Royal Academy of Engineering

Impact of Giving 2024/25

How your support is helping us engineer better lives and inspire the next generation

Your contribution at a glance

In 2024/25, Academy supporters contributed

£6,134,387

to our work.

Every gift helps us bring together the most talented engineers, promote excellence in engineering and deliver tangible, meaningful benefits for the whole of society by engineering better lives. Thank you to everyone who supported our work last year.

"Receiving the Engineering Leaders Scholarship has allowed me to pursue opportunities that would otherwise have been out of reach. The support of the Academy has opened doors and enabled me to grow personally and professionally. I'm incredibly grateful for the experiences I've had and the connections I've made as a result. Thank you for making this possible. I hope that one day I can give back and help support the next generation of aspiring engineers."

Rachael Andrews
Engineering Leaders Scholarship recipient

Marking an exciting period of growth and change

A great deal has happened since I was elected last September, thanks to our donors and supporters. As this report highlights, your insight and generosity have made an impact on so many of our programmes and we're extremely grateful to have you alongside us.

My first year as President coincided with the final year of the Academy's former strategy, published in 2020, and the launch of our new *Strategy 2030 – Engineering better lives*. Looking back, it's clear we have made considerable progress over the past five years.

We have inspired at least **one million young people** to consider engineering careers; we have been able to support the founding and growth of at least **500 companies**; and we have supported over **1,000 policymakers** to deploy engineering expertise, both in the UK and overseas.

This demonstratable progress gives us a fantastic springboard for future success as we move forward with our new strategy.

We have set out a bold intention to engineer better lives in the UK and internationally. We will use our knowledge and network to create and lead a community of experts and innovators, focused on the following three goals:

- Sustainable and innovative economy
- Technology improving lives
- Engineering community fit for the future

We hope you'll stay with us as collaborators and supporters for this next exciting phase of our journey.

Collaboration has always been core to the Academy's success. As we enter our 50th year, collaboration and partnership remain fundamental to pushing boundaries and pioneering new ideas; something I have witnessed many times over since becoming a Fellow of the Academy in 2011.

Working with the education team, the Enterprise Hub, and international programmes, including as a judge for the Africa Prize for Engineering Innovation, I know firsthand the transformative potential that lies across our Academy. Now, as President, I am seeing this same potential among our wider community of supporters too.

Your commitment, your generosity, and your support are crucial to our success. However you may have contributed this year, a sincere and heartfelt thank you.

Sir John Lazar CBE FREng
President, Royal Academy of Engineering

The progress you make possible

£3.4 billion

IN ADDITIONAL FUNDING RAISED BY ENTERPRISE HUB INNOVATORS.

149

BUSINESSES FROM 22 COUNTRIES SUPPORTED WITH TRAINING, MENTORING, AND COMMUNICATION RESOURCES THROUGH THE AFRICA PRIZE FOR ENGINEERING INNOVATION.

65 million+

VIEWS OF OUR *THIS IS ENGINEERING* CAMPAIGN FILMS. THE LATEST UCAS FIGURES ALSO SHOW A SIGNIFICANT INCREASE IN THE NUMBER OF STUDENTS APPLYING TO STUDY ENGINEERING.

1,800

STUDENTS FROM OVER 70 UNIVERSITIES BENEFITTED FROM OUR AWARD-WINNING GRADUATE ENGINEERING ENGAGEMENT PROGRAMME.

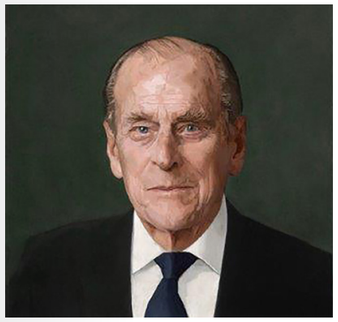
15,000+

SCHOOL PUPILS HAVE PARTICIPATED IN OUR *THIS IS ENGINEERING: SCHOOLS - WELSH VALLEYS* PROGRAMME, DEVELOPING SKILLS IN PROBLEM-SOLVING, CRITICAL THINKING AND TEAMWORK.

