

Introduction

The UK needs more young people from more diverse backgrounds to choose a career in engineering and technology to help improve sustainability and achieve net zero and to drive economic prosperity. And if UK engineering and technology are to continue to thrive, inspiring a more diverse future workforce that boosts creativity, innovation and market insight is essential.

It's EngineeringUK's ambition to inform and inspire young people and to grow the number and diversity of tomorrow's engineers. In 2022/23, the final year of a 5-year strategy period, we once again focussed our attention on 3 key pillars of activity to help us achieve this:

- Increasing reach and inspiration
- Developing and sharing insight
- Growing collective impact



Engineering UK is a registered charity, and our main source of income is from the registration fees of professionally registered engineers and technicians, which also fund the Engineering Council in its role as the profession's regulatory body.

Thank you to the Professional Engineering Institutions, not only for this valuable financial contribution but also for the time their staff give to supporting our work. Thanks too to our Corporate Members and supporters of individual programmes, including The Big Bang and Energy Quest. This additional funding enables us to expand our activities even further.

Thank you for your support



*Note: Other programme support comprises Robotics Challenge, Energy Quest, EDI bursaries and support for The Tomorrow's Engineers Code, Tomorrow's Engineers Live and Science Education Tracker.

Our year in numbers

students participated 34% of all secondary schools engaged with our programmes and resources

43,000

in Tomorrow's

Engineers

Week

365

Energy Quest

workshops

delivered

15,700

students visited The Big Bang Fair

54% of those schools were priority schools*

More than 110,000 young people reached

30,000

students participated in a Big Bang at School

28,000 users of Neon**

332

schools participated in the Robotics Challenge

23

careers resources developed

133 schools received one of our bursaries

*Priority schools are those most likely to have the highest proportion of young people from groups who are underrepresented in the engineering profession

**Our platform to help find STEM career activities and resources

2,400 pieces of media coverage

12 research reports published

10

parliamentary mentions

20 new resources added to the Tomorrow's **Engineers** website

Evaluations

of all our activities with young people published

apprenticeship inquiry launched

105 delegates at Tomorrow's **Engineers Live** Worked with:

39 PEIs

37 Corporate Members

253

Tomorrow's **Engineers Code** Signatories

39 Tomorrow's **Engineers Code** Supporters

And many more organisations our activities

contributing to our resources or policy work or supporting for schools



Some outcomes

The evaluations of our work with young people are tailored according to each activity, but some questions are asked across them as shown below. It's important to take into account the intensity of each activity (for example, Robotics and The Competition are very intensive, Energy Quest is lighter touch), and also the different groups of students we are working with when looking at these findings.



90%
of stakeholders agree that
EngineeringUK is a recognised
and trusted voice on
approaches to engage young
people in STEM

agree that EngineeringUK is a recognised and trusted voice on equity, diversity and inclusion in the engineering sector

agree that EngineeringUK is a recognised and trusted voice on what enables, deters or inspires young people to pursue a career in engineering

68%

agree that EngineeringUK is a recognised and trusted voice on the engineering talent pool coming from education 68%

agree that EngineeringUK is effective in providing them with insight and guidance on evaluating STEM engagement activities 69%

agree that they are provided with opportunities for partnership and collaboration with other organisations in the wider STEM community

68%

agree that they are provided with up-to-date evidence on engineering skills need and talent pool 74%

agree that EngineeringUK provides insights into what needs to change to address skills shortages in the engineering sector On average,
Tomorrow's Engineers
Code Signatories say that it
has helped them improve across

5

different aspects of engineering engagement

06

In 2022/23 we

thoroughly reviewed, consulted on, and widely tested a strategy designed to take EngineeringUK to 2028. September 2023 marked the start of this new 5-year strategy, one that is based on our mission to enable more young people from all backgrounds to be informed, inspired and progress into engineering and technology.

EngineeringUK's vision is for the UK to have the diverse workforce needed for engineering and technology to thrive and to drive economic prosperity, improve sustainability and achieve net zero.



We will play our role in achieving this in 4 ways:



Research and evidence - establishing the composition of the current engineering, technology and technician workforce, future workforce needs and how to address them.



Leadership - leading efforts to grow the collective impact of all engineering and technology inspiration and careers activities with young people of school age.



Activities for schools - expanding EngineeringUK's engagement to encourage more, and more diverse, young people into engineering, technician and tech roles.



Advocacy - providing advocacy and support to address policy and delivery challenges in STEM and careers education and workforce planning for engineering and tech.

In 2023/24 our plans comprise:

Carrying out and publishing research and evidence which supports our own and the wider community's

 Statistics on the composition of the engineering and technology workforce and its future needs

activity, including:

- Analysis of the educational pathways into engineering and technology
- Young people's views on science education and careers and knowledge/attitudes towards engineering careers (in partnership with the Royal Society)
- Evaluation of our schools activity
- Methodology to evaluate the impact of multiple engagements on young people's later attitudes and choices



Leading efforts to grow collective impact, including:

- Adding more activities on Neon, growing reach with primary schools and careers quidance practitioners
- Recruiting 50 Signatories and supporting the Tomorrow's **Engineers Code community**
- Delivering the Tomorrow's Engineers Live conference
- Embedding a new offer of support for Professional **Engineering Institutions**
- Growing our Corporate Membership
- Working with STEM Learning, **Professional Engineering** Institutions and Corporate Members to understand and promote their use of STEM **Ambassadors**
- Increasing engagement with SMEs

Delivering activities for schools, including:

- The Big Bang Fair, which will take place at the NEC, Birmingham from 19 to 21 June 2024
- The Big Bang Competition, which closes for entries at the end of March, and includes a new technology stream
- Pilot of a new cross-curricular Climate Schools Programme with 50 schools
- Tomorrow's Engineers Week

Advocacy, including:

- Policy work with the National Engineering Policy Centre in the run up to the general election
- Supporting greater awareness and understanding of T Levels with employers and young people
- Launching and following up on the apprenticeship inquiry

Values

Our work is delivered in line with our values



We understand that we have different needs and create opportunities for everyone's voice to be heard.



We listen, share and work in partnership to achieve our vision.



We challenge ourselves and others to innovate and experiment.



We evaluate what we do and draw on research to make decisions and to improve our collective understanding.



We are determined to make an impact and achieve our goals.



Our commitments to environmental sustainability and equity, diversity and inclusion underpin all our work. Knowing that environmental sustainability is a topic that's important to young people, we use it as a way to inspire them about engineering and technology careers. Organisationally we commit to reducing our environmental impact and becoming a Net Zero organisation, reducing all carbon emissions by at least 90% by 2040 in line with the Science-Based Targets initiative (SBTi).. By focusing our school activity on inspiring more young people from groups underrepresented in engineering, so they are better informed about careers in engineering and technology and the variety of routes into those, we aim to improve both the number and diversity of those joining the sector's workforce.





