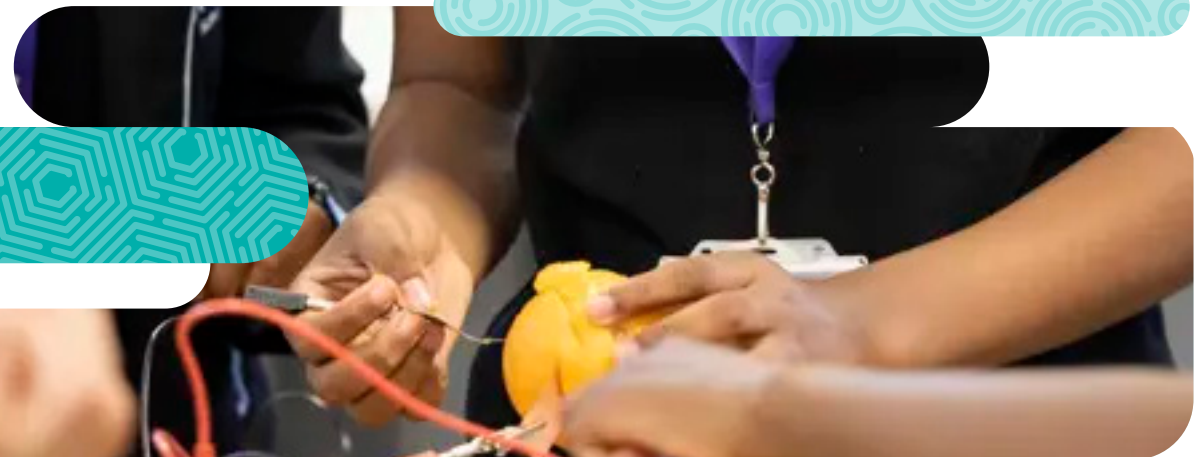




EngineeringUK
INSPIRING FUTURES TOGETHER

EngineeringUK Social Impact

Progressing towards our collective mission



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Inspiring futures together



Engineering and technology are central to the UK's future – from delivering net zero and major infrastructure, to driving innovation and prosperity across every region. But we are not yet building the workforce the country needs. Skills shortages persist, demand for engineering and technology roles continues to grow, and the sector remains far from representative of the society it serves.

These challenges do not begin in the workplace. They start much earlier, in schools and communities. Too many young people lose confidence in STEM subjects, or struggle to see engineering and technology as careers that are relevant, attainable or “for people like them”. This is particularly true for girls and for young people growing up in under-resourced areas. Pathways into engineering and technology are also not always visible or well understood.

EngineeringUK seeks to address these challenges. Our mission is to enable more young people from all backgrounds to be informed, inspired and supported to progress into engineering and technology. We do this by building a strong evidence base on what works. We work with partners across the sector to improve the quality and inclusivity of STEM engagement, and we shape the wider system through leadership and advocacy.

This social impact report sets out how we are turning our mission into action. It brings together evidence from across our work to show where we are making the greatest difference and where there is more to do. None of this is possible alone. Progress depends on continued collaboration, shared responsibility and sustained commitment – and I am grateful to everyone who works with us to help make that change happen.

Dr Hilary Leever
Chief Executive, EngineeringUK

Executive summary

Social impact measures the positive and negative change an organisation creates against the outcomes set by its mission. For EngineeringUK, that mission is to enable more young people from all backgrounds to be informed, inspired and supported to progress into engineering and technology. Our 2023 to 2028 strategy delivers on this through 4 connected strands: activities for schools, research and evidence, leadership, and advocacy. Together they serve young people, teachers, careers leaders, employers, outreach providers and policy bodies.

Our social impact is therefore the change these strands create for those communities, and for the wider engineering and technology pipeline. Across this strategy, we report against 4 impact areas:

- improving the quality, targeting and inclusivity of outreach
- increasing connection and collaboration
- building young people's capability, opportunity and motivation
- increasing reach and participation of underrepresented groups

How we evidence our impact

This report synthesises evidence from 2024 and 2025, drawn from 6 complementary sources. These are the annual Code check-in with Tomorrow's Engineers Code Signatories, and our annual stakeholder survey. We also draw on focus groups with Code Signatories and Neon contributors, and the Tomorrow's Engineers Live post-event survey. Finally, we use impact evaluations of our activities for schools, alongside monitoring of attendance and engagement across our workshops, webinars and events.

Each source captures a different vantage point. Together they tell a consistent, mutually reinforcing story about where EngineeringUK is having its intended impact. Thus, this report is both a reflection on our progress and a platform for the next phase of our shared mission.

What the evidence tells us

There are 4 consistent findings emerging across these sources, aligned to our strategy's impact areas:

1. We are improving the quality, targeting and inclusivity of outreach. Code Signatories and stakeholders report that our frameworks, guidance and convening are shaping how they design and deliver activity. Sustainability and inclusion are increasingly embedded as standard practice.

2. We are strengthening connection and collaboration across the sector. Stakeholders value EngineeringUK as a trusted convenor, and partners report stronger links into policy. Events such as Tomorrow's Engineers Week extend reach while deepening ties between members of the engineering and technology community. This convening also delivers policy results. After we brought sector bodies together and shared our evidence, the government's enrichment framework now recognises STEM, alongside engineering, as a key example of enrichment.

3. Our activities for schools are building young people's capability, opportunity and motivation.

Evaluations show consistent gains in confidence, knowledge of engineering and technology jobs, and aspirations to pursue these pathways. Teachers also report greater confidence and capacity to sustain engagement beyond individual sessions.

4. We are reaching and engaging underrepresented groups more effectively.

Our activities are designed and monitored for differential impact, and our advocacy targets systemic barriers to participation.

Where we go next

The workforce remains far from representative, confidence gaps persist, and skills demand continues to grow. Progress will require long-term commitment, coordination across the system, and a continued focus on equity, inclusion and sustained engagement. EngineeringUK will keep strengthening the evidence base, supporting partners to improve practice, and using leadership and advocacy to widen access.



Introduction

The engineering and technology sector accounts for 19% of all jobs in the UK.¹ Skills shortages persist, and demand is expected to grow significantly over the coming years.

The workforce is also not representative of our wider society. Only 16.9% of those working in engineering and technology are women, compared with 56% of the workforce overall.² Many young people lose confidence and aspiration in STEM during their school years. Too few see engineering and technology as careers that feel relevant or achievable for them. Only 30% of young people feel engineering is suitable for someone like them. That figure falls to 16% for girls.³ Without action to build confidence and improve access to clear pathways, too many young people leave the pipeline before they have a genuine opportunity to choose engineering or technology.

EngineeringUK is a national charity that convenes around 450 partner organisations across the sector. Collaboration is one of our core values. We are funded through registration fees paid by professionally registered engineers and technicians, Corporate Membership fees and project-specific funding. Our vision is for the UK to have the diverse workforce needed for engineering and technology to thrive, driving economic prosperity, improving sustainability and supporting the path to net zero.

Education, skills and workforce policy are changing rapidly. Organisations working in this space face growing expectation to be clear about the difference they make and how their activities contribute to wider social goals. For EngineeringUK, this means doing more than reporting what we do. This report sets out how we define, measure and evidence our social impact. It also shows how we contribute to meaningful and sustained change for young people, educators, and the wider engineering and technology ecosystem.

¹ [EngineeringUK \(2024\). STEM education, skills and workforce planning: a priority to support engineering and technology job surge](#)

² [EngineeringUK \(2025\). Engineering UK 2025: Trends in the engineering and technology workforce](#)

³ [EngineeringUK & The Royal Society \(2024\). Science Education Tracker 2023 \(Wave 3\)](#)



Defining social impact through EngineeringUK's mission and the communities we serve



Broadly, social impact measures positive and negative change across the outcomes defined by an organisation's mission.

It aims to understand how an organisation's activities improve the lives and opportunities of communities. EngineeringUK's definition of social impact thus starts with our mission: to enable more young people from all backgrounds to be informed, inspired and progress into engineering and technology. Our 2023 to 2028 strategy (Figure 1) breaks our mission down across 4 key strands of work. Together, these strands serve multiple communities. They include young people, teachers and educators, careers leaders and advisors, employers in the engineering and technology sector, engagement and outreach providers, and public and third sector bodies and influencers.

The individual strands of our strategy contribute to long-term impact in different ways. Our activities for schools influence young people directly. In contrast, the advocacy and leadership strands influence young people indirectly as mechanisms through which we shape the system conditions that make a sustained impact at the national, regional and school level. Finally, our advocacy, leadership and activities for schools are all built on the evidence base established by our research and evidence strand.

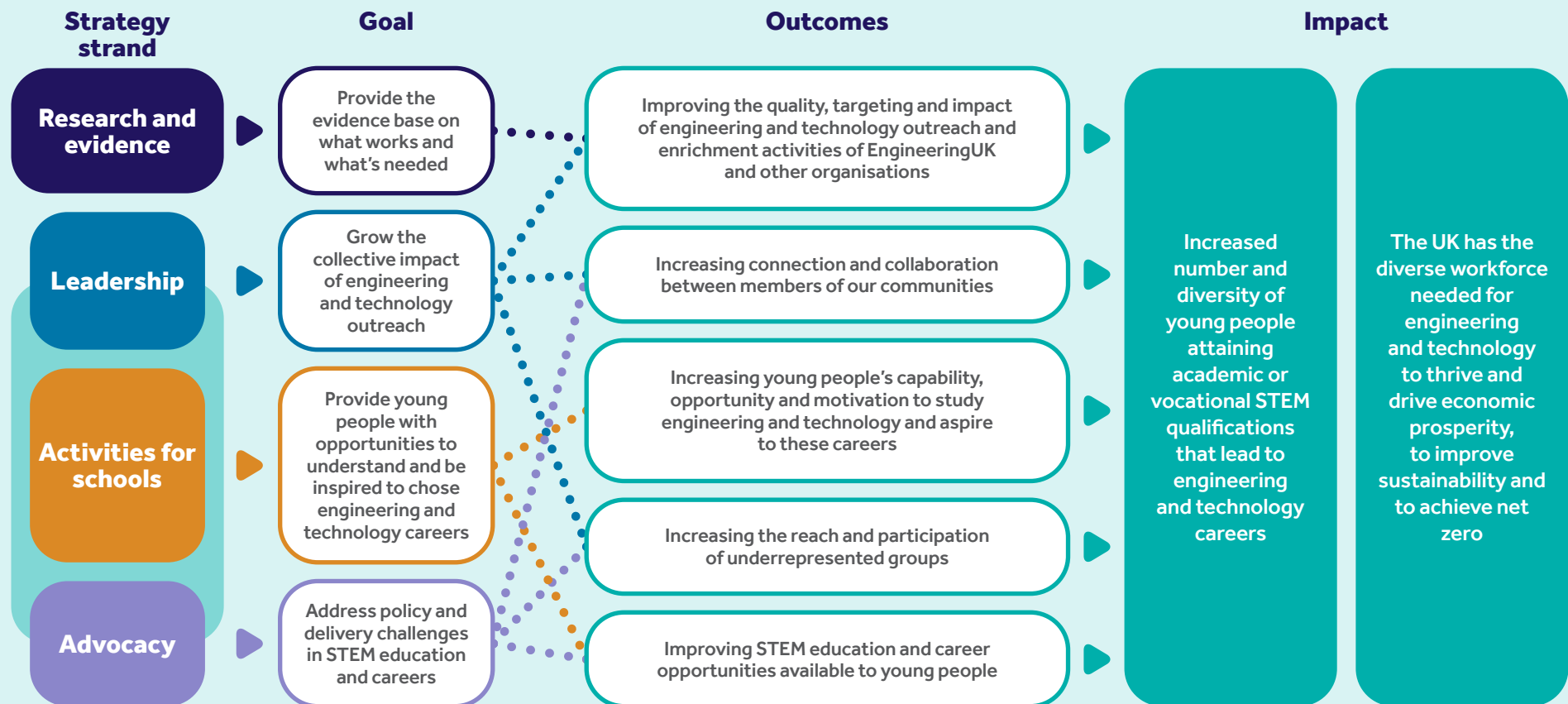


Figure 1:
Snapshot of EngineeringUK's
2023 to 2028 strategy.



