

# [Letter from the Committee on Standards in Public Life to public office holders](#)

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## [UK to partner with Kenyan Fintech companies to increase financial inclusion](#)

The Lord Mayor of the City of London Peter Estlin, announced £10 million of UK Aid support towards the [Catalyst Fund](#) during a visit to Nairobi. His visit comes ahead of the first UK-Africa Investment Summit next year, which will bring together businesses, governments and international institutions to encourage investment in a range of sectors, including fintech.

The Catalyst Fund supports business development and investor opportunities for early stage fintech companies in emerging markets. With support from the UK Department for International Development, the Catalyst Fund will help connect a further 30 local fintech companies with international investors and mentors, including Kenyan fintech companies.

Speaking today, during the launch at the Nairobi Garage, the Lord Mayor said:

Today's announcement highlights the mutual benefits of closer financial co-operation to both the UK and Kenya. By forging partnerships across Africa, the UK's financial services sector can turbocharge national economies and empower individuals financially, creating thousands of jobs and enriching lives across the continent.

The British High Commissioner to Kenya Jane Marriott said:

Kenya's FinTech sector is strong, diverse and growing quickly. The innovators we met today show the future of Kenya's economic growth and I am proud that the UK is able to support their work, helping create growth, jobs and the achievement of the Global Goals in partnership between our two countries.

Amolo Ng'weno, CEO of BFA Global who manages the Catalyst Fund, said:

In Kenya, access to digital financial services is no longer the major issue – today we need to work toward ordinary citizens improving their financial health, gaining new access to opportunity and accessing basic services. At BFA, we see a significant opportunity for inclusive fintech startups to play this role. However, in order to succeed, they require early stage capital, partnerships which can enable pathways for scale, and access to a high potential talent pool. Our mission at the Catalyst Fund is to accelerate these startups and strengthen the inclusive fintech ecosystem, and we look forward to working toward this goal with the support of UK Aid.

The Lord Mayor who is in Nairobi for a two-day visit had an opportunity to meet with four fintech innovators that recently graduated from the Catalyst Fund portfolio. Among them;

- Daniel Yu, Sokowatch
- Ed Magema, Chipper Cash
- Ted Pantone, Turaco
- Fausto Marcigot, Paygo Energy

The Lord Mayor also announced through the City of London Corporation that five startups under the Catalyst Fund will be selected to attend the Innovate Finance Global Summit, taking place during UK Fintech week in 2020, helping to strengthen the links between UK and African fintech sectors.

## Notes to editors

- The UK is one of Kenya's largest bilateral donors. Through UK aid, we are helping those living in poverty in Kenya to build institutions, create jobs, reduce the risk of poverty among marginalized people, increase climate resilience, and solve social challenges through the private sector.
- The [City of London Corporation](#) is the governing body of the Square Mile dedicated to a vibrant and thriving City, supporting a diverse and sustainable London within a globally-successful UK.

- DFID is supporting the scale-up of the Catalyst Fund. Catalyst Fund has to date accelerated 25 startups across 13 markets. DFID funding will help accelerate another 30 companies.
- The Africa Investment Summit taking place next year in London, is an opportunity for the Kenyan Government and Kenyan businesses to showcase the breadth and quality of investment opportunities here to businesses, governments and international institutions
- Last month, the UK's International Development Secretary announced a new UK aid package to help mobilise £500 million in private sector investment and create 50,000 jobs across sub-Saharan Africa. The support will help small financial services businesses and entrepreneurs to grow, creating jobs and boosting economic growth.
- Early this month, Kenya launched its first green bond, with support from the UK. The bond raised the equivalent of £35 million, (KSh 4.3 billion) to finance new, affordable and environmentally-friendly housing for 5,000 Kenyan students

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## Powering Past Coal: working together to combat climate change

Excellencies, distinguished guests, ladies and gentlemen,

It is my distinct pleasure to be here in beautiful Chungcheongnam-do at the "2019 International Conference on Coal Phase-out and Climate Action". As British Ambassador to the Republic of Korea, I am speaking today as co-chair of the Powering Past Coal Alliance, the world's largest and most ambitious grouping of countries, sub-national governments and private sector participants working together to accelerate the phase out of coal from the energy mix. I am delighted to be here to celebrate the launch of the "East Asian Association of Climate and Environment", led by our PPCA colleagues here in Chungcheongnam-do.

