

OCTOBER 2020

POLICY BRIEFING

UPSKILLING THE UK WORKFORCE FOR THE 21ST CENTURY

EXECUTIVE SUMMARY

The COVID-19 crisis and the resulting slowdown in economic activity is severely impacting a variety of sectors across the UK economy, with significant social consequences. The government's commitment to a green recovery, as well as the public and business support for it, requires not only policies to drive low carbon economic activity, but also investment in human capital and skills.

To support the recovery, government policy, business and the education system have a crucial role to play in equipping the workforce with the right skills to build an inclusive and competitive low carbon economy.

The recent government announcement looking to expand post-18 education and training, with a stronger focus on lifelong training, technical qualifications and developing skills that are in high demand represents a key opportunity to reintegrate workers in the post-COVID-19 economy and address prevailing regional inequalities. In addition to this, a particular emphasis needs to be placed on cultivating the skills and competencies necessary to enable all sectors of the economy to reach net zero emissions by 2050 and boost their competitiveness in a low carbon economy.

So far, the Coronavirus Job Retention Scheme has played an important role in minimising redundancies. However, in the short term, the number of jobs that have been wiped out by the first wave of the pandemic and the uncertainties regarding the impact of the second wave require urgent action around creating employment opportunities. Impacts are falling most severely on individuals with low pay and less job security, affecting disproportionately women and people from BAME backgrounds.

Moreover, a major challenge is youth unemployment, with recent research suggesting that the current crisis risks pushing an additional 600,000 18 to 24-year-olds (including those who left education in recent years) into unemployment this year. While the government has introduced support such as the Kickstart Scheme, in the medium-term young people are still likely to face reduced pay even after the employment rate goes up again.¹

With the UK grappling with the impacts of the COVID-19 pandemic whilst being committed to achieving net zero emissions by 2050 and reversing the decline of our natural environment, the case for a skills strategy and longer-term investment in upskilling the workforce are more relevant than ever. As the UK economy recovers, it will be important to ensure that workers are equipped with the skills necessary to get them back into meaningful employment as quickly as possible, and that those jobs are coherent with achieving government's climate and environmental targets.

Addressing the skills challenge is a cross-governmental and cross-sector effort, with policies needed to set the direction, but also a significant role for education providers and employers. **The first part of the challenge is the supply side, with a need to have the right skills available in the workforce to deliver our climate and environmental objectives.** This means that education providers at all levels need to adapt the curricula in order to ensure that the skills and competencies of their students and graduates are aligned with the requirements of a net zero emissions economy.

¹ Resolution Foundation (May 2020)
Class of 2020: Education leavers in the current crisis

Employer demand for these skills will need to follow to match the uplift in supply, so that all sectors of the economy can begin the transition to a low carbon economy in earnest. For employers, this means mapping out the step change in practices and business models needed to achieve net zero emissions, as well as recruiting and training their workforce accordingly. **For this, government should send a clear signal to employers by publishing a delivery plan in support of the net zero target, setting out the policy and regulatory framework that will enable all sectors of the economy to cut emissions.** This should be developed alongside the updated Industrial Strategy, with stronger coordination between the policy decisions necessary to get to net zero and their social implications, including the levelling up challenge, the productivity puzzle and the skills deficit.

While central government action is important, it will need to be backed up by concrete funding and institutional capacity to devolve powers and funding at the local level, in order to maximise the opportunities afforded by upskilling and reskilling programmes.

Government, businesses, and education institutions need to collaborate on three key priorities:

1 **Securing an adequate skills supply for a low carbon economy**

National government should develop a national low carbon skills strategy that embeds sustainability and net zero delivery across the whole education system, including apprenticeship programmes, higher education and lifelong learning. This should be complemented by action to make the adoption of skills action plans mandatory for all educational providers, including Further Education (FE) and Higher Education (HE). Improving the pipeline of skilled workers will also require improving diversity, especially in STEM subjects, which should form an integral part of the skills action plans.

Educational institutions and national government should update teaching standards and the Initial Teacher Training Content Framework. This will ensure teachers have a clear understanding of climate change and sustainability and are aware of the skills required to deliver on the UK's climate and environmental targets.

Further Education and Higher Education institutions all around the UK must play a leading role in developing local skills and deliver green jobs, through collaboration with businesses and investors.

As per the recent government announcement, national government should update apprenticeship standards to integrate climate and sustainability and give businesses the flexibility they need to teach their workforce skills that go beyond their current organisation's remit. Shorter term qualifications should be introduced alongside apprenticeships to provide the skills of the future for those enrolling in further education courses, as per the recent announcement around the Lifetime Skill Guarantee. This commitment should also be included in the upcoming Education White Paper.

2 **Growing low carbon supply chains to increase investment in the skills of the future**

National government must set clear regulations, standards and fiscal incentives to accelerate the decarbonisation of low regret sectors, such as buildings and transport. This will help send a clear signal to education providers to upgrade their skills offering accordingly and to employers to update their training criteria.

National government must develop a clear policy framework to accelerate low carbon innovation for decarbonising hard to treat sectors, grow market demand for low carbon industrial products and grow employment opportunities across supply chains.

3 **Enhancing local engagement and funding opportunities**

National government must provide sustained public funding and political autonomy for local authorities, ensuring they have the capacity to maximise the opportunities of the low carbon economy as jobs are transformed by the net zero transition.

Business and national government should ensure better access to private finance by setting up a National Investment Bank. This bank should channel institutional capital and private savings to direct low carbon and skills investment towards parts of the country in most urgent need of economic regeneration.

Enhance dialogue through the establishment of a National Skills Commission to coordinate government departments and work with businesses and local institutions on the National Skills Fund.

NEXT STEPS...

FOR GOVERNMENT

-  **Make skills action plans mandatory** for FE and HE institutions in the first instance, and roll these out to all education providers over time.
-  **Update teaching standards**, as 75% of teachers currently feel they have not received adequate training to educate students about climate change.
-  **Bring back mandatory carbon reporting for universities in England to boost carbon literacy and increase awareness of the issue across the university**, by giving the Office for Students the mandate to do so.
-  **Increase apprenticeship levy funding**, as the total number of apprenticeships across the UK has not yet recovered to pre-Apprenticeship Levy levels.
-  **Update and develop new qualifications to encourage retraining** and lifelong learning through a joined up approach between private sector and government. This could increase the availability of short-term retraining courses, with clear pathways into employment as an incentive for workers.
-  **Publish a world-leading Education White Paper, matched by investment in skills ahead of COP26** to showcase the UK's achievements in driving a sustainable recovery by investing in social capital to tackle the levelling up challenge whilst helping us get to net zero.
-  **Provide local authorities with sustained funding and flexibility to identify areas well-suited to the development of low carbon industries and associated supply chains**, as more than £100 billion of investment in local clean energy schemes could be generated through local authorities, supported by private capital and government investment.
-  **Create a National Investment Bank** to drive investment in complex and innovative projects such as hydrogen and Carbon Capture Storage.
-  **Establish a National Skills Commission** to encourage the coordination of different government departments and work with businesses, local institutions, and the National Investment Bank to develop the updated National Skills Fund to be introduced in 2021.

