

SKILLS FOR A GREEN RECOVERY

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SUMMARY

The UK's 10-point plan to achieve net zero climate emissions by 2050 is a shared responsibility. Central to the plan is the construction industry, which will be responsible for designing, building and maintaining the infrastructure that will play a pivotal role in decarbonising our built environment. From retrofitting homes to improve energy efficiency to building world-beating major infrastructure projects that stem the tide of carbon emissions; everything starts and ends with the people and firms that will build, maintain and operate our net zero infrastructure. The civil engineering sector is at the heart of these efforts, creating the major infrastructure assets that make our towns and cities cleaner and greener.

However, the entire construction industry is facing large and persistent skills gaps and skills shortages, that may hamper its ability to make good on the government's ambitions. Our analysis shows that up to 750,000 construction workers could retire or be on the verge of retiring over the next 15 years. Not enough is being done to replace these workers, with just 20.3 per cent of construction workers aged under 30. IPPR has looked in detail at the Thames Tideway Tunnel major infrastructure project, shedding light on what is needed for the construction sector to recruit, train and retain a workforce for a green recovery.

The issue of skills and employment encompasses recruitment, training and retention of workers. Skills and Employment Programmes are initiatives undertaken by projects and firms, designed to attract new people to jobs and careers, upskill workers in technical skills, and promote retention. These initiatives are common in major infrastructure projects, where they are a vital part of the work that businesses do to recruit, train and retain talent. Where they exist, these programmes encompass vocational training, employee pastoral support, and inclusion in the workplace.

To assess the performance of current employment and skills programmes, we conducted qualitative research among practitioners involved in the Thames Tideway Tunnel Project, and among stakeholders from the infrastructure industry. Our research findings and recommendations are detailed in a technical paper and summarised in this executive summary. The contents of our report will be of interest to those working in the infrastructure industry, but have a bearing on issues faced across the construction sector.

We discover that skills and employment programmes in the infrastructure industry are hamstrung by a lack of collective action among firms, and a lack of leadership in government. These programmes are therefore failing to align industry-wide demand for construction skills with overall supply of construction workers and delivery of vocational training.

The infrastructure industry needs to address two immediate challenges: the growing gap between the number of skilled workers required to build green infrastructure, and those already in the workforce; and the task of transforming the values and attitudes of all people and firms so that they are habituated in 'greening'.

Investment in a green recovery can create new construction jobs, and stimulate a revolution in the productivity of the infrastructure industry. However, to seize this opportunity there is an urgent need for the government to bring forward new funding, legislation and regulatory powers that set a level playing field for construction firms. Tideway's experience shows that this structural change is needed to deliver the skills we need for a green recovery.

THE PROBLEMS

Our research found that there are several key issues holding back progress on construction skills.

A lack of collective action

The construction sector is highly fragmented (Farmer 2016, McKinsey 2020). Our research finds that this fragmentation leaves accountability for skills and employment spread across a large number of disparate organisations and businesses. This has caused a collective action problem, where incentives designed to stimulate training and employment are poorly aligned with reality.

At a project level much more could be done to elevate the issues of skills and employment, so that they are given proper consideration by senior leaders within parent companies and clients.

Government also fails to coordinate investment in major infrastructure projects, with investment in vocational training and employment. This leads to a mismatch between skills shortages and skills gaps, and the supply of skilled workers into the construction sector.

Inadequate investment

The UK suffers from an infrastructure investment gap (Jung and Murphy 2020). This investment gap also extends to the issues of skills and employment, where a further £6 billion of revenue funding is needed just to keep the further education sector alive (Hochlaf and Quilter-Pinner 2020). A failure to invest now will lead to escalating costs to the public in the future.

An ageing workforce

The construction workforce is getting older. We find that more than one in three (34.6 per cent) workers in the sector are over the age of 50, implying that up to 750,000 workers would either retire or be on the verge of retiring over the next 15 years. The Farmer Review (2016) estimated that the demographic profile of the workforce could be 20 to 25 per cent lower by 2026. Our analysis shows that this trend has worsened, with the proportion of workers aged below 30 shrinking from 22.8 per cent to 20.3 per cent over the past five years. If these trends continue the sector may be faced with severe workforce shortages.

