

# Speech: Oliver Dowden CBE MP – techUK conference address – 6 September 2018

Good morning.

I'm delighted to join you at techUK's flagship conference today.

techUK is motivated, like the UK government, to ensure that the right decisions are made when it comes to the development and use of technology.

We want technology to improve lives.

We want the UK's tech sector to flourish – something which is even more vital as Britain explores opportunities around the world.

I think everyone in this room agrees that in order to build a smarter state, one capable of delivering excellent digital services, a good relationship must exist between the public and private sector.

For the good of the country, I believe that the two have an obligation to work together, and I hope you see it as I do – why this is such an important event. This is why I am determined, as minister, to champion this agenda.

It's often said that the best way to start a speech is to tell a story. The video you've just watched is the beginning of a story: the story of innovation in the UK government. And indeed, all the examples you saw in that video I have seen first hand in government in frequent visits to the Government Digital Service.

Today's conference agenda touches on a number of important topics which will enable us to develop our story further. We will learn how public services should respond to innovation, how technology can empower citizens and how industry and government can embrace the opportunities that technology offers.

Innovation is a priority for me – professionally and personally.

Before I was elected a Member of Parliament, I was David Cameron's Deputy Chief of Staff and you may remember back then when we created the Government Digital Service, which I really think has been a huge success for the UK government. It is an organisation which works across government to deliver innovative thinking, and has delivered both a better experience for citizens and significant savings to government.

As we approach the spending review, once again this is the challenge for government, how we can continue to improve services for citizens, but also save money along the way. The greater use of tech and innovation is one of those areas where we can do more for less, if we get it right. I know, from my discussions with experts in the field, just how big, and how positive an impact this could have on our economic well-being as a nation.

I understand how new technologies and an innovative mindset can improve lives for the people of this country. I, as a minister, want to and will play my part to shape and promote innovation initiatives which lift the quality of people's lives and allow the country to prosper.

My background is not digital. I might not be able to ship a microservice application or perform a git **[Pronounced with a hard G – rhymes with bit]** rebase that shows the extent of my technical knowledge. The reason why I say this to you is because, what I have seen as a minister (as I said I was only appointed a minister back in January) with such a wide brief as minister for Implementation, covering everything from civil contingencies through to Brexit preparation plans and government HR and government property is you spend a while looking across your brief and understanding different parts of it.

It really struck me that part of my responsibilities which relate to the Government Digital Service and to driving government digital transformation is something that, as a minister, i can genuinely make a positive difference and try and help drive this agenda and which is why I come to events like this and get the message out there that the government is committed to this.

I want to ensure that we deliver even more to our citizens for less. I want us to push boundaries. I want to make the UK not just a world leader but the world leader – because it's not just private firms who are investing huge amounts of time and money into the research of new technologies to get ahead, governments are too.

It's quite striking when you look around the world, this is going on at an incredible pace. Just last week, the Singaporean Prime Minister, Lee Hsien Loong **[pronounced Lee See-en Long]** described his attitude to innovation and digitisation as 'more than an interest, almost an obsession.'

Earlier this summer, the French government, as President Macron has made it a significant priority of his, announced that it would invest €1.5 billion over five years to support research and innovation in artificial intelligence.

And, as it stands, there are only three things you can't do online with the government in Estonia: get married, get divorced, and buy a house.

So we've got quite a high bar to reach in terms of innovation for the UK government.

I'm proud to say the UK government is not the odd-one-out. As you saw in the opening video, innovative work is happening across the UK government.

For example, Health Secretary, Matt Hancock shared a recent example in the NHS. Scan4Safety is a barcode tracking system for use in hospitals that enables staff to track all patients and their treatments, manage medical supplies the and ensure the effectiveness of equipment. It improves patient safety and saves money, money that can be reinvested in other priority areas. A pilot of Scan4Safety was undertaken in in six hospitals and has already saved £8.7 million. Today I will talk about the possibilities of innovation.

I'd like to show how much can be achieved through innovation, particularly when the public and private sector collaborate.

It is vital that we make it as easy as possible for government and the private sector to do business. It's also important that we work with a range of suppliers – large and small – to deliver outstanding outcomes for citizens. That is something I am very much aware of as part of my brief with responsibility for the Government Commercial Service and procurement, ensuring that we open up procurement, particularly for SMEs, to create a level playing field as so much innovative thinking and fresh ideas is coming from that sector.

I want to encourage the growth of the UK's govtech sector. That means removing barriers so that smaller companies can compete for government contracts.

Our most recent figures show that nearly half (46%) of public sector spend on digital, data and technology services through the Digital Marketplace is placed with small and medium-sized enterprises (SMEs).

We're doing well, but I want us to do even better, and this requires a cross-government approach. I know that BEIS and the Crown Commercial Service are working on this too and I'm working closely with the ministers involved in that.