81

WOMEN SUPPORTED THROUGH THE AMAZON FUTURE ENGINEER SCHOLARSHIPS SINCE 2021.

The Prince Philip Fund - honouring a remarkable legacy



In 2026, the Academy will celebrate its 50th anniversary. As we approach this milestone, we must pay tribute to our late Senior Fellow, HRH The Prince Philip, Duke of Edinburgh, who worked tirelessly to support the Academy from the very beginning.

1976 was a year of many great engineering innovations: the beginning of North Sea oil and gas production from the Brent Field, the construction of the Brent Delta platform, the first commercial supersonic flight of Concorde. It was also the year that 130 of the UK's leading engineers gathered at Buckingham Palace to mark the inception of the Royal Academy of Engineering.

Although much has changed in the engineering landscape since the Academy was founded, what never changed was HRH The Prince Philip, Duke of Edinburgh's enduring belief in engineering. His conviction that engineering has the potential to make a substantive impact on complex challenges, and indeed, that engineers are uniquely placed to do this, remains as relevant today as it was in 1976.

That's why it is important for us to continue sharing our knowledge, building capacity, and working with partners worldwide to make a substantive and distinctive impact on the most important shared challenges we face – something that the Prince Philip Fund enables us to do.

A profound and lasting contribution

The Academy remains indebted to Prince Philip for his passion, support, and advocacy. He was a true champion of the Academy and the engineering profession.

We would also like to thank the many supporters of the Prince Philip Fund, who are honouring his legacy and enabling us to tackle the challenges we face as a global community.

How you can help

The Prince Philip Fund will enable us to prioritise our investment and work to ensure that we are addressing interconnected issues, with the right partners, to effect positive and meaningful change.

If you would like to find out more about the fund or to make a donation, please contact:

Jamila Khalil, Senior Fundraiser, Major Donors, via jamila.khalil@raeng.org.uk.

Alternatively, visit:
raeng.org.uk/prince-philip-fund

> "Contributing to the Prince Philip Fund enables me both to recognise the late Duke of Edinburgh's huge contribution to the Academy and the engineering profession, and support the great work the Academy is doing to advance and promote the use of engineering to help solve the most important challenges facing us and subsequent generations."
>
> **Sir Peter Gershon CBE FREng**
> Fellow, Royal Academy of Engineering

Your impact on talent and diversity

To encourage and attract the variety of viewpoints, life experiences, and talents needed to address the world's engineering challenges, we must act to widen participation in STEM subjects and remove barriers to progression into engineering. Thanks to your support, we have made great strides in fostering an engineering community fit for the future.

Supporting 15 more women students through Amazon Future Engineer Scholarships

In partnership with Amazon, we awarded 15 more scholarships in 2024, to women from low-income backgrounds who are studying for a degree in computer science or engineering-related courses.

The Amazon Future Engineer Scholarship was specifically designed to address the underrepresentation of women studying computer science or engineering-related degrees at UK universities, and reduce the access gap for students from the least well-off families. Recipients are recognised for their dedication to creating meaningful change through technology and each receives a financial support package of up to £20,000 plus mentoring.

This year's recipients include Zoriana Aleyeva, now studying at the University of Warwick, who fled to the UK with her family following the outbreak of war in Ukraine. Another is Anurati Panchkoty, studying at the University of Edinburgh, whose parents came to the UK from Nepal and settled in Glasgow.

Anurati went to her first coding class at age six and is the first generation in her family to go to university. She says: "What drew me was both the financial support and the mentoring scheme. I thought it would be amazing to hear from industry specialists and was excited about the networking opportunities that come with it. It can be intimidating to be a woman in STEM, and we each have a role to inspire and encourage other women in the field."

Since these scholarships were launched in 2021, we have awarded over £1.6 million. The programme currently supports 81 women studying computer science or engineering-related degrees at universities across the UK.

"Employers like us have a responsibility to break down barriers for young women and to support them in pursuing careers in technology and engineering. The Amazon Future Engineer scholarship programme is about more than financial support, it's about building confidence, providing mentorship, and creating a strong network for these talented students. I'm incredibly proud to see how this programme is helping young women from underserved communities step confidently into careers of the future."

