



**EngineeringUK**  
INSPIRING FUTURES TOGETHER

# Engineering and technology are of vital importance to the UK

Engineering is a critical industry and employs **6.3 million people in UK** (=19% of all jobs)

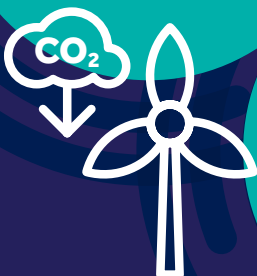
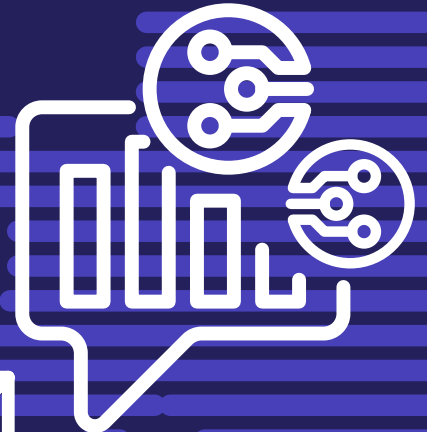
Engineering and technology jobs predicted to grow in all UK regions between now and 2030 faster than other occupations

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'

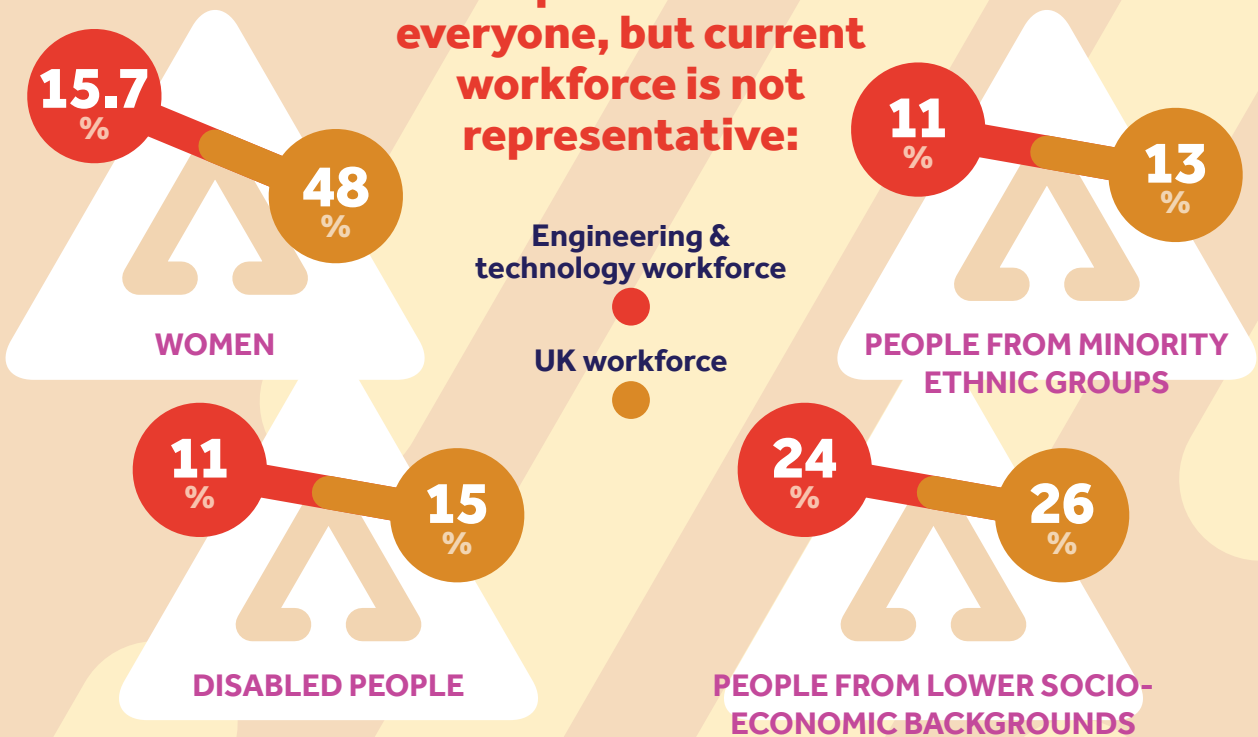
**UP TO 725k**  
new jobs needed to support the transition to net zero



