

Press release: Unlocking of government's mapping and location data to boost economy by £130m a year

As part of the Prime Minister's London Tech Week roundtable today, the government has announced that key parts of the OS MasterMap will be made openly available for the public and businesses to use.

It is estimated that this will boost the UK economy by at least £130m each year, as innovative companies and startups use the data.

The release of OS MasterMap data is one of the first projects to be delivered by the new Geospatial Commission, in conjunction with Ordnance Survey. The aim is to continue to drive forward the UK as a world leader in location data, helping to grow the UK's digital economy by an estimated £1bn each year.

This is a step on a journey towards more open geospatial data infrastructure for the UK.

Chancellor of the Duchy of Lancaster and Minister for the Cabinet Office, David Lidington, said

Opening up OS MasterMap underlines this Government's commitment to ensuring the UK continues to lead the way in digital innovation. Releasing this valuable government data for free will help stimulate innovation in the economy, generate jobs and improve public services.

Location-aware technologies – using geospatial data – are revolutionising our economy. From navigating public transport to tracking supply chains and planning efficient delivery routes, these digital services are built on location data that has become part of everyday life and business.

The newly available data should be particularly useful to small firms and entrepreneurs to realise their ideas and compete with larger organisations, encouraging greater competition and innovation.

OS MasterMap data already supports emerging technologies such as driverless vehicles, 5G and connected cities – important drivers of economic growth.

Today's announcement follows the launch of the first GovTech challenge in May this year – a competition designed to incentivise Britain's tech firms to come up with innovative solutions to improve public services. These competitions will be delivered using the £20m GovTech fund launched by the

Prime Minister in November 2017.

Neil Ackroyd, Interim CEO of Ordnance Survey said:

Ordnance Survey holds the most accurate and comprehensive set of location data for Great Britain, making public sector services work more efficiently and helping to build innovative businesses across every sector of the economy.

Since its launch in 2001, OS MasterMap has been one of the most comprehensive and detailed geospatial reference datasets in the world. This latest development is another step on Ordnance Survey's open data journey. We're looking forward to supporting the Geospatial Commission in making this data more accessible and more widely used.

Read more information on the announcement [here](#).

[Statement to Parliament: Road safety: recent progress and future work](#)

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[News story: UK and Poland defence ministers hold their first meeting](#)

The agreement, which provides a framework for defence cooperation in areas such as training, information sharing and capability development, was the second such treaty to be signed with a European Union nation after France.

Defence Minister Guto Bebb said:

Meeting with Minister Sebastian Chwalek today has not only strengthened our ties with Poland, but provided both Governments a great opportunity to speak about future defence relationships.

Our defence and security cooperation is already strong, and this partnership between the two countries has real potential to benefit both our forces and our national interests going forward.

Today's meeting builds on the common ground we share, including the deployment of our troops to Poland under NATO's enhanced Forward Presence in the country, as we work together to protect our shared values, national security and people.

The Defence Capability and Industrial Dialogue was established last December, alongside the joint signing of the UK-Poland Treaty on Defence and Security Co-operation.

Press release: Brazil and South Africa tech hubs launched to drive international growth

New tech hubs to connect businesses in the UK with those in emerging digital markets will be launched in Brazil and South Africa, DCMS Secretary of State Matt Hancock announced during London Tech Week.

The Brazil and South African tech hubs will be formed of locally-engaged teams based in the respective British Embassy and High Commission. They will facilitate the sharing of UK expertise and best practice for digital tech with those countries, supporting local entrepreneurs, start-ups and established tech companies through training and mentoring. The hubs will help to develop digital skills in Brazil and South Africa as well as strengthening partnerships on research and innovation and trade. They will also act as a link for businesses looking to scale up in or export to the UK.

The hub model is based on a successful world first tech partnership between the UK and Israel which has already led to 175 business partnerships, with a potential impact of over £800 million for the UK economy since 2011. It has also supported jobs growth by building a better skilled digital workforce in Israel. The model will be taken to the each country and tailored to the local market.

The announcement comes a week after new statistics published by DCMS showed that UK tech and digital firms have seen their international trade grow by more than 20 per cent. The UK digital and tech sectors exported more than £39 billion in services in 2016, up from £32 billion in 2015.

Secretary of State for Digital, Culture, Media and Sport Matt Hancock said:

Britain is a nation of digital dynamos and we want the UK to be the best place in the world to start and grow a digital business, but we can go further. We are spearheading the global digital transformation and our network of tech hubs will connect us with some of the best emerging technology hotspots across the world.