A bad place to work

The construction sector has become reliant on cheap and insecure labour. Around 40 per cent of the construction work force is self-employed (ONS 2020), higher than anywhere else in Europe. While wages in the industry are relatively high, employment is insecure, and workplace inequality is a major issue. Just 13 per cent of the workforce are women, and just 3 per cent identify as BAME (FT 2020). Poor working conditions and a bad record on inclusion are obstacles to hiring talented people. Our research finds that solving this problem will require more forceful regulation of employment practices, underpinned by new legislation. Importantly, we find that industry itself would welcome these changes.

A lack of leadership

Our research finds that there is a lack of leadership on the issues of skills and employment, at all levels of government, and industry. This underpins every problem identified by our research.

Government must take the green skills crisis seriously, investing in further education, and matching its net-zero ambitions with investment in decarbonisation. Industry must give the issues of skills and employment a seat at the table in board-level decision making, and make radical changes to ensure the construction sector is an attractive place to work. If leaders in industry fail to take this action, boards will have to explain the rising cost of skills shortages to investors and shareholders in the future.

THE SOLUTIONS

To ensure the UK's construction workforce is sufficiently skilled for a green recovery, bold action must be taken by government and industry. Below we outline the actions that government must take to generate a revolution in vocational training, and to embed net-zero in the culture of the construction sector. We also outline steps that the Construction Leadership Council (CLC), the industry's leading representative body, can take to match government action with an industry response.

Government

Legislate to allow industry to procure responsibly, supporting a level playing field for the construction supply chain in publicly-sponsored projects. Our research has found that the construction sector is not an attractive place to work. The causes of this are deep-rooted, structural, and cultural. We have made clear that addressing these issues is a vital part of securing the government's ambitions to achieve net zero by 2050. The best way for government to make a start on achieving change, is for public sector sponsors of major infrastructure projects to leverage their buying power through the procurement process to drive behaviours at the firm level. We therefore recommend that the government, in partnership with industry, legislate for responsible procurement in publicly-sponsored major infrastructure projects.

The new legislation should require major projects clients to:

- appoint chief sustainability officers to senior leadership teams in major infrastructure projects, with a remit spanning skills and employment and carbon reduction
- ensure that all new major projects are net zero by design from construction, and operation, through to decommission
- pay the real living wage to all employees working on a project
- appoint boards that are representative of the population in which the project is being built
- ensure that all staff employed on major infrastructure projects are offered the opportunity to attain an accredited net-zero construction qualification
- offer incentives to the supply chain to recruit, train and retain apprentices during and after their involvement in the project.

Produce sector-specific guidance on skills and employment interventions, to accompany the Cabinet Office Construction Playbook. The Cabinet Office's recently published Construction Playbook provides a powerful toolkit for departmental sponsors to deliver net-zero outcomes on a project-by-project basis. The playbook also mentions skills and employment and 'social value' as desired outcomes for public sector procurement. There is, however, far too little detail on how exactly civil servants should appraise, evaluate and negotiate skills and employment when tendering. The issue of skills is mentioned just nine times in the circa 80-page document. Separate specific guidance should be produced on skills and employment in procurement, in close consultation with skills and employment practitioners.

Reform the Treasury's Green Book methodology for appraisal and evaluation of new infrastructure projects, to provide specific guidance on how to account for investment in skills and employment in line with national priorities. To further support the transition to Net Zero, efforts must be made to improve the business case process for major infrastructure projects, so that measures to promote skills and employment better respond to real-world challenges. We recommend that guidance on appraising government projects found in the Treasury's Green Book is amended, in close consultation with industry via the Construction Leadership Council. Changes should be made to allow for consideration of vocational training and employment and employability interventions required to support a sustainable net-zero economy.

Request that the economic regulators allow utility companies to account for the issues of skills and employment in their business plans. This would allow the energy and water companies to cost their investments in training and employment in their business plans.

Government should establish a commission on bogus self-employment in the construction sector, alongside unions and industry bodies. The construction sector is overly reliant on self-employed workers. We recommend that parliament should establish a cross-party commission to investigate options for tackling bogus self-employment in the construction sector. The commission should work alongside unions and industry bodies, to ensure that the views of workers and businesses are represented.

Commission the DfE to lead the production of a new National Infrastructure and Construction Skills Demand Pipeline. This pipeline would complement the existing National Infrastructure Pipeline, giving clarity to industry and the further education sector on where investment in employment and skills is required. The pipeline should be produced in close consultation with The Treasury, BEIS, DfT, DEFRA and the CITB.