This report draws upon evidence from both 2024 and 2025 as a way of estimating our social impact since the release of our 2023 to 2028 strategy. We synthesise evidence from a variety of data sources and present a detailed methodology in Appendix 1.

This resulted in the following logic model for EngineeringUK:



EngineeringUK improves the quality, impact and targeting of engineering and technology outreach and enrichment activities

The primary mechanisms through which EngineeringUK achieves this outcome include:

Tomorrow's
Engineers
Code

Neon Quality
Standards

Research and
evidence

Priority
schools
approach

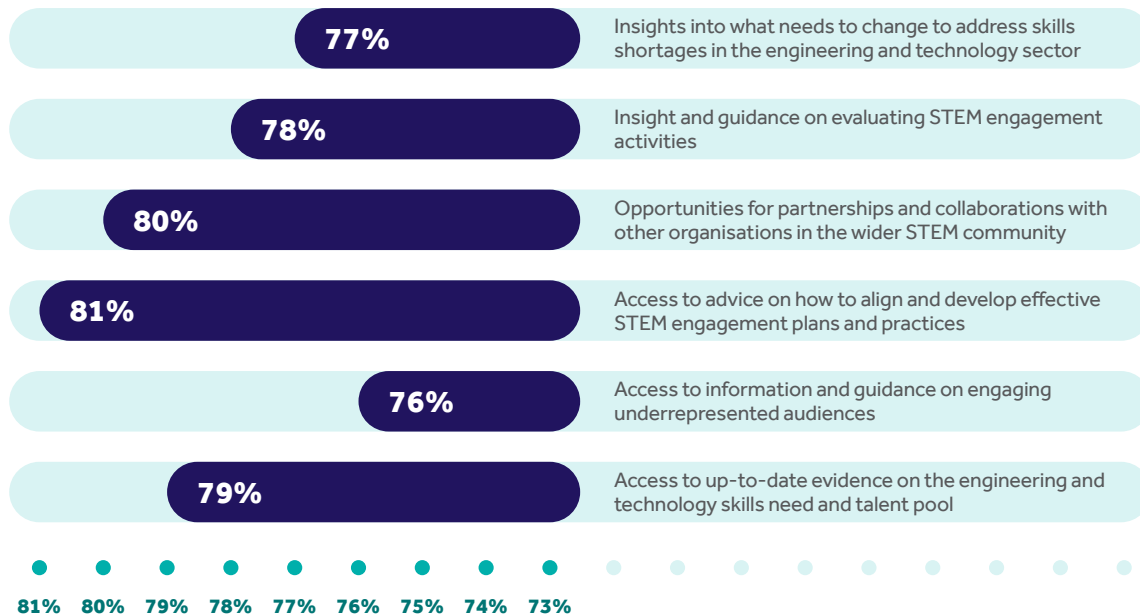


Supporting better quality STEM engagement and outreach

Stakeholders from across the engineering and technology sector see EngineeringUK as a trusted voice on evidence that helps them improve the quality and impact of their engagement activities.

Professional engineering institutions, Corporate Members and other stakeholders are overwhelmingly positive about how effective EngineeringUK is in helping their organisation (Figure 2). We are seen as a trusted source of advice on developing effective STEM engagement plans (81%) and on what enables, deters or inspires young people to choose engineering and technology (91%).

Figure 2:
Stakeholder perceptions of EngineeringUK's effectiveness in delivery



EngineeringUK supports members of the engineering and technology sector improve the quality and impact of their activities through **The Tomorrow's Engineers Code** and our **Neon** website. The Code is a community of more than 400 like-minded organisations committed to boosting engagement in engineering and technology careers through STEM outreach to all young people. Code community members commit to 4 pledges: inspire connection, drive inclusion, showcase engineering and technology, and improve impact.

"As a Professional Engineering Institution (PEI), being a Signatory of The Tomorrow's Engineers Code has strengthened our commitment to inspiring and supporting the next generation of engineers.

By aligning with a national movement dedicated to inclusivity, collaboration, and impact-driven outreach, we've enhanced our engagement efforts, fostered meaningful partnerships, and gained valuable insights into best practices. The Code has empowered us to drive positive change..."

Code Signatory

EngineeringUK leads The Code community and supports members through sharing knowledge, resources and best practice. In 2024/25, we introduced 'The Code explores...', a flagship feature blending live online events, on-demand content and community discussion that gives members more flexible ways to learn from one another.

Our 2025 annual check-in asks Signatories how they are meeting The Code's 4 pledges and whether The Code has helped them improve. Signatories reported improvement in 6 out of 10 areas on average, with a quarter seeing improvement across all 10.

"Working with ... the team at EngineeringUK has been a genuinely transformative experience for our outreach programme.

Their support has been practical, insightful, and incredibly generous – highlighting key engagement opportunities and offering strategic advice that's helped us shape a more impactful and inclusive approach. Their collaborative and thoughtful input has opened possibilities we might have otherwise missed."

Code Signatory

"It has actively kept us improving the STEM activities that we have been providing. The Tomorrow's Engineers Live [conference] has been extremely beneficial, with some inspiring workshops where we have actively used what we have learnt."

Code Signatory



In addition to The Code community, Neon supports 125 outreach providers and showcases more than 200 inspiring STEM activities. It promotes their work to thousands of schools across the UK through social media, regular communications with teachers, and a searchable database. In 2024/25 we added 110 new activities to Neon, 30 of which were on environmental sustainability.



It is free to list on Neon, but all experiences listed must comply with the evidence-based quality standards developed by EngineeringUK and its partners. All Neon providers must complete a self-assessment describing how they meet the Neon quality standards:

- include positive and contemporary messaging about STEM
- raise young peoples' aspirations through activities that broaden horizons, challenge stereotypes, and bring the curriculum to life
- are age-appropriate, with activities for secondary school students requiring explicit careers content and aligning with at least 2 Gatsby benchmarks
- are designed and delivered so they are inclusive for students
- are designed with a commitment to evaluating impact and making improvements
- include support for teachers in enabling students to reflect on what they learned in the experience
- clearly articulate expected learning outcomes
- are transparent on cost and time
- meet safeguarding, health and safety and data protection standards and have public liability insurance

Neon contributors highlighted Neon's quality standards as being particularly effective in helping them design engagement activities for young people. Many of these quality standards were also endorsed by Code Signatories in our annual check-in. In 2025, the majority of Code Signatories delivered content that challenged stereotypes (85%), provided young people with careers information (78%), and connected what they learned in the classroom to engineering and technology (76%). Just under half of Code Signatories attributed this to being a member of The Code (49%).

EngineeringUK also drives impact by providing the sector with a robust and accessible evidence base on workforce needs, progress to meeting them and working with young people. Our repository of **research and evidence** sheds light on the current and future engineering and technology workforce, including how many people work in these roles and where skills shortages sit. We map the size and composition of the various educational pathways into engineering and technology, covering how young people experience STEM education, the choices they make at key transition points, and what factors influence these choices. 79% of stakeholders see EngineeringUK as a source for up-to-date evidence on the engineering and technology skills need and talent pool.

"Excellent research which is measured and controlled. Bringing members together to share best practice is so helpful."

**EngineeringUK Corporate Member
and Neon contributor**

We use evaluations of our own activities for schools to improve those activities and to share practical insight into what works with the wider sector. We synthesise our evaluation evidence with existing research to discuss specific themes relevant to the sector, such as **lessons learned from using teacher-led activities**.

Of the 136 stakeholders who completed our annual stakeholder survey:

- 39% had used EngineeringUK research or analysis in the 12 months
- 31% had met with the EngineeringUK research or policy team
- 30% had either used (23%) or contributed to resources on the Tomorrow's Engineers website (7%)
- 16% had collaborated with us on a research or policy project

These resources help organisations make strategic decisions and empower them to deliver more impactful activities:

“As we and others in this sector address the challenges of increasing diversity, the skills gap and future workforce we appreciate being able to tap into the work of EngineeringUK, with their regular updates and research reports.

In particular, their research reports which have provided valuable sector insights and supported in shaping our strategic planning. Additionally, we have benefited from having a dedicated account manager, someone who understands our priorities and advises how EngineeringUK or other Corporate Members can support us to meet these”.

Code Signatory

We also want to help the sector measure their impact more effectively. Nearly 8 out of 10 (78%) of our stakeholders agree that EngineeringUK helps their organisation evaluate their STEM engagement activities. We do this through the advice and guidance we provide via the Tomorrow's Engineers website, webinars and exemplary evaluation reports. These resources offer both practical examples of how to conduct robust evaluations and benchmarking data.



Using environmental sustainability to improve the impact of outreach programmes

From the **Science Education Tracker 2023**, we know that roughly one-third (36%) of young people are interested in a career that will help reduce the impact of climate change. We also know that there is a significant growth in the **demand for jobs and skills to support our transition to net zero**. In June 2025, EngineeringUK published a report summarising lessons learned **from incorporating environmental sustainability content into our outreach programmes**. We shared the challenges schools and teachers face in talking to young people about this environmental sustainability, while emphasising the importance in doing so as it helps young people understand the role of engineering and technology in finding solutions to climate change. Our **evaluation of the 2024/25 Climate Schools Programme** took our understanding further. Of the students surveyed, 69% said that talking about the solutions to climate change helped them feel more hopeful about what we can do to tackle it. This appreciation was echoed by teachers:

"What I really liked is the real focus to jobs and future jobs and future hope, like proactive 'this is what can be done' and all that kind of stuff"

**Secondary school teacher,
Climate Schools Programme**

"One of my pupils in my class a couple of weeks ago was talking about climate anxiety, and it can become quite overwhelming to think of the negatives. Whereas, I think these lessons seemed to focus on solutions, and you know, they seemed like things that could be done quite easily or manageably."

