release: Business Secretary calls for new tech revolution in agriculture

- new £90 million investment to bring together AI, robotics and earth observation to improve supply chain resilience in the agri-food sector
- UK agri-tech sector contributes £14.3 billion to UK economy, employing 500,000 people, with companies and researchers developing pioneering technologies from farming drones to 3D printing
- helping to fuel rural growth, create high-skilled jobs and open up new export opportunities as part of the Industrial Strategy

The Ordnance Survey's use of cutting edge satellite imagery and digital data collection to map over 200,000 miles of England's farmland and the CROPROTECT app which helps farmers protect crops from pests, weeds and diseases are among the technological innovations improving farming and food production that were hailed today (21 February 2018) in a speech by Business Secretary Greg Clark as he set out his ambition for a revolution in agri-farming, as part of the government's Industrial Strategy.

In a keynote speech to the National Farmers' Union conference, the Business Secretary highlighted how new technology is boosting farmers' earning power and making agri-businesses more productive and profitable than ever before.

To make it easier for farmers and agricultural supply-chain businesses to embrace technology and innovation, Mr Clark today announced £90 million of new funding to bring together the UK's world-class agri-food sector with expertise in robotics, AI and data science.

The funding, delivered as part of the new the Industrial Strategy Challenge Fund, will make it easier for food and agri-business to embrace technology and innovation that will be critical to meeting the increasing food demands of a growing population, fuel rural growth and create high-skilled jobs.

Business Secretary Greg Clark said:

> As someone who has known all my life that farming is foundational not just to our economy, but to our country. Providing the food and drink we live on and stewarding the countryside that is so much part of our national and local identity means there is no more essential industry.
>
> The agricultural sector is the biggest industrial sector in the UK, Employing almost 4 million people and larger than the automotive and aerospace sectors combined.

> For your unique role in stewardship and in feeding the nation like big industry, you need to be profitable and we need to help make the conditions right for investment in the future.
>
> With the technological revolution that is happening, the skills of the farming workforce need to keep pace. New technologies require new abilities and today's modern British farmer is a Swiss-Army-Knife of skills. An engineer, an environmentalist, a data scientist a biochemist, an energy producer, a tourism entrepreneur, and an investor too.
>
> As part of the Industrial Strategy, we announced a Transforming Food Production Challenge and I'm delighted to announce the government will invest £90 million to make this challenge a reality.
>
> This will include the creation of 'Translation Hubs' bringing together farmers and growers businesses, scientists and Centres for Agricultural Innovation to apply the latest research to farming practice.

Today's investment forms part of the government's Industrial Strategy which sets out a long term plan to boost the productivity and earning power of people throughout the UK. Through this strategy government is working with industry to help businesses create better, higher-paying jobs as well as setting a path for Britain to lead in the high-tech, highly-skilled industries of the future.

The announcement follows the government committing, through the Industrial Strategy, to raise public and private investment in UK research and development to 2.4% of GDP by 2027. This will be the UK's biggest ever increase in research and development investment and help to make Britain's economy the most innovative in the world.

Commitments

Government investment will help build on the strengths of the UK's booming agri-food sector, which employs around 4 million people across the UK, and support it by:

- bringing together businesses, farmers and academics to take forward priority research projects through new Challenge Platforms
- supporting Innovation Accelerators which will be responsible for exploring the commercial potential of new tech ideas at pace
- demonstrating innovative agri-tech projects and how they will work in practice
- launching a new bilateral research programme that will identify and accelerate shared international priorities and help build export opportunities for pioneering agricultural-technologies and innovations overseas

UK companies leading the way

UK farmers, agri-tech companies and research centres are already leading the way in this area, using technology like data, robotics and AI to help create new technologies and herald innovative new approaches, including:

- the Agricultural Engineering and Precision Innovation (Agri-EPI) Centre is bringing together leading organisations in the food supply chain to become a world-leading centre for excellence in engineering and precision agriculture
- the mobile app and website CROPROTECT, developed by Rothamsted Research, is helping farmers to protect their crops with farmers and agronomists using it to exchange best practice and tips on smart management of pest, weed and diseases
- Ordnance Survey have used their satellites to accurately map 232,342 miles of England's farmland hedges to create a new digital dataset and use planes with fixed state-of-the-art digital cameras to record thousands of individual photos that can map out farms and entire green landscapes

The funding forms 1 of 8 key areas that the government, together with business and academia, has identified through the Industrial Strategy Challenge Fund (ISCF), as being priority areas where research and innovation can help unlock markets and industries of the future in which the UK can become world-leading.

In the Industrial Strategy white paper, the government announced £725 million of investment through the fund in cutting-edge technologies to create jobs and raise living standards.

Other areas set to receive government support through the ISCF in 2018 to 2019 includes early diagnosis and precision medicine to help detect life-changing diseases earlier, new products and services that support older people in the UK to remain active and independent, and new smart energy systems that deliver cleaner, cheaper energy for consumers and their communities.

UK Research and Innovation (UKRI) will shortly open a new expressions of interest call for more industry-led challenges that will form part of the next wave of the ISCF.

This third wave of programmes will invest in further ground-breaking ideas to tackle our major industrial and societal challenges, boost our productivity and delivery economic growth.

Professor Sir Mark Walport, Chief Executive of UKRI, which is responsible for the ISCF said:

> Developing and effectively utilising the latest technologies and research methods will revolutionise the way we produce our food. Right across the agricultural sector, we can make the process more

efficient, more productive and more sustainable to deliver benefits for growers, producers and consumers. This is precisely why the ISCF was created.

We are now launching the process for businesses and researchers alike to come together to identify both pressing problems in food production and farming and opportunities that could benefit from the next wave of ISCF funding. I want to strongly encourage everyone in the sector to respond to our call for expressions of interest.