

# Speech: Artificial Intelligence – a collaboration

Thank you very much for the warm welcome!

It is a real pleasure to welcome you to the opening of the T.E.A. special edition here in Oslo. I am thrilled to be here today to learn from the vast amount of technical expertise assembled in this room. I am certainly inspired – and fascinated – by the global development that we see unfolding and all the international collaboration opportunities within the AI sector.

Today I want to update you on the UK Government's commitment to the development of AI and the market opportunities that AI brings. There aren't many moments in human history when a technology turns up that changes everything. The wheel, maybe ... the printing press ... the micro-processor.

And we are living through one of those moments right now.

In 2017, when the London-based DeepMind beat KeJie, the best human best Go player, a symbolic date entered the history books.

Technology is developing faster than we can absorb. Automation, digitization, robotization. 3D-printing, sensor technology, the internet of things, big data, block chain – and AI.

Artificial intelligence is already part of our everyday lives, from using a virtual personal assistant to organise our day, to having our phones suggest songs we might like.

Beyond making our lives easier, smart systems help us solve some of the world's biggest challenges: treating chronic diseases, fighting climate change and anticipating cyber-security threats.

Addressing these challenges are priorities for the British Government and we believe that meeting them requires international collaboration to develop solutions including AI. Norway is an important partner and we want to expand our innovation linkages.

We expect that implementing AI technology will carry huge economic implications. If we use AI in the right way, we can create a more prosperous economy with better and more fulfilling jobs. According to a recent report by McKinsey, AI could transform 19 crucial industries.

They found that the total annual value potential of AI alone across those 19 industries could add between 3.5 to 5.8 trillion dollars to the global economy.

In the UK alone, the market value of AI technologies are expected to increase at a compound annual growth rate of over 60% by 2022 and add an additional £650 billion to the UK economy by 2035.

These are of course estimates. But the potential of innovation to drive our future economy is more than just an aspiration: it's something we're already seeing in practice. In 2017, the UK tech sector grew 2.6 times faster than the economy as a whole.

This makes AI one of the most strategic technologies of the 21st century.

From a UK Government perspective, our vision is for the UK to become the best place in Europe or – why not? – the world for businesses to develop and deploy AI.

You may have heard that we are leaving the EU, but we are very definitely not leaving Europe and we will continue working together with our European partners. And I am confident that our new relationship with Europe will bring new possibilities and opportunities.

In shaping our future, Prime Minister Theresa May is committed to ensuring the UK is best placed to capitalise on the industries of the future and ensure new arrangements on services and digital provide businesses with regulatory freedom where it matters most.

By building on our scientific excellence and securing an unparalleled partnership with Europe in science and innovation, the Government will ensure that the UK remains the centre for AI in Europe and globally. Amongst those commitments is making sure we put in place the right physical infrastructure, such as the next generation of 5G and full fibre networks.

The UK ranks first amongst OECD countries in our readiness to implement AI in public sector delivery. As an example, Enfield Council in London employed Amelia last year, the first chatbot to be implemented by a local government structure.

We want AI to transform our society for the better and for it to be designed and developed in the UK. Therefore, as part of the Industrial Strategy the UK Government announced the new AI Sector Deal in April this year.

The deal aims to help the UK seize the estimated £232 billion opportunity AI offers the UK economy by 2030 – that's 10% of GDP.

This sector deal is a public-private-academic partnership, a model that you know very well here in Norway. More than 50 leading technology companies and organisations have contributed to the development of the deal including almost £300 million of private sector investment.

One important area of the Sector Deal is education.

Because many of the UK's most successful businesses started life as an idea in a university lab, we want to make sure that the UK sits at the top in terms of providing relevant knowledge on AI. As the home of 4 of the top 10 universities in the world, the UK is a magnet for the highest calibre researchers in artificial intelligence and related disciplines.

The UK Government is investing £17 million in development of AI technologies

in universities. In 2017, 26 universities in the UK offered undergraduate courses in AI and more than 30 graduate programmes run across 20 universities.

Numbers of students have been rising modestly in recent years, driven predominantly by PhD level places, where the number of enrolments have almost doubled to just under 400 between 2013 and 2015.

We are starting to see the result of this investment as more and more universities are focusing on providing skills and knowledge of AI, in many aspects, not only technological but also within the ethical, moral and social implications of AI.

Available funding, attraction of venture capitalists to London and competitive, world-class universities and research facilities all contribute to the UK providing an excellent environment for AI start-ups and growth potential for SMEs.

Let me say a few words about innovation and the business environment in the UK. Did you know that a new business is started in the UK every 75 seconds?

A bigger proportion of these than you might imagine go on to thrive, with the UK playing host to half of Europe's top-10 fastest growing companies.

As of September 2017, over £350 million has been invested in 243 technology companies through the British Business Bank's venture capital programmes, and more venture capital is invested in the UK than in Germany, France and Sweden combined!

The UK is also a home to some of the biggest names in the sector, such as:

- Ironfly Technologies (a Hong Kong-based startup that uses machine learning in financial services)
- Element AI (an artificial intelligence solutions provider, which is opening a new R&D centre in London this year) and
- Alphabet, the parent company of Google and DeepMind – and a world leader in AI – is building a new headquarters in London that will be home to 7,000 staff

The opportunities within AI are growing. I hope that you will contribute to the UK journey to become the global hub for AI, where new ideas and technologies are tested and brought to the global market. And continue to exploit already excellent UK/Norway cooperation.

And make sure to tap into the funding provided by the sector deal and programmes managed by the research councils.

With all of this in mind, I am excited that you have chosen to go to the UK to develop and accelerate your business, and I would like to thank Innovation Norway for contributing to making this happen.

I hope that with the constant development of our start-up ecosystem and the expertise provided by the TEA and other Innovation Norway programmes, you

will be able to create the recipe for success!

I am looking forward to follow your developments and one day read about you on my super fast 7G 3D printed smart phone in a few years' time – if a person of my age can work out how to use it!

I wish you all the best of luck for the next 6-months acceleration.

And finally: unlock your imagination and nurture your inner drive to keep pushing the boundaries!

Thank you!