I would like to thank both Chungcheongnam-do and the Chungnam Institute for their sterling work in convening this conference. In particular I would like to express my gratitude to Governor of Chungcheongnam-do Yang Seung-jo, Chairman of the Chungcheongnam-do Provincial Assembly Yoo Byung-Kuk, Vice-Minister of the Ministry of Environment Park Chun-kyu, Governor of Gyeonggi-do Lee Jae-myung, Mayor of Sejong-si Lee Choon-hee, French Ambassador to Korea Philippe Lefort and other distinguished guests. And it is an honour to be speaking straight after former UN Secretary General Ban Ki-moon, whose

climate legacy will be forever enshrined in the historic Paris Agreement.

In October last year Governor Yang signed Chuncheongnam-do's Declaration to Join the Powering Past Coal Alliance, becoming our first Asian member. His climate leadership should remind us all that the continued burning of coal in Asia is a problem that requires Asia to take action. I hope today's conference will encourage and extend climate action across Asia.

Climate Change In a world which faces many challenges, climate change is the single biggest threat to our way of life.

The IPCC special report on climate change made this abundantly clear. Even if we do achieve the 2°C target agreed in Paris, while we may avoid many of the catastrophic effects of climate change, the consequences will be significantly worse than if we limit temperature rise to 1.5°C.

We are already seeing the effects. This summer vast swathes of the Amazon rainforest, the lungs of our planet and home to 20% of the world's stored oxygen, burned to the ground. Resource scarcity is driving migratory flows through North Africa to the Mediterranean Sea. Typhoons continue to batter the Caribbean.

In July, the UK recorded its hottest day ever. The temperature reached 38.7C. In 2003 a heatwave claimed more than 70,000 lives across Europe, including 2,000 in the UK. We are still waiting to see this year's death toll.

And here in Korea I have seen first-hand the declining air quality in Seoul. Days when we have seen the world's highest levels of PM 2.5. Days when I cannot see the mountains behind the Blue House. Days when it is not safe for children to play outside.

But climate change is not merely a risk to the environment or to our health. It is a financial risk as well. For governments and business, unexpected financial damages resulting from natural disasters such as floods, storms and droughts can lead to major disruption. According to the Economist, the value of global financial assets at risk from climate change, including stranded assets, is estimated at \$4.8 trillion.

UK climate action The UK is a committed, ambitious and effective leader on climate change. We were the first major economy to legislate for net zero emissions by 2050. We have decarbonised our economy faster than any other G20 country, while retaining the highest growth figures in the G7. And we were the first country in the world to set a legally binding long-term emissions reduction target through the Climate Change Act 2008.

We have just doubled our contribution to the Green Climate Fund. And the UK will host COP26 in Glasgow in partnership with Italy, where we will be driving ambition on mitigation, resilience and finance. Of course, heads of state need to show strong climate leadership if we are to meet the Paris climate goal. But we need climate leadership at all levels of government, industry and civil society.

A history of coal in the UK But I am here today to talk about coal. You can

trace the UK's long history with coal back to the role it played in powering the UK through the Industrial Revolution from the 19th century onwards.

In January 1882, Thomas Edison opened a 93 kilowatt turbine at Number 57 Holborn Viaduct in London. This was the world's first coal power plant. By today's standards it was tiny – about sixty-five thousand times smaller than the plant at Dangjin in Chungnam. Tellingly, it operated at a loss before closing four years later in 1886. A reminder that new energy technologies do require support before they become economically viable.

From the time of the Industrial Revolution, coal helped build modern Britain. Due to our long industrial history, there is a sentimental attachment to coal in Britain today and you can still see its effect on our skyline. For example, one of the most desirable residential developments in London right now is the renovation of Battersea Power Station, a starkly beautiful grade 2 listed building.

Coal Phase Out in the UK But the past is the past and times have changed. For clean air and public health, sustainable economic growth and trade promotion, the UK is driving the transition away from coal and into renewable energy.

We are phasing out coal from our energy mix. In 2012 coal accounted for 40% of our power. Today it is well under 5%. In 2017 we recorded our first coal-free day since the Industrial Revolution. And we keep setting longer and longer coal-free records, most recently in May, when the UK went without coal for 16 days. We will close the last of the UK's coal-fired power plants by 2025 at the latest.