FOR BUSINESSES AND THE EDUCATION SYSTEM

-  **Develop skills action plans for all FE and HE institutions with the aim of improving diversity**, especially in STEM subjects.
-  **Embed sustainability and net zero delivery across the whole education system and in training and lifelong learning**, given that 78% of UK adults want to play a part in reaching the UK's net zero goal and 57% want to work for an organisation that helps get us there.
-  **Businesses to develop local skills** in partnership with Local Authorities and Local Enterprise Partnerships (LEPs) according to local specialism and by mapping out areas where the UK is best placed to develop competitive supply chains.
-  **Encourage the uptake of soft and cross-sectoral skills in education and business settings alike**, as The World Economic Forum's recent study on the future of the new economy highlighted that in the "green economy", out of the top 10 skills identified, only three are industry specific.
-  **Create partnerships between businesses, investors and universities, advanced manufacturing institutes, and government research institutions across the UK to tackle regional inequalities.** This has already been successfully demonstrated in Humberside, where Ørsted and Siemens Gamesa worked with BEIS, LEPs, manufacturers, project developers and higher education institutions and drove regeneration, investment in skills and job creation.
-  **Businesses to interact on a more systematic basis with primary schools** to introduce young pupils to the range of jobs they can aspire to in a net zero economy.
-  **Investors and employers to provide better access to private finance to training providers and education institutions in both rural and urban settings**, beyond the Golden Triangle. Currently, Government figures for Business Enterprise Research and Development (R&D) still show that London, Cambridge and Oxford receive 47% of the total UK funding.



INTRODUCTION

The global COVID-19 public health crisis is causing economic and social disruption at unprecedented speed and scale across the world. In the UK, the number of claimants for Universal Credit rose by 856,500 in April and by June almost 9 million people had been enrolled in the government’s Coronavirus Job Retention Scheme, and 2.6 million claims had been submitted for the Self-Employed Income Support Scheme.² The pandemic has dramatically highlighted vulnerabilities within the UK labour market and exacerbated existing inequalities, particularly in regards to individuals entering the labour market, people from BAME backgrounds and workers in hardest hit sectors.

As argued in our recent reports on economic recovery,³ beyond protecting the population from the health and economic consequences of the pandemic in the immediate term, government policy has a crucial role to play in managing the economic recovery and tackling the rising levels of unemployment and skills shortages. This should involve looking at how to rebuild an inclusive and resilient economy, more adaptable in face of other crises, including climate change. It will also require a clear macroeconomic vision to restore confidence, create quality jobs and grow the UK economy out of post-COVID19 recession and debt by supporting activity in the short term and expanding capacity in the medium term. Whilst an concern will necessarily be dealing with the immediate impacts of job losses, government should also work towards tackling structural challenges and skills barriers to deliver on the UK’s net zero target in a truly inclusive way.

Tackling regional inequalities

The UK has historically been one of the most regionally unequal societies in the developed world: between 1998 and 2016, London’s economy grew by 71%, whereas the economies of Yorkshire and the Humber, the North East, and the West Midlands all grew at less than half this rate.⁴ The COVID-19 crisis has exacerbated these inequalities, with the decline in economic output estimated to reach close to 50% in parts of the Midlands and the North West in the second quarter of this year, whilst in other parts of the country, the hit to the local economy may be half that.⁵

As the UK recovers from the crisis, tackling regional inequalities should be at the heart of the recovery to avoid repeating the mistakes of the 2008 Global Financial Crisis, where unproductive ‘cut spending’ policies led to more inequality, historically low productivity growth, and failed to support the UK’s long-term climate and economic objectives.⁶

Addressing skills shortages

Skills shortages have already been pervasive across many parts of the economy, with 67% of hard-to-fill vacancies being caused, at least in part, by a lack of skills, qualifications and experience among applicants.⁷ There has also been a clear trend of growth in vacancies due to skills shortages over most of the decade, more than doubling between 2011 and 2017, from 91,000 to 226,000 vacancies.⁸ Even before the coronavirus crisis hit, 91% of businesses were experiencing skills shortages.⁹ Additional recruitment costs, increased salaries to attract the required talent, temporary staffing, and training to upskill existing employees are costing UK businesses an estimated £6.3 billion per year.¹⁰ Skills shortages have also led to organisations being less agile and less able to adapt to a changing political, economic and technological climate.

As the UK recovers from the crisis, tackling regional inequalities should be at the heart of the recovery to avoid repeating the mistakes of the 2008 Global Financial crisis.

² HMRC “Coronavirus (COVID-19) statistics” [accessed on 28/07/2020]

³ Dimitri Zenghelis and James Rydge (July 2020) *Rebuilding to Last: designing an inclusive and resilient growth strategy after COVID-19* and Aldersgate Group (June 2020) *Seize the moment: building a thriving, inclusive and resilient economy in the aftermath of COVID-19*

⁴ UK2070 Commission (February 2020) *Make No Little Plans – Acting at Scale for a Fairer and Stronger Future*

⁵ 5 Centre for Progressive Policy (16 April 2020) “Which local authorities face the biggest immediate economic hit?”

⁶ Dimitri Zenghelis and James Rydge (July 2020) *Rebuilding to Last: designing an inclusive and resilient growth strategy after COVID-19*

⁷ Department for Education (August 2018) *Employer skill survey 2017*

⁸ *Ibid.*

⁹ The Open University (July 2018) *Business Barometer 2018*

¹⁰ *Ibid.*



Sectors that are essential to getting to net zero have experienced similar challenges. In the construction industry for instance, there are 133,000 gas engineers in the UK, installing 1.6 million gas boilers per year, for 20,000 heat pumps a year.¹¹ Without training, gas installers are not able to explain the options for low carbon heat objectively to householders and install them effectively.

Boosting employment opportunities

The net zero and environmental targets the UK has adopted require rethinking 'business as usual' models in most sectors of the economy. With the right skills provision and innovation investment, there is an opportunity to reenergise sectors that were already struggling with competitiveness and attracting the right talent, making them more competitive in the low carbon economy. With a growing global market for low carbon goods and services, capturing the first mover advantage in decarbonising these sectors can have positive effects in terms of economic growth and employment opportunities.

