Speech: Rushlight Cleantech Conference

Recent progress – the Clean Growth Strategy and Industrial Strategy

Since I last spoke to you, just starting out at the department in June, a great deal has changed, and we have made real progress towards the goal of an economy built around clean growth.

We launched the Clean Growth Strategy in October, discussing carbon budgets and the gap that has opened over time, we are now estimating that we are just a couple of percentage points off our 4th and 5th budgets, which end in 10-15 years time. Given the pace of change, and the work in R&D and the help of so many of our innovators, I am confident that those gaps will be closed.

And the following month we published the white paper of our modern Industrial Strategy, which works to link up what we are doing in government, with what we would like to see industry doing, and change the game, to make the conversation between government and industry to drive productivity gains. You will see in there some of the highlights of sector deals and examples of how we will work together going forward. Also included are four big Grand Challenges, things that we know we have to do both to solve our own economic transitional challenges, but also to grow and prosper in a global economy, and one of those challenges is the Grand Challenge of Clean Growth. What is exciting about the past few months is that not only have we put forward 15 policies of how we will get our own carbon budgets, we've put that firmly in front of the way in which we want business and government to work together. And this is probably the first time that clean growth and technology has been prioritised as a challenge and opportunity right across government. It is important for clean tech and growth to have a voice at the cabinet table because so much we do works right across government.

What has also struck me, taking on this portfolio, is that we have focused on delivering on our low carbon budget targets and being one of the first countries to pass our climate change act but we have been a bit shy to celebrate this.

Since 1990 we have led the G7 group, in cutting emissions in our economy, without sacrificing growth, in fact we have had the fastest growing economy in the G7 over that time. Last year, the PWC report said there were only two countries in the world that were doing enough in terms of decarbonisation to meet the 2 degree global target, and that was China and the United Kingdom so we have been rather shy to celebrate what we have achieved.

There is a triple test for anything that we do in the green tech space. Does it reduce carbon emissions? Can we see a cost effective pathway for deployment so that we are not overburdening consumers? And does it create a competitive advantage that we can effectively invest in and grow in the UK so that we can be part of this global shift to green technology?

By setting out what we've done and setting out our progress and great successes to date, we have created a much stronger environment for business investment. And for investment in different forms of local technologies.

I was also struck by successes in renewable energy in the UK, I think it is a strength that the UK has chosen to have a diverse energy mix. There is a role for nuclear at the right cost going forward, we will continue to investigate the scientific truisms of fracking, does it make sense to frack, does it deliver what we want, can it be done in the right way?

We have also done a lot to bring on the renewables portfolio, buying offshore wind at unimaginably low prices. Building the largest installed offshore wind base in the world and we want to replicate that across the economy, taking the partnership between government and business setting out early stage investment, using tax payer's money, co-investing with the private sector, using auction mechanisms to drive costs down and continuing to commit to those technologies moving forward.

So this momentum needs to translate into long term commitments. That is why we were clear in our Clean Growth Strategy about our big R&D investment, hopefully to show that government is making the largest investment of public funds ever into R&D and £2.5 billion of that will do into clean tech.

Whether it is through the transport sector, through the Faraday Challenge where we want to lead the world in the creation of the next generation of battery technology and use that technology to support what we need in terms of better storage and renewable energy generation.

We must use these opportunities is to create opportunities with other countries to deliver maximum take up of new technologies, and make them low cost. We want to work with other countries to work together, to drive down costs and create productivity in the UK. Global appetite is huge, in spite of the US pulling out of Paris, all the other countries have worked hard to continue to deliver on the Paris commitments. There is an unstoppable force happening in the world which is a global effort to reduce emissions output and a global effort to collaborate and cooperate in solving some of these low carbon problem solving technologies. We talk a lot to our friends in Norway and removing hydrocarbons from the north sea basin it seems obvious we should work together on carbon capture storage.