To keep the lights on we have invested in the largest installed offshore wind capacity in the world. This currently stands at 8.2 gigawatts and will rise to 14 gigawatts in 2023. In Scotland, wind turbines generated almost twice the domestic power requirements in the first six months of this year. Exports from our low carbon and renewable energy sector topped £5bn in 2017. And 1 in 5 electric cars sold in Europe last year were built in the UK.

Powering Past Coal Alliance The UK and Canada launched the Powering Past Coal Alliance at COP23 in 2017. We now have over 90 members, most recently Germany and Slovakia who joined at the UN Climate Action Summit in September. We are of course still very proud that Chungcheongnam-do were the first participants from Asia.

The PPCA is a voluntary, member-led organisation of likeminded governments, sub-national bodies and businesses who have made a commitment to phase out coal. At the national level, members must commit to phasing out coal power generation, while corporations and non-government members must commit to power their operations without coal. All members must commit to supporting clean power generation through their policies.

In July we launched the PPCA finance principles, which explain how financial institutions can support unabated coal phase out by 2050 globally and by 2030 in the OECD to meet the Paris goal. It will be key to bring the financial sector on board to accelerate coal phase out.

Asia's turn to step up Coal accounts for nearly a third of the rise in average temperatures since the Industrial Revolution. And Asia digs up and burns three quarters of the world's coal. So the single most powerful step that countries in Asia can take, to support the commitments made in Paris, is to phase out coal from their energy mix and accelerate the transition to renewable energy.

The transition away from coal must be a just transition. Support is required for those affected who will lose their jobs. New opportunities must be created in the low carbon sector. Globally, we expect to see \$11.5 trillion investment in new power generation between now and 2050, of which 73% will be in wind and solar.

Phasing out coal and raising climate ambition to keep temperatures rises under 1.5 degrees will not be easy. But together, you have the power to build a coalition of climate action that can drive ambition at the national level to deliver the Paris Agreement.

Thank you.

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## [UK primed for capital investment](#)

It's a great pleasure to be here today, and I am particularly pleased to have the chance to speak before such a distinguished group of investors. I would like to take this opportunity to thank CEO Kim and his colleagues from the Korea Economic Daily for bringing us together this morning.

Over the next ten minutes, I hope to convince you, if you need convincing, why the UK continues to be a premier destination for capital investment.

Before I talk about capital investment and the importance of long-term growth, I wanted to say something the UK's investment in Korea...in its broadest sense.

In 1797, a Royal Navy vessel captained by William Broughton was caught in a storm on its way to Japan. The vessel ended up in Busan and this was the first interaction between our two countries. It took almost a hundred years for the UK and Korea to agree a formal bilateral treaty – diplomacy took time in those days!

In 1883, the British government purchased the site of our current compound opposite City Hall for the princely sum of £100. Perhaps this was the first example of UK capital investment in Korea!

So our formal relationship is over 130 years old. The longest of any European country. We have been by Korea's side through the ups and downs of the 20th century. Almost 100,000 British soldiers were deployed to Korea during the

Korean War. We have remained a strong promoter of peace on the Peninsula ever since.

We have watched with huge admiration Korea's democratic and economic growth over the last few decades. We are also proud that our trade and investment relationship has increased exponentially over this period. Since the EU-Korea FTA came into force in 2011, our bilateral trade has doubled to 22Tn Korean Won (\$18.9bn).

But there is so much more that we, as the world's 5th and 11th largest economies, can achieve together.

I was delighted that two months ago, the UK and Korea agreed a Continuity Free Trade Agreement. This agreement is the first of its kind in Asia. We expect it to be ratified by our respective parliaments shortly. This agreement will ensure that UK and Korean companies will continue to benefit from preferential tariffs when the EU-Korea FTA ceases to apply.

I know you won't expect me to speculate on Brexit and what might happen in London over the next few days! And that's good because the situation is developing so quickly. What I would say is two things: Firstly, when the UK leaves the EU, we will remain the EU's closest partner and friend. We are leaving the EU not Europe. And Secondly, whatever happens over the next few months the UK-Korea relationship will remain strong and the ties between our two countries will continue to develop.