The GovTech Catalyst fund, which I will talk about in a moment, is an example of an exciting initiative that brings the private and the public sector together.

I'd also like to share how we are taking a much more strategic approach to innovation and what I will do, in my capacity as Minister for Implementation to make this government smarter than ever.

## **Possibilities of innovation**

I've been given 20 minutes to talk to you today, in part, about what can be achieved through innovation.

20 minutes is roughly the length of time it would take to travel from London to Manchester using the latest experimental rail technologies – which to be accurate, don't actually use rails but magnetic levitation and electric propulsion through a low-pressure tube.

20 minutes is also the amount of time it takes to board 350 people on to the world's largest passenger plane using biometric technology. It usually takes 45 minutes, or, if like me, you have young children, closer to two hours.

20 minutes should be enough time for me to convince you of the opportunities of innovation – and because innovation and efficiency go hand in hand.

But a serious point – by sharing these examples, I'm trying to highlight that all over the world, life-changing, innovative work is happening. It's

happening as far away as a desert in Nevada. It's happening as close as a flexible workspace in Old Street. As you saw from the video, it's also happening in government organisations.

It is important that we know about innovative work. I've learned a great deal in the course of my conversations with experts. If we know about it, we can think about how it can be applied in government. If we know how it can be applied in government, we can develop it at scale.

Understanding emerging technology must become an essential part of being a civil servant. To enable this, we will launch the Emerging Technology Development Programme through the GDS Academy this October.

Starting with artificial intelligence and machine learning, experts will shape the curriculum and teach those on the programme. Participants will leave with the skills, knowledge and confidence to identify and apply technologies judiciously.

## **GovTech**

One way in which government is working with the private sector is the GovTech Catalyst programme.

The GovTech Catalyst fund of £20m, encourages private sector companies to help solve public sector problems.

The public sector can trial tech in a quick and cost-effective way, and in a way that can be scaled up.

The private sector is given a new route to work with government, and this strengthens the sector. It's an initiative I give my full support to.

I announced five challenges in May: identifying terrorist images, tracking waste, tackling loneliness, cutting congestions and improving services through smart sensors on council vehicles.

The Home Office was the first organisation to launch its challenge to the private sector. The Home Office has the technology to detect video propaganda online, in fact, it can determine 94% of Daesh videos with 99.995% accuracy.

However, more than 80% of Daesh media is still imagery. These images, tailored for local markets, rarely contain consistent features. The Home Office wanted a way of detecting harmful Daesh images, with the same, if not better success rates as they can for video.

I am very pleased to say that 5 private sector suppliers are in the final stages of a competitive process to work on solutions to this challenge. These tech suppliers offer a range of expertise in artificial intelligence technologies such as machine learning and computer vision.

I'm also pleased to keep up momentum by announcing that the GovTech Catalyst team has now selected the next 5 challenges to be funded, which I am

delighted to announce today.

**The Mid and Western Wales Fire and Rescue Service seeks to improve operational response and fire fighter safety.**

It is vital that firefighters have real-time information on the location of personnel during operations, particularly in multi-storey buildings.

A technical solution to track the location of crews in unfamiliar and hazardous environments could significantly improve the safety of emergency responders.

**The Northern Ireland Audit Office seeks a data-enabled public sector audit approach.**

Public audits are critical to prevent error, waste and fraud. By applying new data analysis techniques, automation and AI, public sector auditors can better target their work, secure efficiency gains and reduce both waste and fraud.

**UK Border Force seeks to automatically detect and identify illicit goods during the journey across the border without impacting fluidity of trade.**

Solving this challenge means that the UK can be more efficient and remain business-friendly after exiting the EU.

**BEIS wanted to better understand where overlapping regulatory requirements are placed on businesses.**

Businesses are subject to overlapping regulatory requirements. This places burdens on some business and acts as a barrier to entry for potential market disruptors.

New data analysis could identify areas where these requirements could be streamlined or simplified.

The emerging field of “RegTech” (regulatory technology) has, to date, been applied mainly to financial services regulation, the idea of this is to broaden it further still.

**Northern Ireland Health and Social Care wants to ensure that prescriptions are not interrupted when people move between care providers.**

New technology could help to ensure that health professionals can access records and successfully administer medicines. This could have a significant impact across the public sector.

As well as solving specific problems, like the ones I’ve just mentioned, the GovTech Catalyst is a testing ground for new technologies. It allows public bodies to experiment early so that they can scale the right solutions.

I think these are all worthy of GovTech funding. I am excited to see how they progress. The technology that the suppliers have chosen for the first two

competitions may well include: computer vision, AI, geospatial mapping, active sensors, distributed ledger, and radio-frequency identification (RFID) tags.

