

Press release: Industry-led review details plans to supercharge UK Artificial Intelligence (AI) industry

The Government has been urged to help the UK become the clear world leader in the development of Artificial Intelligence (AI) – to boost productivity, advance health care, improve services for customers and unlock £630bn for the UK economy.

Experts from industry and academia today (Sunday 15 October 2017) unveiled new proposals for how Government can work with industry to stay ahead of the competition and grow the UK's use of AI right across the economy – from smarter scheduling of operations in health care, to hiring on-demand self-driving cars.

The Industrial Strategy Green Paper, published in January, identified AI as a major, high-potential opportunity for the UK to build a world-leading future sector of our economy.

The independent review, 'Growing the Artificial Intelligence Industry in the UK', was announced as part of the Digital Strategy in March, and led by Dame Wendy Hall, Professor of Computer Science at the University of Southampton, and Jérôme Pesenti, Chief Executive of BenevolentTech. The reviewers were asked to report on how this pioneering technology can best thrive and grow in the UK and will inform BEIS and DCMS policy making relevant to this exciting new sector.

Culture Secretary Karen Bradley said:

I want the UK to lead the way in Artificial Intelligence. It has the potential to improve our everyday lives – from healthcare to robots that perform dangerous tasks.

We already have some of the best minds in the world working on Artificial Intelligence, and the challenge now is to build a strong partnership with industry and academia to cement our position as the best place in the world to start and grow a digital business.

Business Secretary Greg Clark said:

Artificial intelligence presents us with a unique opportunity to build on our strengths and track record of research excellence by leading the development and deployment of this transformational technology.

This important review exemplifies the world-class expertise the UK

already has in AI, demonstrating the huge social and economic benefits its use can bring.

We will continue to work with the sector in the coming months to secure a comprehensive Sector Deal that make the UK the go to place for AI and helps us grasp the opportunities that lie ahead.

Many sectors across the UK economy are already embracing innovation through AI and benefitting from its use in how they do their business day-to-day including:

- Health: Using the most advanced Artificial Intelligence, Your.MD has built the world's first AI Personal Health Guide that provides users immediate trustworthy healthcare advice from the NHS to anyone with access to a mobile phone;
- Banking: To help verify customer identity and increase security for HSBC customers, the bank has created an AI chatbot, Olivia, who can assist customers 24 hours a day, 365 days a year with their enquiries;
- Education: With technology that records patterns of behaviour, including what learning style works for each student, CENTURY, an AI platform, is helping children learn and teachers provide more personalised education programmes, with feedback and suggestions to help fill knowledge gaps;
- Legal services: AI is helping lawyers to do legal searches and to draft the best standard documents, the law firm Pinsent Masons has developed its own team of computer scientists and legal engineers to put AI into practical context for its lawyers; and
- Cars: Driverless cars are set to make the roads safer for pedestrians and car drivers alike, with companies like Oxbotica developing fully autonomous operating systems that diagnose vehicle issues and identify the best, most logical route on the move.

AI is also being deployed in a variety of different ways to assist businesses and consumers such as:

- protecting consumers and shoppers against spam and bank fraud;
- computer vision that monitors CCTV to improve safety;
- managing and monitoring supply chains to reduce loss and waste;

- improving electricity grid management to save costs and reduce CO2 emissions; and
- using data to provide personal shopping recommendations.

Professor Dame Wendy Hall, Regius Professor of Computer Science at the University of Southampton said:

I was very honoured to be asked to co-chair this review at a time when AI is set to make major changes to the way we live and work. I'm particularly keen to ensure that we use it to inform the establishment of initiatives and programmes to help us extract the most value from artificial intelligence for the country; that includes an emphasis on increasing and improving our skill levels to prepare the workforce for the number of jobs the industry will need for the future.

AI has been around for a very long time as a concept and this latest surge of technological development is likely to see automation continue to escalate and accelerate in every walk of life. Now is the time for us all – scientists, researchers, entrepreneurs and the government – to come together and address the issues about how AI is going to impact society and seek ways to ensure that we're able to deliver the great breakthroughs the technology has the potential to deliver.

