



HOUSE OF LORDS

Science and Technology Committee

Corrected oral evidence: Secretary of State for Science, Innovation and Technology (non-inquiry session)

Tuesday 5 November 2024

2.15 pm

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Members present: Baroness Brown of Cambridge (The Chair); Lord Berkeley; Lord Borwick; Lord Drayson; Baroness Neuberger; Baroness Neville-Jones; Lord Rees of Ludlow; Viscount Stansgate; Lord Strasburger; Lord Wei; Baroness Willis of Summertown; Baroness Young of Old Scone.

Evidence Session

Heard in Public

Questions 1 – 28

Witnesses

I: Rt Hon Peter Kyle MP, Secretary of State, Department for Science, Innovation and Technology; Alexandra Jones, Director-general for Science, Innovation and Growth, Department for Science, Innovation and Technology; Emran Mian, Director-general for Digital Technologies and Telecoms, Department for Science, Innovation and Technology.

USE OF THE TRANSCRIPT

1. This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.

Examination of witnesses

Peter Kyle, Alexandra Jones and Emran Mian.

Q1 **The Chair:** I would like to welcome the right honourable Peter Kyle MP, the Secretary of State for Science, Innovation and Technology, to this committee evidence session, along with two of his directors-general in the Department for Science, Innovation and Technology. I would also like to say a special thank you to Alexandra Jones, who is with us again, having been here only a few weeks ago with the Science Minister, Lord Vallance. It is a pleasure to have you here. It is a particular pleasure to have our Secretary of State here before us, as I understand this is his first appearance before a Select Committee.

Peter Kyle: It is.

Q2 **The Chair:** Lords Select Committees are good ones to choose to appear before first, I think, because we are generally nice to our witnesses. As I am sure you will know, this session is being broadcast on parliamentlive.tv, and a full transcript will be made available to you for any minor corrections shortly after the meeting.

Minister, could you make a short opening statement? We would be particularly keen to hear what your key priorities in the role are, and what you are hoping to achieve. I know you have not been in post long, but what do you feel you have achieved so far?

Peter Kyle: Thank you, Chair, and the committee, for having me here. It is a privilege for us all to be before your committee, and a special privilege for me, this being my first parliamentary committee appearance as Secretary of State.

I am very aware that there are people sitting around this table and participating virtually who have a lot more experience than me in many of the areas we are discussing today, so I approach these sessions with a sense of humility. However, the thing that I think would unite us all is a sense that Britain has enormous potential when it comes to science, innovation and technology, and that we will all strive together as a Parliament to explore that potential.

Let me start by explaining some changes I have made to the Department for Science, Innovation and Technology since becoming Secretary of State. Science and technology are fundamental to this Government's purpose. From growing the economy to fixing our NHS, our national missions are founded in technology, development, diffusion and deployment. Last week, faced with difficult decisions, the Chancellor decided to increase public R&D spending to a record level of over £20 billion, boosting

DSIT's R&D budget by 8.5% in real terms. It is my task to demonstrate to each and every citizen in this country that investment in science and technology can deliver real, meaningful change.

If you look around the world today, there are Governments who are presenting personalised public services to their citizens, and they are using digital technology to deliver that transformation. Unfortunately, UK public services have been left behind over the past 14 years through a combination of inadequate investment and insufficient reform. So, working with the Chancellor of the Duchy of Lancaster and the Chief Secretary to the Treasury, one of my first actions was to create the digital centre of government. As a result, DSIT will become experts in data, digital and AI. From the Government Digital Service—the GDS—to the Central Digital and Data Office and the Incubator for AI, all of these units will now become part of DSIT and part of our programme of transformation.

At the same time, the department is shifting its focus and joining to deliver economic growth. The days of government departments being judged on their relative power and potential, and this influencing the amount of taxpayers' money they are given, are over. Today, the metric moved to driving economic growth so that we can afford the strengthened defences, increased opportunities, and better public services that our nation so desperately needs. That is why I was particularly encouraged by Viscount Stansgate's recent debate on science and the economy.

As part of the industrial strategy, we will champion growth in the science and tech sectors by supporting hundreds of thousands of jobs in communities across our country. Last week, we announced £70 million for the new life sciences innovative manufacturing fund as part of a long-term funding commitment of up to £500 million.¹

As well as backing today's science and tech sectors, the stories we are championing inform the industries of tomorrow. At last month's International Investment Summit, over £24 billion was committed to projects directly relating to AI, much of it being for data centres that will power our digital economy and which, thanks to our planning reforms, will now be easier to build and deploy in the nation's interests. Our AI action plan will be published shortly. It will describe how the Government intends to maximise the extraordinary power of this emerging technology to increase productivity and competitiveness right across our economy.

¹ Note by the witness: this figure is actually £520 million.

If a digital revolution is to succeed, all tangible benefits must be available to all. This is a driving mission for me and this Government. That is why investing in innovation to transform our public services is so crucial. I have stated before that, had my mother been scanned at Huddersfield hospital, where AI is integrated into the radiography department, I truly believe that she would be alive today. That shows the human aspect of digital technology.

Across the country, there are countless similar examples. That is why I strongly believe that the application of innovative technologies in our public services must become the rule, not the exception. By detecting disease earlier, modern NHS technologies will help families to share their lives together for longer. By reducing the administrative burden on teachers, modern education technologies will free up teacher time to support pupils to maximise their talents. By making it easier for businesses to interact with the Government, we can help them with their productivity and profitability. We have today launched a trial of 15,000 businesses for the new GOV.UK chatbot, giving new ways to interact with the Government that will drive profitability and efficiency.

“Digital centre of government” is now more than a clunky catchphrase; it is the route to making public services better and more customer-focused, and more in tune with the public’s increasingly digital lives. The average UK adult citizen spends one and a half weeks dealing with government-related bureaucracy every year, which means less time to do things they like to do and be with people they love to be with. By driving the digital revolution throughout government, we can restore the citizens’ belief that the state can work effectively and efficiently for them, and that we are worthy of their trust.

The Chair: We can absolutely hear your passion for digital and AI, and I am sure the improvements you talk about are ones we would all be very grateful to see, but what about all the other important areas of science and technology that your department covers? Are they going to get airtime with you?

Peter Kyle: Of course. I am here to talk about all the things you would like me to talk about. The department covers everything from space, 5G, broadband, infrastructure rollout. In between, we have life sciences, university research, and publicly funded R&D. We are investing in, and trying to get collaborations between, the private and public sector research so we add up to more than the sum of our parts.

Moving across to technologies of the future such as quantum and AI, and the social media landscape, you get a taste of why I believe that this is the most exciting part of government. If we get the transformation to the new DSIT right—a DSIT where we have the digital centre of government and a powerful Science Minister who, as you saw in his evidence three weeks ago, is driving forward the reforms that we need to make science more aligned with the priorities of our nation while also always protecting the need for scientific discovery—this department will be a foundational department that crosses all five missions and partners with other government departments to improve the transaction of government itself, but will also, I hope, transform the relationship that citizens have with their public services and their state by introducing digital technology to empower them and ease the interactions they have.

Q3 Baroness Willis of Summertown: I have a quick question. I absolutely admire everything you are saying, but how are you going to ensure that departments like DEFRA, with the vast amount of environmental data it has, come into this digital transformation? Many citizens or groups trying to undertake nature recovery and so on cannot get access to that sort of data.

Peter Kyle: You say that it is a quick question. Data is never a quick answer, in my view, but I will try my best.