International Tech Hubs will create positive change locally by supporting job creation, improving skills and boosting innovation partnerships, whilst strengthening our own booming digital economy even further.

Nigel Casey, British High Commissioner in South Africa said:

We're delighted to be launching a tech hub in South Africa. South Africa is cementing itself as one of the world's most exciting destinations for technology. The tech hub will help to position the UK as the go-to destination for South African tech startups looking to expand abroad. The skills training and other support that the hub will provide will also help to ensure that more people are able to benefit from South Africa's surging tech scene.

This will broaden our already strong economic partnership with Africa's most sophisticated and developed economy, and help South Africa ensure growth in the tech sector is more inclusive. The UK is invested in South Africa for the long term, and this new tech hub is one of the many ways that we are demonstrating that.

South Africa has one of the largest technology sectors in Africa and over a quarter of new startups in South Africa now list themselves as being in the technology sector. It has received the highest amount of investment in technology of any African country.

Brazil is the biggest economy in Latin America and accounts for over half of spend in the region on tech. The Department for International Trade has identified significant opportunities for UK companies in areas such as smart cities and Agritech. The Brazilian IT market is the 7th biggest in the world and the country has the 5th largest number of mobile phone and internet users in the world.

The two new tech hubs will join a global network which DCMS is rolling out. This includes the existing Israel tech hub and new UK-India tech hub announced earlier this year. They will work closely with DfID and FC0 to realise the opportunities for Brazil and South Africa, and with DIT's network of Trade Commissioners, to ensure the full range of opportunities are realised for UK companies.

Over the next three years DCMS aims to expand the network of international tech hubs to more countries.

Notes to editors

The initiative is funded by the Prosperity Fund, aimed at removing barriers to sustainable and inclusive growth in middle income countries, where 70% of the world's poor live. The Fund will also help to harness the potential of developing markets, boosting prosperity internationally, including for the UK through increased trade and investment.

The hubs will focus on three key areas; skills and capability development, digital ecosystem building, and facilitating links with UK businesses. This will help to build skilled, entrepreneurial and networked populations which will create jobs and address digital inequality.

The Hub model is based on the highly successful UK-Israel Tech Hub, which has generated £85 million worth of deals over the past five years, with a potential impact of over £800 million for the UK economy. The Israel Tech Hub was not ODA-funded but its model will be taken to the each country and tailored to the local market in these developing countries. Originally part-funded by DIT, the UK-Israel Tech Hub is now part-funded by DCMS.

For more information please call Dan Palmer in the DCMS Press Office on 02072112210

[Speech: Artificial Intelligence from Alan Turing to the Industrial Strategy](#)

Thank you, Stephen [Carter], for the introduction. Your work as a board member at BEIS has been of huge value, as has your contribution to this industry and many other spheres of public life.

It is fantastic to be here at the world's largest AI Summit for businesses, which now in its third year is going from strength to strength. Quite apart from the range and reputation of our sponsors, the 10,000 visitors expected over the two days is testament to just how engaged and passionate the AI community is.

Almost 70 years ago to this day, in July 1948, just 15 miles upriver from here, a document (I have a facsimile here to show you) landed on the desk of the National Physical Laboratory – then, as today, the UK government's leading research lab – that would be my nomination for the greatest research report ever written. The title: "Intelligent Machinery". The author: Alan Turing.

It is breath-taking in its vision, confidence, intellectual fizz and prescience. I recommend all of you interested in AI to read it.

Alan Turing had discovered brilliant theoretical results in logic at Cambridge. Then, during the war, in pursuit of an overwhelmingly important national mission, he had become the most brilliant and innovative code-breaker, not only building machines, but also a team that continues to be legendary. At Bletchley Park, high theory merged with wires, transistors and solder to crack urgent real-world problems.

Then after the war the National Physical Laboratory recognised the extraordinary winning combination of practical, theoretical and human intelligence in the person of Turing and set him on his future path of building machine intelligence.

And here we are today, in direct descent, with a renewed understanding that the momentous potential of the AI and data revolution will bear full fruit when all of us – brilliant scientists, businesses as setters and solvers of real-world problems, investors as risk-takers, and government, as enabler, coordinator and partner, all come together.