**Secondary school teacher,
Climate Schools Programme**



Increasing reach and participation of underrepresented groups through leadership: The Gender Pathways Project

Launched in autumn 2024, the Gender Pathways Project is intended to achieve a step-change in the number of girls pursuing engineering and technology pathways by age 18.

We built a partnership with BCS, The Chartered Institute for IT, Royal Academy of Engineering, Women's Engineering Society (WES), and Women into Science and Engineering (WISE) to grow a coalition of now more than 50 organisations. Six task and finish groups were formed on areas identified as having the greatest potential to deliver impact.

1. Curriculum and assessment: evidence shows that the design of the curriculum and assessment structure is more likely to disengage girls from STEM (compared with boys). This group is working to make sure the STEM curriculum, assessments and teaching materials are inclusive and engaging across genders.

2. Equity and STEM research and change centre: this group is seeking funding to establish a centre focused on delivering collaborative research, development and capacity-building activities. It would have a strong emphasis on translation, impact and systems change, connecting across STEM disciplines, educational sectors and areas of inequality.

3. Peer mentoring: evidence indicates that peer-to-peer role-models encourage girls into STEM. This group aims to scale a model for those aged 11 to 18, including girls as both mentors and mentees.

4. Project-based learning: there is an argument that girls engage more in project-based learning. This group is working to make sure all young people engage in project-based learning, designed using evidence that supports underrepresented groups, particularly girls.

5. Whole-school approach to gender equity: this group is working to scale a robustly evidenced intervention that increased the number of girls taking AS level physics by embedding equitable and inclusive practice across a whole school, not just STEM subjects.

6. AI for gender-inclusive careers support: a group facilitating a quarterly sharing session for members. In each session, members talk through relevant AI EdTech projects, share updates, ask for feedback and identify possible areas of collaboration.

In its first year, the coalition pooled its thinking and evidence into a joint submission to the curriculum and assessment review, arguing for equity in how young people experience STEM education in schools. It also shaped input to the Comprehensive Spending Review, calling for investment in a dedicated research programme to build the evidence base for interventions that move more diverse young people onto pathways into the engineering, technology and digital workforce. Alongside this, EngineeringUK is synthesising the evidence on gender equity in education pathways into engineering and technology and will publish recommendations for how government can close the gap by age 18, developed with partners across the Gender Pathways collective.

Improving targeting

We cannot move towards our collective mission of increasing the number of young people from underrepresented groups in engineering and technology careers if our activities do not reach them. EngineeringUK's **priority schools approach** identifies schools with higher proportions of young people from demographic groups that are underrepresented in the engineering and technology workforce. Since adopting this approach, we have seen a noticeable increase in the numbers of students from underrepresented groups participating in our programmes⁴.

The majority of Code Signatories are also funding or delivering targeted outreach activities (71%, up from 41% in 2021), with most using locality- or region-based approaches. Over half said that being a member of The Code had helped their organisation understand how to target their activities (56%) and improve how they actively do this (53%), with nearly 1 in 5 using our priority schools approach (17%).

"The EDI criteria document provided by Engineering UK, has helped us to not only engage with young people from diverse groups, but ensure that our engagement is both effective and inspiring. This has developed our outreach and engagement, taking it from being more than just information sharing, to inspiring curiosity and a passion for engineering."

Code Signatory

"Engineering UK's priority schools tracker has been an invaluable resource that allows us to effectively map the demographics of the schools we engage with. The tracker helps us demonstrate the diversity and inclusion that underpin Drax's Community and Education offer, and helps tailor our delivery according to the audience we are working with."

Code Signatory



⁴ For detailed information on this analysis, see [The impact of the EngineeringUK priority schools approach 2024/25](#).

Working together in our collective mission: EngineeringUK's partnership with Leonardo

Leonardo is one of the UK's leading aerospace, defence and security companies. It employs more than 9,500 people across 10 sites in England and Scotland, and is one of the UK's largest employers of engineering apprentices and graduates. Leonardo has been a Corporate Member of EngineeringUK since 2022 and is one of more than 400 Signatories of the Tomorrow's Engineers Code. Leonardo has a long history of STEM outreach, including more than a decade of participation in The Big Bang Fair, and running a national programme of STEM ambassador activity that reaches thousands of young people each year.

EngineeringUK's role is not only to support organisations like Leonardo in doing more outreach, but to help them do it better. Michelle Strange, who leads UK STEM engagement at Leonardo, reflected on how the partnership has shaped the company's approach:

"Over the past year, our interactions with EngineeringUK have significantly influenced our decision making around engineering and technology outreach. Through their facilitation, we established a valuable connection with the Careers and Enterprise Company, which led us to complete the Employer Standards last year. This is a process we are now committed to completing annually to benchmark our STEM outreach activity and ensure continuous improvement.

This connection also led to us piloting Teacher Encounters this year, supporting teachers in understanding the different career pathways relevant to their subjects and how these are applied in the world of work. This helps build teachers' confidence in bringing the curriculum to life and in advising students and parents on future education and career pathways in STEM.

Through engagement with the wider Code community, we have also had the opportunity to learn from organisations with previous experience of delivering Teacher Encounters, which has helped inform our approach.

In addition, insights shared by fellow Code community organisations have directly influenced our decision to implement virtual work experience. This will allow us to expand the range of outreach we offer and broaden our reach beyond geographical boundaries. More broadly, we have aligned our Leonardo STEM Strategy with the Code pledges. This alignment helps us measure the impact of our initiatives by assessing how effectively they support our strategic objectives and the commitments we make as Code Signatories, enabling more informed and consistent decision making."



The influence of EngineeringUK's evidence base is also visible in how Leonardo approaches equity and inclusion. Our workforce data and underrepresentation analysis helped Leonardo build the internal case to prioritise schools in higher-disadvantage areas and continue to focus more on programmes around repeated interaction rather than one-off events, reflecting a core principle of EngineeringUK's **Sustained STEM Engagement Framework**. Michelle described how EngineeringUK's research has directly shaped how Leonardo designs and targets its outreach:

“Our collaboration with EngineeringUK has reinforced the importance of embedding diversity and inclusion at the heart of our STEM outreach activity. Their workforce and academic update statistics have highlighted the ongoing underrepresentation within engineering and the need to maintain a strong focus on widening participation.

As a result, we have strengthened our focus on engaging with schools in areas of higher social disadvantage and on adopting approaches that prioritise repeat interaction rather than single interventions. We have also reviewed our outreach materials and delivery approaches, with support from EngineeringUK, to ensure they are inclusive, relatable and reflective of a diverse range of pathways and role models within engineering.”



EngineeringUK increases connection and collaboration between members of its communities

The primary mechanisms through which EngineeringUK achieves this outcome include:

Tomorrow's
Engineers
Code

Neon

Tomorrow's
Engineers Live

A dedicated
business and
industry team

Peer-to-peer
learning groups



The Code and Neon create communities of like-minded organisations. In the 2025 Code Check-in, 65% of respondents said they had collaborated with other members of the STEM community (up from 51% in 2021).

71% said they had worked with other STEM community members to deliver joint outreach activities (up from 66% in 2021).

Similarly, in our stakeholder survey, 80% of respondents described EngineeringUK as effectively offering opportunities for partnering and collaborating with other organisations in the wider STEM community.

“Being a member has opened conversations that otherwise might not have been had, including within industry associations.

This has led to conversations about engagement with young people including an outward-bound week which will be a collaboration between several SMEs in our sector.”

Code Signatory

Events like EngineeringUK’s annual outreach-focused conference, Tomorrow’s Engineers Live, brings colleagues from across the sector together to collaborate, discuss challenges, and share good practice. Feedback from Tomorrow’s Engineers Live 2025 was overwhelmingly positive, with 9 out of 10 rating it as good or excellent (93%) and that they would pursue new collaborations as a result of attending (90%). Attendees described the event as inspiring, because it:

- showcased the power of collaboration
- offered them a way to gain input from a variety of organisations
- helped them build and strengthen their network

This appreciation was echoed by Code community members, Neon contributors and other stakeholders, describing a sense of ‘real connection’ with EngineeringUK and how our events and resources help them foster collaboration and shared learning. For example, 47% of Code Signatories felt that being a member of The Code had improved the way their organisation shared learnings, evaluation findings and resources with others (up from 29% in 2021). Other opportunities to share learnings include targeted panel meetings, forums and peer-to-peer learning groups facilitated by EngineeringUK’s business and industry team. These sessions cover topics relevant to the whole sector, like social value, building successful volunteer networks, and how to develop sustained engagement with young people.

“Through being a member of EngineeringUK we have valued the Business and Industry panel meetings which have enabled us to connect to others in the sector who run similar programmes to ours, creating a network of those who are passionate about increasing diversity in STEM.”

Corporate Member

By building deep relationships with our corporate members and professional engineering institutions, EngineeringUK acts as a steward, connecting those with similar strategic aims or activities.

“The support provided by EngineeringUK is unparalleled in my experience. Underpinning the relationship is a highly professional, achievement-oriented approach to account management.

As well as enabling us to discuss our needs and tap into the broad range of support, expertise and networking facilitation offered by EngineeringUK, our account manager proactively seeks out, considers and delivers upon opportunities to assist us.”

Code Signatory and Corporate Member

During 2024/25, EngineeringUK brought together employers, professional bodies, education providers and policymakers through targeted roundtables and advisory forums focused on skills shortages, vocational routes and industrial strategy. These spaces enable a shared understanding, alignment around evidence, and coordinated action. For example, in December 2025 the government announced their intention to develop an enrichment framework for schools and colleges in response to the curriculum and assessment review. This announcement included 5 core activity areas for enrichment, in which STEM was not listed.

In response, EngineeringUK brought together 33 sector bodies in a letter to government to make the case for including STEM in the framework. We also supported the framework’s development by sharing evidence of the long-term impact of STEM enrichment. As a result, the framework now includes STEM as contributing to the development of wider life and future skills⁵, and engineering as a key example of enrichment. This means more young people will be encouraged to take part in STEM enrichment that builds their skills and confidence for life.

“Opportunities to influence national strategy/policy as well as drawing down on best practice learning from others.”

Corporate Member

“I have always valued the shared experience and collaborative effort on policy projects.”

Professional Engineering Institution

Overall, our ongoing engagement with All-Party Parliamentary Groups, government departments, professional engineering institutions and cross-sector partnerships strengthens connections across the engineering and technology ecosystem. These support collaboration around shared challenges and amplify young people’s voices within policy debates shaping future opportunities.

⁵ [Department for Education \(2026\) Enrichment framework for schools and colleges](#)

Strengthening collaboration and policy engagement in Scotland

Over the past year, we have strengthened our relationships with government officials, national agencies, sector bodies and cross-nation employers across Scotland, with 2 particularly promising strands of work.

1. Scotland's sciences curriculum reform

As Scotland undertakes significant reform of its sciences curriculum, we collaborated with Education Scotland, the Scottish Government agency leading the review, to ensure engineering and technology perspectives were included to better prepare young people for engineering and technology careers. Together, we co-hosted a roundtable involving representatives from 11 major engineering and technology employers and representative bodies, spanning energy, infrastructure, construction and critical technologies. Employer insights and practical recommendations from the discussion are now feeding directly into Education Scotland's curriculum development.