We are long-term investors in Korea not short-term speculators!

So why am I so confident about the UK's attractiveness to investors?

As we move forward towards a more global future outside of the EU, foreign investors have reaffirmed their confidence in the UK. Between 2015 and 2018, the UK attracted more foreign direct investment than any other country in Europe, with nearly four thousand projects bringing in more capital investment than second and third placed Germany and France combined. According to the Center of American Entrepreneurship, London is the third largest single destination for venture capital deals after Silicon Valley and New York.

Korean investors are already grasping opportunities in the UK.

Last year, the UK attracted more than 40 percent of the record \$8.1 billion worth of South Korean investment into Europe's commercial property market.

And this year, Korean companies are estimated to have invested almost \$800 million in Heathrow and Gatwick airports.

Korean companies have also, in recent years, invested in UK rail and other transport infrastructure. Most noticeably the National Pension Services 30% stake in UK's High Speed 1 which they acquired in 2017 and Samsung C&T has been a key partner in the development of the Mersey Gateway Bridge spanning the River Mersey and Manchester Ship Canal.

We are committed to ensuring that the UK retains its reputation as a stable, open and mature market in which to invest. We have set out our ambitions in a bold, long-term industrial strategy. This will help generate growth and job creation to ensure the economic benefits are felt by all.

Companies investing in the UK will have access to one of the lowest rates of corporation tax in Europe, tax credits for companies innovating and registering patents in the UK, and access to a world class R&D environment and talent pool. Three of the world's top 10 universities are in the UK including the top two.

And for international SMEs looking at the UK for global expansion we operate exciting investment support opportunities such as the Department of International Trade's Global Entrepreneurs Programme.

A key foundation of our Industrial Strategy centres on upgrading the UK's infrastructure throughout the country. Our National Infrastructure and Construction Pipeline is worth around \$778 billion and public infrastructure investment will have doubled in a decade by 2022/2023.

Through our Industrial Strategy, the country's economic geography will be transformed by a surge of infrastructure investment heralding a new technological era. We plan to build a Britain that lives on the digital frontier, with full-fibre broadband, new 5G networks and smart technologies. As a former Deputy Director of GCHQ, the UK Government's Cyber Intelligence Agency, I am proud that we have committed to making the UK the world's safest place to live and work online.

We will create a new high speed rail network that connects people to jobs and opportunities, regenerate our stations and airports, and progressively upgrade our road network. And we will improve people's lives where they live and work, with high quality housing and clean, affordable energy.

During today's seminar you will hear about many of the investment ready projects currently available. Our team of expert advisors from our Department of International Trade stand ready to help you find appropriate opportunities and smooth the investment journey with tailored advice, insight and introductions.

Before I finish, I want to say something about the UK's commitment to economic growth alongside our ambitious efforts to address the challenges of climate change.

Climate change and environmental degradation are among the most urgent and pressing challenges we face today. In July, the UK recorded its hottest day ever. The temperature reached 38.7C.

And here in Korea I have seen first-hand the declining air quality in Seoul. Days when we have seen the world's highest levels of PM 2.5. Days when I cannot see the mountains behind the Blue House. Days when it is not safe for children to play outside.

The UK is a committed, ambitious and effective leader on climate change. We



were the first major economy to legislate for net zero emissions by 2050. We have decarbonised our economy faster than any other G20 country, while retaining the highest growth figures in the G7. And we were the first country in the world to set a legally binding long-term emissions reduction target through the Climate Change Act 2008.

We have just doubled our contribution to the Green Climate Fund. And the UK will host COP26 in Glasgow in partnership with Italy, where we will be driving ambition on mitigation, resilience and finance.

Meeting our objectives and delivering the global transition to a low carbon economy will require unprecedented levels of investment in green and low carbon technologies, services and infrastructure.

More than \$119 billion has been invested in clean energy in the UK since 2010 – but much more will be needed to deliver a net zero economy.

The low carbon economy in the UK could grow 11 per cent per year between 2015 and 2030 – over four times faster than the rest of the economy. Our Green Finance Strategy sets out how we will be working to apply a green filter to the National Infrastructure and Construction Pipeline.

Let me finish by saying: This is an exciting time for the UK. A time of unprecedented opportunities. We are confident in our assertion that in the UK, your businesses will prosper and your capital investments make strong and safe returns.

