

Press release: New national innovation centre to put UK at forefront of big data

- £15m Government investment in centre will be matched by £15m from Newcastle University
- UK economy will benefit from big data with potential growth of up to £241 billion
- Key part of Government's aim to make Britain best place to start and grow a digital business

The National Centre, whose funding has today been confirmed by Minister for Digital Matt Hancock, aims to link up leading academic talent in universities with industry and the public sector to help them develop the skills they need to solve real world problems using advances in data science.

This forms part of the Government's Digital Strategy which set out plans to boost the nation's digital skills, infrastructure and innovation, including measures to support Britain's world-leading artificial intelligence (AI) sector with an industry-led review.

The NICD will create a pipeline of talent to power the ground-breaking businesses of tomorrow and is further progress in the Government's Industrial Strategy which aims to create an economy that helps Britain secure a future as a competitive, global nation. Based in Newcastle, the centre builds on the strengths of great institutions in the Northern Powerhouse and forms an integral part of the Government's approach.

Speaking at Nesta's Data Skills For The Future conference today, Minister for Digital Matt Hancock said:

We're determined to unlock the huge potential of big data which could add billions of pounds to our economy – from powering price comparison sites to improving the flow of transport around cities.

Our new National Innovation Centre for Data will help us achieve this aim by making sure the skills and talent in our universities is being transferred into industry and the public sector.

It will not only spark innovation among the next generation of tech experts but also help businesses across the whole country capitalise on the immense value of data.

Data science provides real benefits to everyday life. For example, it powers internet searches and apps, can predict and help treat health issues, and is behind new technology for maintaining cars and other machinery, allowing people to benefit from intelligent household appliances.

According to independent research, companies using data science are 10 per cent more productive on average than those that do not, and companies that exploit data can reduce costs, innovate and develop new goods and services faster than those that do not and make faster and better decisions.

Studies by Nesta, the innovation foundation, show UK firms who use data most effectively are 40 per cent more likely to launch new products and services ahead of their competitors.

The centre will have a programme of projects where academics and industry can share and develop their data skills to solve challenges – for example, industry wanting advice on how to develop the data analysis skills to predict when a machine may stop working to prevent costly breakdowns.

The £15m funding from Government, which is managed through the Engineering and Physical Sciences Research Council (EPSRC), will be matched by £15m from Newcastle University and will also help supply the next generation of skilled and educated researchers.

Newcastle has one of the largest and fastest growing digital clusters in the country with multi-national companies including Sage – the UK's largest software company – Hewlett Packard and Accenture, as well as significant public sector IT facilities, including the HMRC Digital Delivery Centre, and major commercial data centres.

Newcastle University has a core group of specialists who have expertise in working closely with a wide range of industrial organisations through its Cloud Innovation Centre, and it also hosts the EPSRC Centre for Doctoral Training in Cloud Computing for Big Data Analytics at Newcastle University.

Professor Nick Wright, PVC Innovation and Business, Newcastle University, said:

NICD will help to address the data skills gap by taking a practical hands-on approach. We will work with organisations on their domain related problems, transferring the skills into the organisation that will enable them to innovate through data.

Notes to editors:

1. Media enquiries – accredited journalists only: DCMS News and Communications team – 020 7211 2210.
2. Public enquiries: DCMS enquiries team on 020 7211 6000 or enquiries@culture.gov.uk.
3. By providing world-class facilities and services under one roof, the NICD building will act as a 'beacon' for Data Innovation. It will

accelerate innovation by delivering key technical and practical data skills into organisations, enabling them to improve their competitiveness and grow their business. Its activities will deliver economic growth and enable the UK to become a global leader in innovation through data.

4. A 2016 report by SAS estimated that from 2015 to 2020 the total benefit to the UK economy of big data analytics amounts to £241 billion, or £40 billion on average per year.
5. Nesta's Data Skills For The Future conference also saw a new briefing by the Data Skills Taskforce setting out the benefits of using data and plans to boost the nation's data skills.
6. Sources: Nesta, Rise of the Datavores (2012), Nesta and Universities UK 2015 report "Analytic Britain", Tech Partnership, Employer Insights Skills Survey (2015), Nesta, Skills of the Datavores (July 2015)

The Data Skills Taskforce, chaired by Accenture, draws on best practice from the UK's leading institutions. The taskforce was established to review and promote recommendations made in Analytic Britain across schools, universities and the labour market. It comprises UK businesses, data skills stakeholders and the Department for Digital, Culture, Media & Sport.

The Data Skills Taskforce will:

- Raise awareness of the value of data for UK businesses: work must be done to highlight where opportunities exist for UK businesses. Importantly, information is required on how companies could go about identifying and capitalising on these opportunities.
- Raise awareness of data science career opportunities for young people: work must be done to build the perception that data skills are valuable for development of a dynamic, fulfilling and well paid career, so young people seek the skills that companies require.
- Develop links between government, business and educators: the government's 2017 Digital Strategy outlines a commitment to working with the Data Skills Taskforce.
- The approach identified by NICD to work with employers in the private and public sector to transfer essential skills into their organisations through concrete, industry-driven collaborations squarely addresses a key risk identified.