Education Scotland valued this engagement, and they are now establishing a 'critical friends' group to embed ongoing industry input and extending industry engagement across all curriculum teams.

2. Cross-nation apprenticeship coherence

Our cross-nation apprenticeship project has engaged over 30 employers and sector bodies who operate across Scotland and England. Through structured interviews and a policy workshop, attended by senior representatives from Scottish Government and Skills England, we brought long-standing concerns about system differences into a shared, constructive space.

We examined how variations between the Scottish and English apprenticeship systems can create challenges for engineering and technology employers operating across both nations. As apprenticeships are a vital route into the sector, improving coherence is important for expanding opportunities for young people.

Together, these strands demonstrated our capacity to stimulate collaboration around shared challenges in STEM education and skills and to support partners across Scotland in shaping future policy and practice.



Fostering sustained engagement through collaboration

We recognise that we need to learn from one another and bring organisations together to deliver more coordinated outreach activity in order to achieve our collective mission.

Our **Sustained STEM Engagement Framework** provides a theoretical model of how we can increase the number and diversity of young people choosing careers in engineering and technology through repeated engagement in multiple, age-appropriate STEM outreach experiences. Our Code community recognises this in their pledge to inspire connection. The majority of Code Signatories said they have considered how their activities fit within the wider STEM outreach sector (78%, up from 64% in 2021) and worked together to deliver joint outreach activities in the last 12 months (71%, up from 66% in 2021). Neon contributors have also acknowledged EngineeringUK's role in fostering such connections in our focus group conversations, noting the impact of **Neon collections** in helping them understand how their activities connect to others. By fostering these connections, EngineeringUK helps create the conditions for a more joined-up, sustained and impactful STEM outreach across the sector.



EngineeringUK increases young people's capability, opportunity and motivation to study engineering and technology and aspire to these careers

The primary mechanisms through which EngineeringUK achieves this outcome include:

**EUK Education
activities for
schools**

Neon

**Careers
resources**





EngineeringUK's activities for schools are designed to help young people take meaningful steps towards engineering and technology pathways. For the purpose of this report, we have included the following.

- **The Big Bang Fair 2025**, a large-scale STEM fair showcasing exciting possibilities in STEM and connecting young people to inspiring role models and opportunities to do hands-on practical activities.
- **Big Bang at School**, a set of resources to help schools deliver their own STEM event independently, independently with a bursary, or with support from an external delivery partner.
- **Climate Schools Programme**, a series of lesson plans and practical activities for science, English and geography teachers to explore the engineering and technology adaptations and solutions to climate change and related careers with their students. In 2024/25 this programme included toolkits for eligible schools to support the practical elements.
- **Energy Quest**, a 2-hour workshop facilitated by a delivery partner to show students there are lots of different ways to become an engineer or work in technology and offer them the opportunity to think like an engineer or technician.

We used EngineeringUK's Impact Framework to build Theories of Change for each of our programmes, focusing on 3 interlinked outcomes:

- building capability (confidence and skills)
- creating opportunity (knowledge and exposure)
- strengthening motivation (interest, perceptions and aspiration)

Together, these outcomes reflect well-established evidence on how young people build STEM capital and develop STEM identities, both of which underpin their future subject and career choices.

Evidence from our 2024/25 programme evaluations shows that our activities consistently deliver positive outcomes across all 3 areas. It is worth noting that, in 2024/25, we distinguished engineering, technology and science jobs from one another. We asked about the impact of our activities on each of the above outcomes in separate questions for each subject area.⁶ The evidence is thus presented in 2 ways, with the first being the proportions of students who responded positively on each of the individual questions. This gives us a sense of our impact in the specific subject areas. The second way shows us whether we had any sort of impact on that young person regardless of subject area and represents the proportion of students who responded positively to at least one of the questions.

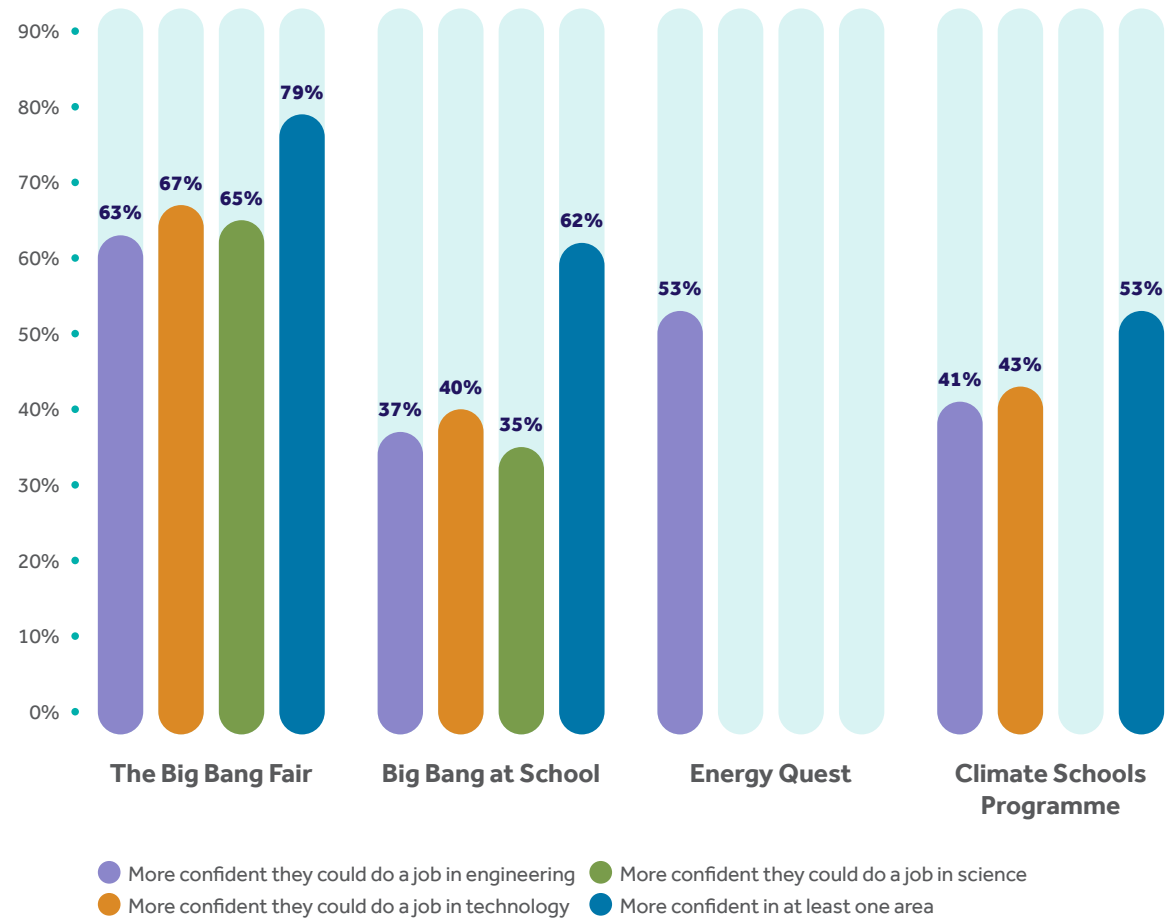
⁶ For example, 'The Big Bang Fair showed me that engineering is a suitable job for someone like me' instead of 'The Big Bang Fair showed me that engineering and technology jobs are suitable for someone like me'. The inclusion of science-related outcomes depended on the activity and were included in the evaluations of The Big Bang Fair and Big Bang at School, but excluded from the evaluations of Energy Quest and the Climate Schools Programme as these focus more on engineering and technology.

Building young people's capability and confidence

Confidence is closely linked to opportunities for hands-on, problem-solving activities and working collaboratively, features that are embedded in our content design and actively encouraged through our Neon quality standards. A substantial proportion of students reported increased confidence in their ability to do a job in engineering, technology or science after taking part in our programmes (Figure 3). For example, 4 out of 5 students attending The Big Bang Fair 2025 said they felt more confident in at least one of these subject areas (79%). This reflects the aim of the Fair: to inspire all young people to discover exciting possibilities in STEM, meet role models and practise their skills through interactive, hands-on activities.

Activities delivered in schools, either through external facilitators and volunteers or by teachers themselves, also successfully raised students' confidence, making them feel like they could work in engineering or technology in the future.

Figure 3:
Proportions of young people feeling more confident in their ability to do a job in engineering, technology or science across EngineeringUK's activities for schools⁷

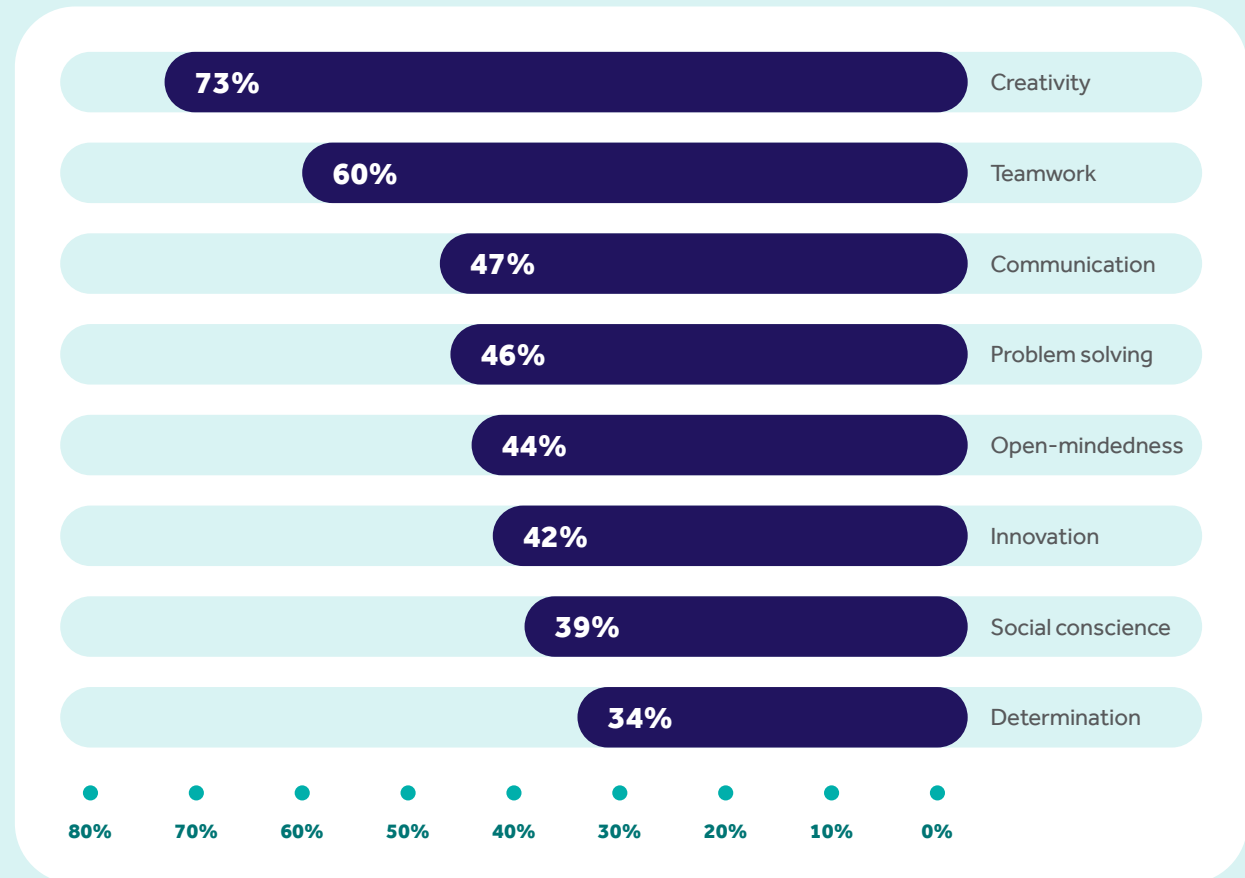


⁷ The proportions presented in Figure 3 are not like-for-like, as they are based on different evaluation samples of students.