Thank you

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## **Government backs next generation of scientists to transform healthcare and tackle climate change**

- 1,700 PhDs will advance discoveries in bioscience, tackle challenges like feeding the world's growing population while helping people stay healthier, for longer
- the investment is helping solve the UK's Grand Challenges, by attracting and retaining the best talent and building a workforce fit for the future

The next generation of UK scientists have been backed by government today (Thursday 24 October) to develop the latest Artificial Intelligence (AI) technologies that will transform how people live and work and help tackle some of the world's most pressing challenges.

A combined government and industry investment of £370 million will deliver 2,700 new PhD places in biosciences and AI.

Of this, £200 million will fund 1,000 new PhD places over the next 5 years to study AI which could help diagnose diseases like cancer earlier and make industries, including aviation and automotive, more sustainable. The first 200 students will be studying at 14 universities across the country, working closely with 300 leading businesses, including AstraZeneca, Google, Rolls-Royce and NHS Trusts.

The students' projects include:

- working closely with the NHS to transform healthcare systems – helping address the world's ageing society. This could improve diagnosis of life-threatening illnesses like cancer, accelerate the development and access to new drugs, design personalised medicine and improve care
- helping to make buildings more energy-efficient, create new low-carbon materials, improve monitoring of climate temperatures and design greener transport, like planes, trains and cars

A further £170 million will fund 1,700 places to study PhDs in biosciences helping to tackle issues like feeding the world's growing population and helping people stay healthier for longer.

The new PhD researchers will be working towards:

- finding innovative ways to feed 9 billion people by 2050, and secure sustainable food production
- developing renewable, low carbon sources of energy, transport fuels and chemicals to reduce dependency on fossil fuels
- helping people stay healthier for longer as lifespans increase and society ages

Prime Minister Boris Johnson said:

The UK has educated, trained and developed some of the best scientists in the world – and we must continue to lead the world in AI and technology with our incredible talent and innovative breakthroughs.

That's why we're investing millions of pounds to create hundreds of new AI and bioscience PhDs, so new research and development can thrive here in the UK and solve the biggest challenges that face us – from climate change to better healthcare.

Science Minister Chris Skidmore said:

AI has the potential to boost productivity and enhance every industry across the economy, from developing new treatments for life-threatening diseases to tackling climate change. Today's

announcement is helping us solve the UK's Grand Challenges by ensuring the UK is at the forefront of the latest technologies and opening-up British businesses to new opportunities.

The UK is a petri-dish for incredible talent and we're passionate about nurturing the next generation of world-class scientists, so the UK remains at the forefront of research and innovation.

That is why we're investing in the AI and bioscience PhD research. These critical areas will transform the UK economy and create the highly-skilled workforce we need for the future.

Digital Minister Matt Warman said:

The UK has a long-standing reputation for innovation. We are the birthplace of artificial intelligence and home to technology pioneers such as Alan Turing and Ada Lovelace. We are determined to see this continue.

Today we are announcing a bumper investment in skills training to strengthen our workforce and attract, nurture and retain the best talent so we can lead the world in research and development.

AI is already being used to improve lives by helping detect fraud quicker and diagnose diseases more accurately. With the brightest minds at the helm we will be able to explore this cutting-edge technology further.

The investment in AI innovation builds on the UK's ongoing success as a global leader in AI technology. Today Science Minister Chris Skidmore also announced the first 5 AI Turing Fellowships, the UK's national institute for AI and data science, designed to ensure the UK has the skills needed to make the most of artificial intelligence, and called for further top, international academic talent to join these researchers, with £37.5 million in further funding available.

The Fellows' projects range from determining the impact of digital technologies such as social media on mental health; and building a sustainable aviation industry by helping the sector build faster, lighter and more environmentally friendly aircraft.

Sue Daley, associate director, technology and policy at techUK:

Creating a steady pipeline of tech talent is imperative to remaining a leader in the AI and data revolution. government-industry collaboration is crucial to addressing the UK's current digital skills gap and we are proud to see industry demonstrating its commitment to developing the next generation of AI talent.

This is a brilliant step towards securing the UK's AI future and we look forward to continuing to work with DCMS and the Office for AI to support their work in this area.

