



EngineeringUK
INSPIRING FUTURES TOGETHER

Engineering and technology are of vital importance to the UK

Engineering is a critical industry and employs **6.4 million people in UK** (=19% of all jobs)

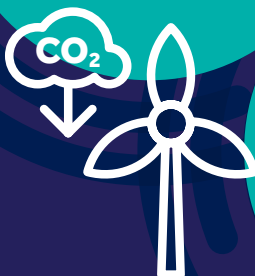
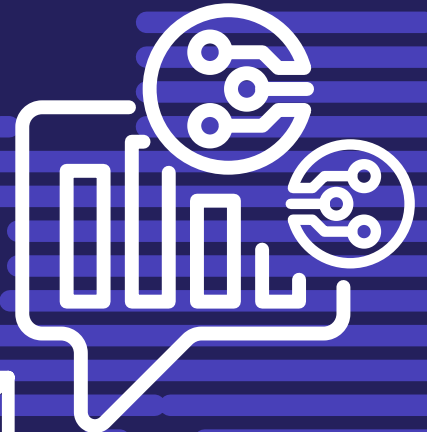
Engineering and technology jobs predicted to grow in all UK regions between now and 2030 faster than other occupations

Net zero ambitions and growth of green jobs increasing demand further in the last 5 years:

+55%
Job adverts for 'green engineering jobs'

+48%
Job adverts mentioning 'green skills'