We have to go right back to the fundamentals. I have inherited a really difficult landscape when it comes to data, not least because we have a number of legacy systems that are in a critical state, and their vulnerability is critical. To update them and make them fit for purpose for this day and age will be costly and time-consuming, and some of the data that will be truly transformative is hard to get to.

You will see in our manifesto that we committed to a national data library. We could commit to the project of a national data library only because we stood on a platform at the election of a decade of national renewal. It enables people like me to put together a programme of government to undertake projects that are going to take more than one parliamentary term. I believe that we have been held back profoundly by the need to get things announced, funded and then delivered in a three to four-year period.

The national data library will force the Government over time to make all data interoperable not just within their own departments, which is not the case at the moment, but between other departments. It will also ensure that safety and privacy is always there at the outset, so that the public can safely believe that we are anonymising data, bringing it together centrally, and making it

accessible for research purposes, for social sciences, academic science and medical research. If we do that, we will have harnessed one of the greatest assets in the entire world: the data that comes from the way Britain is governed and its welfare state.

Q4 The Chair: The previous Government had the ambition that we should be a science superpower by 2030. That was supported by the science and technology framework, and there was a series of metrics, together with a science and technology strategy across government, with all sorts of responsibilities for tasks like procurement, skills, regulation, et cetera, and there was going to be reporting on progress against these metrics. Has all that disappeared, or are you going to be continuing to report on our progress to becoming a science superpower?

Peter Kyle: No, it has certainly not disappeared. I would argue that we have increased our sense of ambition for science and research in this country, simply because we have now put it on a sustainable financial footing. That was not the case before.

I have been quite honest over the summer about some of the challenges I inherited. There were programmes that were not costed or funded. There were some sizeable programmes, announced verbally by Prime Ministers and Chancellors, that had not had a single penny allocated to them by the Exchequer for my department, which made for some very difficult decisions when I came in.

In the Budget last week, the Chancellor increased the R&D budget for my department by 8.5%. Overall, spending on R&D for government is now over £20 billion², so we are at a record high, including core R&D budget for the department, which will protect discovery-based science.

Whatever aspect of science you are interested in, you will see an increase in ambition. You will also see an increase in expectations from me about what we deliver for it, and how it delivers for the priorities that our country has.

The Chair: Are you going to be giving us regular progress updates?

Peter Kyle: You will have regular progress updates.

The Chair: Excellent.

² Note by the witness: These figures relate to 2025/26.

Peter Kyle: I hope my early appearance before your committee shows a token of good will when it comes to transparency.

- Q5 **Baroness Neuberger:** You have already talked about the Budget and core R&D budgets being protected, which is fantastic. Obviously, the devil is in the detail, and we would love you to come back. Has the increase in costs associated with Horizon Europe been shifted on to DSIT's budget, or to DSIT's books? Do we know whether the costs are fully funded by the increase in DSIT's budget?

Peter Kyle: The Horizon budget is ring-fenced by Treasury. I hope that reassures the committee, and that some of the fears I have read about over the summer and into the autumn are not realised.

- Q6 **Baroness Neuberger:** Thank you. I am going to declare an interest, because I chair University College London Hospitals, which you know.

The spending review in the spring and the longer-term envelope for departmental budgets may affect us, certainly on the research side. I would like to know what ambitions you have for R&D spend in the context of the spending review. When it comes to the ambition for those R&D budgets for certain institutions—that is why I had to declare my interest—when will we know which organisations will get funding, and will it be a floor not a ceiling, as Lord Vallance said?

Peter Kyle: There is lots in there. The committee will understand why I am not going to go into too much detail about negotiations that have not started yet for spending review 2. The two incredible officials I have sitting here beside me deserve a couple of weeks without the spending review in their lives before we embark on the next one.

I want to pay tribute to DSIT. I know there will be some officials watching this. I stand in total awe and admiration for the way they approached the challenges I put in their lap by coming into office and demanding some very major reforms of the way we operate as a department, are structured as a department and prioritised as a department. We have introduced delivery functions that were not there before. We have introduced economic functions to our department and interactions with a broad economy that were not there before. We were then put straight into the spending review process, which was expedited by the need to wrap it up by the time of the Budget.

I am very proud that that process went through, and what we delivered on behalf of the scientific community, research committee

and technology community. It was done partly through the earnestness, sincerity and real elbow grease that my whole department put into it, and the nature of the discretion that we showed. There were no leaks from my department over the process of this spending review, and I was even too scared to even talk about it after the budget, because I had become so used to being careful of my language.

The full details of the allocation will now be ironed out, and our stakeholders and all relevant communities will be informed in due course. Because of everything I have just said, I am not going to venture into the next spending review, but I hope that stakeholders who were quite publicly showing signs of anxiety and, if I am honest, believing every rumour they read in a newspaper or blog as to what I was aiming for or capable of delivering, will be a little more confident about the nature and the passion with which I, my officials and my department enter into defending the best interests of science and technology in this country.

Q7 Baroness Neville-Jones: Secretary of State, I would like to pursue one or two of these issues with you. One major reform in the Budget was the change to the fiscal rules, which allow for investment in infrastructure. We have been told that ongoing work in DSIT into what is called a long-term plan for research and innovation infrastructure is being prepared. That is very good news, if true.

One thing we hear from innumerable people who give us evidence on what they are doing in their particular fields is about the absence, or the inadequacy, of the infrastructure they are faced with: either not enough of it, or not enough of the right quality or modernity. You get the feeling that it is holding things back. When do you think we might expect to see such a plan? What is going to be its coverage, and will it be flexible?

Peter Kyle: I hope you have noticed some of the action I took over the summer. First, to your previous role in government, on the first day in the office I had a classified briefing on the state of cybersecurity for the country, obviously directly related to our digital infrastructure as a nation. I came straight out of that meeting and, within a couple of days, had requested an additional piece of legislation from the Leader of the House, a cybersecurity Bill that will be introduced later into this Session. That was because of vulnerabilities I immediately saw at the beginning of the job. That is now translating into a cybersecurity Bill that will increase the resilience that we have in our cyber network. It will also put duties on to Managed Service Providers by expanding the remit of the regulation to protect more digital services and supply chains ,

and give a new delegated power to me as Secretary of State, and successive Secretaries of State, to make changes to the regulatory framework to respond effectively to changes and/or threats.

Secondly, I moved the status of digital infrastructure to that of critical national infrastructure. Again, that requires investment at a higher level into our digital infrastructure. It means that we the Government treat it [key digital infrastructure sectors] with the same level of seriousness as other utility sectors such as water and electricity. Going forward, we have the general digital landscape and infrastructure. We need to increase our general compute power as a country. We need to radically increase our ability to process data via data centres, and store data. We need to look afresh at our sovereign capacity. All pieces of work to deliver this and understand the needs of our country are currently under way.

We have Matt Clifford, a highly respected person in the AI and investment worlds and currently the chair of ARIA, doing a piece of work on the AI action plan. That is going to cover a lot of the areas about national data infrastructure and its resilience. It will be reporting in due course, and on the back of it I am already preparing to respond as quickly as I can to some recommendations out of it. I accept that we do not have much time if we are going to invest on a scale that is going to keep Britain at the forefront and enable our country to benefit from all digital opportunities in the future. If we do not get the data infrastructure right, we will not be able to do so.

Baroness Neville-Jones: That is fantastic news. Do you have a timetable? Or do you have an aim at least?