Jérôme Pesenti, CEO of BenevolentTech, the technology division of BenevolentAI said:

In our AI review, we focused on recommendations that are both practicable and deliverable. By following these recommendations, Government, Academia and Industry can help strengthen the UK's position in the global AI market. Our proposals are deliberately specific and boil down to three fundamentals – enable better access to data, create a greater supply of AI skills and promote the uptake of AI. I am looking forward to working with Government, Academia and Industry to drive these changes.

The report makes 18 recommendations for how to make the UK the best place in the world for businesses developing AI to start, grow, and thrive including:

- Skills: increasing the UK's AI expertise through new initiatives including an industry-funded Masters programme, and conversion courses to bring a broader range of people into the field;
- Increasing uptake: helping organisations and workers understand how AI

can boost their productivity and make better products and services, including public services;

- Data: ensuring that people and organisations can be confident that use of data for AI is safe, secure and fair by making more data available, including from publicly-funded research; and
- Research: building on the UK's strong record in cutting-edge AI research, including making the Alan Turing Institute a national institute for AI.

These recommendations will now be carefully considered in discussions towards a potential Industrial Strategy sector deal between Government and the AI industry.

As part of the Industrial Strategy, the Government has increased investment in research and development over the next 4 years by £4.7 billion to create jobs and raise living standards, including through the Industrial Strategy Challenge Fund.

The Business Secretary announced in April that the first £1 billion of investment is being made in six key areas in 2017/18, driving progress and innovation that will create opportunities for businesses and sectors across the UK.

Press release: International Development Secretary sets out UK commitment to jobs and prosperity in the world's poorest countries

The International Development Secretary Priti Patel has today provided detail on how the UK will create millions of jobs and help accelerate the economic growth that can lift countries out of poverty, through a continued commitment to the UK's Development Finance Institution.

At the World Bank Annual Meetings in Washington, Ms Patel set out the next step in DFID's commitment to the growth of CDC, following the passing of the CDC Act earlier this year which increased the total limit of capital which the UK could invest in CDC. This capital increase will average up to £703 million per year for the next five years, enabling CDC to make pioneering investments that create millions of jobs in the hardest to reach markets.

CDC invests in the poorest and most fragile countries in Africa and South Asia. It introduces much-needed capital, expertise and support to thousands of businesses – including power stations, farms and factories – in 74 countries, creating millions of jobs, generating essential taxes, and strengthening transformational sectors such as infrastructure, manufacturing and agriculture.

Over the last 3 years companies backed by CDC in Africa and South Asia have created over 3 million new direct and indirect jobs, and paid taxes to national governments worth over \$9 billion. This new capital will enable CDC to build on these excellent development results, sustain the increased investment pace reached over the last 5 years, respond to growing demand from businesses, and achieve the ambitious development impact set out in their 5 year strategy.

CDC's successful investments demonstrate to private investors the opportunities that exist, even in the most difficult places. This leads the way for other investors to follow, mobilising capital from a much larger pool of private investors.

International Development Secretary Priti Patel said:

The international private sector must rise to the challenge of investing in and powering the growth that helps people to work and earn money, to transform economies and end aid dependency.

Advancing economic development in the world's poorest countries is a hallmark of a Global Britain and with this commitment to CDC the UK is leading by example, creating the vital jobs and economic stability that enable countries to leave poverty behind and stand on their own two feet.

Capital invested in CDC is invested and reinvested time and again, to ensure that every penny of taxpayers' money is having maximum development impact.

As set out in the Department for International Development's Economic Development Strategy in January 2017, the UK is committed to supporting countries to defeat poverty and leave aid dependency behind through sustainable economic growth, jobs, trade and investment.

Notes to editors:

- CDC is wholly owned by the UK government. It is the UK's Development Finance Institution and a world leader in its field. It is central to the UK's approach to promoting inclusive growth and economic development in Africa and South Asia.
- This capital increase will be invested and drawn down gradually to meet market demand over a 5 year period from 2017-2021.