UP TO 725k
new jobs needed to support the transition to net zero

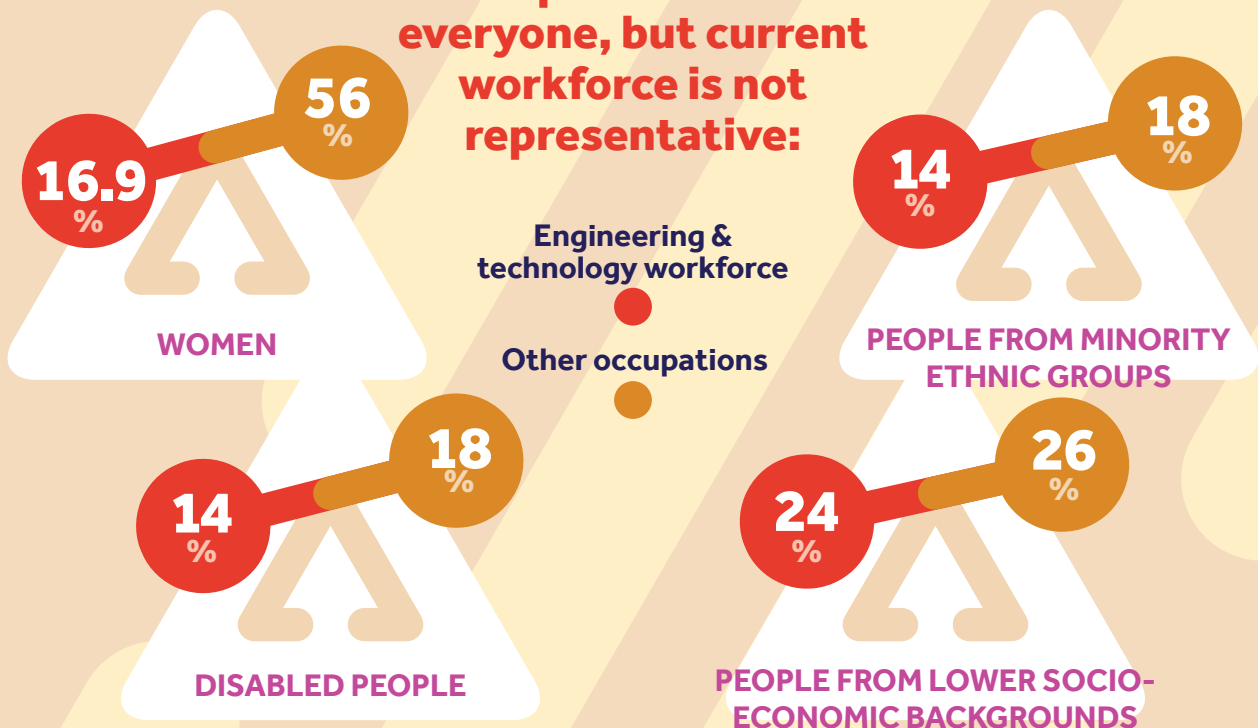


But we have significant skills shortages and workforce challenges

1 in 5 jobs

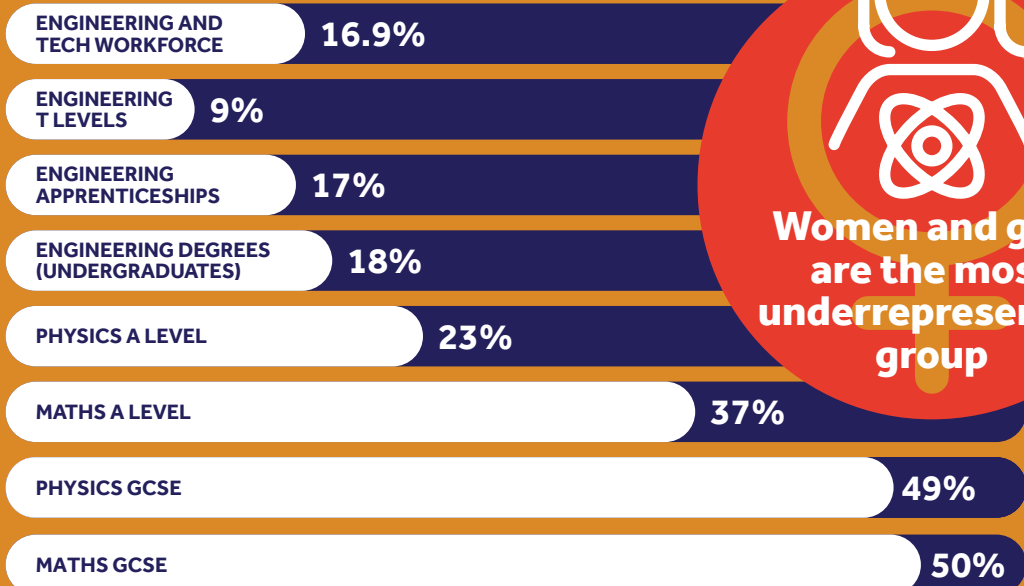
in the UK are in engineering (19%), yet engineering vacancies account for 1 in 4 of all job adverts in UK (25%)

Diversity in the workplace benefits everyone, but current workforce is not representative:



SPOTLIGHT ON GENDER GAP

% OF WOMEN / GIRLS

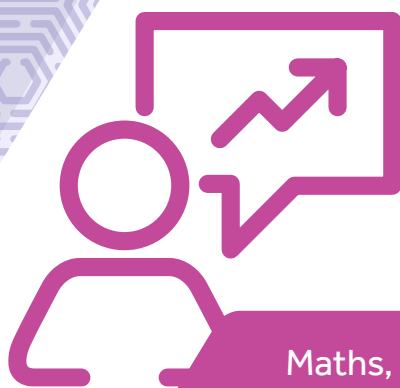
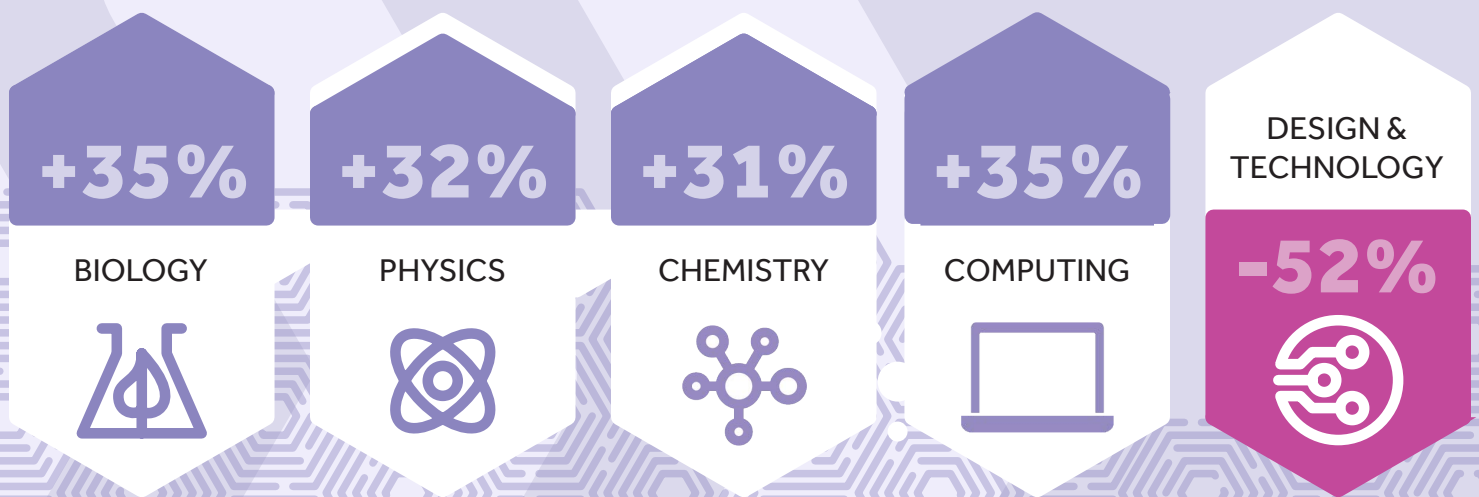


