



ENGINEERING AND TECHNOLOGY ARE OF VITAL IMPORTANCE TO THE UK

Engineering is a critical industry and employs **6.1 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**

6.1M

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'



AROUND 500k

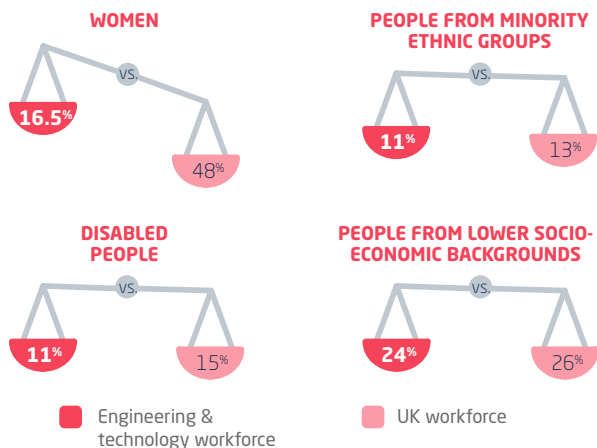
new jobs needed to support the green economy by 2050



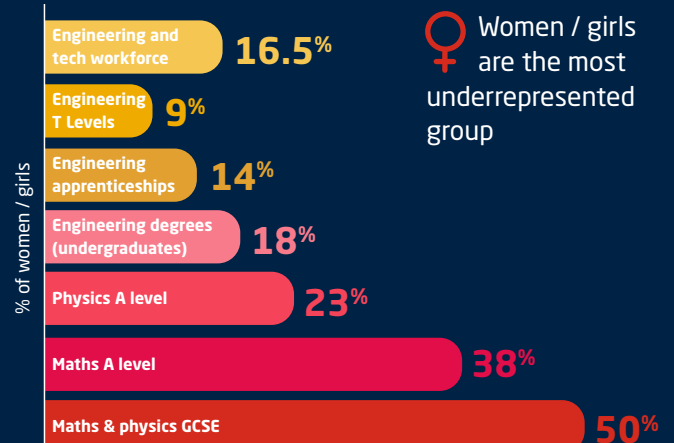
BUT WE HAVE SIGNIFICANT SKILLS SHORTAGES AND WORKFORCE CHALLENGES

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

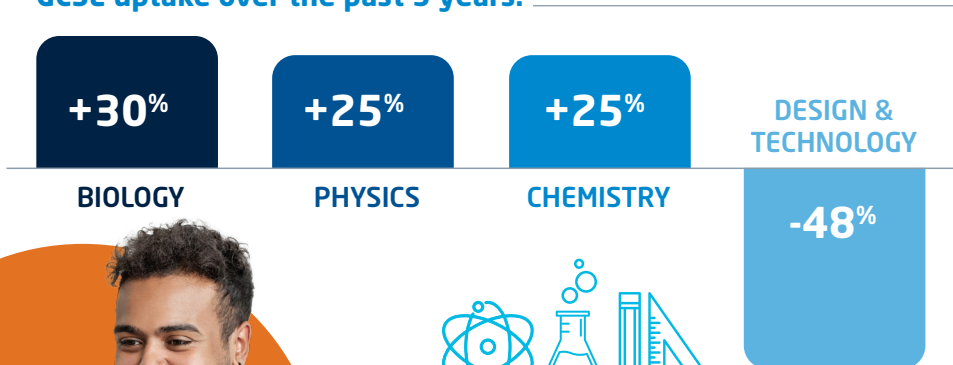


WE NEED TO ATTRACT MORE YOUNG PEOPLE FROM ALL BACKGROUNDS TO CREATE THE DIVERSE WORKFORCE NEEDED FOR ENGINEERING AND TECHNOLOGY TO THRIVE



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: 38% maths, 23% physics



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



INCREASING AWARENESS OF THE VARIED ROUTES INTO ENGINEERING AND TECHNOLOGY

APPRENTICESHIPS.....

Not yet reached pre-pandemic levels, despite positive uptick in 2021:

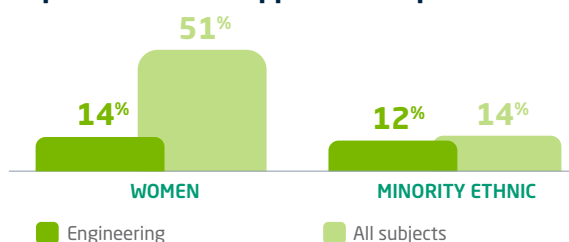


Nearly **98k** engineering apprenticeships started in 2021/22



Down **12%** since 2016/17, down **5%** since 2018/19

Representation in apprenticeships:



T LEVELS.....



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



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

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

HIGHER EDUCATION.....



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

38,615 engineering and tech undergraduates



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

55% say they know what engineers do - 64% for tech

51% say they were interested in an engineering career - 59% for tech

60% say they do not know what subjects / qualifications they need to become an engineer



Those who make the **link between engineering roles and environmental sustainability** are **7 times more likely** to be interested in engineering careers



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

more likely to consider a career in engineering



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References: www.engineeringuk.com/references