Barriers to work experience submission
IET response
June 2018

About the IET
Representing 168,000 engineers and technicians worldwide, the Institution of Engineering and Technology seeks to inspire, inform and influence the global engineering community, supporting technology innovation for the benefit of society. As part of our charitable remit, we channel the expertise of our members to inspire innovation, inform the public and influence government.

Working to engineer a better world, we bring together industry, academia and government to impact and influence a wide range of sectors through thought leadership (built environment, design and manufacturing, energy, healthcare, IT and communications, and transport).

General

1. What does “good quality work experience” look like? What do young people and businesses expect to get from it?
Students in the first and second years of their university degree tell us about particular challenges in gaining work experience opportunities, as they don’t have previous experience to offer an employer.

Employers should invest time in engaging with and offering work experience to students earlier on in their university career – otherwise the risk is that these students are more likely to pursue careers outside engineering. This could include offering feedback on why students’ applications for work experience are not successful.

Similarly, work experience for school children – before they decide on their GCSE or A Level subject – would be likely to improve the chances of children opting for STEM subjects.

2. How important is good quality work experience to a successful industrial strategy?
Work experience has an important part to play in solving the engineering skills shortage. Engineering contributed for a quarter of UK GDP in 2015 and engineering jobs account for 19% of the total UK employment. Engineering skills are vital to a healthy economy, for which the Industry Strategy has a central role to play.

We are facing an engineering shortfall in the next decade and with uncertainty around skills following Brexit, it is more important than ever that we develop the next generation of ‘home-grown’ engineering and technology talent.

Employers have repeatedly told us over the years that graduates and school leavers don’t have the skills they need for today’s engineering workforce. This includes not having the right attitude to work and not being able to apply technical knowledge in a workplace context. They have also said that practical work experience is an important way of tackling this problem – but crucially they are willing to do more in this area.

This is precisely why the IET promotes the benefits of employers offering quality work experience to engineering students. Employers and educators must continue to
strengthen their working relationships to ensure that the work experience they offer is designed with the skills gaps in mind.

3. What evidence is there that work experience boosts social mobility?
Providing effective work experience opportunities for all of society has the power to boast social mobility, particularly in engineering where just one in ten engineers is female. According to the IET Skills and Demand in Industry 2017 Survey, 87% of employers don’t have LGBT / BAME diversity initiatives in place. Advocating Equality, Diversity and Inclusion in engineering is a crucial element in addressing the skills shortage that currently threatens the UK industry.

4. How do differences between young people (eg. geographic location, socioeconomic background, ethnicity, disability) affect the work experience opportunities they people have?
Work experience placements are often found through contacts of family and friends. This means that those who are isolated in any way, whether geographically, socially or otherwise, may be disadvantaged.

Students should be encouraged to take a proactive approach to finding work experience and developing the skills needed for today's engineering workforce.

There are various resources available to help students who want to take action to become more ‘work ready’. For example, the IET ‘On Campus’ programme gives IET student members access to practical, technical and career-related resources, as well as helping them to create links with industry and other universities. The ultimate aim is to help students demonstrate their skills and raise their profile. The IET also plays a role in introducing students to alternative ways to look for work experience opportunities, such as contacting businesses directly or attending networking events.

If there are obstacles to finding a work experience placement, students should be encouraged to find other ways to develop the soft skills that many employers seek. This might include getting involved in university societies or attending industry site visits. Employers have made it very clear that students who have pursued these kinds of activities will be more likely to find jobs and fit into the workplace than those who have only gained academic qualifications.

5. How could resources to help young people find out about and access work experience be improved?
Students can generally find work experience opportunities on the internet. However, school teachers typically do not have enough information about work (outside teaching) to help their students.

Universities report that many students choose not to take on work experience placements outside of their locality due to the related costs of living, especially in London and the South East, which are not covered by their institution or the individual company. Any assistance that can be given, either by funding accommodation, ensuring that the salary attached to the placement is sufficient to cover accommodation costs, or through extending the existing Government Apprenticeship Levy to include work placements would all be welcome.

We are encouraged by the introduction of T-levels which will include a substantial, high quality work placement so that students can apply their learning in a real workplace environment.

Schools and businesses
6. Should compulsory work experience for under-16s be reinstated? What is the right age for work experience within compulsory education: 14-16 or 16-18?