Alexandra Jones: We are looking at this as part of phase two planning, so thinking about those longer-term plans and investments. We have programmes like the world-class laboratories programme, as you know, which looks at maintaining labs to a standard. I know there is more to do, but that is recognition that we need to build some new infrastructure, and to do in a strategic way because we will never have enough money to participate in all infrastructure opportunities however much we invest.

So thinking strategically about where we put that investment, working with the community to do so, and looking at maintenance is very much part of the phase-two planning. As the Secretary of State has said, we will build on Matt Clifford's plan and on a whole range of other work we are doing. So, for phase two, we will need some long-term plans around infrastructure.

Q8 **Baroness Neville-Jones:** I am sure the committee will follow that

with enthusiasm. I am cheered that it is not just the big stuff but some of the rather smaller stuff that is integral and essential to good research, and that other areas, such as laboratory infrastructure in science, also get a share of the proceeds, because it is disproportionately damaging to some of these other activities.

Can I ask you about attitude inside government? Across the Benches there is a general acceptance of, and indeed enthusiasm for, the notion that this country should seek to become, and make the most of being, a prosperous flyer in the world of science and technology. The question that bugs a lot of people is that, when it comes down to hard tacks with the Treasury, the short term tends to take over. Can you give us any feel for whether you think the Treasury is more sympathetic to, and indeed attaches a higher priority to, the national ambition and the kinds of things we are talking about than has possibly been the case traditionally?

Peter Kyle: To tie that up with your previous question about timings, I do not want to give you the impression that I am dodging setting times that you can hold me and my department to account for. It would have been remiss of me to give timescales on delivering things that have not yet been announced in the action plans. I have commissioned very serious pieces of work on compute and digital infrastructure. I need to understand the exact needs of our country before I put the pathways towards it. I know that the AI action plan is going to give some quite specific details on the future needs of our country, and that is what we will be striving towards. I am happy to come back and discuss specific timings, and I will.

We have spoken about the national data library. That project is going to take us beyond one Parliament. In our manifesto, we committed to 10-year R&D budgets where appropriate. We are currently working on the principles that will underline them.

Baroness Neville-Jones: Is the Treasury with you on that?

Peter Kyle: Absolutely. We do not talk about the specifics of negotiations going through, but it will not be a surprise to the committee to know that the importance of unlocking economic growth and the long-term success of our country were what the Treasury was looking for in the discussions we had with it.

When you ask me whether there is acknowledgement and respect—I paraphrase—for the areas covered by this, because past generations may not have done so, I point to the outcome that we delivered. I would love to say that it was all because officials and I were fantastically good negotiators, but it was because the

argument that we put forward about the importance of R&D, technology, jobs of the future and where they are coming from was not just accepted but acknowledged by the Treasury. We are looking at sectors across the economy that are growing faster than the OECD average—space, R&D, R&D-driven businesses, the ability to spin out and upscale new innovations into the economy—and we are looking at digital and data.

The case that areas covered by this department are critical to future success and to the short, medium and long-term impact on growth is one that I could evidence quite solidly. In broad-principle terms, I do not know of a single business that has been failing or stagnating that has not been turned around by the clever use of innovation, and the same goes for our country. We have to innovate. We have to capture the very best of science and technology in our country, and we have to have the infrastructure to fully capitalise on it, and that includes skills.

The Chair: It is good if you have got that message across to the Treasury as strongly as that.

Q9 **Lord Drayson:** Secretary of State, I want to further explore the digital transformation of government that DSIT is now responsible for. You have already made a number of really interesting positive points. Our area of interest is the practicalities of implementation across multiple government departments, when currently approximately half of all government spend on IT is being spent on legacy systems. How are you going to get the other government departments to work together to adopt common practices and systems?

Peter Kyle: I love how the committee is very good at asking short questions that relate to enormous subjects. I am very aware of the challenge. In opposition, we sent FOIs to every government department asking about legacy systems so that we could be as prepared as possible for the challenge of legacy. We are now going through the process of prioritising.

There is a series of different issues. We cannot do it all at once when it comes to legacy. It is very expensive. As you say, the fundamental challenge that previous Governments have experienced, and the pressure we will be under, is revenue funding. It is very expensive and costly to maintain and to keep secure legacy systems, but the capital investment it would take to upgrade and renew them is extremely high in certain cases. We are in the process of trying to understand the nature of the security challenge that is posed by some, the cost challenges of maintaining them, and the cost it would take to upgrade them. We are now

trying to systematically put together a plan where we can, over time, update legacy systems based on the security challenge and cost implications of doing so.

Lord Drayson: Could you just expand a little on the machinery of government and the methodology you are going to use to implement this? Chief information officers often have enthusiasm for the legacy systems that they were responsible for implementing. Once you have consulted across the departments and you have a grip on the landscape, how does DSIT implement standards across government? Is DSIT now the boss, effectively, of government IT?

Peter Kyle: I am going to give the high-level answer to this, and I can feel that Emran is poised to link in after me and fill in any gaps that I might leave. Emily Middleton is delivering a review of the digital centre to create the structural response to the challenges that we are posing that we want to tackle as a Government using the new DSIT. It is also running in tandem with Matt Clifford's AI action plan, which will need the structure and capacity within government to deliver it.

As you quite correctly say, this cannot be done to every government department by DSIT; it has to be done in partnership with every department. That means that, for the first time ever, we need to understand the digital capacity of each government department. In the first week of coming into office, I commissioned a state of the digital state review that is going across all government departments to understand the digital capacity, the digital skills, and the ability to design, develop and implement digital programmes within each government department.

This is not in order to expose problems or point fingers. It is simply because I am trying to create in DSIT a digital centre with the resource capacity that is simply incapable of being replicated or designed within each department themselves. Therefore, centrally, we can have a capacity that others do not, and we need to be complementary, not replace. I need to know where the talent is that we need to harness and work with and where there are gaps that we can quite easily fulfil in order to deliver the programmes we are talking about.

The governance question, again, is very good. Delivery of some centrally delivered digital services has moved from across government, mostly Cabinet Office and No. 10, to DSIT, but I never wanted governance to move all the way to DSIT. We now have the interministerial group with the Chancellor of the Duchy of Lancaster, the Chief Secretary to the Treasury, and me on the

committee, which has oversight of all the areas we are talking about when it comes to digital transformation of government.

The first thing we did in our very first meeting was put a moratorium on any spend on digital and IT programmes of over £5 million that would need to come into the interministerial group for scrutiny and sign-off before being implemented.³ We need to get this right over time. I cannot do everything in three and a half months, so over time there will be frameworks and standards, and then, of course, knock-on procurement. From the interministerial group, you will start to see cross-government standards and frameworks being set. Then we can start to have a grip and start supplying delivery functions. We will probably talk about that a bit more later. Emran, do you want to supplement any of that?

Emran Mian: No, it was exactly that. On the machinery of government, it is the state of digital government review that is significant, because it gives us the diagnosis and allows us to identify the capabilities that we bring to bear, and to govern the plan that follows from the review via the interministerial group, recognising that we need the centre of government with us, which is represented on that group by the Chancellor of the Duchy of Lancaster and the Treasury, and the focus they bring on delivering value for money for spend. Having the Chief Secretary of the Treasury represented on the interministerial group also brings that perspective. This will give us a powerful way to move on from the review.

Q10 Lord Drayson: You will be aware that we have had evidence that the Government struggles to recruit the level of expertise in IT software engineering. With this welcome championing that is now taking place in DSIT, how are you going to address that problem?