[News story: New bill to improve patient safety](#)

A safety organisation drawing on lessons from the airline industry will have new legal powers to investigate serious patient safety incidents in the NHS in England, under plans laid before parliament today (14 September 2017).

The draft [Health Service Safety Investigations Bill](#) will establish and enshrine in law the powers of the Health Service Safety Investigations Body (HSSIB).

The bill forms a key part of the Health Secretary Jeremy Hunt's plan to develop a more open, learning culture across the NHS.

The HSSIB will take forward the work of the current Healthcare Safety Investigation Branch (HSIB), which came into operation in April 2017 as a division of NHS Improvement.

Under the proposals, the HSSIB will be independent of the NHS and at arm's length from government. It will have far-reaching access to investigate serious safety incidents or risks to patient safety.

After each investigation is completed, the HSSIB will publish detailed reports which will:

- make recommendations for system-wide learning across the NHS
- help develop national standards on investigations
- provide advice, guidance and training to improve investigative practice across the health service

Secretary of State for Health, Jeremy Hunt, said:

This draft bill represents a landmark moment for patient safety across our NHS, and is a historic opportunity to achieve widespread cultural change in learning from mistakes.

When significant errors occur, it is vital that health organisations react quickly and decisively to share lessons and make improvements. To achieve this we need to create an environment where patients, public and healthcare professionals all feel able to speak out about their concerns, without fear or favour.

A key feature of the HSSIB would be its new approach to investigations, which will protect the information it holds from disclosure.

The aim is to create a 'safe space' in which participants, including

patients, families and staff, can share information in the knowledge that it will not be disclosed except in limited circumstances, or by order of the High Court.

It is hoped that the safe space model will encourage more participants in investigations to speak out about safety concerns to help identify and address risks across the NHS. This approach is already used in the safety-critical rail, aviation and marine industries – all of which have achieved dramatic improvements in industry safety.

The draft bill also proposes to give the HSSIB the power to establish an accreditation system across the NHS – supporting trusts who receive accreditation to conduct safe space investigations. This will further reduce unsafe and costly practice, improve investigations, and embed a culture of learning and improvement throughout the health service.

Keith Conradi, the chief investigator of the Healthcare Safety Investigation Branch and former head of the Air Accidents Investigation Branch, said:

We very much welcome the introduction of the draft Health Service Safety Investigations Bill.

It's a key step towards HSIB's independence and as the bill progresses, we look forward to hearing the variety of views and comments on the bill's content.

[News story: Autonomy on the front line: Defence Minister announces world-leading UK innovation at DSEI](#)

During her keynote speech on DSEI's Innovation Day, the Defence Minister announced twenty-five winners of the MOD's "Last Mile" challenge.

Earlier in the year, the Minister challenged industry and academia to design pioneering technology to get vital supplies to soldiers on the front line. Developing systems for unmanned delivery of combat supplies will reduce the risk to troops and improve efficiency.

The challenge looked to draw on the rapid progress of the private sector in the development of delivery drones and automated deliveries. More than 140 organisations from small-and-medium-size-enterprises (SMEs) to large defence companies submitted entries.

Winning ideas include disposable supply trailers, autonomous hover-bikes and

airborne vehicle 'swarms'. Twenty five projects were chosen with a total contract value for this phase of almost £2 million, which will produce demonstrator models of the concepts for testing by UK personnel.

Part of the MOD's £800m Innovation Initiative, and led by the Defence Science and Technology Laboratory (Dstl) with the Defence and Security Accelerator (DASA), the contracts are worth £3.5 million over three years.

Minister for Defence Procurement Harriett Baldwin said:

The Last Mile Challenge is a great example of how we are engaging with a real range of businesses and harnessing innovation to help our military right up to the front line. From these autonomous vehicles to next-generation body armour, we are investing our rising defence budget and £178 billion equipment plan in the technology that will keep our Armed Forces and the UK safe.

With 141 international delegates from 60 countries, DSEI showcases British business and innovation across security and defence on the world stage. The Defence Minister toured the exhibition and in a key note speech, announced the latest investment in advanced equipment for the UK's Armed Forces.

Building on ongoing work to cut red tape for SMEs, the Defence Minister also announced the launch of an overhauled Defence Suppliers Portal, which streamlines engaging and bidding for contracts with the MOD. Working more effectively with SMEs a key defence priority, and the MOD has committed to spending 25% of procurement money with SME suppliers by 2020

The Defence Minister also highlighted advanced combat clothing and body armour on display at DSEI 2017, as part of the Army's "Future Soldier Vision". Working with partners including the Royal College of Art, the project is developing advanced textiles, stronger and lighter body armour, and a new high-tech helmet with state-of-the-art communication systems. [Read more about that announcement here.](#)

And finally, the Defence Minister also announced the transformation of the Disposal Services Authority (DSA) into the Defence Equipment Sales Authority (DESA). DESA will generate revenue for the UK and build closer collaboration between UK industry and international customers, providing the best possible financial return to the UK taxpayer.