Cath Possamai
Talent Acquisition Director, Amazon

Inspiring future engineers in the Welsh Valleys

Primary school students participating in a workshop

For the past seven years, *This is Engineering: Schools – Welsh Valleys* (formerly the Welsh Valleys Engineering Project) has been developing centres of excellence in STEM teaching and learning. The aim is to raise the aspirations of children and young people from all backgrounds and to showcase the opportunities available in engineering.

An injection of £760,000 over four years from the Welsh government's Tech Valleys programme and the Panasonic Trust means we can continue to support all 54 schools in Blaenau Gwent and Merthyr Tydfil. It also means an additional 20 primary and secondary schools in Caerphilly have joined the project.

Started in 2018 by the Academy and the Panasonic Trust, *This is Engineering: Schools – Welsh Valleys* has been bringing the STEM curriculum to life and opening new pathways into engineering. It combines high-quality teaching and activities grounded in real-world engineering via engagement with local industry.

Since the project was launched, more than 15,000 school pupils and 3,000 college students have participated, developing skills in problem-solving, critical thinking and teamwork, and applying them to real-life scenarios.

"The continuation and extension of the project into schools in Caerphilly will provide opportunities for those who might not otherwise realise they have the potential and ability to pursue a career in engineering. Increasing local engineering capability and skills will also help to attract new businesses to Wales as well as supporting current businesses to grow."

Carl Pocknell
Chair, The Panasonic Trust

This is Engineering: Schools – Scotland launched

Thanks to generous support from Boeing, the Royal Air Force, SGN, Venterra, and the estate of the late Mr John Gozzard, we are now piloting *This is Engineering: Schools* in Aberdeen and Glasgow.

This is Engineering: Schools - Scotland launch event

Currently, only 16.9% of the UK engineering workforce are women. To help address this, we extended our *This is Engineering: Schools* programme into Scotland to inspire young women and other underrepresented groups to continue studying STEM subjects beyond age 16. The programme helps them make informed decisions about pursuing a career in engineering.

The programme had a phased launch, starting with 20 schools in Aberdeenshire and Aberdeen City local authorities, followed by 30 schools in the Glasgow City authority.

This is Engineering: Schools - Scotland launch event, panel discussion

At the launch event at Aberdeen Science Centre, pupils aged 9 to 14 and their teachers enjoyed hands-on engineering activities and heard from some of today's young engineers about why they chose a career in engineering. They also met local employers and representatives from engineering businesses who shared insights into what it takes to be an engineer and the wide range of career opportunities available.

"A shortage of skilled engineers is one of the key challenges to growing the renewables industry. This programme seeks to encourage 9- to 14-year-olds to pursue engineering. It is a pivotal time, when they are gaining clarity on their career paths and seeking opportunities for meaningful impact. Venterra is delighted to be supporting this initiative."

Gwen Folland
Head of External Affairs, Venterra

This is Engineering: Schools has been informed by best practice from the Academy's policy research, and by previous and current regional education programmes as well as our Connecting STEM Teachers programme, which ran for 11 years.

Up to 120 paid AI research placements for undergraduates from disadvantaged backgrounds

AI is a rapidly growing area of research, with a key role to play in shaping a sustainable society and inclusive economy. However, if AI-enabled systems are truly to act in the service of society, they must be accessible and fair for all users. This means building a stronger and more diverse AI research community.

In partnership with Google DeepMind and The Hg Foundation, we are delivering pioneering AI research placements. These will help address the barriers to progressing into research and careers in AI encountered by undergraduates from socioeconomically disadvantaged backgrounds.

This $1 million programme is being co-funded by Google DeepMind, a leader in AI and 2024 winner of the MacRobert Award for UK engineering innovation, and The Hg Foundation, which supports underrepresented groups to access high-quality jobs in technology. The Academy will deliver the programme and also use our experience of enhancing diversity and promoting inclusive workplace cultures.