Peter Kyle: There are two aspects. Clearly, there are people who are extremely highly skilled. In AI, for example, the global talent when it comes to leading AI programmes and being able to programme for the digital capacity to the standard that is needed is actually very small. In those circumstances, we will have to pay and remunerate in a way that reflects the levels of skill that some individuals will have. I accept that, and I am willing to do so.

The second aspect, which is not talked about very often, is that there are many people out there domestically, in America, in California, and around the world who care deeply about public service. Part of the problem to date has been that some of these

³ Note by the witness: This in fact relates to non-critical programmes of over £1 million, which, if challenged, will come to the interministerial group.

projects have been so dispersed around government that they have not been magnetic enough for people to feel that their individual contributions are actually going to make the kind of change or impact that they are currently able to do in the private sector at the moment.

There is already growing evidence that the creation of the digital centre, the elevation by this Government of the need and the importance of transforming public services and the way the state operates, and the sheer potential to be part of something that is transformational and impactful are showing that there is a place where you can have a highly satisfying vehicle for your talents. Bear in mind that some units that have come into the digital centre have never had senior ministerial oversight. You get a sense now that they are probably bored sick of me and the oversight they are getting directly at Secretary of State level for this. There are lots of things that we can do to attract people.

- Q11 Lord Drayson:** You have already given us quite a lot of insight into the national data library and the challenge for this decade of reform to do it. You have mentioned the challenges around cybersecurity and the review that is taking place. Another challenge relating to the transformation of IT and the creation of large data libraries is that there is increasing dominance of IT systems by a small number of companies. How do you intend to ensure that the UK retains sovereign capability where that is in the national interest, while benefiting from the scale of these systems and balancing the transformation ease of use with cybersecurity?

Peter Kyle: It is one of the questions of our time, and a question where the answers are already slightly different today than they were three and a half months ago when we came into office, and certainly quite different than they were at the beginning of this year in some cases.

First, on the security of the big providers—AWS, Microsoft and Google—the CIA, and GCHQ domestically, commission some services themselves. That gives you an idea of the level of security that they are able to provide in singular terms.

Secondly, the nature of sovereign capacity is that we have to be very clear about what data needs to be domiciled here, what degree of data we need to make sure is onshore for resilience purposes, and what role the state plays in maturing the sector itself to ensure that it is affordable and accessible for small and medium-sized enterprises, and micro enterprises, that could become the next Google DeepMind and the like. All these things are in an active matrix that moves.

The big three players have an ability to invest in infrastructure that is astonishing and something we want to attract in our country. We also want to make sure that the next-tier providers, such as CoreWeave, Northern Data and a couple of others, find themselves in a market that is healthy and which they can bid for, and interact with the state. This is one of the things where there has been a culture change in DSIT. We are engaging very actively with all providers who want to have a relationship with government at the moment when it comes to data provision and the construction of data centres. I pay tribute to Emran and the way he has led the cultural change of our department. The engagement programme we have with these companies is active.

I would also like to mention at this point that we have already embarked on a programme of planning reform. We were told that this is one of the key barriers to investment in the country on digital infrastructure. Now, the Deputy Prime Minister and Ministers are able to intervene to expedite, should planning or life science lab space get bogged down in local planning applications in a way that is deemed to be anti-growth but also anti the interest of that community itself.

Q12 Lord Borwick: The industrial strategy Green Paper lists very broad areas of focus. The Government say that you are going to prioritise subsectors in the spring when the full strategy is set out. DSIT will feed into this, presumably.

Peter Kyle: Yes. There are eight sectors we are honing in on, and we will be delivering on two of those. For the digital and technology sector, we are feeding into those. By spring, there will be all the detail that you would expect.

Lord Borwick: Digital technology is one. What is the other one?

Peter Kyle: The other one is life sciences.

Lord Borwick: Do you know which the other six will be allocated to?

Peter Kyle: Yes, they are all announced. They are all published and being co-ordinated by the Department for Business and Trade. In our area, we are working intensively with DBT on this. I sit on the growth mission board, which is also playing a role in this. We are consulting with our stakeholders, and doing the work you would expect as a department to make sure that the voice of the digital and tech sector and life sciences is heard loud and clear, because it is very clear that they are central to the growth mission of this Government and, of course, to the industrial future of our country.

Q13 **Lord Borwick:** Are there any parts that DSIT has been working on in the past which will not be carried through under the new system?

Peter Kyle: As I say, we have come in with a new set of priorities. We have given headline priorities, which is not a million miles away from some strategies of the past. The problem with the strategies of the past, as the committee well knows, is that we have gone from one period over the last 14 years where we had a Government who refused to say the words “industrial strategy”, to suddenly going to a Government who named a department after industrial strategy, and to two more iterations where we had five priorities and then seven or eight priorities. It is the sheer instability of it.

Three and a half months in, I accept that I am not able to give all the clarity on where that will be, because we have already announced that it will come in the spring. The key reason for getting this right is that we want this to be a framework through which businesses that are already operating domestically through R&D and are providing the future innovation for our business community, and crucially the companies abroad that are looking globally at where to invest, will see a country which is stable and pointing to the long term.

As every one of you around this table will have said so many times that it must make you crazy, Germany does this, and Germany’s great success when it comes to industry has been its long-term thinking and the fact that large parts of its industrial strategy withstand changes of government. We need to get that kind of trajectory, which has such logic behind it, such success in delivering core missions for growth that is accepted by both parties, that its success will speak for itself and last through multiple Parliaments into the future.

Q14 **Lord Berkeley:** Building on that theme, we have taken evidence on the problem of companies growing—scaling up, if you like—in the UK, and it does not seem to have worked very well in the past, but your Government have talked about ambitions to use pension funds and procurement, and you have touched on how to support science and technology for longer term. How will it be different this time, and why did it fail in the past?

Peter Kyle: One of the key challenges for scaling up has been the insecurity and instability in the economy generally. When I have met stakeholders—by which I mean businesses, investors and venture capitalists—that are looking at Britain, the instability in Britain’s politics and in the management of our economy was an

incredible deterrent. It is very hard to quantify, so it was very hard to point to it. People do not wake up in the morning when they are getting ready for work or studies and think about it in the way they think about other challenges facing the country, but it was a terrible deterrent for investment into our economy. The stability that has returned to our management of our economy, and the long-term planning that we are embedding, has already unlocked the investment into the economy.

The investment summit that we had a couple of weeks ago had £63 billion worth of investment committed to the country, but the key thing when you dive deep down into it is that £24.3 billion of that money was directly related to AI investment in our country. Just that investment into AI infrastructure in our country in that one summit almost matched the total pledged investment from the previous investment summit just 18 months earlier. So you can see we are already managing to unlock investment.

The next thing is reform. The Chancellor has spoken about pension reform over the Budget period. She spoke about it in opposition, and that work is well under way. My department is involved in it, and I have been directly consulted on it directly. Our economy is undercapitalised. We have a venture capital landscape that is not capitalised enough to do the kind of broad investments that we have seen in the past, but, in singular terms, we do not have enough private investors that are able to do this full scale-up work, which is why the term “the valley of death” has emerged.

We are very good at spinning out and good at doing the first signs of scale-up, but when you need to go back for rounds two and three of funding and you are hitting sums above £70 million or £80 million into over £100 million of investment, it is extremely hard to find it. In Silicon Valley, however, that kind of degree of funding can be found in a matter of weeks. We want innovators to be rewarded in this country for these kinds of intellectual property to be remaining in this country and the jobs that are created from it being taken by people who are currently in school or university, or in further education and apprenticeships. They are the people we really have to bear in mind when we strive to deliver the reforms needed.