With the low carbon economy predicted to grow four times faster than the rest of the economy over this decade,¹² the transition to a net zero emissions economy provides a real opportunity for driving the economic recovery from the COVID-19 crisis. In addition, by 2030, the global market for low carbon goods will be worth £1 trillion per year, an increase of seven to 12 times on pre-2008 levels.¹³

Each sector will see a change in the profile of skills required and a significant potential to deliver new jobs. The transition to a net zero emissions economy is anticipated to require 400,000 roles just in the energy sector. Of this, 260,000 will be in new roles, while 140,000 will be replacing those who have left the workforce.¹⁴ In the transport sector, between 7,000 and 19,000 jobs could be generated by switching to electric vehicles (EVs), depending upon the balance between domestic production and imports.¹⁵ There is also the potential to create over 200,000 jobs from the shift towards an economy focused on recycling, remanufacturing, repairing and reusing resources more efficiently.¹⁶

In order for these opportunities to materialise, this policy briefing argues that a more comprehensive focus on providing the right skills across key economic sectors will be essential. This will include **securing an adequate skills provision for a low carbon economy through collaboration between government, businesses and the education system. It will also require a Net Zero Delivery plan that gives clear market signals to businesses and grows demand for the skills of the future. To deliver on these priorities, government should coordinate and enhance local engagement and funding opportunities, both public and private, through the establishment of a National Investment Bank which integrates skills and Just Transition principles at its heart.**

¹¹ Policy Connect (October 2019) *Uncomfortable Home Truths: Why Britain urgently needs a low carbon heat strategy*

¹² Department for Business, Energy & Industrial Strategy (October 2017) *Clean Growth Strategy*

¹³ Maria Carvalho (August 2017) *At your service: how exporting more low-carbon services could enhance the UK's future prosperity*

¹⁴ National Grid (January 2020) *Building the Net Zero Energy Workforce*

¹⁵ Energy & Climate Intelligence Unit (September 2018) *Net zero: why?*

¹⁶ *Ibid.*



PART 1 SECURING AN ADEQUATE SKILLS SUPPLY FOR A LOW CARBON ECONOMY

There is a huge potential for job creation in the low carbon transition in all sectors of the economy including buildings, energy, manufacturing, transport and ICT. However, seizing these opportunities will involve retraining a significant portion of the current workforce and developing the right skills for those currently in the education system. This needs to be supported by a national skills strategy which integrates sustainability and net zero delivery at all education levels and through lifelong learning.

To maximise these opportunities in the immediate and medium term, government policy, businesses and the education system should focus on the priority areas:

1 National government to develop a national low carbon skills strategy that embeds sustainability and net zero delivery across the whole education system

Recent years have seen an increasing interest in tackling climate change, with research showing that 78% of UK adults want to play a part in reaching the UK's net zero goal and 57% want to work for an organisation that helps get us there.²⁰ Moreover, 79% of the Climate Assembly members want the recovery to be aligned with the net zero target.²¹ In the energy sector for example, leveraging people's passion for climate action and a desire to work in a net zero-compatible career could attract the best and the brightest.²² However, there has not yet been an effective government strategy to direct this enthusiasm into sectors struggling with skills shortages and aging workforces.

Embedding sustainability and net zero delivery across the whole education system, at primary, secondary and tertiary education levels and through lifelong learning, will enable sectors with significant growth and employment potential to access a wider pool of skilled workers in the long run. Just transition principles should be at the heart of this National Skills Strategy to attract a diverse labour force and tackle the inequalities exacerbated by COVID-19. This will have to be done from an early age, particularly to get women and people from BAME backgrounds engaged in STEM subjects.²³



Recent years have seen an increasing interest in tackling climate change, with research showing that:

78% of UK adults want to play a part in reaching the UK's net zero goal

57% want to work for an organisation that helps get us there.



Research by the Local Government Association has shown that in the North of the United Kingdom, where many workers are specialised in power generation, storage and low carbon technology and processes, the wind, nuclear, hydrogen and Carbon Capture and Storage industries could create 422,500 potential jobs by 2050.¹⁷ In the Midlands, where the expertise lies in the automotive industry, 194,000 potential jobs could be created in EVs and batteries manufacturing. In London and the South of England, financial, IT, legal services and solar could lead to 447,000 potential jobs and 119,000 in low emission vehicle manufacturing, financial and IT services in the East of the UK.¹⁸ More generally, sectors like buildings, transport and natural capital management could create jobs all around the UK.¹⁹

¹⁷ > Local Government Association (June 2020) *Local green jobs – accelerating a sustainable economic recovery*
¹⁸ > *Ibid.*
¹⁹ > Cambridge Econometrics (October 2012) *Jobs, growth and warmer homes: evaluating the economic stimulus of investing in energy efficiency measures in fuel poor homes*

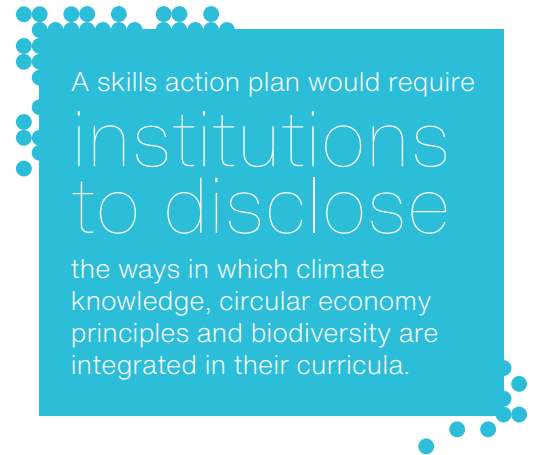
²⁰ > National Grid (January 2020) *Building the net zero energy workforce*
²¹ > Climate Assembly (September 2020) *The Path to Net Zero*
²² > *Ibid.*
²³ > National Grid (January 2020) *Building the Net Zero Energy Workforce*



Increasing diversity should be a key part of a National Skills Strategy, given the current underrepresentation of students from BAME backgrounds and women in STEM subjects and low carbon jobs. **This could be done through a consultation on the implementation of diversity targets.** In the short term, one avenue to increase diversity could be through schemes like the Kickstart Scheme. Indeed, while the Aldersgate Group welcomes this initiative, the scheme could be improved to also provide job placements more specifically to people from BAME backgrounds.²⁴

Moreover, everyone entering the workforce, irrespective of their sector, should be equipped with the skills and competencies for the low carbon economy as well as core knowledge of sustainability issues. Indeed, all job roles will require this knowledge to deliver the change needed by employers to get to net zero and reverse the decline of the UK's natural environment and biodiversity. **This is why the adoption of a skills action plans should be mandatory for all FE and HE institutions in the first instance, and rolled out to all education providers over time, as previously done for gender equality in universities and colleges.**²⁵ Improving diversity, especially in STEM subjects, should form an integral part of these skills action plans.

Such a plan would require institutions to disclose the ways in which climate knowledge, circular economy principles and biodiversity are integrated in their curricula. This policy would work as an immediate signal to the education system that skills of the future are prioritised, and could be implemented immediately, by setting up a working group. Simultaneously, government should engage with primary, secondary schools and the regulator Ofsted to better integrate climate and sustainability in the curricula, and encourage partnerships with businesses.



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²⁴ > Kick Start Scheme, <https://bit.ly/2Swf2z2>

²⁵ > Climate Emergency Response Group (July 2020)
Eight policy packages for Scotland's Green Recovery

TEACH THE FUTURE: A CAMPAIGN TO INTEGRATE SUSTAINABILITY IN THE EDUCATION SYSTEM²⁶

Teach the Future are a student-led organisation campaigning for better coverage of the climate crisis within the education system.