The Google DeepMind Research Ready programme will provide up to 120 paid research placements lasting for six to eight weeks in summer 2025. Costs such as accommodation, travel and living expenses will all be covered.

Ten years of supporting engineering graduates into employment

In partnership with multiple engineering employers, we continued to run our award-winning Graduate Engineering Engagement Programme (GEEP). The programme aims to support engineering graduates from underrepresented backgrounds into employment, and to help their employers take the necessary steps to enable them to thrive.

"GEEP exemplifies our commitment to fostering an inclusive talent pipeline and workplace. We aim for everyone, regardless of their background, to perform at their best. One participant shared, 'I feel incredibly honoured to have been given an avenue to be heard.' I am proud of this partnership and the impact it is making!"

Aleida Rios FREng
Senior Vice President Special Projects, bp

This year, the programme celebrates its 10-year anniversary. Since launch, more than 1,800 students from over 70 universities have participated in GEEP. Of these students, 30% are women; 30% are the first in their family to attend university; and over 90% are Black, Asian, or from other minority ethnic backgrounds. Over 300 volunteers from more than 50 companies have also taken part.

Watch a video celebrating 10 years of GEEP:

Sir Ralph Robins Scholarships awarded to recognise exceptional engineering potential

In 2024, we chose three more students who have shown exceptional engineering potential to receive Sir Ralph Robins Scholarships. The scholarship is provided in addition to their Engineering Leaders Scholarship (ELS) to further support their university journey and aid their career development.

ELS supports ambitious undergraduates who display the potential to become leaders and innovators in engineering and who want to become leadership role models for the next generation of engineers. Over the course of three years, they receive £5,000 for personal development and advice from experienced mentors on their future development and career options.

The Sir Ralph Robins Scholarship was established by friends and former colleagues in recognition of Academy Fellow, Sir Ralph Robins DL FREng. It provides further support to students from underrepresented and disadvantaged backgrounds. Scholars receive additional funding of £5,000, and a potential internship at Rolls-Royce plc.

2024's Sir Ralph Robins Scholarship recipients are:

- Emma Chatwin, University of Birmingham
- Gonzalo Montenegro, Imperial College London
- Shohail Ismail, University of Sheffield

Eight MSc in Motorsport Scholarships awarded to Black graduates seeking careers in UK motorsport

In collaboration with Mission 44, the global foundation established by Sir Lewis Hamilton MBE HonFREng, we awarded eight more MSc Motorsports Scholarships.

This programme of financial and career support was launched in 2022 to address a recommendation from The Hamilton Commission to increase diversity in Formula 1 and motorsport.

"The MSc Motorsport Scholarship programme has already resulted in talented young engineers from Black and mixed Black backgrounds securing jobs in Formula 1. Programmes like these are vital if we are to see real change in the industry, and we're looking forward to working with the Royal Academy of Engineering to empower students to succeed in their dream careers."

Jason Arthur
CEO, Mission 44

The second cohort of recipients were welcomed to the programme at a special event at the Formula 1® Exhibition at Excel London, which was hosted by Ariana Bravo, Formula 1 presenter for Channel 4 and F1 TV. Recipients enjoyed a Q&A session with engineers from Formula 1 and the Mercedes-AMG PETRONAS F1 team and had the chance to meet scholars from the first year of the programme.

We are grateful to Sir Lewis and Mission 44 for their support for this programme, which we hope will catalyse a step-change in the employment of Black people in UK motorsport.

Record views for our campaign encouraging young people to consider careers in engineering

Thanks to the support of our corporate and university partners and donors, we were able to continue our popular *This is Engineering* digital campaign.

By repositioning engineering careers for teenagers and their influencers, *This is Engineering* aims to increase awareness around the breadth of engineering careers, how to access these roles, and to grow the belief that engineering is 'for me', 'for my child' or 'for my student'.

Our reach continues to grow and in 2024, we achieved our highest campaign reach with more than 67 million impressions on social media (compared to 7 million impressions in 2023). This success has been driven in part by the introduction of Snapchat, where we have successfully trialled new content formats.