Lord Berkeley: There is good news there, but can you explain why the National Wealth Fund appears to have effectively had its funding cut by a fifth in the Budget? That is the advice I have had.

Peter Kyle: I believe the National Wealth Fund is now capitalised to the degree of £27 billion when you include the private sector aspects of it. We have incorporated a number of other financial

institutions that are already in existence so that we can give clarity of vision and a very strategic approach, but we are already quite confident that for every pound that the National Wealth Fund invests we will be able to unlock at least three more pounds in private investment. Those are the kind of partnerships that we are fighting for at the moment. In my view, we have certainly already exceeded the ambitions that we had set out for the first year of government.

Lord Berkeley: Maybe the wording “held in reserve” is why there is a difference between our views on this. Is “held in reserve” meaningless?

Peter Kyle: I would say that it is there working for our country.

Q15 **The Chair:** Before I let you get back to your comfort zone of digital and AI, I have to follow up on the answer you gave at the beginning of this question. When we were talking about the industrial strategy, you immediately said that the digital and technology and the life sciences were sort of owned by DSIT. Some of us from the engineering and physical sciences side would be very concerned that you did not also want to stake claim to advanced manufacturing and clean energy, which we feel should also be absolutely core to what DSIT is supporting.

Peter Kyle: It is, and I hope you will see that in the Budget we have already extended the life sciences innovative manufacturing fund for another year, and some other key investments into quantum funding, which is £100 million. I was in Glasgow over the summer announcing that investment into the key advanced manufacturing industries of the sector of the future. We are striving at the bit.

The Chair: Sadly, the Nuclear AMRC in Sheffield has closed, because the university cannot make it a financial success.

Alexandra Jones: Of the eight sectors, DSIT is leading on life sciences jointly with DHSC, and [leading on] digital and technologies and supporting the others. Indeed, we are working incredibly closely with the space sector on the advanced manufacturing. Our R&D system funds a number of things that underpin that system from Faraday to the catapults.

The Chair: Can you assure us there will be no lack of focus on all those other key areas that DSIT and UKRI fund?

Alexandra Jones: Yes. The other strand we have in the industrial strategy is we are looking at how science and tech can help every one of these areas, because we know that we need to grow science

and tech sectors, the specific sectors, and that science and tech helps every sector. So we are looking at it from both dimensions. That is one of the things we are looking at with all the people leading on putting together the sector plan.

DSIT is responsible for the R&D system, which means that we fund a lot of the underpinning capability from discovery research through to some of those institutions and that we are always working with our colleagues right across government on this. We are having some very good conversations about what they are funding, what we are funding, and how that works to support industrial strategy and the growth mission as well, with the Ministers keeping an eye on us through all the various growth boards that the Secretary of State sits on.

Peter Kyle: You can see from the way we are answering that DSIT is becoming a supportive role player across government. You can see that with other things that have come out of the Budget. One example is the R&D missions fund, a £25 million fund which we hope will be just the start. That is how we can now use the power of R&D and the areas covered in DSIT to tackle the singular challenges that individual departments have failed to make enough progress on in the past.

By having this missions fund we are able to go to the missions leads across government and ask, "What are the singular challenges that you think are holding back delivery for the country in your areas?" Then we will see whether we can allocate some funding for it from DSIT, and use our networks to start harnessing the power across R&D, innovation, higher education, and the private sector stakeholders we have very good relationships with, to see whether we can give a new singular push to some real, knotty challenges that have been holding us back. That is a good illustration of how I am trying to position DSIT to be there to support other government departments, even when we are not necessarily in the leadership role itself.

The Chair: It is not a very large sum of money.

Q16 **Lord Wei:** We understand that the AI opportunities action plan will make recommendations about AI infrastructure. The Government cancelled £1.3 billion of unfunded technology and AI projects, including a flagship supercomputer in Edinburgh. Leaving aside the politics of whether they were funded, is there any plan to replace them?

Peter Kyle: As you raise it, I cannot leave it aside. It is not politics to say that it was unfunded. People have challenged me on this

from the media, from opposition and elsewhere on this issue, but nobody has been able to point me to a single piece of paper with DSIT written on the top which confirms any of the funding in the first place. I did not come in and cut the Exascale programme that you refer to because I did not like it. In fact, I did not cut anything, because the programme did not exist in the first place. This is an intense frustration for me, because I had three choices to make on that £1.3 billion, all of which was unfunded, uncosted and without any allocated resource from Treasury at all.

I had to make three choices. Did I cut £1.3 billion, or in one case £800 million, from other parts of my budget? Did I just carry on with the smoke and mirrors that have gone before, because it was possible for me to carry on talking about this project without ever having to admit that the money did not exist into the future? Or did I just try to find more money for it because the money just simply was not there? So I find myself in a position of apologising to people who believed that there was money allocated to their projects. There was not, but it was not my position to apologise, because it was not my Government who made these decisions and acted in this way.

In terms of where we move forward, I must make one very clear promise to every one of the sectors out there that relies on this infrastructure. I am in the process of fully understanding the needs and the capabilities of our country if we get digital infrastructure and compute right, and that will be the needs and capabilities as they are today, in 2024, not three years ago when many of these promises were made. When I produce my conclusions, they will be fully costed, fully funded, and the Treasury will be on board to deliver them.

Q17 Lord Wei: The *Financial Times* reported that the plan will ask for reduced costs for visas for people with AI expertise. The committee wrote to the previous Government several times about visa costs for science and tech talent. Will you be making a case to the Home Office that we should compete for top talent and provide more visas for scientists?

Peter Kyle: Britain is the best place in the world to innovate and to put those high skills to use. I think about 8,000 visas were issued last year [to June 2024] for the high-skilled [Global Talent Visa] programme, an increase of 16% [to the previous year]. So I do not think the idea that we are putting people off coming here at the moment is correct, but I will continue to beat the drum for Britain being the best destination, because that is what you asked me to do. We are already a great place for people to come from around the world, and we are a welcoming place for people to

come with their skills and put those skills to use tackling not just Britain's problems, because when Britain solves these big challenging issues we solve them for the global good as well.

The Chair: We certainly hear from universities and small companies that this is putting people off from coming. Absolutely.

Peter Kyle: Look, I am not here to defend the previous Government. We have a set of inheritances—

The Chair: But are you going to do something about it?

Peter Kyle: You have already seen this week, and last week with the Chancellor, that we are taking the difficult decisions to reset relationships with stakeholders, both globally and domestically, and to create the conditions from which we can start to rebuild. We saw last week that we cannot solve all these problems in one step. Speaking very bluntly, what I have discovered in this job is that when I speak to people who are running universities or construction firms, they describe the challenges they have in their sector and in their businesses or organisations, and it sounds awfully similar to the challenges I inherited when I came in to this job: regulation and planning systems that were not fit for purpose; underfunded, undercapitalised projects; and just sheer instability and the lack of strategic thinking that is impacting them in the same way it is impacting me. So we have a shared inheritance when it comes to the challenges that I face with many of the stakeholders we have.

I know there is a lot more to do when it comes to rebuilding the financial stability, and sustainability in all terms, of many sectors, including higher education, but you can see that we are taking the very difficult first steps to do so. When it comes to talent, that is obviously an issue for the Home Office to take, but we are already a great place to come to study, to teach and to do your research.

The Chair: Thank you.

Q18 **Viscount Stansgate:** Hello, and welcome to your first session with a Select Committee.