That is why I have developed our country's [Industrial Strategy](#), and I am very pleased that many of the companies and institutions in the room today have come together to define an AI Sector Deal with government – it is just the start of a deep and rich relationship, and already it has committed over £1 billion in investment.

The changes that AI is bringing are epochal.

There aren't many moments in human history when a technology turns up that changes everything. Agriculture ... the wheel ... the printing press ... then steam, chemicals, oil, electricity; then the micro-processor. And we are living through one of those moments now. In 2017, when the London-based DeepMind beat Ke Jie, humanity's best Go player, a symbolic date entered the history books.

So why is AI quite so revolutionary?

Because previous technological revolutions discovered specific ways to improve human lives; this revolution has discovered automatic ways of discovering more. Thus the power to improve the lot of humanity is unprecedented.

No wonder there are "Singularity-mystics" in California who believe this is taking us rapidly towards Starship Enterprise. Well ... I'm certainly all for the "Enterprise" bit, even the starships of our space program, but I'm not sure about the singularity. An instance, perhaps, of the British pragmatism, empiricism and understatement that has proved its worth in science and business.

The extraordinary transformations this implies are not pie in the sky, they're not "flying cars tomorrow". They are happening, as attested by so many of the amazing ways that the businesses in this room are already using

AI.

Whether it is Professor Rose Luckin making a robotic teaching assistant that takes the drudgery out of routine marking and administration ...

or Rolls Royce – I look forward to hearing from Neil Crockett their Chief Digital Officer – building autonomous ships ... Whether it's Improbable – our latest UK -bred unicorn (\$500m raised from Softbank. congratulations!) – building the most sophisticated general purpose simulations of reality ever seen ...

Memrise, a language learning app who I heard just yesterday had raised £11.5 million ... or indeed Quantaxa, harnessing the value of huge databases to combat financial fraud

Whether it's RAVN automating the duller aspects of document control in a complex corporate legal process – no offence taken, I hope, from any lawyers in the room for the suggestion that not every aspect of the job is scintillating ...

or a composer automating the orchestration of their latest symphony ...

Whether it's Babylon – the UK-developed health triage robot revolutionising front line access to health in Rwanda ... or Darktrace, the AI-powered security company that is already used by 5000 global businesses to keep their networks secure ...

I am genuinely in awe of the range, the creativity, the power, of what you in this room are doing and building.

And the more I find out about how this technology works – how reinforcement learning in complex networks rewards one parameter or downgrades another – the more I am struck by the parallels between the economy – that somewhat complex system whose long-term health my department has much of the responsibility for – and an AI system.

Indeed, at the same time as Turing was writing in Teddington, Hayek, the Nobel prize winning economist who made London his home for many years was in his office at the LSE, just 6 miles away from where we stand, working on his theory of the economy as a massively parallel social computer; individuals, companies and entrepreneurs were nodes that were endlessly locally optimising and feeding information to neighbouring nodes.

So in a sense, we are all involved in an enormously complex large-scale network optimisation. Our Industrial Strategy is a crucial piece of that optimisation. We need to upgrade our economy – version 4.0 – for the great transformation that is coming, and we approach this task in the spirit of intelligent designers.

We have set ourselves the grand challenge of putting the UK at the forefront of the AI and data revolutions. The Prime Minister has announced our "moonshot" mission of using AI-powered early diagnostics to revolutionise cancer treatment in this country, with 20,000 more 5-year survivors by 2030.

I hope that many of you in this room will be involved in reaching our ambition to increase survival probabilities for common cancers.

But the opportunities of AI run deep throughout our Industrial Strategy.

Taking each of the 5 foundations in the Strategy:

Ideas

- We are spending an additional £7 billion in public R&D over five years – the greatest real-terms increase of any UK government ever

Skills

- We are investing in the deep skills that are needed, supporting our world-class universities throughout the country to build on their strengths – London and Edinburgh for pure AI and computing; Queen's University Belfast in cryptography, Birmingham and Liverpool in medtech – to name just a handful. And thanks to our new funding, 1000 more researchers every year will be studying for an AI-related PhD

People

- I'm very pleased to be able to announce today that our AI Masters Programme, a central plank of the AI Sector Deal, has brought together the British Computer Society and the Turing Institute with leading universities, and businesses like Ocado, Amazon and Rolls Royce, and will start work in July