UK-Republic of Korea Smart Energy Innovation Partnership

It is my pleasure to have Ambassador Hwang joining me today to announce an agreement of £3 million to support a bilateral innovation programme, with just over £3 million in matched funding from the Republic of Korea. This exciting programme will support development and demonstration projects on innovative smart energy technologies and business models, each one involving companies from both the UK and Republic of Korea. Our countries are natural allies in this – we have similar population sizes spread across similarly-sized countries, and we are at similar stages in our development and

deployment of smart systems, including the rollout of smart meters.

Both countries are members of the Mission Innovation Smart Grids Challenge, and actively support innovation in smart energy technologies like storage and demand-side response, accelerating clean energy innovation around the world. As well as learning from one another, we can develop new approaches and, potentially, new technologies together. And we can decarbonise our countries together as a result of this cooperation.

This partnership will have tangible benefits, including reduced costs for designing and implementing smart systems and technologies. For the UK we can expect accelerated adoption of smart, flexible energy systems, which will save money by reducing deployment time, while our understanding of, and access to, Korean markets will increase, presenting great opportunities for UK businesses. We expect similar acceleration in Korea, again leading to savings, while Korean businesses and policy makers can gain experience of the British system, from regulation to incentives.

Developing a new platform

Where government can help we will use all the tools at our disposal to support clean growth and low carbon innovation in our economy, including market design, taxation and regulation, as well as the funding of £2.5 billion we are providing. But as ever it will be industry which leads the way.

After the last event in June, I asked what more we could do to help the companies we have been supporting to get to market and that's why today I am delighted to announce the first stage in the development of a new GOV.UK portfolio list bringing together all of the companies we have invested in since 2012. It's a great first step in terms of showcasing what we are doing and how government is investing.

This is part of the commitment, made in our Industrial Strategy, to promote overseas investment into the UK's clean economy, and strengthen our support for UK exporters. It will also be a showcase for our clean tech investments at home and abroad.

The first iteration of the platform will exist in the GOV.UK energy innovation pages and will include a trial version of the database, providing detailed information on the innovation projects and organisations which have benefitted from government funding since April 2012. This will bring greater transparency to the actions of government, but also highlighting the support on offer, and the types of projects which we in government want to encourage. Ceres Power and Anvil Semiconductors are two such companies, and I am pleased to see them here today.

Through this platform, we want to engage with investors interested in UK businesses and the level of R&D support available; with UK businesses looking for partnerships and export opportunities; and with colleagues abroad looking for international opportunities. This is just the first stage, and we are inviting feedback from all users – including you, I hope – on how we can

expand and perfect the information we provide in time for launching the final site at our Green Britain Week, an annual event that we will be launching to happen every October, where we will be showcasing progress we have made and challenges we need to focus on. I look forward to that, and to hearing your thoughts.

Ultimately I am here to say thank you, because we can set the mission, the laws that hold our collective parliamentary feet to the fire, when it comes to carbon reduction, we can say the right things in terms of productivity and improvements, but ultimately it comes down to where is the technical excellence, where is the investment, how can we best work together, in solving the challenges that we face and to me it is exciting that clean growth is at the forefront of the government's Industrial Strategy.

The opportunity it gives with the unstoppable momentum that the globe is on towards a low carbon future is absolutely huge and I feel privileged to have a chance to work on this portfolio and to meet so many people who are working together on this journey.

Press release: UK fighter pilots fly F-35 for the first time following training

Flt Lt Liam taxiing the F-35B Lightning before his first flight.

Flight Lieutenant Liam and Lieutenant Chris became the first Royal Air Force and Royal Navy pilots respectively to proceed straight from flying training in a Hawk to fly the multi-role combat aircraft.