Their work shows that:

- Only 4% of students feel that they know a lot about climate change;
- 68% of students want to learn more about the environment;
- 75% of teachers feel they have not received adequate training to educate students about climate change.

To change this, they are calling for:

- A **government-commissioned review** into how the whole of the English formal education system, from primary right through to adult education, is preparing students to mitigate, abate and end the climate emergency and ecological crisis.
- **The inclusion of the climate emergency and ecological crisis in teacher training and a new professional teaching qualification** – learning about the climate emergency and ecological crisis should be included in teacher standards and the Initial Teacher Training Content Framework, as well as a new qualification in England.
- **An English Climate Emergency Education Act** – inspired by the US Defence Education Act, which successfully implemented STEM skills across the country's educational system during the space race. This Act would embed the climate emergency, environmental justice, and the ecological emergency throughout the education system.

²⁶ > <https://bit.ly/2F0B6Ph>



2 Educational institutions and national government should update teaching standards and the Initial Teacher Training Content Framework.

If students are to be better equipped to understand climate change, biodiversity loss and the principles of a circular economy, existing and trainee teachers will need support to deepen their subject knowledge in these areas. Recent studies from the Teach the Future campaign found that 75% of teachers feel that they have not received adequate training to educate students about climate change.²⁷

Some private initiatives have delivered some progress on this, such as the [Gatsby Benchmarks](#), [Quality in Careers Standard](#), [Career Development Institute Framework](#) and [Science Capital Teaching Approach](#). For instance, one of the Gatsby benchmarks focuses on delivering meaningful employer / employee encounters and schools are currently gearing up so they hit all eight benchmarks by 2020. Some universities have also been leading the way in increasing awareness of sustainability issues amongst teachers. For instance, the University of Surrey currently has an “Introduction to Sustainability” self-paced, interactive course for University of Surrey staff and students who have no prior knowledge of the topic. The university also has a reporting process in place for the Sustainability in Curriculum Working Group to share progress on the implementation of the strategy at the Executive Sustainability Steering Group.²⁸

These important initiatives need to be rolled out on a national scale. To do so, **a national skills strategy should integrate learning about climate change and biodiversity across all disciplines and in all teacher standards and the Initial Teacher Training Content Framework, as well as through a new qualification in England.** As long as these initiatives remain voluntary and are not rolled out nationally, this will perpetuate inequalities and patchy skills provision in areas where teachers might not have access to these programmes. Such an approach should be accompanied by bringing back mandatory carbon reporting for educational institutions in England, by giving the Office for Students the mandate to do so. Mandatory carbon reporting would not only enable universities to apply the principles they should be teaching on climate and environment but would also drive universities’ board-level climate literacy.

²⁷ > Ibid.

²⁸ > <https://bit.ly/3njoZhO>

3 Ensure Further Education and Higher Education institutions all around the UK can play a leading role in developing local skills and deliver green jobs.

The UK is globally regarded as a leader in Higher Education, with nearly 20% of the world’s top universities. However, a third of these are part of the “Golden Triangle” between Oxford, Cambridge and London, recognised as the “UK global network of Centres of Excellence”.²⁹ Research funding is disproportionately targeted at these institutions, receiving over 55% of health-related research funding in 2015.³⁰ More recently, Government figures for Business Enterprise Research and Development (R&D) still show this funding level is 47% of the UK total.³¹ **This is why it is essential that businesses and investors create partnerships with universities, advanced manufacturing institutes, and with government research institutions all around the UK.**

Many areas in the Midlands and the North of England have strong education institutions, established during the industrial revolution. They will need adequate funding to ensure they can play their crucial role in skilling and reskilling as part of a coherent levelling up and net zero agenda.³² This funding should also be made available to support arts-based universities, given that research has shown that disciplines such as history, art, and languages, have made less progress in the integration of sustainability into the curriculum. With 60% of the UK’s industry leaders having a humanities degree, these disciplines also have a role to play in developing graduates fit for contributing towards the net zero target.³³

²⁹ > UK2070 Commission (February 2020) *Make No Little Plans – Acting at Scale for a Fairer and Stronger Future*

³⁰ > Nesta (July 2019) *The Biomedical Bubble: Why UK research and innovation needs a greater diversity of priorities, politics, places and people*

³¹ > UK2070 Commission (February 2020) *Make No Little Plans – Acting at Scale for a Fairer and Stronger Future*

³² > Dimitri Zenghelis and James Rydge (July 2020) *Rebuilding to Last: designing an inclusive and resilient growth strategy after COVID-19*

³³ > <https://bit.ly/2GkgPoK>



Building on the recent funding announcement of £350 million to cut emissions in heavy industry, construction and transport, a national low carbon skills strategy needs to have a wider R&D programme at its heart.³⁴ **The 2027 target of 2.4% of GDP spend on R&D should be brought forward to facilitate collaboration between industries and local employers to support large scale demonstration projects in sectors that are hard to decarbonise, such as heavy industry.**

FEs and HEs can play a key role in developing

local skills

according to their specialism, and ensuring that their training is conducive to jobs with local employers, as showcased at Newcastle College Energy Academy.

FEs and HEs can play a key role in developing local skills according to their specialism, and ensuring that their training is conducive to jobs with local employers, as showcased at Newcastle College Energy Academy (see page 13). This is why investing in R&D for education institutions across the country is essential in tackling both regional and racial inequality and ensuring an adequate provision of skills in industrial clusters. To ensure best training however, government should encourage better coordination between universities and professional bodies. The current education system, while heavily dependent on the latter, still develops graduate attributes without consulting professional bodies, and vice versa. Government leadership can break this current pattern and ensure better dialogue between both actors.

³⁴ <https://bit.ly/2GkhrL4>

ØRSTED'S APPROACH: SECURING A ROBUST SKILLS PIPELINE FOR AN EMERGING SECTOR

The offshore wind industry is still a relatively new sector and has generally grown in areas which have seen economic decline from traditional industries of the past. At Ørsted, recruiting a suitably skilled workforce is essential as the sector expands. The Offshore Wind Sector Deal sets out that there are 11,000 people working in the industry today and this number is set to grow to 27,000 by 2030 with large increases in new offshore wind capacity. Consequently, Ørsted takes a proactive and multi-pronged approach to developing a pipeline of skills and talent, not just for their benefit but for the wider sector and the broader supply chain. This includes:

Teach First partnership:

Teach First is a charity that recruits, develops, places and supports teachers and school leaders in the communities where they are needed the most. Ørsted's funding has enabled the recruitment and placement of the 2019–2021 cohort of young teachers for the Grimsby area, and they are now developing a programme of engagement with those teachers and the schools they represent.