Today's announcements come after [a range made by the Defence Secretary Sir Michael Fallon yesterday including bomb disposal robots.](#)

News story: MOD and Royal College of Art collaborate on cutting-edge new uniform

The Future Soldier Vision (FSV) is part of the MOD's plan to give British soldiers' high-quality, cutting-edge equipment.

The Royal College of Art's (RCA) researchers and designers worked on the clothing to ensure prototypes were fitted to the body, easy to run in and comfortable to wear. The RCA supplied a number of sets of prototype combat clothing which were assessed at the Specialist Weapons School, Warminster, to examine future uniform concepts.

Minister for Defence Procurement Harriett Baldwin said:

From new materials to high-tech helmets, innovation is all about giving our personnel the kit they need by working with world famous partners like the Royal College of Art. You might not expect the MOD to work with an art and design university, but it is this kind of non-traditional partnership which will keep our Armed Forces equipped with cutting edge technology.

So far, kit being designed for FSV includes advanced combat clothing, with new materials like four-way stretch 'phase-change material' and silent hook-and-loop pockets. The enhanced body armour will be stronger, as well as having a new high-tech helmet with state-of-the-art, built-in communication systems.

FSV aims to give industry an example of an integrated soldier system that balances military need with cutting-edge technology. This includes technology that delivers distributed power and data, scalable and integrated protection, augmented surveillance and target acquisition, and a range of functional fabrics incorporated into the clothing.

Head of Programme for Textiles and Reader in Smart Textiles at the RCA Anne Toomey said:

The RCA was pleased to have this opportunity to demonstrate how our innovative design approaches can enhance value and impact across sectors through optimising existing materials performance and fabrication.

As the RCA grows its research activities to embrace new materials and fabrication technologies, we will be able to further extend this reach upstream. We plan to become the world's first STEAM institution, operating a design-led approach to future innovation

with materials through the development of our new Materials Science Research Centre.

MOD and Royal College of Art Collaborate on cutting-edge new uniform. Crown Copyright.

Defence Science & Technology Laboratory has worked with a number of small and non-traditional suppliers, such as the RCA, to develop options for improved soldier system components.

Press release: Autonomy on the frontline: Last Mile challenge winners announced

The Ministry of Defence (MOD) set industry and academia a challenge to design pioneering technology to get vital supplies to soldiers on the front line and the winners have now been chosen.

Part of MOD's Innovation Initiative, and led by MOD's Defence Science and Technology Laboratory (Dstl) with the Defence and Security Accelerator (DASA), the contracts are worth around £3.5 million over 3 years.

Dstl, in partnership with industry and academia, delivers defence and security science and technology (S&T) research for MOD and other government departments and allied organisations, looking to find the best solutions to UK defence and security challenges of today and the future.

Supplying troops in challenging environments – often dubbed 'the last mile' – using unmanned technology may reduce risk and cost. As announced at last year's Farnborough Airshow, Dstl is working with the US Department of Defense to accelerate and demonstrate the effective use of these new robotic and autonomous systems technologies, with UK troops testing prototypes by 2019.

Drawing on commercial technology and conceptual ideas, from online delivery systems to futuristic unmanned vehicles, more than 140 organisations from small and medium-sized enterprises to big defence companies submitted entries for the Last Mile challenge.

Winning ideas include autonomous hover-bikes, unmanned air and ground vehicles, novel means of autonomously loading and unloading, navigating and delivery ordering, management and control using 'uber-like' and other app-based technologies.

Twenty-five projects were chosen from organisations from the UK and worldwide

with a total contract value for the 6-month first phase of almost £2 million to advance the technology towards a system solution for 'tactical resupply in a box'. The subsequent year-long phase will then go on to produce demonstrator system prototypes of the concepts, including evaluation with the British Army in October 2018 as part of the Army's Warfighter Experiment 'Autonomous Warrior (Land)' (AWE18), in addition to a potential demonstration in the US.

UK jobs will be created or secured from the project, with the majority of companies chosen being from Britain. The Innovation Initiative and £800 million Defence Innovation Fund aims to encourage imagination, ingenuity and entrepreneurship, to find twenty-first century solutions to rapidly emerging threats.

Dstl's lead for the challenge, Peter Stockel, said:

The number and quality of the entries for this competition was outstanding and the competition was fierce. We chose the best from across the proposals to enable the system solutions we want for prototype demonstration and evaluation. This was a fully open competition, with many of those down-selected happening to come from the UK. This illustrates the strength of our national capability and the benefit of recent investments in this important and rapidly developing technology sector. However, it was great to also be able to pick some great propositions from around the world. The brief is to rapidly demonstrate system solutions which aim to reduce the logistic burden on our Armed Forces, provide new operational capability and reduce casualties; so we're pleased with the response and keen to see the potential capability benefits being assessed by our military during AWE18.