I want to ask a bit about using AI in government. There is obviously a clear commitment to try to do so, but we have seen what can happen when too much trust is put in unaccountable algorithms. Some sort of high-profile scandal involving AI could derail a huge agenda in this area. So what regulations or safeguards are being put in place, or what are you thinking about, before AI is used extensively in government, and how are you planning to evaluate the usefulness and accuracy of the models

that are under discussion? What is your thinking in this area?

Peter Kyle: Thank you. This is incredibly important. I accept that if we are to meet our potential as a country, the future success of our country rests on being able to fully capitalise, implement and harness the power of AI. It does not mean us all collectively as a country. It means that individual people running businesses and organisations, large and small, are going to have to try to embrace it. But I cannot expect people to do so unless they believe that the technology they are using is safe. I accept that we cannot expect people to start allowing government to start using data in ways that are modern and technologically innovative for their benefit unless they believe that their data is being used in ways that are safe and that respect their privacy.

I accept this, because in opposition, when we were preparing for government, I spent a lot of time speaking to my predecessors to ask about the challenges they had. When I spoke to Lord Sainsbury about the GM modified crop challenges that he faced, I found that government getting that argument wrong at the time set back our ability to develop a scientific excellence, which to this day has inhibited our abilities to exploit it. I want to learn from those experiences, so I feel very strongly.

The second aspect of it on the macro is that we have come into government at a time when safety is an issue right across the board. Women and girls do not feel physically safe going outside after dark in the streets. Parents do not think their children are safe online. This is not the environment in which we can fully explore our potential as individuals. We have a big issue on safety overall.

I want to reassure people. I can talk through an example that went live today, the GOV.UK chat, which is an AI facility that has been trained on government interactions. We are piloting it with 15,000 businesses in beta form today. People in those businesses can now go to GOV.UK and interact with an AI-powered chat system that will answer questions about any area of government business or government activity. They can ask, for example, how to set up a business very specifically, geographically, locally and about the structures of setting a business up, and then have a conversation that will flow underneath it. In a matter of minutes, they will get very specific answers and signposts to questions about how to do things and get things done with business that previously would have taken hours to find the answer to online, and, in some cases, days when you take into account the follow-up.

In order to create this tool, we have respected all the existing privacy legislation out there. When people interact with this new chat facility, they will not be able to interact and input any personal data. So if they ask things like, "Can you email that to me?", it will say no, because it will not allow you to input private data like a phone number or email addresses.⁴ All the respective pieces of GOV.UK Content that the tool is accessing are still retained by the individual units and departments across government. They are not pooled together in one receptacle place. They [users' data] are still retained in individual places with all the GDPR protections fully in place, and the central system has no access and ability to share it across. These are things that we are delivering sensitively and are governing in as detailed a way as we can while fully unleashing the power of this technology to solve the challenges that people tell us they have when they are interacting with government.

The Chair: It is not just about privacy, is it? It is also about bias, which is what some scandals that we have had have been about. If a company has never appointed a woman or a black person, the algorithm will assume that these people are not suitable, and only white candidates will be put forward. That is as crucial a factor, if we are using algorithms, as the issue you have talked a lot about, which is the safety of people's data.

Peter Kyle: You are totally correct, and all these issues are things that we are working on now and which have been in development for a while. We are very well equipped, because we have facilities within DSIT that have access to a lot of resources, such as the AI Safety Institute, and some talent that exists in DSIT who can help us design these systems as safely as possible, bearing in mind the challenges that are posed by use of large language models and AI.

Let me also put this in other terms and talk through the voice of a Secretary of State, rather than somebody who is using this in the private sector. There is a real cautiousness in government when using technology like this, for very understandable reasons. The beta went live today, and it would have been very tempting for government and me not to talk about it because it is in beta phase. We have now got to the phase where we have tested for biases and other safety issues, but I know full well that there will be some perversities that sneak out there now we have thousands and thousands of people testing it, not just small teams of people testing it within the Government.

⁴ Note by the witness: Whilst it is possible to submit to other personal identifying information to GOV.UK Chat, the user interface strongly discourages users from doing so

I am going to embrace this period of beta testing. When things come out that might be embarrassing and might well cause the columnists and the sketch writers to poke fun at me or my department, I will take this on the chin, because this is the nature of development. If we are going to use technology as a department and as a Government, we have to accept the same developmental challenges that are faced by other sectors, and we cannot run away from those sorts of things, but we have done everything we can.

Finally, the data that was used to train this model was all within the government sphere to start with. We have not trained it on the general language outside of government. This is a tool to help people interact with government, so it has been trained only on the data that we hold within government.

Q19 Viscount Stansgate: I have a follow-up question on how you are monitoring it. You say that it would be possible to engage in this chat, but at the same time it is not centrally held, and presumably you will be able to directly interrogate other departments. But are you intending to produce an assessment of some kind of how this is working?

Peter Kyle: Yes, of course. The data that is being accessed is dispersed, but clearly GOV.UK is a very well-resourced body, and we will monitor the interactions with that data very closely to make sure that any issues that emerge are dealt with. This has to be a constantly evolving product in order to keep up. Emran is very welcome to add to this, if he would like. These are the facilities to monitor those interactions and what leads to any outcomes. Certainly in the beta stage in particular we will be looking very closely at individual interactions to make sure that we can check the correct response has been delivered in a way that is satisfying for the person using it.

Emran Mian: We have very explicitly launched it as a beta with a limited user group, because we know that it requires further testing, so we are looking for those users to give us feedback on whether it is proving useful, whether it is giving them the information they most wanted, and where it is making mistakes, because at this stage it will make mistakes and we need to learn what those are to make the tool better and better. That is why we are doing it in beta form and it has not gone to the sort of launch where absolutely anybody can access it.

Viscount Stansgate: If all goes well, at what stage would you hope to roll it out?

Peter Kyle: We are not looking at a time period but for a number of interactions. As soon as we hit a certain number of interactions, we will have confidence that we have ironed out some issues that we might be exploring.

I hope the committee recognises that a Secretary of State coming here and saying, "I've just released a service to the public which I know is going to make mistakes", is in itself an innovation. I recognise now, from having observed how innovation works in other sectors, that government has to get used to this kind of thing. We have to help the public to understand what we are trying to achieve here, because if we do not find mistakes during the testing period, with thousands and thousands of interactions taking place in this chat facility, it is not doing its job properly. This is part of the process, and we cannot just keep everything behind closed doors in secret, in policy development terms, which is what government normally does. This kind of technology needs volume testing, because we are looking at volume support for the general population.

Q20 **Baroness Young of Old Scone:** Good afternoon, Minister. I want to follow up on something that the Chair said about public concern, where decisions affecting their lives are being made by a process that involves algorithms and AI. Should there be a rule that, whenever a public body is using that sort of decision-making system, they need to publish the fact that that is the case? I know that the ATRS, the algorithmic transparency recording standard, was probably aimed at getting that sort of disclosure, but it has had very little use so far. How can we reassure the public, through some clear mechanisms, that there is no computer with an algorithm and AI behind decision-making that they do not know about or trust?

Peter Kyle: Thank you. This is a really important area to interrogate. The Government signed up to the algorithmic transparency recording standard some time ago—as best practice, organisations are advised to publish records setting out key information about algorithmic tools which affect the general public—but I believe that last year certainly fewer than three government departments released that statement. I have recommitted this Government to start publishing those records. It will take time to get to the point where every department is able to do so, but, just to be very clear, this would become a central repository where the nature of the algorithms using their data are described to the public so that they can understand how algorithms are used by each individual government department.

