

REC Engineering

The Recruitment & Employment Confederation's (REC's) specialist Engineering and Technical sector group brings together agencies working within the sector to discuss and resolve the wide-ranging issues facing the industry, such as the impact of skills shortages, diversity and the growing popularity of apprenticeships.

Sector challenges

Skills shortages

Engineering, along with the other STEM (Science, Technology, Engineering and Mathematics) subjects is facing its biggest ever crisis in skills:

- employers in the engineering sector have continuously reported that a shortage of both temporary and permanent candidates is a concern;¹
- the UK will need over a million new engineers and technicians by 2020;²
- the UK will need to produce twice the number of current engineering graduates and apprentices each year in order to meet this demand.³

With spending increasing on major infrastructure projects, the skills gap has been startlingly exposed and will continue to add pressure to the engineering industry in the UK.



The UK will need over 1 million new engineers and technicians by 2020

"With over 600 members, the REC Engineering and Technical sector group forms a strong, effective voice in representing the diverse range of needs and interests of the sector to government and key stakeholders."

Simon Conington, Chair of REC Engineering & Technical sector group

Attracting and retaining talent

The UK engineering talent pool is losing a large number of potential candidates even before they apply. Students, who consider themselves to be creative rather than 'traditionally academic', discount engineering as a potential career and do not end up studying the necessary qualifications. Skills shortages are exacerbated by engineering graduates choosing to work in sectors other than engineering once they have finished studying. Only 60% of graduates actually choose to work in the sector,⁵ with many young people perceiving the industry to "lack a career path".⁶

Immigration

Engineering is one sector, of many, which needs non-EEA talent to fill vacancies that cannot be filled using UK or EEA candidates. Almost half of the roles on the national Shortage Occupation List are engineering related professions.⁷ The industry needs the government to maintain a flexible immigration system in order to reflect business needs. A high proportion of students enrolled in engineering courses are also overseas students;⁸ once these students qualify as trained engineers, they may decide, or be forced, to return home due to the difficulty of staying to find work in the UK. In 2012, the Tier 1 (Post Study Work) Visa route ended; international students from outside the EEA are now only allowed to stay in the UK for the length of their course (they were previously given two years to find skilled work after graduating). Students must

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now apply for and find high skilled jobs whilst studying otherwise they will have to leave the UK. The REC believes that the current system effectively encourages the exit of UK-trained talent.

Diversity

The engineering workforce continues to lack diversity. Only 6% of UK engineering professionals are women,⁹ the lowest in Europe, and this will need addressing in the coming years if the sector is to counteract skills shortages. Evidence shows that the choices students make at 16 are based on the perception that engineering is still a 'career for brainy boys',¹⁰ work experience schemes and careers guidance must be more mindfully designed and teachers and families must change attitudes in order to curtail these archaic and deep-rooted assertions.

Policy focus

Immigration

After the 2015 General Election, the newly elected Conservative Government called upon the Migration Advisory Committee (MAC) to conduct a review into the Tier 2 visa system. The consultation is split into two parts and the MAC is expected to report back to the government with their recommendations on the wider review of the Tier 2 visa system in December 2015. The REC is representing the views of the engineering and technical sector and will reiterate our call for the reinstatement of the two-year Tier 1 (Post Study Work) Visa for all STEM graduates, the expansion and regular revision of the Shortage Occupation List to reflect current skills shortages and the implementation of a streamlined and low-fee Tier 2 visa application process for SMEs.

Apprenticeships

The government has also recently renewed its focus on apprenticeships. In the Summer Budget (July 2015), George Osborne announced that an 'apprenticeship levy' for all large firms is to be introduced in order

to fund three million new apprenticeships. In the government's call for evidence on Tier 2 immigration, it has also asked the MAC to look into placing a levy on firms which recruit from overseas to provide further funding for UK apprenticeships. It is not yet clear how or if these levies will interact with each other, but rather than making employers pay for the failures of the school system, the REC will continue to call for employability to be made a key focus of the school curriculum which, in turn, will boost the take-up of vocational qualifications and STEM subjects.

Improving careers guidance

In December 2014, the government announced the creation of [The Careers and Enterprise Company](#). This focuses on young people aged 12 to 18 and helps to broker relationships between schools, colleges and employers to enable students to access the best careers advice possible. We are keen to support this initiative. REC members can also sign up to the [Youth Employment Charter](#) and pledge to play an active role in bridging the gap between education and the world of work.



The UK has the lowest number of female engineers in Europe



Find out more

To find out more about joining the REC Engineering and Technical sector group, visit our [sector page](#).

www.rec.uk.com/engineering

¹ *JobsOutlook*, The Recruitment and Employment Confederation, January–August 2015 ² *The Universe of Engineering – a call to action*, The Royal Academy of Engineering, October 2014 ³ *The State of Engineering 2013*, EngineeringUK, December 2012 ⁴ *Eight ways to encourage more students to study engineering*, The Guardian, January 2015 ⁵ *State of engineering: what graduates should know about the sector*, The Guardian, March 2012 ⁶ *Engineering graduates choosing to work in other sectors*, The Telegraph, August 2011 ⁷ www.gov.uk/government/publications/tier-2-shortage-occupation-list, April 2015 ⁸ *Patterns and Trends in UK Higher Education*, Universities UK, December 2014 ⁹ *European Union Labour Force Survey*, Eurostat, 2012 ¹⁰ *Women in Engineering: Fixing the Talent Pipeline*, Institute for Public Policy Research, September 2014