- In July 2017, CDC launched its new [5 year Strategic Framework \(2017-2021\)](#). The strategy was developed and agreed with DFID. It maintains CDC's focus on investing in the poorest and most fragile countries in Africa and South Asia, set out innovative approaches to maximise the transformational impact of CDCs investments and commits CDC to increased levels of transparency and reporting.
- The CDC Act 2017 enjoyed cross party support and received Royal Assent on 28 February 2017. It increased the cap on the cumulative level of financial support that DFID can provide to CDC by up to £4.5bn from £1.5bn to £6.0bn. [Further details on the CDC Act are available here.](#)

[News story: Mini drones set to investigate hazardous scenes, announces Defence Secretary](#)

As part of a collaboration between the Ministry of Defence and the Home Office, the Defence Secretary has awarded funding to a range of small-and-medium-sized-enterprises (SMEs) with high-tech concepts to assess potentially hazardous scenes.

Defence Secretary Sir Michael Fallon said:

With intensifying threats abroad and the risk of accidents at home, we need the very latest technology to respond to any incident. Competitions like this with our £800 million Innovation Fund will ensure Britain has the latest in cutting-edge technology needed help keep us safe.

The Defence Secretary made the announcement on the back of chairing the quarterly Defence Suppliers Forum last week, which brings together prime contractors, international companies and SMEs.

The Minister for Security Ben Wallace said:

This competition has the potential to see world-class equipment created to support the emergency services when they arrive on the scene of an incident.

Through this funding, the Government is able to collaborate with academics and the private sector to turn these innovative ideas

into front-line tools.

Amongst the winners were:

- Snake Eyes, produced by Autonomous Devices Limited in Milton Keynes, which is small enough to be posted through a letter box and relay 3D images of a space and can detect chemical agents.
- Bath-based BMT Defence Services, who have designed an unmanned aerial vehicle with high-tech gas-sensing technology.
- Horiba Mira, based in Nuneaton, which has a robot with its own neural networks which can deploy on decontamination missions.
- Loughborough University, with a pocket-sized drone which can search for chemicals.

The awards, worth over £1.6m, came as part of the Autonomy in Hazardous Scene Assessment competition, aiming to bring designs into being, and eventually use, in a much shorter space of time than is usually possible.

Through the Defence and Security Accelerator, working with the Defence Science and Technology Laboratory (Dstl), the competition –to be named Minerva – is set to meet some of the challenges of assessing potentially hazardous scenes.

Peter Stockel, from Dstl, said:

After a fast-paced first phase, we are now delighted to rapidly move the project forward into phase 2 with four highly innovative and technically exciting system propositions to tackle this priority challenge we're for UK Defence and Security.

With continued involvement and demonstration with the user community, we aim to mature this emergent capability over the next 12 months to test the 'art of the possible' and accelerate this into the hands of the prospective users for further operational evaluation, both for MOD and the Home Office.

The first round of the competition saw 18 companies selected for funding. This, the second round, chooses four of those initial winning companies to further develop their concepts.

For more information on AHSA, or Minerva, visit:

<https://www.gov.uk/government/organisations/defence-science-and-technology-laboratory>

Press release: Getting to the root of tax avoidance

The victory over scheme promoter, Root2, came after they failed to report a mass-marketed tax avoidance scheme, known as Alchemy, to the tax authority.

The scheme aimed to extract profits from owner-managed companies in the form of winnings from betting on the stock market, which the scheme aimed to ensure would be tax free, rather than in the form of taxable employment income.

HMRC brought the case against Root2 under the Disclosure of Tax Avoidance Scheme (DOTAS) rules, which requires promoters to tell HMRC about tax avoidance schemes they design and sell.

The First-tier Tribunal agreed with HMRC that the promoter did not abide by the DOTAS rules.

Penny Ciniewicz, Director General of HMRC's Customer Compliance Group, said:

This is a great victory that sends a clear message to tax avoidance scheme promoters that we will pursue you if you don't play by the rules.

Most tax avoidance schemes don't work. The DOTAS rules ensure that HMRC is notified of schemes so that we can investigate and challenge them.

Designers and promoters of avoidance schemes should come forward now if they haven't already disclosed a scheme to us. We will take action and nobody should think they can get away with not disclosing their avoidance schemes and misleading users about the need to report them.

HMRC will seek to impose a substantial penalty on the promoter for failure to disclose the scheme.

