EngineeringUK

Equality, Diversity and Inclusion Strategy 2019-22

We frequently highlight the importance of engineers 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 than during the global pandemic – engineers, technicians and manufacturing companies have been integral to producing Personal Protective Equipment, ventilators and medical infrastructure and supplies and in many other aspects of our response.

While engineers have responded fast, flexibly and with huge personal commitment at this time of crisis – we know that it could have been better. We know this because workforce diversity improves innovation, creativity, productivity, resilience and market insight but our current engineering workforce lacks diversity – there is therefore a national imperative for change.

Some of the groups that are under-represented in engineering and technology have also been hardest hit by the pandemic, such as, young people from certain ethnic minority or low socio-economic backgrounds, increasing the moral argument for change. Furthermore, recent research suggests that changing career aspirations in response to coronavirus may deepen the current under-representation of women in the engineering and technology workforce.

We have developed this 3-year equality, diversity and inclusion (EDI) strategy to provide clarity on what we aim to achieve and help prioritise actions, eventually helping to create a diverse and inclusive engineering workforce, reflective of the UK population. Our work focusses on bringing young people onto engineering pathways at the age of 19, but we will continue to support the work of other organisations to ensure that further and higher education and employment are increasingly inclusive and with improved diversity. We will also continue to provide sectoral data on EDI with respect to the engineering sector's workforce and associated education and training at all ages.

EngineeringUK has been working to improve the diversity of young people participating in our programmes for many years – we will continue to do this while investing more in understanding how participation affects different groups. We will gather evidence and best practice that already exists and test how we can improve our own activities.

We also recognise the importance of reflecting on changes we can make within EngineeringUK. We will continue to use external progression frameworks and consultation with our staff to identify where we can improve. We will be reviewing our policies and recruitment processes through an EDI lens and are committed to becoming a more diverse and inclusive organisation.

Now more than ever we need to understand the barriers that under-represented groups face in pursuing pathways to engineering education and careers and work together to build a more inclusive engineering future for them.

Hilary Leevers
Chief Executive
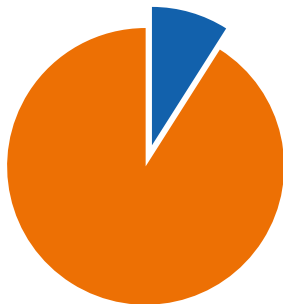**EngineeringUK**

Diversity data for engineering

Gender:

12% of those working in engineering are female, compared to 51% of the working age population.

23% of A level physics entrants are female and 18% of engineering and technology first degree undergraduates are female.
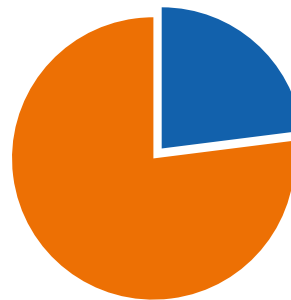
■ female workers

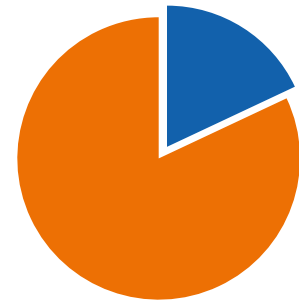proportion of those working in engineering
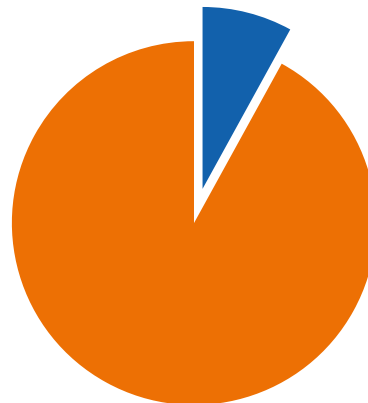
proportion of those in working age population

■ female students

proportion of students taking A Level physics

proportion of students in engineering and technology first degree subjects

8% of apprenticeship starts in engineering and manufacturing technologies are female

■ female engineering and manufacturing technologies apprentices

Socio-economic:

24% of those working in engineering come from low-socioeconomic backgrounds

Within engineering, those from advantaged social backgrounds were almost 4 times more likely to work in an intermediate, managerial or professional role at age 30 to 39 than those from disadvantaged backgrounds.
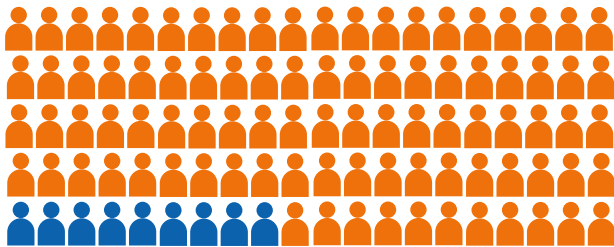
x4
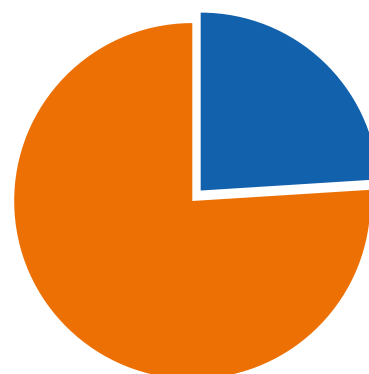
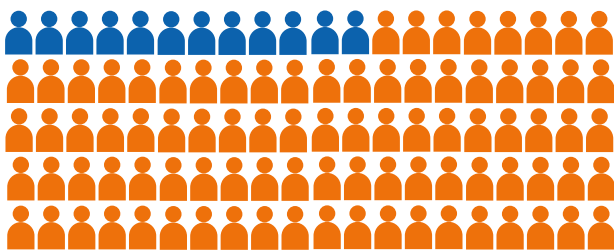■ engineering workers from low-socioenecomic backgrounds

Diversity data for engineering

Ethnicity:

9% of the engineering workforce are from ethnic minority backgrounds...

...compared to 12% of the UK population

6 months after graduation, Black and Asian engineering students were more than twice as likely to be unemployed as their White counterparts.
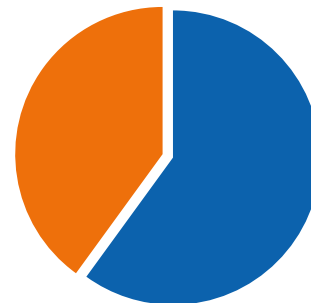

37% of Black engineering graduates are employed in an Engineering occupation 6 months after graduation, compared to 41% of Asian engineering graduates and 60% of White engineering graduates.
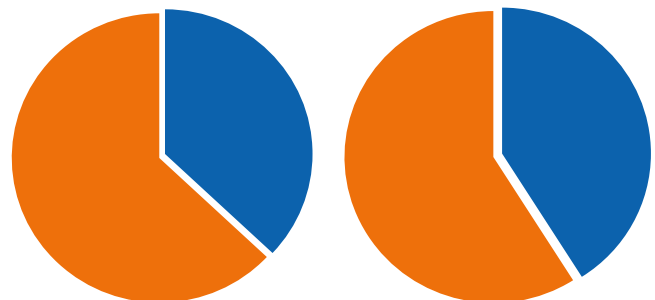
■ black engineering graduates

■ asian engineering graduates

■ white engineering graduates

proportion of those employed in engineering 6 months after graduation

Disability:

12% of those working in engineering are female, compared to 51% of the working age population.
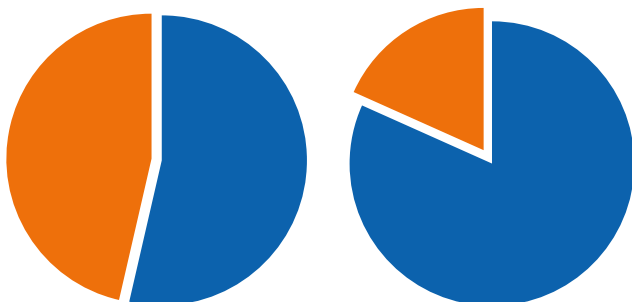
■ female workers

proportion of those working in engineering

proportion of those in working age population

around 9% of engineering and technology students declared that they have a disability or impairment...

