

## EngineeringUK response to Labour National Policy Forum consultation: *Economic renewal after coronavirus* June 2020

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### COVID-19 and engineering

Engineers play a vital role in shaping our world, from where we live and how we communicate, to what we do for leisure. We frequently highlight their importance in response to global challenges – including achieving Net Zero and securing sustainable food, water and energy for all. But their importance has rarely been more visible or significant than during the global pandemic – engineers, technicians and manufacturing companies have been integral to producing personal protective equipment, ventilators and medical infrastructure and supplies. However, despite the importance of the sector to the national efforts to address the pandemic, recent data published by the ONS and others on the economic impact of COVID-19 is a stark reminder that the engineering community is not exempt from its consequences. Large parts of manufacturing have had to effectively shut down due to operational constraints, interruptions to supply chains and a sharp drop in demand. New data from the CBI shows the biggest drop in manufacturing export order books (-79%) since their records began in 1977.<sup>1</sup> Many engineering firms have had to let staff go, while others have used up all cash reserves simply to stay afloat.

While these have been extremely testing times for the sector we also look ahead and are mindful of the ongoing need to support young people in their STEM career pathways. At EngineeringUK our ambition is to see a more diverse engineering workforce, opening up opportunities for young people from all backgrounds. Our analysis, however, shows that women make up just 12%<sup>2</sup> of the engineering workforce and those from minority ethnic backgrounds, 9%.<sup>5</sup> Our research also finds that unequal educational outcomes are a *'clear obstacle to social mobility in engineering'*.<sup>3</sup> Early signs suggest that COVID-19 may lead to widening educational inequalities, which we fear could worsen this situation. The UK not only needs a thriving engineering sector for economic recovery post-pandemic, it also needs a more diverse engineering talent pool to enhance our collective ability to solve some of the largest social and economic challenges facing the UK. This is why we are calling on policy makers to address the following four areas.

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- **Improve access to high quality careers advice and guidance** - EngineeringUK believes that giving young people access to effective and impartial careers education, information, advice and guidance (CEIAG) can play an important part in increasing the number of young people on pathways into STEM careers. We agree with the new report from the APPG on Diversity and Inclusion in STEM<sup>4</sup>, which argues that *'Wider access to good careers education has the potential to raise aspirations around STEM and reduce inequity.'* We would like to see the 2017 Careers Strategy refreshed as a priority, with a renewed focus on good quality STEM careers support, particularly for those groups who experience barriers in accessing careers advice and guidance. We are currently surveying young people to gauge their career aspirations and better understand the impact COVID-19 may have had on their plans and their access to careers support and guidance. The results will be available on our website in the coming weeks.
- **Support STEM 'encounters' with the world of work** – A 2019 study conducted by Education and Employers<sup>5</sup> found pupils who had careers engagement sessions with employers, were more motivated to revise for exams and more likely to exceed predicted GCSE grades. At EngineeringUK we run a range of programmes and events, with opportunities to meet employers, including the [Big Bang Fair](#) and we

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<sup>1</sup> CBI. *'Manufacturing activity sinks to new low in June'*, article, June 2020.

<sup>2</sup> EngineeringUK, *'Gender disparity in engineering'*, Research Briefing, 2018.

<sup>3</sup> EngineeringUK, *'Social mobility in engineering'*, Research Briefing, 2018.

<sup>4</sup> APPG on Diversity and Inclusion in STEM, *'Inquiry on Equity in STEM'*, June 2020

<sup>5</sup> Education and Employers, *'Motivated to achieve'*, June 2019.

are also excited about a new digital platform Neon which we've developed in partnership and which brings together quality engineering outreach opportunities and inspiring careers resources. Although the 2017 Careers Strategy recognised the need to increase STEM encounters, it remains a live issue and even more so since COVID-19. Our research also shows that those from disadvantaged background and girls, are less likely to access careers provision, which compounds the challenge.<sup>6</sup>

- **Boost the supply of, and diversity in, apprenticeships** - Despite the government's efforts to promote apprenticeships in recent years, the decline in numbers suggests this is not having the intended effect and sadly the coronavirus appears to have exacerbated the issue. Research published by the Sutton Trust in May 2020<sup>7</sup> found that as of early April on average just 39% of apprenticeships were continuing as normal, with 36% having been furloughed and 8% made redundant. They also conclude that the crisis is hitting young apprentices the hardest. We recently did a 'temperature check' with some of the major employers we collaborate with. Apprenticeships was a key issue, with firms taking the difficult decision to either reduce, delay or cancel their recruitment plans for September. Over half the companies we spoke to had furloughed at least some of their apprentices. These engineering employers also talked about the very real challenges of home IT and internet access, particularly for disadvantaged students, as well as the practical barriers in finding meaningful engineering work placements due to COVID-19. We were interested to see the steps taken by some metro mayors in seeking to cover some or all of the salary costs of apprentices in their regions. We feel ambitious policy steps such as this need to be considered on a national scale to support apprenticeships, with a particular emphasis on young apprentices from disadvantaged backgrounds.

Diversity within apprenticeships continues to be a persistent challenge. Our soon to be published *Educational Pathways* report finds that just 7.9% of engineering and manufacturing technologies apprenticeship starts were by women in 2018 to 2019; this is particularly stark when you consider that women accounted for half (50.1%) of overall apprenticeship starts in the same period. A recent report by the Social Mobility Commission also shows the quality of training received is not equal, even within the same sectors. For example, disadvantaged apprentices can expect to receive between 1.5-3 months less training than their peers in engineering.<sup>8</sup> We would like to see policy makers working together with young people, the engineering community and the FE sector to develop solutions to this challenge, underpinned by a clearer common understanding of the barriers and blockers.

- **Enable regional solutions** - The economic shock of coronavirus continues to be felt more in some areas of the country, with the pace of recovery likely to differ from region to region. For example, analysis by KPMG<sup>9</sup> shows that the West Midlands is likely to be one of the hardest hit areas due to the preponderance of manufacturing industries such as car industry. They argue: *'the gap between performance in London and the rest of the UK will widen this year'*. It is important therefore that emerging policy reflects this context and supports locally tailored solutions. Metro mayors are championing a raft of skills initiatives - some of which started before COVID-19, while others have been turned around quickly since the pandemic. Pilots include mentoring schemes, careers portals and targeted apprenticeship funds. As the *Perkins Review* highlights<sup>10</sup>, regional activity provides an ideal opportunity to experiment, learn and understand what works. It is also important that the new **UK Shared Prosperity Fund** proposed by the government is shaped and designed with local skills needs at the forefront. Further clarity is needed on the consultation process for the fund and timescales, particularly given existing EU funds are expected to come to an end in the coming months.

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For more information on our research, go to our website [here](#).

<sup>6</sup> EngineeringUK. 'Gender disparity in engineering', Research Briefing, 2018.

<sup>7</sup> Sutton Trust. 'COVID-19 Impacts: Apprenticeships', June 2020.

<sup>8</sup> Social Mobility Commission, 'Apprenticeships and Social Mobility: Fulfilling potential', June 2020

<sup>9</sup> KPMG, 'Chief Economist's Note: Levelling up and COVID-19', April 2020.

<sup>10</sup> Royal Academy of Engineering. 'Engineering skills for the future: The 2013 Perkins Review revisited', 2019.