Speaking after his flight, Flt Lt Liam said:

> It was a sensational experience and, as the culmination of many years training, was certainly the highlight of my time in the RAF so far. I was astonished at the jet's performance and at how well the simulator had prepared me for taking the Lightning flying.
>
> Much of the first flight is about exploring the aircraft's performance envelope and breaking the sound barrier was a particular highlight. It is easy to see why every pilot here loves flying the aircraft and I am eager to press on and get stuck in to operating the Lightning and exploring it's potential.

Fellow pilot Lt Chris added:

> To fly a Lightning for the first time is almost indescribable. After over seven years of training in the Royal Navy, to finally get into the real aircraft and take it airborne was one of the proudest and most exciting experiences of my life so far.
>
> The computer systems, helmet display, and sensors are at the cutting edge of what is currently possible and I'm extremely excited to work on exploiting this potential as well as being part of its integration with HMS Queen Elizabeth and HMS Prince of Wales over the coming years.

With no two seat variant of the F-35 the first flight for any pilot in a Lightning is always solo.

Commenting on the flights Air Commodore Linc Taylor, Senior Responsible Owner for the UK's Lightning Programme, said:

> I am delighted that our first two ab initio pilots have flown Lightning and joined the rapidly expanding cadre of UK Lightning pilots. For any military pilot the first time you fly a front line aircraft is something you never forget, but to be the first to progress straight from training to fly F-35 is something to be especially proud of.
>
> I wish both pilots every success in their future careers and look forward seeing them both in the UK this summer when 617 Squadron returns to RAF Marham.

The training of UK Lightning pilots is currently undertaken as part of a much larger UK Detachment at Marine Corps Air Station Beaufort, South Carolina. This 'pooling' arrangement with the United States Marine Corps (USMC) facilitates the high training rate necessary for build the essential numbers of personnel qualified and experienced to form the first operational UK squadron, No. 617 Squadron (the 'Dambusters') in 2018.

To date the cadre of UK Lightning pilots have all transitioned from other aircraft and both new Lightning pilots were accompanied on their first flights by an instructor in a second aircraft.

The F-35 Lightning is an advanced, next generation aircraft procured to operate alongside the RAF's Typhoon. It will be jointly manned by the RAF and Royal Navy, and will form an integral part of Carrier Strike operating from the Queen Elizabeth Class aircraft carriers.

News story: Crime news: amended 2017 standard crime contract for prison law

We are making available for download updated 2017 Standard Crime Contract documents as a result of recent changes to the scope of prison law.

The documents have been updated following consultations with representative bodies.

The amended regulations will come into effect on 21 February 2018. Guidance and forms are also being updated.

Further information

Standard Crime Contract 2017 – to download amended contract

Criminal Legal Aid (Amendment) Regulations 2017

News story: Accelerator themed competition webinar: regenerative medicine at the front line

Registration for this webinar is now open.

The webinar will take place from 12:30pm to 1:30 pm online.

It's an easy way for you to get more information about this £500,000 (phase 1) themed competition, for those who couldn't make it to the main networking event on Thursday 1 February 2018.

You'll hear a summary of the challenges and have the opportunity to submit questions to technical experts for this regenerative medicine at the front line themed competition.

Proposals for this competition must be submitted to the Accelerator submission service and received by Wednesday 11 April 2018 at midday.

Speech: Matt Hancock's speech in Davos on Reimagining Policy-Making for the Fourth Industrial Revolution

CHECK AGAINST DELIVERY

Thank you for the introduction and for inviting me here today.

It's a real honour to have been asked to close this session on 'Reimagining policy making for the fourth industrial revolution'.

We are in the midst of fundamental change, as the cost of storing and transmitting information plunges, perhaps faster than at any time since the invention of the printing press.

Technology is constantly changing how we live, how we work and how we vote and campaign.

Governments now have an opportunity to create an environment that supports digital businesses and creates appropriate norms and rules for the online world.

My case is that responding to populist concerns can't be done by neglecting technology but only through harnessing it for the good of citizens.

I want to set out three proposals which I believe will apply to governments who want to do this successfully across the world.