- There is no right of appeal against the Tribunal decision.
- HMRC does not approve tax avoidance schemes. Under DOTAS, promoters must notify HMRC of schemes that contain various hallmarks of tax avoidance. If a scheme has been notified under DOTAS, it does not in any way signify that it has been approved by HMRC.
- HMRC regularly investigates tax avoidance schemes and where it finds rules have been broken, will always take action.
- DOTAS was introduced in 2004 and has been strengthened and broadened since its introduction to keep pace with the ever-changing avoidance landscape.
- DOTAS covers tax avoidance involving: Income Tax, Capital Gains Tax,

Corporation Tax, National Insurance contributions, Stamp Duty Land Tax, Inheritance Tax and the Annual Tax on Enveloped Dwellings.

- DOTAS relies on 'hallmarks' to describe what has to be disclosed, not on whether something fits a description of 'avoidance'. HMRC keeps these 'hallmarks' under review and has updated and strengthened them regularly since DOTAS was introduced.
- DOTAS is a self-assessment regime – the promoter must consider the scheme it is developing and disclose it to HMRC if it meets any of the hallmarks.
- How DOTAS works:
 - Promoter discloses scheme to HMRC
 - A Scheme Reference Number (SRN) is issued by HMRC which the promoter must provide to users.
 - Promoters must report details of their users to HMRC on quarterly client lists.
 - Users must report their use of a scheme to HMRC annually.
 - HMRC have various information powers to tackle non-compliance with the regime and promoters face penalties of up to £1m or more if they fail to disclose a scheme.
 - Disclosure under DOTAS is one of the three triggers to enable HMRC to issue a notice to a taxpayer under the 2014 Accelerated Payments regime.
- DOTAS guidance can be found [here](#)
- Audio version of statement can be found [here](#)
- A picture of Penny Ciniewicz can be found [here](#)

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[Press release: Home Office announces package of measures to tackle violent crime](#)

The measures include a new offence of possession of a corrosive substance in public without a good or lawful reason.

It would place the onus on the individual caught in possession to explain why they are carrying it, rather than on the police to prove that it was intended to cause injury.

Those convicted of this offence for a second time would face a mandatory minimum sentence in line with existing knife possession laws.

The proposals are part of the '[Consultation on new legislation on offensive](#)

[and dangerous weapons](#)', which sets out legislative measures to reduce violent crime; respond to recent rises in police-recorded knife and firearm offences; and the emergence of attacks using acids and corrosive substances.

Home Secretary, Amber Rudd said:

All forms of violent crime are totally unacceptable, which is why we are taking action to restrict access to offensive weapons and crack down on those who carry acids with the intent to do harm.

Acid attacks can devastate lives and leave victims with both emotional and physical scars.

By banning the sale of the most harmful corrosive substances to under 18s and introducing minimum custodial sentences to those who repeatedly carry corrosive substances to cause harm, we are sending a message that the cowards who use these as weapons will not escape the full force of the law.

Other measures on which the government will consult are new offences on the sale of acids and the most harmful corrosive substances to people aged under 18, possession of a corrosive substance in public and restricting online sales of knives so they cannot be delivered to a private residential address and must instead be collected at a place where age ID can be checked.

Other measures included in the consultation include:

- amendments to threatening with a knife or offensive weapon offence to lower the evidential requirement for prosecutors
- allowing police to seize offensive weapons which are already banned in public places from private properties
- prohibiting knives (currently banned on school premises) from other educational institutions such as colleges
- updating the current legislation on the definition of flick knives (to reflect new designs)
- moving two firearms (.50 calibre and certain rapid firing rifles) from the general licensing arrangements to the stricter provisions of section 5 of the Firearms Act 1968

Members of the public are encouraged to submit their opinions on the consultation which will be open until 9 December.

The Home Office will also review the Poisons Act and include sulphuric acid, meaning it would only be available to purchase with a licence above a certain concentration.

Sarah Newton, the Minister for Crime, Safeguarding and Vulnerability, also today announced the launch of the £500,000 [Community Fund for local projects aimed at tackling knife crime](#) and more than £280,000 of successful bids for community work aimed at ending gang violence and exploitation.

Sarah Newton said:

We know these crimes cannot be ended with legislation alone. We need wide-ranging action, including supporting communities to take action. Which is why I'm pleased to announce that we are awarding just over £280,000 funding to projects across the country to help people avoid and escape a life of gangs and violence.

We are also inviting bids for a new £500,000 Community Fund to help grassroots organisations tackle the scourge of knife crime.