The government is investing £13 million in innovative Postgraduate programmes, so more people can develop fruitful careers in AI. The new AI conversion courses will allow 2,500 more people to study AI from backgrounds other than science or maths at undergraduate level. This also includes 1,000 new scholarships for people from underrepresented backgrounds, including women, ethnic minorities and low-income families.

Leading technology companies like Accenture, DeepMind, QuantumBlack and Amplyfi, are already sponsoring AI Masters students. The new courses will help build-up a highly skilled workforce in the UK and provide new opportunities for industry and universities to collaborate, ensuring new innovations are transforming industries.

Bioscience PhD case studies:

- researchers at UCL and Imperial College London are developing a low-cost, easy-to-use arsenic sensor to test drinking water, in collaboration with a spin-out company.
- a student at Liverpool-Newcastle-Durham co-authored 7 papers, including a first-author paper in Nature Communications on the promotion of non-alcoholic fatty liver disease by senescent hepatocytes, relevant to obesity and ageing. The paper was read over 30,000 times in the first week
- a UCL student received a £10,000 prize and the International Canine Health Postgraduate Student Inspiration Award as part of the 2018 International Canine Health Awards (ICHA) in relation to her project investigating the relationship between dog breed genetic differences and susceptibility to pancreatic disease, in the hopes of developing new diagnostic and therapeutic methods
- fundamental studies of cocoa butter crystallisation by 2 students at Leeds University had a direct impact on a project that is close to delivering a higher quality stability for chocolate.
- a student from University of Birmingham gained a Wellcome Trust ISSF Fellowship following her PhD on chronobiology and the effect of sleep patterns on athletic performance and wellbeing

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

Talented people with ideas, energy and tenacity hold the key to unlocking the potential of Artificial Intelligence. The Turing AI Fellowships support this talent, build on the UK's reputation for creativity and innovation and ensure we remain at the forefront of this transformative technology.

By attracting world-leading talent and developing the next generation of AI researchers and innovators, we will catalyse vital

collaboration between academia, industry and government, delivering benefits that will be felt across society and the economy.

Professor Melanie Welham, UKRI-BBSRC's Executive Chair said:

The success of the UK's science sector and the consequent benefits to society and the economy relies on great researchers doing great work. Our Doctoral Training Partnerships have already supported the training of hundreds of early career scientists working at the cutting edge of biology and biotechnology.

By continuing to fund, through this significant £170 million investment, vital training of the next generation of researchers we will help ensure that the UK consolidates its position as world-leader in this crucial sector.

## **The first Turing AI Fellows**

### **Neil Lawrence, University of Cambridge, Senior Turing AI Fellow**

Neil will be focusing on machine learning systems design. He will work on the entire pipeline of AI system development, from data acquisition to decision making. He proposes an ecosystem that includes system monitoring for performance, interpretability and fairness. And he places these ideas in a wider context that also considers the availability, quality and ethics of data.

Neil has also recently been named DeepMind Professor of Machine Learning at the University of Cambridge and is a co-host of the podcast Talking Machines.

### **Tim Dodwell, University of Exeter, Turing AI Fellow**

Tim's work addresses the challenge of building a more sustainable aviation industry by spanning traditional academic disciplines. The aim of his fellowship is to develop novel AI methods which fuse high-performance mathematical simulations and traditional experimental data to build a virtual test pyramid. This will increase the confidence in making the ultimate engineering decision: "Is this plane safe to fly?". The new methods will not only allow the aerospace industry to build faster, lighter, more sustainable aircraft for the future, but provide new applications across the high-value manufacturing sector and broader scientific communities.

### **Yarin Gal, University of Oxford, Turing AI Fellow**

Yarin will work on democratising safe and robust AI. While already in use in industry and academia, major obstacles still stand in the way of deploying deep learning AI safely and responsibly. Yarin proposes to tackle these problems by building community challenges derived from real-world applications of AI in industry. With the community competing on these public

challenges, new safe and robust AI tools will be developed for responsible use in industry.

### **Maria Liakata, University of Warwick, Turing AI Fellow**

Maria's work as a Turing AI Fellow utilises language data obtained from widespread use of digital technology such as social media as well as mobile phone data to develop novel natural language processing methods for automatically capturing changes in user behaviour over time. This work has direct applicability to mental health as it will help provide experts with evidence for personalised changes in mood and cognition from everyday use of digital technologies. Major outputs of this project are novel tools for personalised monitoring behaviour through language use and user generated content over time and the co-creation with clinical experts of new cost-effective tests to support monitoring and diagnosis.