1. Adopt digital transformation

Firstly, Governments that put technology at the heart of all their interactions with citizens will thrive.

I worked at a tech business before I became an MP and then a minister. So I've long seen how technology can help provide solutions to long-standing policy issues.

In the last decade, getting services online was critical to government efficiency and serving citizens in a way that worked for them.

Our award winning Government Digital Service set the standard for usability online, which was then replicated by other governments across the world.

It transformed the relationship between citizen and state, whilst the digitisation of government has saved billions for taxpayers.

The lesson was loud and clear – put the user journey first and encourage people to adopt technology that will make their lives easier.

Now the task is the next generation of emerging technologies, like the Internet of Things, artificial intelligence and Blockchain.

You could call it the fourth industrial revolution for Government and it will be those that adopt this digital technology that will thrive.

1. Make smarter regulations

My second proposition is that economies that make sure regulations are fit for the digital age will also thrive.

Digital transformation cannot take place with outdated legislation, written when if you wanted to tackle ‘trolls’ you’d need to look underneath a bridge.

Just ask startups, who can often find their early years difficult due to compliance requirements written long before the digital age.

Modern businesses require modern regulation – and the UK is leading the way in embracing change.

Our Financial Conduct Authority has adopted what they call a ‘regulatory sandbox’. This allows businesses to test products with real consumers without them having to meet usual requirements for compliance.

This provides a space to do real world trials and engage regulators from the start of development.

It’s win-win; start-ups benefit from better market testing whilst consumers benefit from the safeguards that are built into new products. It is one of many reasons why the UK has now established itself as a FinTech world leader.

Our Information Commissioner is adopting the same approach for big data, and so is our Civil Aviation Authority for drones. The CAA has been engaging with private sector firms on autonomous drone testing and have even been praised by Amazon for their pioneering approach.

We’ve brought in a Regulators’ Pioneer Fund, to incentivise regulators to develop more approaches to support emerging technologies.

This is about innovation friendly regulation. Regulation must support innovation right across the board; this should be a mantra for any Government or regulator.

Only then can a country harness the opportunities of new technology and therefore thrive.

1. Get ethics right

The third and final principle that I want to talk about is the importance of developing strong ethical frameworks.

Because societies that have strong ethical frameworks will thrive.

Digital technology is a powerful force for good. Combined with new

technologies such as artificial intelligence, it is set to change society perhaps more than any previous technological revolution – growing the economy, making us more productive, and raising living standards.

But as we all know, alongside these new opportunities comes new challenges and risks.

The internet can be used to spread terrorist material; it can be a tool for abuse and bullying; and, it can undermine civil discourse, objective news and intellectual property.

The digital revolution has changed the way that people behave and interact.

Instead of a piecemeal response to each issue separately, our response is the Digital Charter, which the Prime Minister will be setting out in her speech later today.

This is a rolling programme of work to agree a consistent set of norms and rules for the online world and put them into practice.

In some cases this will be through shifting our expectations of behaviour; in others we may need new laws or regulations.

Our starting point will be that we will have the same rights and expect the same behaviour online as we do offline.

The Charter's core purpose is to make the internet work for everyone – for citizens, businesses and society as a whole.

It will move the philosophy we apply to the Internet from libertarian to liberal values – to cherish freedom, but not the freedom to harm others.

The Charter brings together a broad, ongoing programme, with priority areas including protecting people from online harms, sorting out platform liability and leading on data ethics.

And I want us to practise what we preach about agile governance. It will be a 'living' document that sits online – and as technology changes, the Charter will evolve too.

Conclusion

The Governments that thrive will themselves harness the best new technologies.

The governments that thrive will themselves harness the best new technologies.

The economies that thrive will have innovation friendly regulations for the digital age.

And the societies that thrive will have strong ethical frameworks to make the internet a force for good.

Now our task is to get on with it and make it happen.

Thank you very much.