Developing confidence is particularly important for students who may not already see engineering or technology as for someone like them. Our evaluations show that even where confidence levels may not be as high, students with limited STEM engagement leave our activities feeling more capable.

New to our evaluation of The Big Bang Fair 2025, we asked students whether The Fair provided them with the opportunity to do activities that helped them develop their 'engineering skills'. As seen in Figure 4, most students said that they got to do things that helped them be creative (73%) and develop their teamworking skills (60%). Encouragingly, 77% of students selected more than one skill from the list provided, and girls were particularly likely to say The Fair had helped them develop their ability to be open-minded (48%, compared with 40% of boys).

Figure 4:
Engineering skills developed at The Big Bang Fair 2025

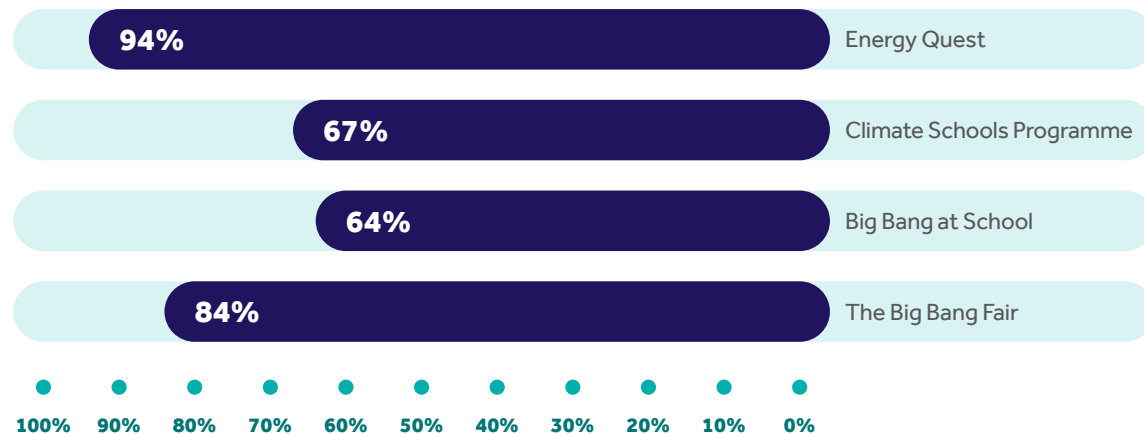


Creating opportunity through knowledge and exposure

Activities are most effective when they include clear learning outcomes, reflective activities to embed learning and contemporary and accurate careers information. These features help students learn about the breadth of engineering and technology careers available and how these apply to the real-world.

Across all 2024/25 evaluations, students reported strong gains in knowledge about what people working in engineering and technology do (Figure 5), and how these roles contribute to society, for example, in finding solutions to environmental challenges. Improved knowledge was where we see the biggest impact of our activities, although the gains varied. For example, 67% of students said that the lessons delivered as part of the Climate Schools Programme showed them what people working in engineering do, compared with 84% of students who attended The Big Bang Fair. This kind of variability across activities reflects their differential aims and delivery methods, with Climate Schools Programme lessons delivered in-class by their teacher during lesson time and The Fair being a large-scale careers event.

Figure 5:
Increases in young people's knowledge of engineering and technology jobs across EngineeringUK's activities for schools



The comments from students and teachers participating in the evaluation of Energy Quest 2024/25 revealed some insights into what it is about the activity that helped students understand what people working in engineering and technology do. To improve students' knowledge of engineering and technology careers, activities should give students the chance to:

- speak to or hear from professionals
- apply their scientific knowledge
- link what they learn in the classroom to engineering and technology practice and careers
- think like an engineer through hands-on activities

These insights not only help us interpret the impact of our other activities, like The Big Bang Fair, but they also help us work with partners supporting The Fair to construct effective and engaging activities for young people. In doing so, we ensure young people have opportunities to engage in diverse hands-on activities, speak to STEM professionals about what they do, and learn about curriculum-linked STEM concepts.



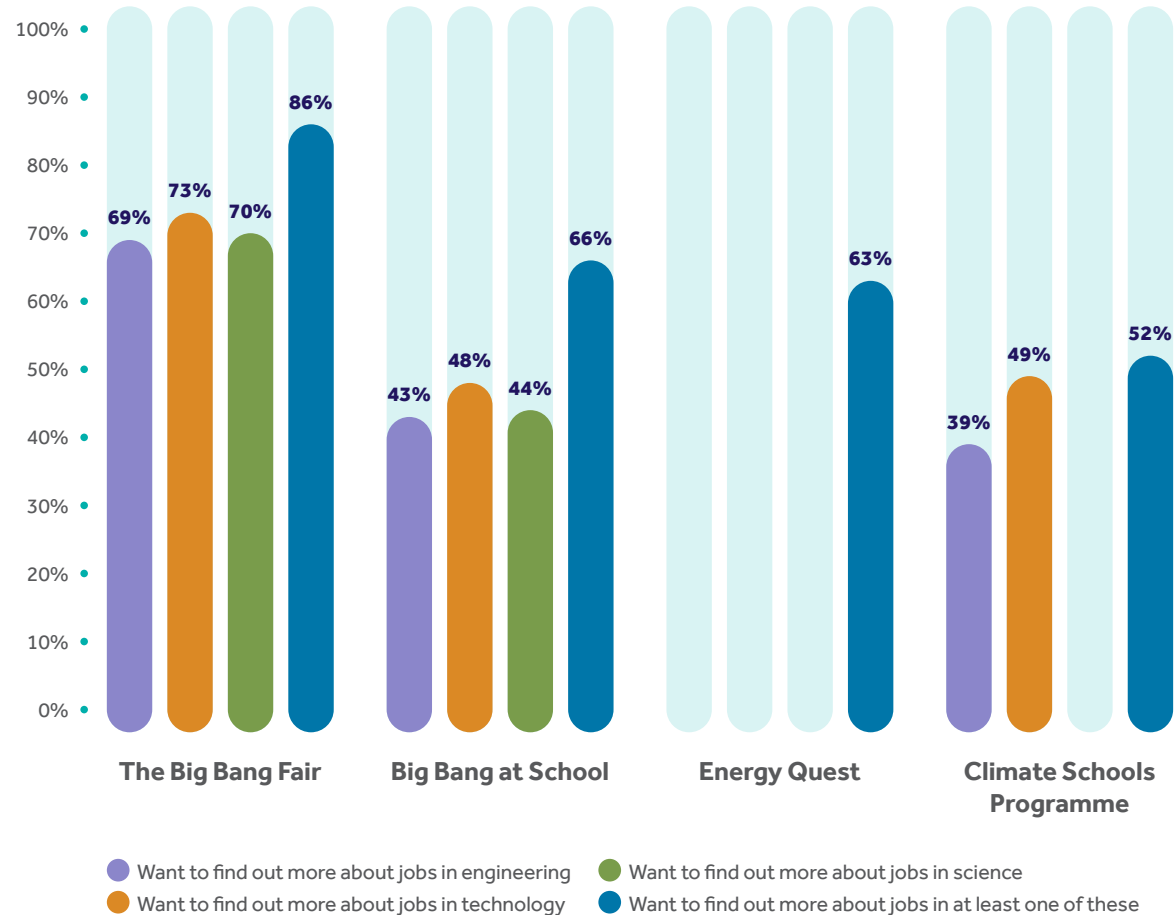
Strengthening young people's motivation and aspiration

Participating in EngineeringUK activities increases students' motivation to engage further with engineering and technology. The majority of students said that taking part made them want to:

- do more STEM activities in the future⁸
- find out more about engineering and technology jobs (Figure 6)
- feel more interested in at least one STEM career area (Figure 7)

Motivation gains were strongest in large immersive experiences like The Big Bang Fair. However, it is notable that the classroom-based Climate Schools Programme and school-led Big Bang at School also delivered positive results. This matters because these activities reach students in their everyday learning environment and can be repeated or built upon over time.

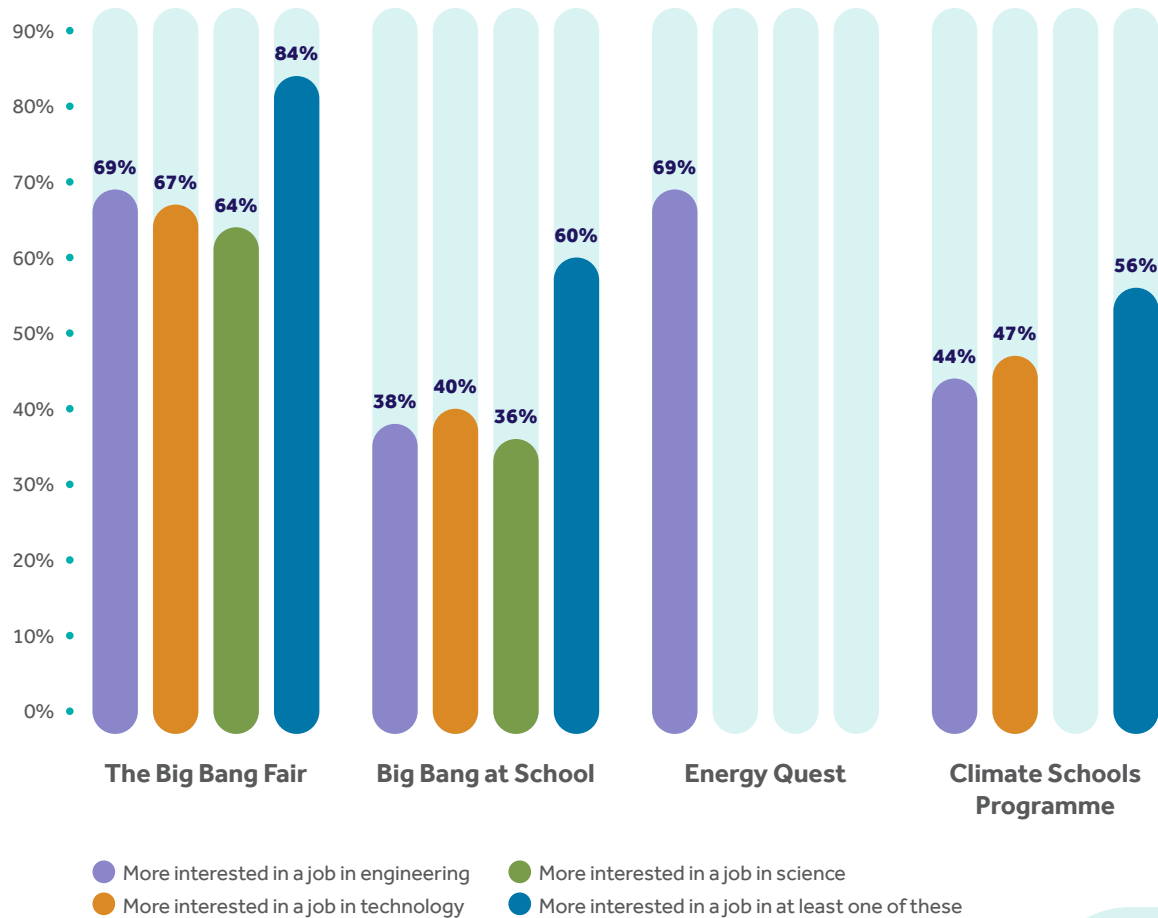
Figure 6:
Increases in young people's motivation to find out more about engineering and technology jobs across EngineeringUK's activities for schools