# But we have significant skills shortages and workforce challenges

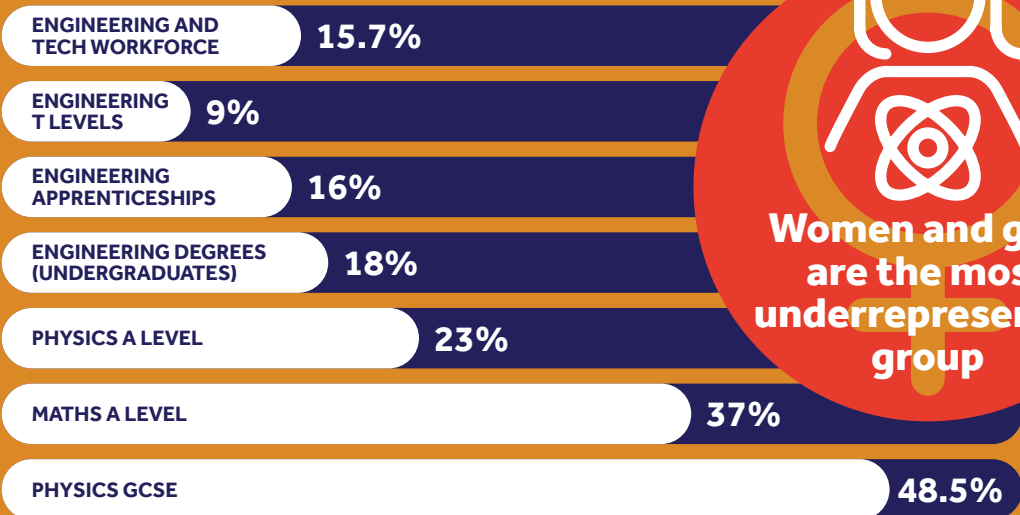
**1 in 5 jobs**  
in the UK are in engineering (19%), yet engineering vacancies account for 1 in 4 of all job adverts in UK (25%)

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



## SPOTLIGHT ON GENDER GAP

% OF WOMEN / GIRLS

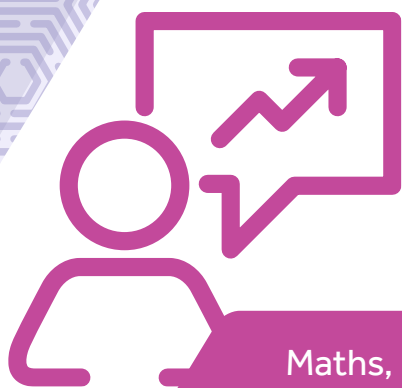
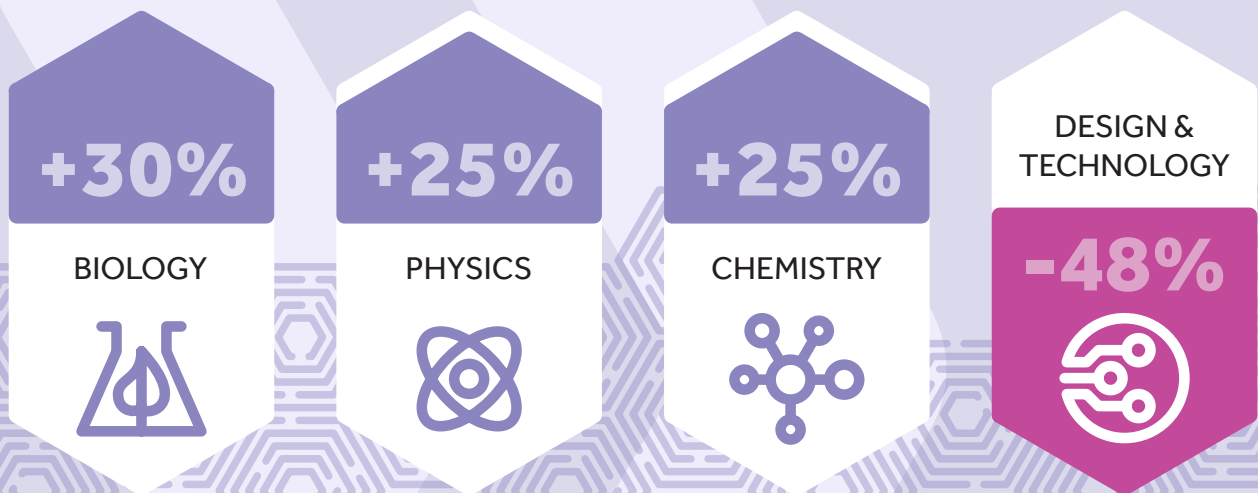


**Women and girls are the most underrepresented group**

# 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 5 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 in 2021:

**95.6K**  
engineering apprenticeships started in 2022/23

**DOWN 14%**  
since 2016/17

**DOWN 8%**  
since 2018/19

Representation in apprenticeships:



## HIGHER EDUCATION

**38,615**  
engineering and tech undergraduates

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



## T LEVELS

Estimated shortfall of **43,500** industry placements

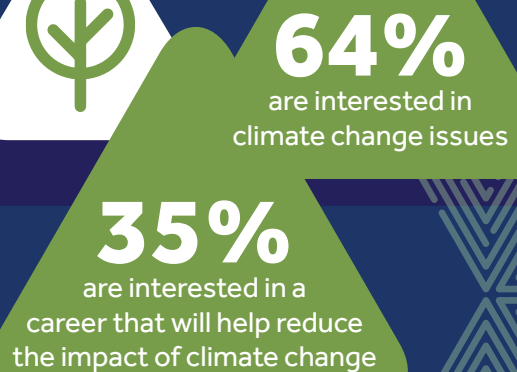
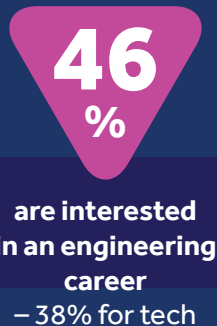
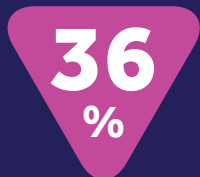
**ONLY 37%** of young people know what T Levels are

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



# 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



## 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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