Infrastructure

- Anywhere access to top quality digital networks is vital to support the development of the AI and data driven economy that we are committed to. Currently superfast broadband is available to 91% of UK premises, and by 2025 15 million premises will have full-fibre

Business Environment

- I have asked the regulators of the sectors that many of you here are busy disrupting to build on the sandbox concept to find imaginative ways to be innovator-friendly

Places

- our densely connected network of global top 100 university cities and towns creates thriving places in which workers find the jobs of the future and firms find the skilled, creative and confident workforce to build it
- indeed, TechNation's 2018 report published just last month, described a network of more than 3,500 tech meeting up groups throughout the UK, with over 1.6 million individual members. And to underline the fact that tech doesn't just live in London – these groups meet up in 283 locations across the country

AI is at the centre of a thriving digital tech sector now worth £184 billion to the UK economy. Tech-related investments in Britain surged nearly 90% last year, more than in France, Germany and Sweden combined.

This investment and growth is a tribute to the intellectual creativity which is such a key part of what we offer to the world. When it comes to Nobel prizes in the Sciences, we come second only to the USA. But we have 50% more Nobel prizes per head of population than the USA. When it comes to universities in the global top 100, we come second only to the USA. But we have a whopping 2200% more of them per square mile than the USA.

Why does this matter so much? Because innovation, creativity, thriving lives and thriving places all go with dense networks and connections. In many ways, innovation is like a chemical reaction: the concentration of inputs matters. And indeed, the facts bear this out – with less than 1% of the world's population, our universities account for 16% of the world's most-cited academic articles. That excellence leans on geography and language and the warm welcome we have always and will always extend to talent from all over the world. But it also rests on the key organisational foundations for good research: openness, curiosity, independence, and strict academic meritocracy.

A change as momentous as this needs not just Sectors, Industries, Universities and Localities to work together – as if that were not already a huge task. Government needs to ensure that the whole country understands and supports the great changes ahead.

Remember for a moment the Luddites. They often come up as the group that was on the wrong side of history, dinosaurs. They were that, but they were also skilled artisans, ordinary people frightened for their future place in society. Today we know their fears were unjustified – that we have never had more demand for good, skilled jobs than when the machines have taken the grunt out of human work. And it will be the same again: AI and automation will raise the demand for the most human work; and the government, with business and educational bodies, will deliver the institutions that allow everyone to develop their skills.

It is not only as workers that some are fearful. Take our lives as consumers, for example: personalised pricing, technology designed to be addictive, our data being used against our interests.

Let me give an example that might appeal to those of you who have flown in for this event on an economy airline. If you travelled with a family member, bearing the same surname, did that airline's booking system automatically place you together? Or did it automatically place you in non-adjointing seats, to try to extract from you a premium payment for the 'privilege' of travelling together? On such questions will the trust of customers be won or lost. Once again, government's role is to bring forth an environment in which companies treat customers with the respect they deserve, not use data and digital technology to exploit them. Our [Consumer Green Paper](#), published in April, has started this conversation.

Shifting social understandings and practices – we have done this well before.

Think of the way that we've been able to build popular support for stem-cell research. We are doing the same thing around the use of data and algorithms by establishing the Centre for Data Ethics and Innovation, with the goal of developing a new national consensus around data and AI. I am delighted that Roger Taylor was this morning announced as chair of the Centre. Roger founded Dr Foster and understands how innovative use of data can deliver huge benefits for service users.

Take just one example of what I mean. We have our mission to massively improve diagnostics with AI. Our side of the deal to achieve this is to provide funding, for sure. But even more valuable, it is to allow secure access to the resource that is our NHS data. For this, we need the public to trust that the power this unleashes will be well used to help us live longer, healthier lives.

Our democracy and institutions have the pragmatism, legitimacy and flexibility to rise to the challenge of bringing the whole country behind these momentous transformations.

And this, of course, is a sense in which our task in creating this better future is in fact different from the task of optimising an algorithm: the ultimate object and purpose is always enhancing human capabilities.

Let me come back to Alan Turing's extraordinary research proposal. When describing social intelligence, a form he does not think he can automate, he writes: "the search for new techniques must be regarded as carried out by the human community as a whole".

The power of the AI transformation for good is immense. We, here today, bring together all the skills and functions to succeed in this most important of tasks – to search these new landscapes for the good, to echo Turing's words, of "the human community as a whole".

Together, we will build the talent, invent the tools, solve the big problems of humanity, and align all this with the public good.

To work, colleagues!