Dear Sir/Madam,

The IET’s response to the Inquiry on employment and COVID-19.

The Institution of Engineering and Technology (IET) is Europe's largest professional engineering and technology organisation with 168,000 members drawn from industry, academia and the public sector. The members represent a wide range of expertise, from technical experts to business leaders, encompassing a wealth of professional experience and knowledge. Our primary aims are:

- to provide a global knowledge network, promoting the exchange of ideas between business, academia, governments and professional bodies, and enhancing the positive role of science, engineering and technology
- to address challenges that face society in the future.

We would be happy to discuss our response in more detail and provide examples and evidence from our extensive networks of engineering employers and academic partners. Please feel free to contact us to arrange this.

Recommendations:

- The IET recommends that engineering and technician students are trained in economic growth sectors, such as Sustainability and Green Skills and Digital and Automation.
- Government should invest to keep routes to engineering education open, including at universities, and to raise awareness of other routes to engineering.
- The Apprenticeship Levy should be relaxed to help create more flexible apprenticeships as a method into employment.
- Schools should be encouraged to ensure science education recovers from the impacts of COVID-19 to ensure students remain able to access future engineering and technical careers.

Questions

1. **How should the Government support training and skills development?**

   Engineering organisations generated more than £420 billion of UK Gross Value Added and engineers made up 19% of the UK workforce in 2019. The UK engineering sector is at the heart of UK industry. However, with the impacts of the recession starting to be felt, Government should be focused on investing in training and skills development across all age groups, including retraining professionals currently already in the sector.

   The Government can support targeted training within the engineering community. There is, and will continue to be, growth sectors which would
benefit the most from extra training support. Sustainability and Green Skills and Digital and Automation are examples of growth sectors in which the Government can invest for training and skills for the future. The IET will be releasing a Green Skills Survey report in November 2020, outlining the current capabilities of the UK, with recommendations for developing the workforce that will be required.

It is important to consider a flexible and blended approach to training, with a mix of classroom and online learning, to get the best out of students. By encouraging digital learning, this will help produce vital digital skills among young people, as well as helping them to understand and use technology more responsibly. For this to happen effectively, we also need to support teachers to deliver lessons digitally and use technology confidently. We also need to support students to engage effectively. It’s not enough just to have the infrastructure in place, but to create material and resources that will encourage independent and engaging learning.

Universities are the largest recruitment ground for engineers but are also facing huge financial hardship due to a reduction in overall numbers and fewer students attending from overseas. It is vital that universities are properly funded so they do not cut expensive programmes, such as engineering, from their offerings. Engineering places and courses should be protected and enhanced to offer skills in growth sectors for the economy.

Government should also support and help raise awareness of alternative routes into professions such as engineering. The Government should do more to raise awareness and take-up of T Levels as a valued, attractive qualification and a technical alternative to A Levels.

There should be a continued approach to encourage apprenticeships by making them more accessible, which would provide people with relevant skills. The Apprenticeship Levy should also be relaxed to allow employers greater flexibility on spending for skills development and supporting alternative, high-quality training options. This will invest in jobs now and in the economy for the long-term.

Further support for reskilling the existing workforce is vital to retain expertise within engineering and technical jobs. There should be investment in retraining current engineers into growth sectors. Companies should be encouraged to enhance their existing workforce’s capabilities to retain talent, rather than replacing existing staff with cheaper, new staff.

2. **What positive and negative trends in employment may have been accelerated as a result of COVID-19?**

Despite the hardship of COVID-19, there have been some positive developments in relation to training for engineers and technicians. The increased use of technology has improved general understanding and use of digital technologies, providing our future engineers a greater platform to begin
their engineering education and future careers. There has also been a renewed focus on the environment, so growth sectors identified by the IET will become more important topics to the population moving forward.

Nevertheless, there are also negative trends too. Because COVID-19 led to school closures, students are not where they should be in their academic careers. If schools do not help students catch up with science and technology subjects or prevent children from taking triple sciences to save time, we could see a lost generation of potential engineers. Schools should ensure these gaps are made up so not to negatively affect opportunities to create engineers of the future.