⁸ 71% of students who attended The Big Bang Fair 2025 or an Energy Quest 2024/25 workshop said that it had made them want to do more activities related to STEM in the future, compared with 49% of students who attended a Big Bang at School event and 50% of students who participated in the Climate Schools Programme.

Figure 7:

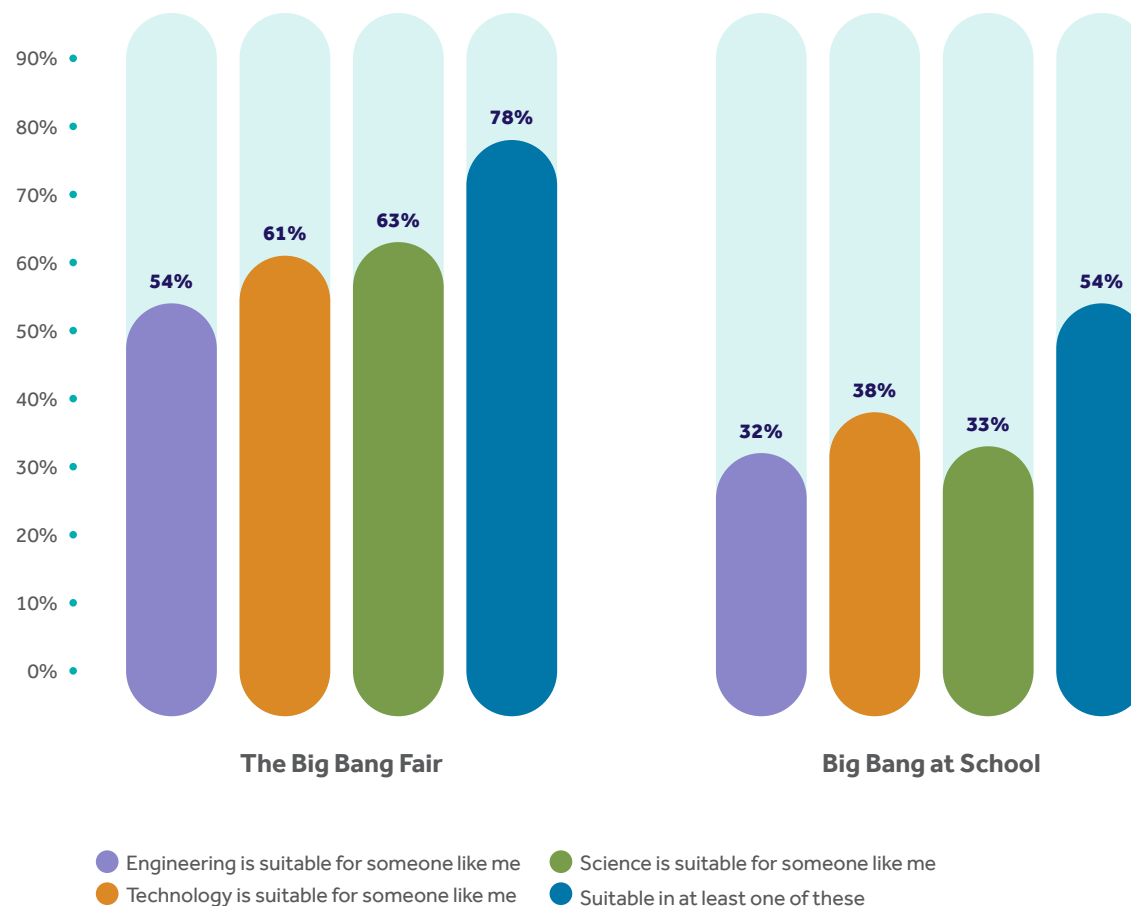
Increases in young people's interest in engineering and technology jobs across EngineeringUK's activities for schools



As described in our Impact Framework, young people's motivations towards specific career pathways are only partially based their confidence and interest in them. How much they feel that career fits with who they are is also important. From the Science Education Tracker, we know that only 30% of young people in years 7 to 13 feel engineering is a suitable career for someone like them.⁹ This is why our activities are designed to challenge stereotypes and showcase diverse representation in engineering and technology careers.

As shown in Figure 8, our activities play an important role in shifting young people's perceptions of suitability, with relatively stronger shifts for The Big Bang Fair. More than half of the students in our sample agreed that The Fair had shown them that careers in engineering, technology and science were suitable for someone like them. Encouragingly, nearly 8 out of 10 students answered positively to at least one question, suggesting The Fair exposed most young people to careers that felt relevant and attainable. The impact of Big Bang at School, while more modest than The Fair, is nonetheless positive. These events are delivered in a wide range of ways, with varying emphasis on each subject area and the breadth and diversity of careers showcased, tailored to schools' different contexts.

Figure 8:
Increases in young people's perceived suitability of engineering and technology jobs across EngineeringUK's activities for schools



⁹ [EngineeringUK & The Royal Society \(2024\). Science Education Tracker 2023 \(Wave 3\)](#)

Although not explicitly measured in the Climate Schools Programme evaluation, the feedback from teachers helps explain how this shift occurs. Teachers emphasised the value of using real people and relatable job examples to broaden students' understanding of who engineering and technology careers are for.

"Using real life people to describe their job roles opened up pathways that my pupils had not thought about. Seeing engineering roles were accessible to all walks of life allows them to aim high."

**Secondary school teacher,
Climate Schools Programme**

"Pupils have enjoyed the example of workers that were on slides. They could see that they can access jobs that they never dreamed at."

**Secondary school teacher,
Climate Schools Programme**

Together, this evidence suggests a mechanism for our impact. Giving young people opportunities to relate their characteristics to those in engineering and technology helps them see these careers as inclusive, achievable, and feel a sense of belonging.



Building aspirations over time through multiple, age-appropriate and cumulative STEM experiences

Alongside our evidence base on what works in designing engaging and impactful activities, our **Sustained STEM Engagement Framework** recognises that a one-off intervention is unlikely to drive long-term change on its own. Instead, short-term gains in capability, opportunity and motivation accumulate over time, shaping future choices alongside families, schools, employers and the wider system.

To support this approach, EngineeringUK is increasingly focusing on activities and resources that help schools plan and deliver coherent sequences of STEM engagement, rather than isolated activities.

- **STEM Journeys** is a new project designed explicitly to test and strengthen models of sustained engagement. It supports schools to deliver linked STEM activities over multiple years.
- Through Neon, we have developed curated **collections of experiences** that allow teachers to revisit engineering and technology careers at multiple points, across different subjects and key stages.

- Offering CPD in the Climate Schools Programme and Energy Quest builds teachers' confidence and encourages them to embed careers learning in their teaching and deliver multiple, connected activities over time.
- In the Climate Schools Programme, we support schools to develop coordinated climate education plans covering curriculum, enrichment and careers, while also supporting teachers through CPD.

This focus on sustained engagement also reinforces the importance of collaboration across the sector. For young people to experience STEM engagement as cumulative rather than fragmented, outreach activity needs to be aligned, complementary and designed with progression in mind. Through our convening role, EngineeringUK works with employers, professional engineering institutions and outreach providers to encourage greater coordination. By aligning activity around shared principles, frameworks and evidence of what works, we aim for a more connected journey into engineering and technology.



Improving STEM education and career opportunities available to young people

The primary mechanisms through which EngineeringUK achieves this outcome include:

Continuing Professional Development (CPD) opportunities for teachers

Teachers and careers leaders are among the most influential figures shaping young people's understanding of engineering and technology careers. This is why EngineeringUK manages Neon: to make it easier for schools to find and use high-quality, evidence-informed activities and resources, so more young people can access meaningful STEM experiences.

Careers resources

This is also why we offer a range of teacher-led activities, as our evidence shows that these can be highly effective when they are well designed and supported. Our activities not only support student learning but also build educators' knowledge, confidence and motivation to discuss engineering and technology careers, extending impact beyond a single activity. For example, the Climate Schools Programme 2024/25 evaluation showed that the activity:

- improved teachers' knowledge of engineering and technology careers (76%) and of solutions to climate change (84%)
- made teachers feel more confident to speak to students about engineering and technology careers (80%) and solutions to climate change (92%)
- made them more likely to suggest students consider a career in engineering and technology (76%)

Advocacy

Neon





Our qualitative data brought to light which elements of the Climate Schools Programme underpinned impact. Participating teachers described how real-world examples, diverse role models and clear explanations of job roles helped them feel more assured when responding to students' career-related questions. Many highlighted that the structured notes and contextual information within the resources made it easier to explain roles that were previously unfamiliar. Teachers also reported that the resources helped them see how careers content could be embedded naturally within subject teaching, rather than treated as an add-on.

Similarly, both The Big Bang Fair 2025 and Energy Quest 2024/25 evaluations found that these activities had increased teachers' knowledge of engineering careers (82% and 74%, respectively) and motivation to speak to students about these careers (77% and 71%, respectively). Both evaluations showed that our impact was greatest with teachers who were less knowledgeable and confident in these areas. This is particularly important given EngineeringUK's teacher research shows that **limited confidence**, **clarity** and **capacity** remain common barriers for teachers. This is particularly the case when engaging students in engineering and technology career discussions, especially around vocational and technical pathways.

Alongside our structured activities for schools, EngineeringUK supports teachers and careers leaders at scale through accessible careers resources. In 2024/25:

- 9,433 digital careers resources were downloaded
- 61,505 printed careers resources were distributed across the UK

While these figures do not in themselves demonstrate impact, they indicate substantial reach, providing educators with materials they can use to inform, reinforce and extend careers learning. As noted above, when educators are equipped with clear, trusted resources, they are more confident in initiating and sustaining conversations about engineering and technology careers.

