



Department for
Business, Energy
& Industrial Strategy

Minister of State
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Our ref: N10#2020/21295

7 July 2020

Dear Julian,

Thank you for your and your co-signatories letter of 16 June to the Prime Minister, about establishing a UK-based International Centre for Artificial Intelligence (AI), Energy and Climate as part of the UK's green recovery. This matter falls within the remit of the Department for Business, Energy & Industrial Strategy. I am replying on behalf of the Department.

We are committed to a tech-led recovery – ensuring that the UK realises the opportunities for driving prosperity, productivity and job creation from the development and adoption of a wide range of emerging and digital technologies.

I agree that artificial intelligence (AI) technologies have the potential to contribute to the net zero transition in a number of ways: for example, improving flexibility for the energy system, empowering electricity users, and developing innovative solutions to combat climate change. As we recover from Covid-19 we are considering a host of opportunities to empower the tech and climate sectors to this end, and businesses and institutions are responding in kind: on June 10th, the Secretary of State for the Department for Digital, Culture, Media & Sport announced the launch of Tech Nation's Net Zero 1.0 programme, a Government-backed initiative to support tech that is building a cleaner, greener and more sustainable future, and contributing towards the UK's net zero goals.

As COP26 grows closer, so does the UK's Presidency of G7. International collaboration on the intersection between AI and climate must increase, and with it a drive to adopt recommendations spanning the UN Sustainable Development Goals and Responsible AI governance. As a founding member of the Global Partnership on AI, an international and multi-stakeholder initiative to guide the responsible development and use of AI, grounded in human rights, inclusion, diversity, innovation, and economic growth, the UK will promote an integrated approach to this challenge.

UK Research and Innovation (UKRI) have a wide-ranging investment portfolio in AI and robotics applications in energy and the environment. For example, via the [Industrial Strategy Challenge Fund](#) we are investing £93million to develop new technologies and systems that can be deployed in extreme environments, for industries such as nuclear energy, offshore energy, deep mining, and space. The fund supports research and innovation to stimulate the development of robotics and AI systems. It should allow the UK to access new opportunities in a global market estimated to be worth between \$1.7 and \$4.5 trillion by 2025. We have also provided innovation funding to projects applying AI to energy demand management and are also funding work to see how AI could be used to improve energy consumption in Government buildings.

UKRI's portfolio also encompasses key institutes such as the UK's National Centre for AI and Data Science, the Alan Turing Institute holding a leadership position in AI and addressing a range of AI applications; as well as significant investment in training the

workforce of the future, with £100million invested in sixteen [Centres for Doctoral Training for AI](#), where students will use AI technology to tackle a range of challenges including climate change, improving healthcare and creating new commercial opportunities for AI.

Regarding your letter's first core initiative to set up an International Centre for AI, Energy & Climate, we recognise the potential that AI has to contribute to our Net Zero efforts. As part of our forthcoming Spending Review, we are considering which priorities we take forward under our future energy innovation investment.

In addition to AI, mass process automation - the use of rules-based systems to undertake high-volume repeatable activity - will also play its part. The Government Automation Taskforce has commissioned Cabinet Office Analysts to investigate the impact that Government (and wider public sector) automation will have on Climate Change including the impact (both direct and indirect) of carbon emissions. This is an ongoing piece of analysis that will be informed by the extent of departmental plans to automate over the coming years (which we will have a comprehensive picture of as we support departments to produce Automation Blueprints).

The Taskforce has collected extensive insight on automation which we can also draw from as we seek to understand the link between automation and climate change. We already know, for example, that outside of government, the energy sector has pioneered some excellent examples of automation and associated technologies that will have a positive impact on climate change e.g. EDF Energy's [Project 'community'](#) which aims to increase residents' consumption of local low-carbon energy while reducing their overall costs and OFGEM's [Innovation Link](#) is a 'One Stop Shop' offering support on energy regulation to businesses looking to launch new products and services.

Automation and AI provide organisations with the opportunity to unlock social value by reprioritising their workforce away from task-driven activity so that people can focus on more complex and higher-value outcomes. More directly, we will seek opportunities for environmental gain from automation. Depending on the outcome of the forthcoming Spending Review, we would suggest working with you to explore the role that automation can play in this space.

Regarding your letter's second core initiative on energy data sharing, I agree with the sentiment in your letter that enhancing energy data collection, standards and sharing is a critical pre-requisite for supporting our transition to a net-zero economy. Data-driven energy systems intelligence can optimise system operation, and most efficiently incorporate decentralised renewables onto the grid, to assist in meeting our global net-zero targets.

Since endorsing the Energy Data Taskforce (EDTF) recommendations, the Government, Ofgem and Innovate-UK have established the Modernising Energy Data group. This group is working collaboratively to implement the vision of the EDTF recommendations. Examples of some of the initiatives underway include:

- The first iteration of the [Data Best Practice guidance](#) is now available via Ofgem's website. This was developed by Energy Systems Catapult and funded by Innovate UK. This guidance will help organisations to understand regulatory expectations regarding how data should be managed and shared to meet their users' needs. Ofgem have also published their response to the digitalisation strategies published by all energy network companies and indicated some significant next steps to accelerate the digitalisation of the UK energy sector. The letter is available [here](#).
- BEIS is funding the development of a robust Energy Data Visibility Service in partnership with the Office of National Statistics (ONS). ONS are conducting user

- research and we expect a decision on next steps very soon. The details of the discovery contract are available [here](#)
- Innovate UK have launched a ~£2m innovation competition called [Modernising Energy Data Access](#), to address the need for interoperability between digital services. The outputs from this competition should make data sharing more efficient and enable interlinking of existing and new datasets across different sectors (like energy, transport, heat, land use etc), to support cross-vector innovation and holistic outcomes.

Finally, on your suggested COP26 Emerging Tech Pavilion, as COP26 Presidency the UK will continue to lead on addressing the global challenge of climate change through ambitious action, and we thank you for getting in touch regarding an Emerging Tech Pavilion at COP. I have passed your letter to officials from the COP26 Unit who are managing the pavilion space to contact you regarding the proposal for an Emerging Tech Pavilion at COP26.

As with previous COPs, pavilion and office space will be made available for delegations (Parties to the Convention, United Nations and related organisations and agencies, media and already admitted non-profit observer organisations) on a commercial basis, booked through and managed by a general contractor appointed by the UK Government. The size, costs, and position of pavilions will be determined by the available usable space at the venue and the number of applications for pavilions.

Thank you for taking the time to write, I hope you find this response useful.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Kwasi Kwarteng', written in a cursive style.

RT HON KWASI KWARTENG MP
Minister of State for Business, Energy and Clean Growth