GovTech meetups are held in various locations across the country every month, providing the opportunity to find out the latest updates on the GovTech challenges. The meetups enable that engagement which is so vital, so there is that exchange of ideas between the public and private sector. Start-ups are also invited to attend, specifically those working in emerging tech and actively looking to supply to the public sector. I know that it is a frequent criticism that it is all London based, so the next meet-ups are 1 November in Newcastle and 22 November in Belfast. Google 'GovTech Meetup' to request an invitation.

## **The technology innovation in government survey**

The video played at the start should hopefully have given you a sense of the range and extent of innovation activity. You can read more about this activity in the [technology innovation in government survey](#), published on GOV.UK last month.

We now know which departments are using or are interested in using innovative technologies. Including artificial intelligence and distributed ledgers – in government. We can also identify where more needs to be done.

Distributed ledgers are being investigated by different parts of government. For the uninitiated: a distributed ledger is basically a digital record but, unlike traditional databases, there is no central data store, nor is there a central administrator. Instead, the ledger is replicated across many different machines in what's called a 'peer-to-peer network'.

The Department for Environment, Food and Rural Affairs (Defra) has considered using it to verify the provenance of food in order that consumers know which animal, plant or field their meal came from.

Her Majesty's Revenue and Customs (HMRC) has used Robotic Process Automation (RPA) technology. In the case of employer registration end-to-end processing, 85% of applications are processed automatically. Again, as a minister responsible for this area, this is another one of the challenges that we face. We can't just say that we've digitised government just because we have a digital shop front but a manual process behind it. Ensuring that end-to-end processing where HMRC are at the front of that innovation is very important.

Robots validate data from online applications and provide a unique reference number to new employers so they can start employing staff. Employers receive confirmations quickly and, if the robots detect a problem, they add helpful notes to a case file for the exceptions handling team.

Within the department, 12,500 robots have been deployed and 56 processes automated across multiple lines of business. In some cases, automations have reduced processing costs by up to 80%.

It also means that HMRC staff can focus on the more challenging and interesting parts of their jobs that robots can't do.

## **Innovation strategy**

Government can achieve incredible things for the citizens if it keeps pace with change.

Our move towards a smarter government, one that embraces innovation in a coordinated way should be efficient, unified and focussed.

The adage 'innovate or die' already feels dated, I want this country to 'innovate and thrive'. To do this, we need a strategy. Meaningful change rarely happens by chance. Sustainable change never does. That's why I am leading an ambitious strategy will give us the impetus to deliver efficiently and effectively.

The strategy will share our vision of how government can use emerging technologies to deliver world class public services.

It will encourage collaboration between the public and private sector and identify areas where investment can increase the pace of innovation.

A strategy will guard against the risks, and there are risks that come with new technologies and digital developments.

A strategy will also address how government should establish and enforce ethical standards when using emerging technologies.

This will also support the aims and ambitions of the government's Industrial Strategy, which is designed to create an economy that boosts productivity and builds a Britain fit for the future.

I want this innovation strategy to be developed in collaboration with experts inside and outside of government. For that reason, I am meeting with as many experts as my diary will allow.

I hope that by championing this strategy, setting a direction of travel, I will be able to attract the attention, resource and funding to solve challenges and identify opportunities.

It will also stand alongside the UK's first ever Geospatial Strategy which we expect to be published in 2019.

## **Conclusion**

I will continue to support and inform the direction of innovation in government. I want us to be ambitious and work intelligently. I will continue to host round table events, meet academics, businesses and leading innovators. I will, of course, continue to engage widely with departments across government. I want us to build on the experience and wisdom that we have in this country.

I am speaking at GDS's first Innovation Conference on the 27th November, hosted in partnership with DCMS and digital leaders.

Innovation should be an opportunity for government, not a shock. It should inspire us, not confound us. It is my firm conviction that we have the expertise and the willing to make this government and this country, prepared for the future, robust in the digital age and, in partnership with our businesses, the strongest in the global economy.

Thank you and enjoy the day.

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## **News story: £80 million funding boost will help Scottish universities and businesses develop 'quantum' technology that could help save lives**

- The Chancellor, Philip Hammond, will provide £80 million over five years to develop technology that could help in search-and-rescue missions, hostage situations and aid firefighters in saving more lives.
- Quantum imaging technology could be used to provide high-quality x-ray images and could also be fitted to cars to help drivers see around corners.
- Glasgow is an internationally leading centre for quantum imaging research and the Chancellor has confirmed that the University of Strathclyde, University of Glasgow and partner institutions will continue their cutting-edge research.

More than £80 million over five years will be given to four world leading development centres to create technology that could help save more lives in search-and-rescue missions, hostage situations and help firefighters tackling a blaze, the Chancellor has announced.

In future quantum imaging technology could be used to help emergency services get a more accurate, live and high-quality image before embarking on rescue attempts. The technology will also be used to see through snow storms, around corners and map hidden underground hazards.