Beyond our impact on educators, EngineeringUK's advocacy work also has a system-level influence. It works to improve what young people's experience before, during and after engagement with our activities by strengthening the quality, coherence and relevance of STEM education and careers pathways. In 2025, we:

- engaged extensively with the government curriculum and assessment review. EngineeringUK worked in close partnership with the National Engineering Policy Centre NEPC to input into the review. We participated in roundtables hosted by the Department for Education alongside professional engineering institutions and corporate members. EngineeringUK advocated for a more inclusive curriculum and stronger STEM provision that integrates climate education and inspires the next generation of engineers and technicians
- contributed evidence to consultations on post-16 pathways, highlighting barriers within technical and vocational routes and the need for clearer, better-supported progression¹⁰
- made recommendations for spending and infrastructure strategies that emphasise the link between education policy, skills development and future workforce needs¹¹

Working with the Department for Education, Skills England, IfATE and other government bodies, ensures that policy development reflects both workforce demand and the practical realities of delivery in schools and colleges. As an example, our **submission to the Treasury ahead of the Autumn Budget 2025** set out a range of recommendations aimed at strengthening the flow of young people into careers in engineering and technology. Our recommendations were directly influenced by our experience delivering outreach activities for schools and the evidence produced by our own research and evaluation, and those of other organisations. For example, we recommended piloting an increasing apprenticeship support for SMEs, including a new £3,000 grant for SMEs employing entry-level apprenticeships that are key to the Industrial Strategy's 8 growth sectors. EngineeringUK therefore recently welcomed the Department for Work and Pensions Secretary Pat McFadden's announcement of a 'New Deal' for young people, which includes a £2,000 apprenticeship incentive for each new employee aged 16 to 24 taken on by an SME.

By promoting a holistic, long-term approach linking curriculum, careers education, teacher supply and labour market demand, our policy work enables more future-focused STEM education and clearer career pathways for young people.



¹⁰ For example, our responses to the **House of Lords Industry and Regulators Committee's inquiry on apprenticeships and training** and the **Public Accounts Committee's inquiry on T Levels**.

¹¹ Other examples include our submissions to the **Spending Review 2025** and the **Transport Committee's inquiry into skills for transport manufacturing**.

EngineeringUK increases the reach and participation of underrepresented groups

Outcome achieved through:

Targeted
activities for
schools

Evaluating the differential
impact of our activities

Advocacy



A core part of EngineeringUK's mission is to broaden who participates in engineering and technology. We recognise that improving outcomes overall is not enough if demographic groups continue to be underrepresented. We view this in 3 main ways.

First, we think strategically about how we ensure our activities reach students from groups that are underrepresented in the engineering and technology workforce and those who are less likely to be engaged in STEM. Second, we used our evidence-base to design activities that are engaging for our target audiences. We then test whether there are systematic differences in how young people from different demographic backgrounds experience our activities and use this information to update and iterate our activity design. Finally, our policy work lends further support to this outcome by addressing structural barriers that limit who participate in engineering and technology education and careers.



Reaching and engaging students from underrepresented groups

In 2024/25, EngineeringUK activities reached more than 206,000 young people through our activities for schools, representing 43% of all secondary schools in the UK. More than half of these (51%) were priority schools, with activities like The Big Bang Fair, Big Bang at School and Energy Quest being particularly successful in reaching young people underrepresented in engineering and technology (Figure 9).¹²

Also seen in Figure 9 is the significant role our Equity, Diversity and Inclusion (EDI) bursaries play in widening access to high-quality STEM experiences. In 2024/25, these supported over 26,000 students in 114 priority schools, many of which serve communities facing significant socio-economic disadvantage. Our evaluation shows the programme reaches higher-than-average proportions of students eligible for free

school meals, girls, UK minority ethnic students and those with special educational needs or disabilities. Importantly, 84% of teachers reported that their school would not have been able to participate at all without the bursary, demonstrating the scheme's role in removing financial barriers and enabling participation for those most likely to miss out.

Figure 9:
EngineeringUK's reach with young people from groups underrepresented in engineering and technology across individual activities for schools

The Big Bang Fair 2025	Big Bang at School 2024/25	Climate Schools Programme 2024/25	Energy Quest 2024/25	Equity, diversity and inclusion bursaries 2024/25
20,379 young people and 2,103 educators from 402 schools (55% priority schools)	82,596 young people from 251 schools (90% priority schools)	Estimated reach is 29,651 students (49% priority schools)	6,295 students at 85 schools (81% priority schools)	Over 26,000 students at 114 priority schools

¹² This is also reflected in the student samples from our evaluation data, as detailed in Table 2 of Appendix 1.

Monitoring differential impact to ensure our content is inclusive and engaging

It's not just about reaching students who are less engaged in or from groups underrepresented in STEM. We also need to ensure that what we offer is genuinely engaging and accessible for these audiences once they take part. We do this in a few ways, one being that we adopt an initial evidence- and user-led approach to developing the content and implementation design of our activities. Second, after delivering our activities, we use our evaluation data to explore whether there are statistically significant differences in how students from different backgrounds respond to our activities. Finally, we analyse the open-ended feedback we collect from young people and educators to understand what students enjoyed and why. We use these insights to refine our content design so that activities are more relevant, approachable and motivating for students who may have lower interest or less confidence in STEM.

Across most of our activities there were 2 patterns of significant differences: girls and students who have previously been less engaged in STEM were less positive in how they rated the impact of the activities than boys and more STEM engaged students. At first glance, this looks like our programmes are having a differential impact on these groups of students.

However, bringing together multiple sources of evidence, including students' open-ended feedback and comparisons to nationally representative data,¹³ suggests that these are more likely to reflect pre-existing gaps in experience and perception.¹⁴ Importantly, many less STEM-engaged students still reported positive outcomes. Their qualitative comments often highlighted what made STEM enjoyable, meaningful and relevant.

For example, girls were significantly more likely than boys to highlight doing an activity with a professional as something they liked most about what they did at The Big Bang Fair (56% compared with 49%). Girls' responses to open-ended questions in the Energy Quest 2024/25 feedback survey revealed what they liked.

"Getting practical experience and learning how my aspirations get into engineering which I hadn't thought about before."

"I enjoyed most doing the water cleaning activity because I was building team skills and using my imagination to create and designs because me and my friends created a successful design."

"How engineering helps with little everyday stuff some that we didn't even know has something to do with it and how they come up with brilliant ideas and the teamwork."

"I enjoyed it very much. My favourite was the teamwork that we used to solve problems and figure out what to do."



¹³ EngineeringUK & The Royal Society (2024). Science Education Tracker 2023 (Wave 3). www.engineeringuk.com/set.

¹⁴ The specific findings supporting this interpretation include: the gaps recorded in our samples being considerably smaller than what we see in nationally representative samples; girls and less STEM engaged students who participated in our activities were very positive about engineering and technology compared with what was reported in the Science Education Tracker 2023; and in their responses to open-ended questions, girls were similarly positive about how much they enjoyed the activity to boys, or more so.



We use these findings to strengthen the features of our content that are most consistently linked to engagement for less STEM engaged audiences. In practice, this means ensuring our activities include:

- active participation (young people doing, testing, creating, discussing), with minimal time spent passively listening
- breaking down big STEM concepts into accessible chunks and use age-appropriate, jargon-free language
- content that builds from young people's own lives, experiences and interests so the learning feels relevant
- role models who can share real stories about what they do at work and make jobs feel tangible
- practicals that explicitly support confidence-building by giving young people the opportunity to practise skills used in STEM jobs (such as problem solving, creativity, teamwork and communication) and to reflect on what they achieved

For example, our analysis of open-ended feedback indicates that girls were particularly likely to value doing an activity with a professional, teamwork, creativity and problem-solving, and understanding how STEM helps with everyday life.

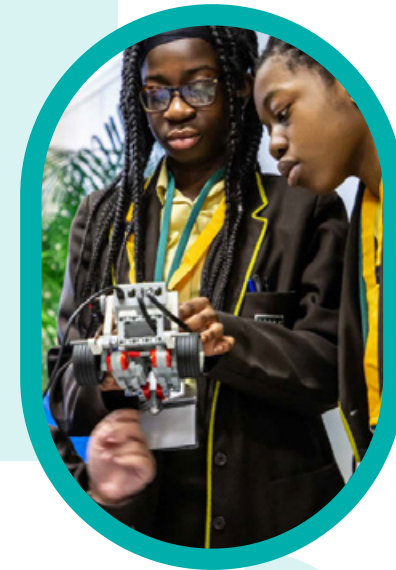
We also apply what we learn to improve the quality of what others deliver. For The Big Bang Fair, we translate evaluation insights into practical guidance for exhibitors. Before The Fair, we ask exhibitors to explain how they meet essential criteria, such as using accessible language and embedding tangible job examples. Finally, we use observations to strengthen the support we offer exhibitors.

Advocating for inclusive structures and removing systemic barriers to participation

Our advocacy activity also supports greater participation by addressing structural barriers within technical and vocational pathways. Through engagement with parliamentary committees and government reviews, we have highlighted challenges facing SMEs and the accessibility of apprenticeships. We have also pressed for clearer, better-supported progression routes into engineering and technology, particularly in growth areas such as net zero¹⁵. We have consistently made the case for:

- a national engineering and technology workforce strategy that prioritises diversity and inclusion
- improved access to technical and vocational pathways, including apprenticeships and T Levels

Our advocacy on STEM teacher recruitment and retention, careers provision and awareness of engineering pathways also support wider participation by improving the capacity of schools and colleges serving disadvantaged communities.¹⁶



¹⁵ To explore our advocacy activities in more detail see [Driving change | Policy and advocacy](#).

¹⁶ BINDT website (August 2024) [STEM education, skills and workforce planning a priority to support engineering and technology job surge](#).



Extending reach while connecting the communities we work with: Tomorrow's Engineers Week

Tomorrow's Engineers Week is an annual campaign led by EngineeringUK to showcase the breadth and diversity of modern engineering and technology careers to young people and their influencers. It brings together schools, employers, professional engineering institutions and STEM organisations and aims to:

- mobilise the engineering community to inspire the next generation
- boost the number of young people, teachers, parents and other influencers exposed to positive careers messaging about engineering and technology
- improve educators' and young people's knowledge and perception of engineering and technology careers
- help young people see engineering and technology jobs as suitable for someone like them and that allows them to pursue their interests
- show young people that there are lots of (vocational and academic) routes into engineering and technology jobs

The theme for Tomorrow's Engineers Week 2025 was Dare to Discover and showed young people that trial and error, curiosity and learning from mistakes are central to engineering and technology. It challenged the idea that there is a single 'right' pathway into engineering by showcasing real people with authentic career stories. It also highlighted the skills that underpin these careers, like experimentation, problem-solving, and adaptability.