It was a source of intense frustration for me in opposition that so few government departments were adhering to this standard. Now, as a Secretary of State, it is very hard for me to go out there and implore private sector and other providers of services to start adhering to this standard and telling their customers and service users how they are using algorithms with their data, if the Government themselves are not doing it. That was the case before, but it certainly will not be the case with this Government.

Baroness Young of Old Scone: Are you convinced that this standard goes far enough? Does it actually involve the use of generative AI and large language models, or is it just a way of listing decision processes that have some sort of algorithmic or AI support embedded in them? Is it able to get the quality of that work into the standard as well as just the quantity?

Peter Kyle: I believe that the standard set by these published records is high enough to satisfy the vast majority of people who want to understand how algorithms are used to interact with their data at the moment. But we are living in a world where technology moves on fast, and if the nature of that technology changes and therefore the standards need to adapt, I will not be sitting on my hands in order to do so.

As I said before, we can only explore our potential as a country, and innately as individuals out there in the economy, if we believe this technology is being used safely. We can only use this technology as a Government if citizens and service users believe that government is treating their data with safety and their privacy is taken into account. A big part of earning that trust is going to be transparency. I see no circumstances where, as a Government, we would see a reason not to be transparent with how we are using algorithms in order to deliver services to our citizens.

Baroness Young of Old Scone: Can I just get clarity that there will be an instruction to all government departments to report on their use of this standard?

Peter Kyle: Indeed. That instruction has existed for some time. It has just not been applied or adhered to. But this Government expect government departments to adhere to that standard.

Q21 **Baroness Young of Old Scone:** The Chief Scientific Adviser talked to us about whether there might be a case for having a watchdog for the use of AI in government. Obviously, it is a crucial issue, because there will only be one opportunity to have some catastrophic misuse of data, as happened with NHS data, which sets the public off in the wrong direction. Do you think it would be

a good idea to have an in-house watchdog, preferably an independent in-house watchdog, to make sure that all government departments are being transparent and quality-orientated in their use of algorithms and AI?

Peter Kyle: For reasons that I have already outlined, I am very keen that use of AI and digital technology in government is governed as effectively and efficiently as possible. I am open-minded to discussions and debates as to how we achieve that going forward, because it is elemental to our success.

We have to understand that AI is a general-purpose technology, so its use is very profound and diffuse. Right now, for example, my department is leading a trial of Microsoft Copilot with 20,000 civil servants across government. At the moment, we have got to 18,000, but within a fortnight I think we will get that up to 20,000. We are trying to understand how AI can be used to assist civil servants in their administrative duties on behalf of their departments and our Government. That is a trial that we are looking at very closely.

In the NHS, AI is already being used in Huddersfield hospital, as I said earlier, to assist in radiography to detect early-sign patterns which the human eye is very challenged to detect. It is incredibly efficient at diagnosing early-stage lung cancer. In education, it is helping teachers to design. I could go on and on, but I will not. Do not worry.

So when you suggest having a regulator or a governance unit inside government, just think of the burden that it would have to take on in order to capture all that AI is doing across government.

Q22 **Baroness Young of Old Scone:** I do not think I am seeing it as a gatekeeper. I am seeing it more as a standard setter.

One last question, Minister. You talked about AI helping civil servants, but I gather that the Government were due to trial something that would help Ministers with their red boxes. Is that happening, have you used it, and was it useful? Have you had personal experience of it, and does it work?

Peter Kyle: That was the predecessor Government. I am not sure whether that was an announcement that went the whole way or not. I am not sure.

Q23 **Lord Strasburger:** Good afternoon, and I apologise for my temporary absence while you were dispensing your pearls of wisdom. We have been talking about the risks of AI and the risks of using it. I would like to talk about the risks of AI itself and about

regulation, both here and internationally. The Labour Government manifesto said that binding regulation would be introduced on big tech companies that are developing the frontier AI models. What are your priorities for this regulation, and will it diverge significantly from the EU's regulation? Is there a risk that the US tech giants developing frontier AI effectively lump us in with the EU regulatory approach?

Peter Kyle: The manifesto commitment was to put on a statutory footing the voluntary code which has already been signed up by all the frontier AI labs based in America and DeepMind, which is obviously owned by Google, here in the UK.

When we look at the power of the technology, most people would expect it not to be voluntary code but to be backed up by statutory conditions. So I will be introducing legislation that will do two things. First, it will put the voluntary code on to a statutory footing, so there will be a compulsion for pre-release of the models for testing by the relevant safety institute. Secondly, it will make the safety institute into an arm's-length body to give it a bit of independence and a long-term future, because safety is so important.

Lord Strasburger: It is very easy to see the benefits of AI, at least it is now. The downsides are less obvious. Geoffrey Hinton is thought by many to be the godfather of AI. He started work on it in 1985 and spoke in this House about the risks of AI itself and the human race losing control of AI, which a number of eminent people in AI echo. He is a serious man with serious concerns. How seriously do you take this, and is it the intention that the AI Safety Institute, or other international organisations, have teeth to step in if they see something on their models that is deemed unsafe in this respect?

Peter Kyle: First, can I congratulate Geoffrey Hinton and Demis Hassabis on their Nobel Prizes? They are a real credit to us as a country. Geoffrey lives in Canada now, but I like to think all his scientific prowess was developed when he lived in Britain.

Lord Strasburger: I am sure it was.

Peter Kyle: The potential dangers of AI into the future, when you take into account the general nature of it but also the exponential growth in its capacity and power, have to be taken very seriously. I would simply say that there is nothing inevitable about the way AI unfolds, develops or impacts our society and economy. As a Government, we have agency in this. I am swiftly putting the AI Safety Institute on to a statutory footing because I believe that it

has been a real success, and I am grateful to the previous Administration and to Rishi Sunak as Prime Minister at the time, because it was a wise thing to do that has had impact around the world.

In terms of regulation and planning for the possible impact, I have already instructed all our regulators to do an assessment into the sectors that they regulate and the impact that AI will have on them, which, I accept, is a different approach to the EU's. The AI Safety Institute is being invested in, but the final piece is that we are not going to be able to seize the opportunities or solve the challenges posed by AI unless we work collaboratively and constructively with like-minded countries and try as much as possible to engage with China. We have to set global standards and work internationally as well as domestically. If we do so, I believe we can harness this power, rather than negative impact being its predominant feature.

Q24 Baroness Willis of Summertown: Changing topics quite rapidly here, we move on to the university funding crisis. The previous Secretary of State told us quite categorically in March that there was no funding crisis in universities. I will declare an interest: I have worked in the university sector for the last 40 years. I would disagree with that statement, and we have had a number of university vice-chancellors here who have said the same: that there is a funding crisis.

There are reports in the *Times* saying that DSIT officials have been drawing up contingency plans to safeguard research in the event of universities going insolvent. Are there such assessments going on, and what is DSIT's view on this?

Peter Kyle: My predecessor was wrong to say what she said back then. We all knew that financial stresses were being experienced by higher education. Those stresses were not just R&D budgets, or the fact that tuition fees had been held down. They were coming from multiple directions at once. I am afraid that, to the shame of our country, our university courses were being talked down, by the Prime Minister downwards, which is why, during the election period, I said that the war on universities would end on day one of a Labour Government, which it has.

Does that mean that we can fix all the challenges all at once? No, it does not. I know that financial challenges are faced. It is not evenly distributed across higher education. It is felt in different places in different ways. Therefore, the way to get the sector up on its feet again and facing the future with confidence will be different in different places. You will see that just yesterday the Education

Secretary made an announcement about tuition fees. You will also see that our R&D budget, my R&D budget, has faced an uplift of 6.5%,⁵ which shows confidence that will broadly impact the higher education sector.