On a visit to the University of Strathclyde, Chancellor of the Exchequer, Philip Hammond said:



The UK is a world leader in Quantum technologies, but others are investing hard to catch up with us.

The £80 million in new funding, that I have announced today will ensure that we remain at the forefront of this exciting technological revolution.

Technological leadership boosts our economy and our productivity, meaning higher growth and higher wages.

Digital Secretary Jeremy Wright said:

Quantum computing promises to transform our lives and solve problems that today's computers are unable to address.

Thanks to our National Quantum Technology Programme and this new funding from government we are extremely well placed to pioneer this groundbreaking innovation.

Chief Executive of UK Research and Innovation, Sir Mark Walport, said:

Quantum Technologies hold great promise for the UK. Researchers at our Hubs are already exploring new methods for more accurate measurement and sensing, expanding the power of computing, and making communications quicker and more secure.

This new funding for the UK National Quantum Technologies Programme will provide reassurance to the research base and the industries in the field that the UK is serious about being a world leader in the field and is investing long term.

Subject to approvals, the funding will give certainty to leading researchers and students, and help attract more investment and jobs to the local area. Science, research and innovation is at the core of our modern Industrial Strategy, and the government has outlined its ambition to raise private and public sector investment in R&D by 2.4% by 2027.

Developing quantum has been identified as a future technology which forms a key part of the government's modern [Industrial Strategy](#).

Other centres which will benefit will focus on:

- Quantum Computing and Simulation Hub, currently led by Oxford, which focus on computers which will trivially solve complex problems which currently stump our most advanced supercomputers
- Quantum Sensing and Metrology Hub, currently led by Birmingham, that

will revolutionise mining and excavation processes through precise mapping of densities and distances

- Quantum Communications Hub, currently led by York, is developing secure communications methods which will keep financial transactions and data transmissions safe from interception

While in Glasgow the Chancellor also announced at least £25 million be made available to UK industry to develop next generation (5G) mobile technology in specific sectors of the economy.

Bids are encouraged for funding process led by DCMS.

Next generation digital infrastructure is a key part of the government's modern Industrial Strategy, providing faster and more reliable connections for business and people.

The UK government is determined to make the UK a world leader in 5G so the government can take advantage of the huge economic benefits that this new technology offers.

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## **[Transparency data: Llanbrynmair and Carnedd Wen windfarm applications: second round representations](#)**

[Llanbrynmair and Carnedd Wen wind farm applications redetermination](#): Second round representations, published September 2018.

[First round representations](#), published September 2016.

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## **[News story: UK farmers given support for seasonal labour with new pilot scheme](#)**

A two-year pilot to support UK farmers by allowing non-EU migrant workers to work on farms, then return after six months, has been announced by the Home

Secretary and Environment Secretary.

Welcoming the announcement, Scottish Secretary David Mundell said:

We have listened to the views of farmers in Scotland and across the UK. Many of Scotland's farms, in particular our soft fruit growers, rely on seasonal workers. This pilot is a welcome first step in ensuring that Scottish farmers can continue to access the workers they need to grow and harvest their produce.

Home Secretary Sajid Javid said:

British farmers are vital to the UK's economy – and the Government will look to support them in any way we can.

This pilot will ensure farmers have access to the seasonal labour they need to remain productive and profitable during busy times of the year.

I am committed to having an immigration system that reduces migration to sustainable levels, supports all industry and ensures we welcome those who benefit Britain.

Environment Secretary Michael Gove said:

We have listened to the powerful arguments from farmers about the need for seasonal labour to keep the horticulture industry productive and profitable.

From lettuce in East Anglia to strawberries in Scotland, we want to make sure that farmers can continue to grow, sell and export more great British food.

This two year pilot will ease the workforce pressures faced by farmers during busy times of the year. We will review the pilot's results as we look at how best to support the longer-term needs of industry outside the EU.

Soft fruit production in the UK has grown dramatically, by 130% in the last 20 years. Fruit is grown particularly in the South East (Kent), Midlands (Hereford, Worcestershire and Shropshire) and in Scotland (Perthshire), while

field vegetables are grown widely across the UK.

In 2016 Scottish fruit and vegetables had an output value of £265.9m. In June 2016 Scotland had 22,000 hectares of land used for horticulture – 18,200 for vegetables, 1900 for fruit and 950 for flower and nursery stock.

The Seasonal Workers pilot will be run by two scheme operators, who will oversee the placement of the workers. The arrangements for selecting the scheme operators will be announced in due course.

To be eligible for the pilot workers must be aged at least 18 years old on the date of application and be from outside of the European Union.

The pilot will commence in the spring of 2019, will run until the end of December 2020 and will be monitored closely by the Home Office and Defra.

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