During the week, over 61,000 young people from hundreds of schools across the UK engaged with a suite of free, curriculum-linked resources, including assemblies, lesson plans, and short films featuring engineers and technicians. Over the course of the week, we:

- shared 11 personal stories from people working in engineering and technology
- published 16 blogs from professional engineering institutions showcasing their specific area of engineering
- responded to 32 questions from young people answered by a panel of professionals
- secured 44 items of media coverage with a total reach of over 1.7 million

Reaching more than 1 million on social media, there was genuine enthusiasm about the content of Tomorrow's Engineers Week 2025. Teachers were particularly positive about how the content engaged their students and the opportunity it gives them to think about what they would like from a career.

"I believe students will find these resources particularly engaging. They invite students to focus on themselves and think about their own passions and interests, sparking thoughts about potential career paths that align with their unique passions."

Teacher

"Witnessing how inspired and motivated my students were as a result of this event, I was reminded of how crucial it is for young people to have access to varied learning opportunities such as these."

Teacher

This enthusiasm was echoed in the feedback from organisations supporting the event:

"Thales proudly supports Tomorrow's Engineers Week to inspire the next generation and widen access to STEM careers. Engaging with young people raises aspirations, challenges stereotypes, and showcases real-world engineering."

By leveraging the week's theme and resources, Thales enhances its outreach, delivering unified messages and impactful activities that reach a broader audience. Early engagement fosters confidence in problem-solving and innovation, helping address future skills gaps.

Participation empowers Thales to share inspiring stories and highlight the impact of our technology, making a meaningful contribution to developing a diverse, resilient workforce equipped for an increasingly digital world."

James Mackay, Social Impact Outreach Manager (STEAM), Thales



Conclusion



This report sets out the progress EngineeringUK has made over the first years of our 2023 to 2028 strategy. Our mission is to enable more young people from all backgrounds to be informed, inspired and supported to progress into engineering and technology. Our research has deepened the sector's understanding of where and why young people are lost from the pipeline. It's helped us understand what helps those from underrepresented groups build the confidence, interest and sense of belonging that lead them to engineering and technology. That evidence is shaping our own activities and supporting partners across education, industry and policy to improve the quality, targeting and inclusivity of STEM engagement.

Our activities for schools reach large numbers of young people and educators, with evaluation evidence consistently showing positive outcomes for students' confidence, knowledge and motivation. They also improve teachers' confidence and capacity to extend impact beyond individual activities. By prioritising quality and sustained engagement, we have focused not just on reach, but on creating conditions that support longer-term change.

At a system level, there are encouraging signs of change. EngineeringUK's recent publications show increases in the number of girls choosing engineering and technology-related GCSEs and A levels, suggesting movement in the right direction after several years of stagnation or decline. These shifts cannot be attributed to any single intervention or organisation. They reflect sustained efforts across education, industry and policy to improve relevance, visibility and access to engineering and technology pathways.

At the same time, this evidence reinforces the need for continued action. The engineering and technology workforce remains far from representative, confidence gaps persist for many young people, and future skills demand continues to grow. Progress will require long-term commitment, coordination across the system, and a continued focus on evidence-informed practice, particularly in relation to equity, inclusion and sustained engagement.

Looking ahead, EngineeringUK will build on what we have learned. We will continue to strengthen the evidence base, support the sector to improve practice, and use our leadership and advocacy to shape the conditions in which more young people can access engineering and technology. This report marks both a point of reflection and a platform for the next phase of our work, as we continue to pursue our mission in partnership with others.



Appendix 1: Methodology

This report draws on evidence from the following EngineeringUK sources:

- our annual check-in with The Tomorrow's Engineers Code community
- our annual stakeholder survey¹⁷
- focus groups with Code Signatories and Neon contributors¹⁸
- the Tomorrow's Engineers Live post-event survey
- impact evaluations of our 2024/25 activities for schools¹⁹
- monitoring attendance and engagement in our own workshops and webinars, as well as the events attended by our staff

We describe each source below.

The Code check-in. This is a yearly survey with Tomorrow's Engineers Code Signatories. 168 Code Signatories completed the 2024/25 check-in. The sample includes colleagues from STEM outreach organisations (40%), companies from the engineering and technology sector (38%), professional engineering institution (11%), higher/further education institutions (8%) and other regulatory or government bodies (4%). Just under half of the sample have been Code Signatories for over 3 years (49%).

EngineeringUK's annual stakeholder survey. We conduct an annual survey with members of the engineering and technology sector that we work with. In 2025, we shared the survey with 1,002 external stakeholders, which yielded 136 responses (14% response rate). The majority of respondents were Code Signatories or supporters (40%), or from professional engineering institutions (31%). The sample also included representatives from programme funders (21%), our corporate members (15%), Neon contributors (13%), research or policy contacts (12%) and other colleagues from the engineering and technology sector (7%).

'Other colleagues' here means those who have partnered with us to develop content or deliver specific projects with EngineeringUK in the past year. Most of these stakeholders had attended an EngineeringUK meeting, webinar, event or working group in the last 12 months (65%).

Focus groups with Code Signatories and Neon contributors. In 2024/25, we hosted combined focus groups with Code Signatories and Neon contributors, as the 2 programmes have similar audiences and complement each other. Although not all Code Signatories can be Neon providers due to their activities, in general Code Signatories should be using platforms like Neon to meet the Inspire Connection pledge. The aim of these sessions was to understand how these programmes can jointly support the work of organisations they work with. We conducted 2 focus groups in July 2025, one with 5 Code Signatories who are not currently Neon contributors and the other with 8 Code Signatories who do have Neon listings. The sessions lasted roughly one hour and were conducted online.

¹⁷ We conduct an annual survey with professional engineering institutions, our corporate members, Neon contributors, and other stakeholder groups. In 2025, we had responses from 136 of our stakeholders. The survey asks respondents about how they engage with EngineeringUK, whether they would recommend working with EngineeringUK, and how working with EngineeringUK has benefitted their organisation.

¹⁸ These 2 online focus groups brought Code community members and Neon contributors together to explore how these programmes support the work of the organisations they include.

¹⁹ Our full evaluation reports detail the methods and findings for each activity:

[Energy Quest 2024/25 Evaluation Report | inspiring future engineers](#)

[Big Bang at School 2024/25 | Evaluation | Insights](#)

[The Big Bang Fair 2025 | Evaluation | Insights](#)

[Evaluation | Climate Schools Programme | Young people insights](#)

Tomorrow's Engineers Live 2025 post-event survey. 51 attendees completed our post-event feedback survey which asked them about the usefulness of the sessions, their reflections on the content and structure of the day, and whether they would recommend the event to colleagues.

Evaluations of our activities for schools. Table 1 presents an overview of EngineeringUK's individual activities for schools in terms of their aim, reach in 2024/25, type of activity, and how they were delivered (for example, by teachers versus through delivery partners who facilitated the sessions).

In terms of our outcomes, we define these using the COM-B model described in [EngineeringUK's Impact Framework](#):

- build students' capabilities by developing the skills they need to pursue a job in engineering and technology and feel confident to do so
- present students with opportunities that increase their understanding of what people working in engineering and technology do and what jobs are available in these fields
- motivate students by fuelling their interest in engineering and technology careers, making them want to know more about these and feel like these would be suitable for someone like them

These outcomes are also tied to our [Sustained STEM Engagement Framework](#), which draws on research on how young people develop their STEM aspirations and identities to highlight the importance of repeated, meaningful and age-appropriate experiences in generating long-term change in young people's aspirations and choices.

Our evaluations are theory-based and mixed methods, drawing information from multiple informants including student and teacher feedback surveys, interviews with teachers and delivery partners/facilitators, and observations of the individual activities. Combining insights across these data sources help us gain a deep and robust understanding of how our activities impact young people.



Table 1:
Overview of EngineeringUK's activities for schools

Descriptor	The Big Bang Fair	Big Bang at School	Climate Schools Programme	Energy Quest
Aim	To inspire all young people to discover exciting opportunities in STEM by showcasing exciting possibilities in STEM, connecting young people to diverse role models and offering hands-on practical activities	To support and empower schools to host a STEM event that inspires students to consider a career in STEM by showcasing the diversity of STEM careers and engaging students with hands-on STEM activities	To inspire students to explore green careers in engineering and technology and tackle climate change both now, and in the future	To teach students about electricity generation and sustainability, offer practical activities that let them think like an engineer or technician and show students that there are lots of different ways to become an engineer or work in technology
Reach	20,379 young people and 2,103 educators from 402 schools	82,596 young people from 251 schools (129 Blueprint, 122 Delivery partner)	Estimated reach for 2024/25 is 29,651 students (based on registration data)	6,295 students at 85 schools across multiple regions of the UK
Activity type	Careers fair, STEM fair	Careers fair, STEM fair	Lesson plan/classroom activity for geography, English and science, and resources to run a Climate Action Club	Workshop (one-off)
Delivery method	Collaboration between EngineeringUK and 67 supporters (991 volunteers) plus an additional 164 Big Bang volunteers	Blueprint (schools provided with resources to deliver their own event) and delivery partner (schools paired with a local delivery partner to deliver their event)	Teacher-led	Delivery partner led



In terms of our impact on young people, our target outcomes centre around the COM-B model described in [EngineeringUK's Impact Framework](#):

Capability:

- confident in ability to do a job in engineering, technology and/or science

Opportunity:

- knowledge of what people working in engineering, technology and science do
- knowledge of the role of engineers in finding solutions to environmental problems

Motivation:

- to do more STEM/engineering and technology activities
- to find out more about jobs in engineering, technology and/or science
- more interested in a job in engineering, technology and/or science
- feel a job in engineering, technology and/or science is suitable for someone like them

In 2024/25, we conducted in-depth, multi-informant evaluations of The Big Bang Fair, Big Bang at School, the Climate Schools Programme and Energy Quest. As seen in Table 2, the students participating in our post-event surveys for The Fair, Big Bang at School and Energy Quest tended to be representative of the wider UK secondary school student population. However, the sample of young people participating in the Climate Schools Programme evaluation included a higher proportion of disabled students than seen at the national level, as 3 of the 8 schools participating were SEN. There was also an underrepresentation of young people eligible for free school meals in the Climate Schools Programme evaluation sample, meaning that overall this sample is not representative of the general population of secondary school students in the UK.

Also seen in Table 2, is the high proportion of young people who are not currently engaging in many STEM activities outside of the classroom reached by our activities. Identifying participants' previous engagement with STEM activities like visiting science museums and watching STEM-related content on social media is important in our evaluations. It lets us explore whether we are meeting our goal of designing activities that are engaging and have a positive impact on students who aren't already interested in STEM.

Table 2:
Overview of student samples across activities

Variable	The Big Bang Fair	Big Bang at School	Climate Schools Programme	Energy Quest
Sample size	1,547	3,727	333	1,738
# of unique schools	259	59	8 (3 SEN)	54
% priority school (in sample)	62%	86%	28%	72%
% low prior STEM engagement	53%	66%	56%	-
% female	47%	54%	44%	51%
% UK minority ethnic	49%	36%	19%	29%
% disabled	22%	16%	30%	13%
% free school meals	30%	25%	26%	17%



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