Women and girls are the most underrepresented group

We need to attract more young people from all backgrounds to create the diverse workforce needed for engineering and technology to thrive

STEM subjects are popular in schools, but engineering barely features on the curriculum and take up of design & technology has declined

GCSE uptake over the past 9 years:



Maths, biology, chemistry, physics remain in **top 10 most popular A levels**

Girls make up half of those taking GCSE maths and physics, **but this drops at A level:**
37% maths 23% physics

There is also a shortage of STEM teachers in schools, particularly in deprived areas



Interest in schools science has declined since 2019 and a gender gap has opened up

Interest among years 7 to 9 has declined from

76%

to

71%

For girls, the decline is

75%

to

65%



JUST

16%

of girls think engineering is suitable for them

ONLY

12%

of girls say being an engineer fits well with who they are

36%

of girls say science is not for them

ONLY

29%

of girls are interested in an engineering career, compared to **63%** of boys
23% and 52% for tech

Practical science is the main motivator for young people studying science for

55%

OF YEARS 7 TO 9



School students are doing less practical science



ONLY

26%

of GCSE students do hands-on practical work at least once a fortnight, down from 44% in 2016

Increasing awareness of the varied routes into engineering and technology

APPRENTICESHIPS

Not yet reached pre-pandemic levels, despite positive uptick:

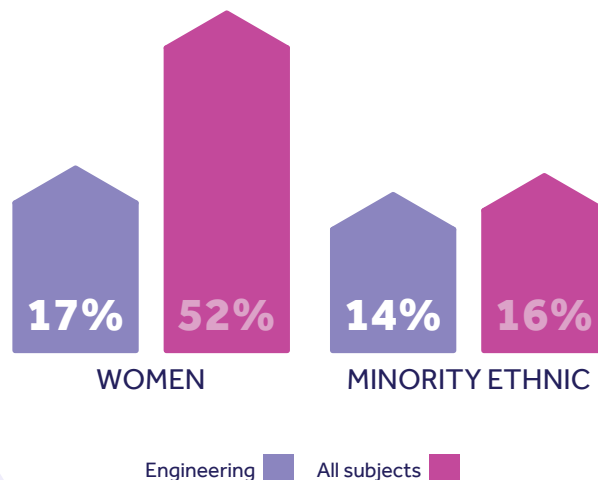
97.1K

engineering apprenticeships started in 2023/24

DOWN 13%
since 2016/17

DOWN 6%
since 2018/19

Representation in apprenticeships:



T LEVELS

ONLY 37%
of young people know what T Levels are

Estimated shortfall of
43,500
industry placements

ONLY 28%
of employers know what T Levels are and understand what they involve



HIGHER EDUCATION

38,615
engineering and tech undergraduates

5th
most popular subject in UK 6% of all undergraduate entries



Outreach helps to drive change by informing and inspiring more young people to consider progressing into engineering and technology

Knowledge and perceptions among school students

36%

say they know a fair amount about what engineers do – 32% for tech

JUST

16%

of girls think engineering is suitable for them

46%

are interested in an engineering career – 38% for tech



64%

are interested in climate change issues

35%

are interested in a career that will help reduce the impact of climate change

STEM engagement activities improve young people's understanding of engineering careers and interest in them

Only 12% of young people attended a careers event with an employer in past 12 months, but those who did were:

TWICE

as likely to know what engineers and scientists do at work

ALMOST 3 TIMES

as likely to be interested in an engineering career

School students who attended one or more STEM careers activity are:

x3.5 TIMES

more likely to know what people working in engineering do

x3.4 TIMES

more likely to consider a career in engineering



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