### **Anna Scaife, University of Manchester, Turing AI Fellow**

Anna's Turing AI Fellowship focuses on AI for discovery in data intensive astrophysics. In this era of big data astrophysics, radio telescopes like the Square Kilometre Array (SKA) have data rates so large that the raw data cannot be stored, and even using the compressed data products requires a super-computer. Anna will develop new machine learning approaches to deal efficiently with these huge data volumes and address the question of how we can still allow for discovery when such processing is completely automated. In particular, she will focus on how we can incorporate knowledge from historical data into the machine learning for new experiments like the SKA without introducing biases that adversely affect the results.

## **Notes for editors**

Funding breakdown:

- funding for AI Centres for Doctoral Training involves £100 million government investment, £78 million from industry and £23 million committed by universities. Over the next 5 years, the Centres will train 1,000 PhD students
- an additional £37.5 million for Turing AI Fellowships to recruit, retain and develop world-leading AI researchers to join the first wave, who received £8.5 million, also being announced today
- new government investment of £13 million to build new AI conversion courses from 2020
- £170 million government funding to support over 1,700 young scientists in cutting edge biology and biotechnology

### **Bioscience PhDs**

The £170 million investment will be delivered by UK Research and Innovation (UKRI) and is just one element of its commitment to support future talent in research and innovation. Overall, UKRI supports around 15,000 doctoral students in UK universities, research institutes and businesses.

## **About the Postgraduation AI Conversion Courses**

To help boost diversity in the sector £13 million is being made available to increase the number of skilled professionals in artificial intelligence and data science technologies over the next 3 years.

The Office for Students have launched a competition inviting universities and other higher education providers to develop and implement postgraduate conversion courses that will attract at least 2,500 graduates by 2023.

These innovative and flexible conversion courses will quickly upskill students – who may have originally studied non-STEM disciplines – in artificial intelligence and data science, and encourage a more diverse workforce.

The funding comprises £3 million for course development costs and £10 million for scholarships for students from backgrounds underrepresented in these industries, particularly female, disabled and black students.

The skills and talent package is a major milestone of the modern Industrial Strategy's AI Sector Deal which was launched in April 2018.

## **Full list of AI Centres for Doctoral Training**

- UKRI AI Centre for Doctoral Training in Foundational Artificial Intelligence – UCL
- UKRI Centre for Doctoral Training in AI-enabled Healthcare Systems – UCL
- UKRI Centre for Doctoral Training in Environmental Intelligence: Data Science and AI for Sustainable Futures – University of Exeter
- UKRI Centre for Doctoral Training in Natural Language Processing – University of Edinburgh
- UKRI Centre for Doctoral Training in Artificial Intelligence and Music – Queen Mary University of London
- UKRI Centre for Doctoral Training in Speech and Language Technologies and their Applications – University of Sheffield
- UKRI Centre for Doctoral Training in Artificial Intelligence for Healthcare – Imperial College London
- UKRI Centre for Doctoral Training in Accountable, Responsible and Transparent AI – University of Bath
- UKRI Centre for Doctoral Training in Artificial Intelligence, Machine Learning and Advanced Computing – Swansea University
- UKRI Centre for Doctoral Training in Machine Intelligence for Nano-electronic Devices and Systems – University of Southampton
- UKRI Centre for Doctoral Training in Biomedical Artificial Intelligence – University of Edinburgh
- UKRI Centre for Doctoral Training in Social Intelligent Artificial Agents (SOCIAL) – University of Glasgow
- UKRI Centre for Doctoral Training in Interactive Artificial Intelligence – University of Bristol
- UKRI Centre for Doctoral Training in Application of Artificial Intelligence to the study of Environmental Risks (AI4ER) – University of Cambridge

- UKRI Centre for Doctoral Training in Safe and Trusted Artificial Intelligence – King's College London
- UKRI Centre for Doctoral Training in Artificial Intelligence for Medical Diagnosis and Care – University of Leeds

## **About Turing AI Fellows**

The next wave of Turing AI Fellowships will be delivered via [UKRI](#)