I do not just want to plug the gaps that have been left by my predecessors. The opportunities, needs and societal needs of higher education have evolved, and I want to make sure that universities are benefiting from all of the best that is out there at the moment. When DSIT is investing in many different parts of communities up and down the country, I want those bits of communities and areas to be working collaboratively together. That is what we are going to be working with, with universities going forward. The relationship we have is granular and detailed in higher education, and I know that UKRI is doing its absolute best to get the sector supported.

Baroness Willis of Summertown: I appreciate all that. Just coming back to the question, has DSIT been working on a plan of what happens when or if some universities go insolvent?

Peter Kyle: As a department we are working really hard to ensure that the sector has a really bright future. We know that some universities are experiencing singular challenges, and in those circumstances we are doing absolutely everything we can. This is led by the Department for Education and primarily by the Education Secretary. We are working very closely together, often under the leadership of the Department for Education, using the resources that we have to make sure that there is a good net beneath the university sector, but that crucially, in rebuilding, we rebuild and support the rebuilding of the sector in a way that captures all the potential that is out there for the future economy and the needs of country regarding skills.

Q25 **Baroness Willis of Summertown:** Of course, you have the research budget. That comes through UKRI and is fantastic. We have heard from so many universities that are brilliant at the apprenticeship schemes, but they are not the research-active ones. How does building that capacity of scientists, people who are going to be the technicians, and people on other scales in the research support infrastructure in the UK come into DSIT thinking?

Peter Kyle: It is quite widely known that I had difficulty through education and was rejected four times before getting into university. Once I got in, everything unlocked. I understand the

⁵ Note by the witness: This figure should be 8.5%, referring to DSIT's R&D budget uplift in real terms in 25/26.

power that university has, but I understand that that experience is not limited to universities; apprenticeships unlock similar potential in other people and have led to astonishing careers, and will do into the future.

We are looking at all pathways through education into the workplace, and have already reviewed, updated and modernised the apprenticeship levy to make it fit for the moment we are living in. We are also doing as much as we can to ensure that those different pathways are producing the skills that are needed and are locally sensitive where there are local skills demands and challenges.

Q26 Baroness Willis of Summertown: That was my point. We had Manchester Metropolitan University before us. It absolutely thrives and does a fantastic job on that, but it would not say that it was front and centre for the research funding. In some ways, those are the most vulnerable universities.

I have one more question, which is about international students. I know from my own experience that that is where the real problem has actually hit and where the numbers have just gone over the cliff. Can DSIT help in that aspect of it?

Peter Kyle: Again, these are issues that are led by the Home Office. All I would say is that Britain is the best place to study, with some of the top universities in the world for teaching and research. The negative sentiment that was sent out previously about studying here—I am talking about saying things like “Mickey Mouse courses”, which should never have been uttered—play a role in that decline, as well as some other issues you talk about.

We need to be a magnetic, compelling place to come and study, based on the facts, including what a great experience people have when they come here to learn, because we are a great place to learn as well as to come and teach and do research. The committee knows that we cannot do everything in three and a half months. The rebuilding of the sector will be different to simply replacing the bits that were lopped off or challenged before, and I am trying to find ways of helping universities, and all pathways that young people take into the economy, to become fit for the future

If you will allow me to say so, my principle in this job is to look at the potential our country has, not to try to guess what government can do. It is that bit that, at the moment, the Government have not shown the capacity to do, but there is more potential out there that our country has. That is what gets me out of bed in the morning

and keeps me so excited about doing this job, and so thrilled to be Secretary of State here before you today.

Q27 Lord Rees of Ludlow: I want to follow up the Minister's last statements, which I would fully endorse. We clearly want to make science an attractive career for foreign talent and for young people choosing careers, and to provide an environment that offers the right conditions of intellectual stimulus, et cetera, for research. Do you feel that we have the right mix between university research and stand-alone institutes? We know our biomedical success has been achieved through a mixture of stand-alone institutes and universities. I wonder if you feel we have the balance right in other important areas like agriculture, transport and energy, or do we need more stand-alone institutes, for instance?

Peter Kyle: I am afraid I am not going to answer the question directly, because I do not think it is my job as Secretary of State to decide all the different sectors and places where research could, should or will flourish. My doctorate, which I get asked about all the time now I am in this job, because people think I might be a scientist, is in social sciences. Therefore, I see it as my job to create the framework of circumstances and enough flexibility in our system that the might of the British Government can follow the talent and follow where the innovation is flourishing and emerging from. If we get that, we will be able to fully exploit the talent that we have out there and the innovation that is being sparked right now as we speak. That is what I am hoping the Government can do.

Lord Rees of Ludlow: One remark, just to underline my question, was the realisation that it is widely thought that university careers are less attractive to researchers than they used to be, with more bureaucracy, less time for long-term projects, et cetera. It was really that motivation that led me to ask whether you think the balance ought to be shifted towards some stand-alone institutes.

Peter Kyle: It is a great insight that you have shared. I have now spent quite a bit of time with some these companies that have gone from nothing to tens of billions of value in a heartbeat. What I notice in some fleet of foot but very disruptive and powerful tech companies is the way that, when an individual comes forward with talent and an innovation that has potential, the entire organisation bends towards that talent and the individual that is creating it in a way that is quite breath-taking.

Sometimes we are talking about people who are in their early 20s, with great youth but also with a great idea and great potential. However, compare that to the standard model in universities,

where you are not really given power and influence until you have published a certain number of papers and reached a few sort of hierarchical thresholds. That does not match the exploitation of potential and innovation in the way we have seen in some of the companies here in the UK and, of course, in Silicon Valley.

Lord Rees of Ludlow: That is music to our ears.

Q28 **The Chair:** I come back to the point that Baroness Willis was making, which is that to do great science we need great scientists, and indeed great technicians to support them. What advocacy are you doing with the Department for Education and Skills England to make sure that their priorities are going to deliver those scientists and those people who will support them?

I need to declare an interest as a former chair of STEM Learning. We hear that the Department for Education is cutting budgets for science teachers' CPD and, indeed, for the National Centre for Computing Education, for example. If it does not start in our schools, it is not going to work in our universities and our scientific research.

Peter Kyle: You can see already that we have undertaken a comprehensive review of the national curriculum and established Skills England. These are all bodies, reviews and programmes of work that are well under way and are aligning towards the five missions of our government and the priorities that we set out in our industrial strategy.

We have to understand the granular nature of what skills are needed and where they are needed in order to develop a system that is fit for purpose for delivering it. I understand that there is a lot of information and experience out there already, but we are a new Government and we are trying to set the platform for a decade of national renewal, and hopefully into the future beyond that.

These are areas that we are trying to understand right now. If you ask whether I am advocating for it, I hope you have already seen from my evidence today and the outcome of the first spending review that we are a department and I am a Secretary of State who understand fully the power of science, STEM, knowledge, scientific discovery, and the value that modern critical technologies and the emerging technologies have, not just for our society and for tackling challenges, but for creating profound opportunities for people, our country and our economy.

The Chair: We are delighted that you have that passion. We are desperate for you to inject that passion into all the other Secretaries of State across government so that we get the scientific

basis that we need in this country to be a science superpower. We may not like the slogan, but we like the intent. We very much appreciate your time and the work of your colleagues who have come with you. I am sorry that we did not get a chance to hear a bit more from them. At that point, I thank you very much, Secretary of State.