University Technical College (UTC) relationships:


Ørsted has supported the two University Technical Colleges in the Humber Region – the Engineering UTC Northern Lincolnshire (Scunthorpe) and the Ron Dearing UTC (Hull), through sponsorship and co-development of workshops, and also through the provision of funding for a library, librarian and resources.


Supporting MSc Renewable Energy programme students from University of Hull


Ørsted engages with their local university to highlight careers in the industry and have supported the MSc Renewable Energy students on an annual basis. They organise field days at their site and explain how their business works, organising discussion on careers in the sector. They also provide an industry lecture once a year to students around aspects of offshore wind and project management.


East Coast Community Fund:

Through their community benefit fund, Ørsted give grants to organisations delivering STEM-related activities. For example:


 The Grimsby Institute will receive a grant to build on existing investment and expertise and create an annual programme of events for over 2,000 students in junior, secondary, higher education across the coastal zones of North East Lincolnshire, North Lincolnshire, East Riding of Yorkshire and East Lincolnshire.

 The Teacher Scientist Network is receiving a grant to provide 12 schools in the area free access to all the necessary components to run a four week, after-school, STEM club focused on the assembly of a working wind turbine.

 A grant has gone to STEM Learning to fund an ENTHUSE Partnership in the East Riding of Yorkshire. The Partnership will bring together 8 schools and colleges from the eligible funding area to develop a two-year intensive improvement programme to raise achievement and aspiration in STEM subjects.

 Women into Manufacturing and Engineering is a project and partnership designed to showcase industry careers to women and to encourage businesses to recruit a diverse workforce and employ more women in manufacturing and engineering roles.

Apprenticeship Programme:

 Ørsted now have 22 Apprentices who will become wind turbine technicians when fully qualified.



4 As per recent government announcement, national government should update apprenticeship standards to integrate climate and sustainability and give businesses the flexibility they need to teach their workforce skills that go beyond their current organisation's remit.

Announcements recently made by the Prime Minister to reform post-18 education and training are a step in the right direction. The new Lifetime Skill Guarantee can contribute to tackling rising social inequalities, and increased funding for apprenticeships, especially in the construction sector, can provide SMEs with much needed support and flexibility to attract the required talent.³⁵ However, the same level of flexibility should be applied across the economy.

Current Apprenticeship standards do not directly refer to climate change, circular economy or biodiversity, and the Apprenticeship Levy has produced mixed results. Indeed, since its introduction, employers with a workforce in more than one UK nation have experienced differing national government approaches to managing the Levy and the use of funds.³⁶ Many employers have found that this inconsistent approach across the UK has generated additional work and has created perverse incentives in terms of recruitment and access to training.

Additionally, leaving them to be purely employer-led creates a risk that training is insufficiently broad and becomes focused on short-term demands and in-house priorities, and may not deliver what is needed for the economy more widely. On the whole, the total number of apprenticeships starts across the UK has not yet recovered to pre-Apprenticeship Levy levels.³⁷ **The Apprenticeship standards need to be revised to give businesses the flexibility they need to teach their workforce the required skills and core sustainability skills beyond their current organisation's remit.**

Beyond apprenticeship standards, a national skills strategy should broaden skills training policy beyond apprenticeships, through, for instance through better formal qualifications **Currently, most qualifications do not guarantee a job at the end of the training and are too time-consuming for workers with families who cannot afford to take that risk.** More widely, short retraining courses are currently lacking, with the minimum length for apprenticeships being a year. While there are exemplary initiatives, such as the [Careers Transition Partnership](#), **a joined up approach between private sector and government should work to increase the availability of short-term retraining courses, with clear pathways into employment as an incentive for workers, already vulnerable due to COVID-19.**

Practical workplace competencies should be encouraged, including literacy, numeracy, and digital proficiency. Indeed, **there is a direct correlation between low numeracy levels and socioeconomic inequality, with people earning less than £10,000 per year being four times more likely to have inadequate levels of numeracy.**³⁸ The same applies to non-industry specific skills like project management. Initiatives like the Responsible Project Management, an international academic-industry collaboration, have worked to address these issues by supporting and developing project managers to advocate for beneficial project outcomes and deliver value for the environment and society.³⁹

Practically, while HE institutions and apprenticeship programmes will be best placed to engage with younger workers, **FE institutions may be better at picking up those already in work, who have lost jobs or who are facing significant barriers to labour market participation. They will also be best able to transfer R&D into industry as well as form new enterprises on the back of it. FEs will therefore require targeted support from government to encourage lifelong learning.**

³⁵ HM Government (September 2020) *Major expansion of post-18 education and training to level up and prepare workers for post-COVID economy*

³⁶ Energy & Utilities Skills partnership (July 2020) *Many skills – one vision Energy & Utilities Skills partnership*

³⁷ *Ibid.*

³⁸ National Numeracy, *Numeracy for Health*.

³⁹ <https://bit.ly/33BxPQ4> [accessed 15/09/2020]

NEWCASTLE COLLEGE ENERGY ACADEMY: CREATING A PIPELINE OF TALENT FOR THE OFFSHORE WIND SECTOR

In 2018, Newcastle College's Energy Academy launched a new strategy to deliver highly vocational, employer-led STEM education and training for the energy sector. A key cornerstone of this strategy is an innovative partnership with Port Training Services in Blyth, and the strategy is further underpinned by employer partnerships with a range of energy sector employers, including Royal IHC and the ORE Catapult. The Energy Academy opened in 2012 as a purpose-built centre of innovation and training for the Energy Sector, delivering qualifications from Level 2 to Level 6 in subsea engineering, renewable energy technologies and fabrication, including a range of apprenticeships. In recent years, the academy had lost its connections with local industry, but since opening, more than 1200 students have been trained, with many now working within the energy sector.

Current Technician and Engineer Pipeline





The new Energy Academy strategy launched in 2018 has already re-invigorated provision, with record enrolment in 2019, creating a fantastic pipeline of young talent. The young people enrolled at Wallsend and Blyth all seek employment in the Energy Sector, either via apprenticeships, technician opportunities or progression from Level 3 qualifications on to Foundation Degrees and possibly Full Degrees.

Employer Partnership Model

In addition to the formal partnership agreement with Port of Blyth, the Energy Academy has also entered into a number of innovative employer partnerships with Energy sector companies including the ORE Catapult, Royal IHC, Barrier Ex, Animmersion and Hytorc (and a cross section of other businesses in the general engineering and digital sectors).

The core principal of the Employer Partnership Model is the delivery of transformational, highly vocational STEM-related related education with exceptional levels of employer support, focussing on creating a high quality pathway into industry for future generations of technicians and engineers, plus apprenticeship qualifications.

The key features of their approach are as follows:




-  A collaboration between employers and Newcastle College Energy Academy harnessing teaching expertise of HE and FE, industry knowledge and expertise from employers;
-  STEM specialists, focusing on level 3, 4 and 5 provision;
-  Education pathways catering for school leavers and older learners already in employment;
-  Highly vocational technical skills training creating a future generation of technicians with skills which will drive forward our region's energy sector.