... as compared with the average of 14%

The case for change

Why we are determined to improve EDI

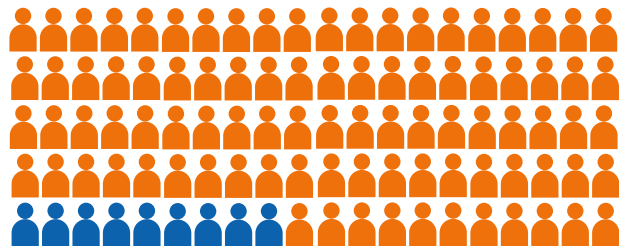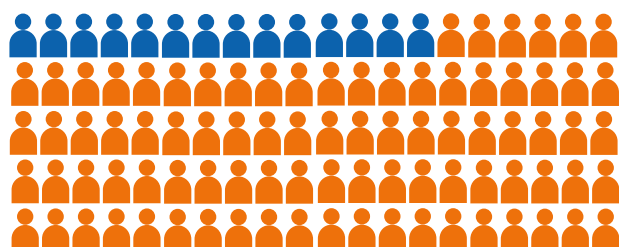1. Research demonstrates that increased workforce diversity improves innovation, creativity, productivity, resilience and market insight. We have a critical role to play in helping the engineering sector to be more effective by growing the diversity of its workforce.

2. As the engineering workforce becomes more diverse this provides the societal good of also diversifying the beneficiaries of engineering products and services.

3. Increasing the proportion of under-represented groups progressing into engineering will not only raise the quality of engineering, but also address the engineering skills shortage at a numerical level.

4. All young people should have equal opportunity in all walks of life, but particularly in pathways that lead to fulfilling and rewarding careers such as engineering. These pathways have the potential to break intergenerational cycles of poverty.

5. Enhancing our own EDI will strengthen our delivery (particularly in relation to our EDI strategy). Delivering improved EDI also aligns with the priorities of many of our current funders and members and should widen our appeal to new funders and partners, also improving organisational resilience.

Strategic aims

We aim to simultaneously improve the diversity of:

- those that work for EngineeringUK (staff and Trustees)
- the young people that we seek to inform and inspire into engineering
- the organisations that we fund to work with young people (to improve their organisational diversity, to engage under-represented audiences and to measure their EDI impact)

How we will achieve our aims

EngineeringUK's EDI vision:

- Young people from all groups proportionately present in and well prepared for engineering pathways at the age of 19 years.

EngineeringUK policies, practices and procedures

- Review recruitment and induction processes to attract more diverse candidates for internal roles (staff and trustees)

- Relaunch the EDI working group and identify relevant employee resource groups in consultation with EngineeringUK employees

- Review policies and processes through an EDI lens

- Identify and register for EDI pledges/schemes that will further the EngineeringUK EDI mission

- Check status against enei TIDE Framework and Royal Academy of Engineering Diversity and Inclusion Progression Framework annually and ensure continual progression

- Regular training and updates to ensure all members of staff are supported, confident and equipped in EDI

Deliver higher impact interventions to under-represented young people

- Audit all current activities to understand reach, identify gaps, collate EDI insights and identify which topics appeal to different groups

- Collect comprehensive demographic data for participants across our programmes

- Consult external stakeholders (including delivery partners and teachers) to understand challenges and barriers to participation

- Develop a strategy for including diverse youth insight when planning new or updating existing interventions

- Develop robust evaluation methods for measuring the impact of our activities

- Analyse the impact of our activities on diverse groups of young people and the impact of increased participation of different under-represented groups on the engineering pipeline

- Review impact data to decide whether to prioritise demographic groups

- Strategic review of all external programmes to increase meaningful engagement with under-represented groups

Share evidence-based good practice

- Collate, produce and share evidence-based resources on good practice in engineering engagement

- Network with STEM competition providers to share/commission evidence-based good practice on inclusive competitions

- Work with HEIs to identify any possible collaborations or shared learning with Widening Participation departments

- Develop a research-based impact framework

- Conduct regular research reviews in response to specific EDI questions, challenges or gaps (e.g. demographic of engineering apprentices)

Support external stakeholders to develop inclusive practices

- Support all external stakeholders (including corporate members, code signatories, delivery partners, exhibitors and volunteers) to develop inclusive practices

- Be transparent about EDI aims by publishing our strategy, setting clearly defined EDI aims for all projects and by clearly stating KPIs/minimum standards for external stakeholders

Work strategically and collaboratively to embed EDI in STEM inspiration activities across the sector

- Advocate for funding (government or corporate) for research into initiatives focussed on diversity and the engineering skills shortage

- Embed EDI in partnership work, including Tomorrow's Engineers repositioning, EngineeringUK Skills Partnership and Neon

- Support the Royal Academy of Engineering with engineering diversity and inclusion work

Continually improve the uptake and impact of our programmes

- Apply the learning from the research and evaluation phases to develop programme content that appeals to those who are under-represented in engineering

- Pilot new initiatives with the aim of engaging new audiences or improving impact

- Develop sufficient evidence and insight to inform our next strategy development