Students in the first and second years of their university degree report particular challenges in gaining work experience opportunities, as they don’t have previous experience to offer an employer. Employees should invest time in engaging with and offering work experience to students earlier on in their university career – otherwise the risk is that these students are more likely to pursue careers outside engineering. This could include offering feedback on why students’ applications for work experience are not successful.

7. How could schools and colleges be better supported to help their students access quality work experience?

A definitive register of work experience placements so that universities and students can see, at-a-glance, the opportunities available to them in engineering and technology firms regionally and nationally would be a very welcome step forward.

The National Centre for Universities and Business has created a website with information and advice for universities and businesses looking to offer work experience and has plans to develop a register in the coming months.

8. Are services to help schools and colleges develop relationships with businesses working well? How could they be improved?

Organisations such as the Institution of Engineering and Technology (IET) are well-placed to help bridge the gap between business and educators and to raise awareness of the value of high quality, practical work experience in helping to develop future engineers with the practical skills they need for the workplace.

Employers are suggesting that school teachers, as well as pupils and their parents, need to be engaged in engineering at a much earlier stage.

Businesses would welcome a co-ordinated teacher engagement programme in primary and secondary education to help them understand what engineering is (and isn’t) so they have a better grasp of what types of initial work experience placements to look out for their pupils.

The engagement programme should move to providing engineering content as part of the national curriculum and in resulting exam questions. Practically this should involve giving time-pressed teachers materials they can use in class.

There should also be more teacher industrial placements in engineering as part of their own professional development. The IET is working with the National Science Learning Centre and IMechE to provide mathematics, science, design and technology and computing teachers with the opportunity to gain practical experience through collaboration with employers from industry. The Teacher Industrial Partners’ Scheme provides a cohesive link to their teaching and relevant promotion of engineering to students.

Additionally, there remains a broader need to demonstrate to pupils from an early age the vast career opportunities available in engineering.

9. How could barriers to businesses (including small businesses) offering work experience be overcome?
SMEs, the lifeblood of UK engineering, have limited resources so most are unwilling to engage in the opportunity. Incentives may be necessary, perhaps by way of tax incentives?

10. What does good practice in offering, advertising and recruiting for work experience look like, and how can businesses be encouraged to follow it?
Not responding to this question.

11. Does work experience benefit businesses? What are the motivations for businesses to offer work experience?
Businesses that provide work experience opportunities will benefit in a number of ways, including developing the skills of their workforce, enhancing their public profile by supporting your local community, accessing a pool of hidden talent – people who offer enthusiasm and a fresh perspective to their business and promoting workforce diversity. Ultimately, we believe that work experience provides an opportunity to showcase the creative, exciting and rewarding world of engineering to the next generation. In offering work experience opportunities, companies are helping to fix the skills shortage.

Other services and organisations

12. What role should the Government have in ensuring young people have access to quality work experience?
A Government-led national framework for offering work experience, which might also include some provision for financial support for employers offering students this experience, would be welcome. There is also a need for more locally-driven university and academic partnerships – and to empower more students to find their own work experience opportunities. Initiatives such as these would be a welcome part of the new Industrial Strategy for the UK.

More broadly, practical engineering-related subjects like Design & Technology are disappearing from the curriculum, which goes against employers’ experience that practical skills rather than academic ones are the real issue at stake. There is still more work to be done to engage teachers in the reality and value of engineering careers.

It should be noted that making career choices at the age of 16 is fundamentally floored as it ties students into career choices that are unchangeable.

13. Should the Government invest in resources to help young people find work experience independently? What would these resources ideally look like?
Universities are reporting that many students choose not to take on work experience placements outside of their locality because of the related costs of living, especially in London and the South East, which are not covered by their institution or the individual company.

We’d like to see Higher Education and industry offering accommodation as part of its work experience package. Employers acknowledge they should make the work experience salary sufficient to support students during their placements – but they are also concerned that every placement must deliver ‘value’ for them.

Given the Government’s existing initiatives to support the vocational training, not least through its target of three million apprenticeships by 2020 and the apprenticeship levy, employers are seeking further support for work experience.
A key step change, as highlighted above, is the introduction of an internship or work experience levy, aligned to or in addition to the apprenticeship levy, to help students to meet the costs of work experience placements.

14. How could private and third sector organisations be better supported and encouraged to help young people access quality work experience? IET not responding to this question.

15. What lessons can be learned from the approaches of the devolved administrations and other countries to work experience? IET not responding to this question.