PART 2

GROWING LOW CARBON SUPPLY CHAINS TO INCREASE INVESTMENT IN THE SKILLS OF THE FUTURE

The UK has historically been one of the most regionally unequal societies in the developed world and the COVID-19 crisis has made these inequalities more prevalent.⁴⁰ With this pandemic, some of the poorest regions in the UK are now facing a triple headed challenge:

-  **The impact of COVID19:** as stated earlier, regions of the United Kingdom with lower incomes have a larger proportion of jobs at risk due to pandemic;⁴¹
-  **The existing impact of climate change:** climate risks, such as flooding and coastal erosion, are already unevenly distributed and affect some poorer regions and minorities more dramatically;⁴²
-  **The impact of digitalisation and the low carbon transition as it stands:** with current trajectory of economic development, 50% of future development is concentrated in southern England.⁴³

While this triple headed crisis puts some UK regions and minorities in an increasingly difficult position, **the low carbon transition must urgently be turned into an opportunity, by developing expertise in some region-specific sectors and by retraining the workforce of the UK's industrial clusters.** Aldersgate Group business members have often highlighted the diversity of the skillsets that they require, often crossing into over other industries and qualifications. The World Economic Forum's recent study on the future of the new economy highlighted that in the "green economy", out of the top 10 skills identified, only three are industry specific. Most challenges that our members face lie in the lack of coordination of net zero delivery policies: the low carbon transition and the workforce to deliver it will require a systemic approach which allows retraining and reskilling, and that is implemented with core values of the circular economy in mind.

To direct low carbon investment towards the industries and regions that will be most impacted by this triple headed challenge, a **Net Zero Delivery Plan, laying out a clear trajectory to grow low carbon investment across all economic sectors, should focus on the priority areas:**

⁴⁰ > 5 Centre for Progressive Policy (16 April 2020) *Which local authorities face the biggest immediate economic hit?*
⁴¹ > <https://mck.co/2SpMPKv>
⁴² > Environment Agency (November 2018) *Climate change impacts and adaptation*
⁴³ > UK2070 Commission (February 2020) *Make No Little Plans – Acting at Scale for a Fairer and Stronger Future*

1 National government to set clear regulations, standards and fiscal incentives to accelerate the decarbonisation of "low regret sectors", such as buildings and transport

Regulation is a crucial means of giving businesses the confidence to invest in skills, as we have seen for instance in the waste and automotive sectors where regulations have changed the ways these sectors operate. In the waste sector, environmental regulation has led to job creation through the development of entire new business models and markets related to material recovery and recycling. It is vital that the benefits of policy and regulatory certainty are at the core of future policy making to support a sustainable economic recovery. **Regulation can act as a market signal for training providers, who can then be certain of the direction of travel and offer training that is more in line with the needs of a low carbon economy.**⁴⁴

In the buildings sector, there is a recognition among construction industry groups such as the Federation of Master Builders (FMB) that the sector has historically faced skills shortages, and that there is a need to work with the government to improve training. **To deliver job growth in the short term, government should develop and enforce a Minimum Energy Efficiency Standard for existing homes to achieve EPC band C by 2035 (and should aim to achieve this by 2025 for low income households).** This is an example of a regulatory measure that could kickstart a nationwide retrofit programme, creating jobs, cutting emissions from buildings, delivering warmer homes and tackling fuel poverty.

Building on the £3bn stimulus investment package focused on energy efficiency spending in 2020/2021, government should also look to remove the VAT charged on retrofits to existing homes. This should be done in parallel with a campaign to replace gas boilers with heat pumps and solar panels where appropriate, cutting emissions from houses and providing occupants with tangible benefits including warmer homes and lower bills, going beyond the Clean Heat Grant Scheme, that currently offers limited and short-lived support.

⁴⁴ > Aldersgate Group is working on an updated report on the economic benefits of well-designed environmental regulation, due to be published in November.



This nationwide retrofitting programme could give confidence to businesses in the construction sector to create jobs right across the country in the short term, especially given this sector is less susceptible to offshoring, and invest in low carbon skills through apprenticeships and partnerships with the education system. It would also contribute to the recovery of the construction sector, which has been one of the hardest hit by the pandemic. Support for this sector and for the contractors could have beneficial ripple effects across the economy, as it supports big supply chains from multi-nationals and SMEs to self-employed workers.

Another low regret sector which could deliver jobs in the near term is transport, and particularly the phaseout of ICE vehicles by 2030 ideally or as soon as possible thereafter. With a growing demand for EVs at the European level, and big EV players like China announcing a net zero target, it is estimated that capturing a first mover advantage in this market can offer significant opportunities for the UK. With an estimated demand for 1,200 gigawatt-hours per year in 2040, the value of the cell market alone would be around €90 billion per year. This in turn could create about a quarter of a million jobs in battery-cell manufacturing and R&D, a great export opportunity for the UK. Capitalising on existing R&D and skills investment in this area should therefore be a priority for Government.

2 National government to develop a clear policy framework to accelerate low carbon innovation for decarbonising hard to treat sectors, grow market demand for low carbon industrial products, and grow employment opportunities across supply chains

Currently there are a variety of government initiatives that offer funding and Research and Development support for sectors like heavy industry,⁴⁵ but there is no coherent strategy to consolidate and simplify access to these funds over the long term. This is why government needs to develop comprehensive decarbonisation strategies for hard to treat sectors, bringing together innovation objectives with the right regulatory framework and market mechanisms that support their deployment. This would give confidence to businesses investing in less mature technologies like hydrogen (see case study below) and Carbon Capture and Storage (CCS), enabling them to attract private sector funding and grow supply chains accordingly.

Accelerating, consolidating and simplifying government schemes to make them more coherent can encourage businesses to accelerate innovation and drive an inclusive

and green recovery from COVID-19. **Aligning the UK's innovation policy with market mechanisms that grow the demand for new ultra-low carbon goods and services will also be key to drive down costs.**

This could include incentives aimed at accelerating the take-up of technologies, for example by rewarding industry for capturing and storing carbon emissions. Market mechanisms that include measures at the product level could also be an important tool. For example, product standards driving down embodied carbon in building materials, such as steel and cement, could help grow the market for ultra-low carbon industrial goods whilst also protecting UK businesses from high carbon imports. Government should also update its procurement rules with mandates for investing in infrastructure to buy low carbon steel or cement from plants using CCS, thereby attracting more investment in this technology from the private sector. These principles have delivered good results in the case of offshore wind, where the CfD regime grew the sector significantly whilst also driving down cost. In other hard to treat sectors like agriculture, this could include rewarding better land management practices and carbon storage functions through the Environmental Land Management Schemes (ELMs) proposed as part of the Agriculture Bill. This should work alongside support for pilot schemes to trial new farming practices that have lower environmental impacts.