The government, via the Department for Work and Pensions, should make explicit in health and safety regulations the relationship between pay and terms of employment, and health and safety in the construction sector. Making this relationship explicit in health and safety guidance would promote interventions at the firm level, where low pay and poor employment conditions are putting people at risk of injury or death.

Increase funding for further education and expand apprenticeship opportunities. So that the construction sector can benefit from a strong skills pipeline, we recommend the following to replace lost funding and to support expanded life-long access to vocational training.

- The Treasury should work with representatives from construction and other sectors to establish a Green Apprenticeship Fund for small and medium-sized enterprises. The scheme would aim to offer a 50 per cent annual wage subsidy for SMEs offering apprenticeships that specifically bolster green skills. We estimate that such a fund would cost £370 million.
- Government should investigate options for further increasing capital funding to the FE sector, with the aim of promoting state-of-the-art training facilities for green skills.
- Government should commit to increasing FE and adult education revenue-funding by £6 billion per year, by the end of the Parliament.
- Government should provide a £4,000 'opportunity grant' to those who have lost their job during Covid-19, who do not have a level 3 qualification, so that they can pursue a Level 3 college course. We estimate that up to 250,000 people would potentially access this, at a cost of £1 billion (Hochlaf and Quilter-Pinner 2020).

NEXT STEPS

The CLC should take forward the findings of this research, to create an operational strategy for the sector, with the aim of securing endorsement from government.

We have set out bold actions for the government. To ensure that these actions are taken forward, Industry needs to show that it is committed to making equally ambitious efforts to close the green skills gap.

The Farmer Review (2016) made clear the link between the procurement process in major construction projects, and skills and employment outcomes. In our qualitative research, we find that Tideway was successful in empowering skills and employment practitioners, and in connecting commercial decision making with skills and employment objectives. However, it was also clear that opportunities are easily missed, and greater integration of labour suppliers in this process is required alongside a concerted shift towards direct employment.

We therefore suggest that the CLC should take forward the findings of this research, producing an operational strategy for the sector, and convening the development of training for industry leaders. This strategy must encompass:

- a plan for the construction sector's response to the climate crisis, and the government's net zero by 2050 target, and their transition target of 2030
- a comprehensive assessment of the short and long-term 'green skills' needs of the construction sector
- a detailed proposal for a sector skills and employment deal, setting out the funding required from government to facilitate a revolution in vocational training in the sector, that rises to the challenge of the green skills gap
- detailed guidance for all construction businesses on how to drive effective skills and employment outcomes through the supply chain via procurement
- a framework for corporate governance of carbon reduction and skills and employment, including guidance on key appointments (such as chief sustainability officers) and board-level accountability for these issues
- a standardised framework for monitoring and measuring skills and employment outcomes in major infrastructure projects and major programmes
- detailed guidance for tier 1 contractors, on how to drive effective skills and employment programmes through the supply chain via procurement
- a vision for what net zero cultures and behaviours are required in the construction industry, and a roadmap for how the industry can work towards embedding these
- a vision for what 'good work' in the construction sector should look like across occupational groups, and how the entire industry can work towards this.

In addition to an industry strategy, to drive vital cultural change it is imperative that social and environmental sustainability is understood and championed by senior leaders within construction businesses. We therefore recommend that the CLC convene the professional bodies, including RICS, ICE, IMECHE, IEMA, RIBA and CECA, to develop a cross-industry net zero leadership academy, targeted at C-Suite leaders. This academy should be tasked with developing net-zero leadership training. The academy should develop a curriculum and identify suitable institutions to deliver training to senior leaders.

Action among a small number of the very largest businesses will not be enough to change the future of the entire construction industry. Overwhelmingly it is smaller firms that employ the bulk of the construction workforce. To begin embedding cultural change among small and medium enterprises, we recommend that the CLC also develop the net-zero leadership curriculum into an apprenticeship standard, via the apprenticeship trailblazer process. To ensure that smaller businesses have access to this training, the CLC should convene an industry training fund, sponsored by Tier 1 contractors through their apprenticeship levy, with the aim of training 1,000 SME business owners via the net zero leadership academy by 2025.

The progressive policy think tank

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