Government needs to develop comprehensive decarbonisation strategies for hard to treat sectors, bringing together innovation objectives with the right regulatory framework and market mechanisms that support their deployment

Innovation and incentives to decarbonise hard to treat sectors will be equally as important as direct investment in skills, as they will ensure a clear and diverse workers' demand across the whole of the United Kingdom, and particularly in areas most affected by COVID-19. **Recovery packages from previous economic downturns have shown investment in low carbon projects create a higher number of jobs and greater long term cost savings than stimuli focused on more traditional industry.** Increasing this ambition, driving emissions down further, faster, and across as many clusters and regions as possible, will deliver jobs and encourage greater investment in skills development.

45 > <https://bit.ly/2GkhrL4>

CREATING JOBS IN THE NORTH WEST – SUPPORTING ONGOING HYDROGEN TRIALS

Aldersgate Group member Johnson Matthey are involved in a number of large scale hydrogen projects which have the potential to create at least 5,000 jobs, deliver clean electricity for industry and heat around 2m homes. The most developed, HyNet, will be shovel-ready by March 2021. The emissions reductions expected from the HyNet project alone are estimated at one million tonnes every year, or the equivalent of taking 600,000 cars off the road.

The long-term ambition is to use the low carbon hydrogen to also fuel trains, lorries and buses. These projects will be essential to transition areas currently reliant on natural gas to low carbon power, areas which have traditionally been the most affected by climate risks and inequalities in the UK.

The government's £90m funding package announced in February includes funding to advance development of Europe's first large scale low carbon hydrogen plants. In addition to support for capital spend, fast tracking these projects and making low carbon hydrogen competitive requires a business model to support them. Funding for capital costs will help, but what will be most important to realising these initial deployments will be support for operational costs and a clear skills strategy to ensure workers are trained to install and manage hydrogen.

A way to ensure that low carbon innovation is competitive on price and sustainable for businesses is through robust carbon pricing, as well as by accelerating, consolidating and simplifying existing funding schemes to ensure a clear demand for hydrogen, which will in turn encourage skills investment and training opportunities.



PART 3

ENHANCING LOCAL ENGAGEMENT AND FUNDING OPPORTUNITIES

At present, the United Kingdom is one of the most centralised countries in Europe,⁴⁶ and devolved responsibilities are not properly aligned with devolved funding powers. This can expose local players to risks, including skills shortages, that they have little control over in terms of mitigation. Despite the limited role that Local Authorities will need to play in skills policy, the cost of the energy transition is currently largely placed on consumers and Local Authorities (LAs) directly exposed to the social and economic consequences of energy affordability.

LAs need to be better supported by government, with more localised decision-making power, improved dialogue and funding opportunities to better understand the implications of central decision making at the local level.

This is particularly important, given the nature of the labour market, heavily dominated by small and medium-sized enterprises (SMEs). Indeed, 99.9% of all businesses in 2019 in the UK private sector were SMEs, accounting for just over 60% of total private employment.⁴⁷ Supporting these organisations through local authorities and LEPs during the transition will be essential if the UK is to meet its ambitions to reach net zero emissions by 2050 in a way that maximises local opportunities and reduces risks.

With the COVID-19 crisis continuing to weaken the UK's economy in recent months, it has also become clear that SMEs are likely to be particularly affected. While larger businesses are often able to weather large economic shocks for a period of time, SMEs frequently do not have the cash reserves to survive when demand for their goods and services plummets like it has this year. This is highlighted by the fact that, based on records from county courts, over 99% of all companies categorised as being in distress are businesses of fewer than 250 employees.⁴⁸ These businesses need better access to advice on how to become less vulnerable to future external shocks, such as those that may occur due to climate change. This includes ensuring that their employees have access to the training that would enable them to be skilled for the requirements of a net zero emissions economy.

Local Authorities are often seen as a trusted intermediary and are thus well situated to strategically plan infrastructure development and create partnerships with businesses in sectors such as transport and buildings.⁴⁹ In a recent report written by UK100, **Aldersgate Group member Siemens estimates that “more than £100 billion of investment in local clean energy schemes could be generated through local authorities, private capital and government investment working together on a wide range of projects across the country”.**⁵⁰ The 38 Local Enterprise Partnerships (LEP) across England can also help determine local economic priorities and undertake activities to drive economic growth and job creation, improve infrastructure, and improve workforce skills in their area.

To improve engagement with local government and local enterprise partnerships and enable better development of SMEs and supply chains, we ask for:

1 National government to provide sustained public funding and political autonomy for local authorities, ensuring they have the capacity to maximise the opportunities of the low carbon economy as jobs get transformed by the net zero transition

Local authorities have a key role to play in identifying and drawing down funding for skills and training from a variety of sources to support their local economy. These include existing European funding, its successor, the UK Shared Prosperity Fund, other national initiatives and programmes, as well as private investment. It is crucial that they can identify how the impact of these funds can be maximised locally to support the creation of new jobs and develop a pipeline of local skills. However, at present, funding is mostly uncoordinated, which has been cited by local authority stakeholders as a key challenge.⁵¹ The National Skills Fund should bring together all different funding initiatives and provide long term policy direction and investment across all areas of the UK.

⁴⁶ UK2070 Commission (February 2020) *Make No Little Plans – Acting at Scale for a Fairer and Stronger Future*

⁴⁷ <https://bit.ly/2SstWA5> [accessed 13 May 2020]

⁴⁸ The Financial Times (17 April 2020) “Covid-19 shuts down a quarter of UK businesses”

⁴⁹ Midlands Energy Hub (May 2019) *Establishing public-private Joint Ventures and partnerships for investment in and delivery of energy schemes*

⁵⁰ UK100 (July 2020) *Accelerating the rate of investment in local energy projects*

⁵¹ Local Government Association (June 2020) *Local green jobs – accelerating a sustainable economic recovery*



Examples of best practices of cooperation between national and local authorities should be identified and replicated at scale. For instance, Portuguese national authorities launched a bid in 2005 aimed at awarding the electric power grid connection rights to new wind farms, where local authorities played a key role in sourcing skilled professionals and bringing the economic benefits of investment into local communities. This program required collaboration between all government levels as well as increased efforts on behalf of local authorities and local labour market actors to provide an adequate supply of skilled workers to meet employment demand. The project was successful, with total added value representing 286 million euros per year and a total investment of 220 million euros. It created 1,700 direct and 5,500 indirect jobs. Only 9% of the labour force initially had the relevant qualifications for the job, and their companies, supported by government, therefore had to provide training.⁵²

In sectors such as energy and transport, government policy and regulation in relation to net zero local energy investment does not yet provide the necessary level of demand assurance needed to support this investment at scale,⁵³ and many organisations are calling for local-led policies, including “zoning”.⁵⁴ **Instead of relying on catch-all capital grants, government should devolve enhanced long-term capital and revenue to local authorities to allow them to deliver integrated and localised strategies.**⁵⁵

Additionally, **the Treasury’s Green Book could be improved to avoid aspatial commitments, and encourage sector and location-specific funding.**⁵⁶ Similarly, as argued in our recent report *Rebuilding To Last*,⁵⁷ **the Industrial Strategy that the government is currently looking to update and the Net Zero Delivery plan should be brought together to create a single, forward-looking and coherent plan to strengthen the UK’s workforce for the economic recovery and ensure long-term policies and sustained public funding.**⁵⁸

⁵² OECD/Martinez-Fernandez C, Hinojosa C, Miranda G (February 2010) *Green jobs and skills: the local labour market implications of addressing climate change*

⁵³ UK100 (July 2020) *Accelerating the Rate of Investment in Local Energy Projects*

⁵⁴ ADE (January 2018) *Shared Warmth: A heat network market that benefits customers, investors, and the environment*

⁵⁵ Aldersgate Group (March 2019) *Shifting emissions into reverse gear: priorities for decarbonising transport*

⁵⁶ UK100 (July 2020) *Accelerating the rate of investment in local energy projects*

⁵⁷ Dimitri Zenghelis and James Rydge (July 2020) *Rebuilding to Last: designing an inclusive and resilient growth strategy after COVID-19*

⁵⁸ *Ibid.*

2 Business and national government to ensure better access to private finance by setting up a National Investment Bank. This bank will channel institutional capital and private savings to direct low carbon and skills investment towards those parts of the country in most urgent need of economic regeneration

The 2019 Green Finance Strategy rightfully acknowledges the importance of capitalising on city and regional energy strategies.⁵⁹ Local green finance markets will make a significant contribution to tackling climate change, and there is a need to remove barriers in order to facilitate local investments. As stated above, local authorities are best placed to help remove some of the associated uncertainty with long-term planning and localised assistance.

However, the centralised nature of the UK financial system is currently deepening spatial inequalities, with funding and SME support currently heavily directed at London and the south of the UK. The investment sector has a key role to play in engaging with stakeholders in different geographical areas to respond to the diverse needs for achieving a just transition. Banks can play a leading role by helping to finance place-based climate action in both rural and urban settings.⁶⁰ **Government should increase accountability of financial institutions by reporting on progress against just transition goals and local partnerships.**

A National Investment Bank could help drive investment in complex, innovative and local projects such as hydrogen and CCS (see Part 2).⁶¹ With £20 billion paid in capital – £5 billion per year for 4 years – and clearly defined climate and social objectives, it could take a regional approach, delivering quick investment in areas in urgent need of economic regeneration. This National Investment Bank could, over time, replace existing funds which can be fragmented and limited for such large-scale projects as upskilling. The bank should have the mandate and capacity to work with local authorities to develop place-based net zero projects and programmes, deploying public money locally to crowd in private capital.

⁵⁹ BEIS, HM Treasury (July 2019) *Green finance strategy*

⁶⁰ Grantham Research Institute (July 2020) *Financing climate action with positive social impact: How banking can support a just transition in the UK*

⁶¹ Dimitri Zenghelis and James Rydge (July 2020) *Rebuilding to Last: designing an inclusive and resilient growth strategy after COVID-19*



3 Enhanced dialogue through the establishment of a National Skills Commission to coordinate government departments and work with businesses and local institutions on the National Skills Fund

Enhanced dialogue between national and local government, as well as LEPs, if supported by funding opportunities, will enable businesses to better understand the specific future skills requirements for their organisation in a low carbon economy. Local authorities must be given the resources, powers and flexibility to implement local or regional skills strategies. The knowledge that local governments and LEPs have of local SMEs and supply chains means they are best placed to understand the needs of local businesses and industries at a more granular level.

To support this dialogue, the **establishment of a National Skills Commission could enhance coordination across government departments to encourage cross-sectoral projects and collaboration on skills. The Commission could also directly work with businesses, local institutions, and the National Investment Bank to develop the updated National Skills Fund to be introduced in 2021.**⁶² For this, government should work with other nations leading on this, to share knowledge and encourage best practices (see case study below).

This National Skills Commission should also push for better coordination between LAs and the UK government. It should have a clear mandate for delivering on the UK's net zero target, ensuring a just transition, and implementing the national low carbon skills strategy. The body should include representatives from multiple government departments, including BEIS, HM Treasury, Defra, MHCLG, DfT, DfE, and the CCC. It should also be supported by similar bodies working at more local levels, including representatives from local governments, skills advisory panels, LEPs, and other local stakeholders, such as business leaders and civil society.

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⁶² Conservative Party Manifesto 2019
<https://www.conservatives.com/our-plan>

EXAMPLES OF SKILLS COMMISSIONS AND STRATEGIES:

The Scottish Just Transition Commission:

In Scotland, the Scottish Just Transition Commission (SJTC) is a good example of such a body, working to highlight and deliver the Just Transition principles in a Scottish context.⁶³ The secretariat of the SJTC comprises of a cross-sectoral group including members from science, think tanks, academia, charities, NGOs, trade unions and business leaders. This allows the group to benefit from a wide range of views, reducing the possibility of leaving significant numbers of stakeholders behind.

The SJTC interim report released in February highlights some of the preliminary findings and recommendations. One such recommendation is the development of a Climate Emergency Skills Action Plan, which would include an assessment of which skills will be in declining demand, which will be most needed going forwards, and how these can be delivered.⁶⁴ An assessment of this sort would be an appropriate first step in the development of a national low carbon skills strategy.

A further suggestion is that the government leads by example, ensuring that the principles of Fair Work⁶⁵ are embedded in any programme receiving money that is associated with climate change. This certifies that businesses will only receive support where they can commit to investment in appropriate skills and training, closing the gender pay gap, paying the real Living Wage, without inappropriate use of zero hours contracts, and genuine engagement with the workforce and unions. This highlights how proper investment in skills and training is vital to ensure that the transition to a net zero emissions economy is fair and just.

⁶³ > <https://bit.ly/33w0eXL> [accessed 13 May 2020]

⁶⁴ > Scottish Just Transition Commission (February 2020) *Interim Report*

⁶⁵ > <https://bit.ly/34qZl1H> [accessed 25 June 2020]

Austrian inter-ministerial committee: ⁶⁶

In Austria, in response to the national climate strategy, an inter-ministerial committee was established to assess skills requirements for different occupations in the solar thermal, construction and transport sectors compared to existing provision, to identify the need for new skills response initiatives for different occupational groups, and revise existing education programmes in accordance with the overall energy savings strategy.

National plan for mobilisation for jobs and careers in the green economy:

In France, under the national plan for mobilisation for jobs and careers in the green economy, the Ministry of Education established a national observatory to identify and define the jobs for this transition. It also worked to coordinate the observatory's operations carried out at regional and sector level.

⁶⁶ > European Centre for the Development of Vocational Training (2013) *Skills for a low carbon Europe*



This policy briefing is one of a series published by Aldersgate Group, an alliance of major businesses, academic institutions and civil society organisations that drives action for a competitive and environmentally sustainable economy.

Our corporate members, who have a collective turnover in excess of £550bn, believe that ambitious and stable low carbon and environmental policies make clear economic sense for the UK.