As well as using our existing short films profiling early career engineers, we also shared user-generated content across Snapchat, Instagram, and TikTok, and created an audio advert for Spotify.

We have continued to enhance our campaign website, which is a comprehensive hub for young people curious about engineering. The website gives visitors an insight into what engineering entails and provides step-by-step guidance for choosing the right educational path for them. It features a rich collection of interviews with real-world engineers, showcasing the exciting projects they work on and the wide range of opportunities in the field.

"Heriot-Watt is delighted to support the Academy's *This is Engineering* campaign. UK engineering needs to attract creative and diverse minds to ensure we can grow talent and opportunity. The Academy is well placed to convey the message to young people in schools and colleges that engineering provides exciting careers with societal impact. We are proud to work together to secure engineering talent and assure economic success and national wellbeing. "

Professor Richard Williams CBE FREng FRSE
Principal and Vice-Chancellor, Heriot-Watt University

Harvey, Net Zero Navigator
©*This is Engineering*

In total, our *This is Engineering* films have had over 67 million views, 148 million impressions and 4.4 million engagements.

Your impact on innovation

Innovation plays a crucial role, both in creating new technologies and optimising existing processes. Without it, we cannot evolve our industry to respond to current and emerging challenges or succeed in our mission to build a sustainable and innovative economy. With your support, we have been able to continue nurturing innovation across the UK and internationally.

16 candidates shortlisted for innovative solutions with transformative potential

The Africa Prize for Engineering Innovation kicked off its 11th year in March, with 16 engineering innovators shortlisted from seven African countries. Innovators from Ghana, Nigeria, Mozambique, Kenya, Uganda, Tanzania, and Togo will compete for a share of the £60,000 Africa Prize fund at the showcase final on 16 October in Dakar, Senegal.

"We are thrilled to see another round of 16 amazing innovators dedicating their lives to addressing important problems in their local communities... Their innovations showcase the power of adapting existing technologies to create context-specific solutions that directly respond to the unique needs and challenges of their regions."

Rebecca Enonchong FREng
CEO of AppsTech and Africa Prize judge

Africa Prize shortlisted candidates at Prince Philip House

Shortlisted innovations include life-saving maternal and neonatal devices that allow at-risk pregnant mothers and their babies to reach health facilities safely from remote areas; transformative smart agritech; upcycling and hybrid green energy solutions; and groundbreaking AI tools to support greater inclusivity for people with hearing impairments.

The programme began with a training week in London where the innovators received training on core topics such as developing a business strategy and building strategic partnerships. They also participated in networking opportunities with the Africa Prize judges, some of their mentors and the wider London Africa entrepreneurship network.

All shortlisted candidates will become part of the thriving Africa Prize alumni group, now comprising over 150 innovators, 71% of whom are already generating revenue through their innovations. The Academy continues to support the alumni group with access to exclusive opportunities for funding, networking and support.

Case Study: Africa Prize business grant accelerates growth of waste-to-value innovation

Founded by Africa Prize alumnus, Juveline Ngum, BleagLee is a Cameroon-based waste-to-value enterprise. It uses drones to detect poorly disposed waste clogging drainage channels and waterways, which directly impacts health, livelihoods, and overall quality of life. It then works with waste collectors and youth environmental groups to process this waste into valuable products like clean cooking energy briquettes, compost, biochar, and recycled packaging materials.

Juveline was awarded a £50,000 Africa Prize Alumni Business Grant between 2023 and 2025. The alumni grants were launched to support businesses to achieve scalable commercial success and impact by accelerating growth of existing products or services. Juveline used the grant to evolve her business into a comprehensive service across three municipalities in Cameroon.

Highlights include the following:

- Growth of operational infrastructure including recycling equipment and development of custom waste management software, which enabled the collection of 133.7 tonnes of waste.
- Expanded team by hiring nine new staff members across technical, customer service and field operations, increasing capacity to support scaling operations.
- Launched comprehensive youth training programmes, which as of 2024 trained 383 young people in waste management techniques, creating sustainable employment opportunities.
- Developed three new revenue-generating products, including compost, biochar and drone-assisted environmental mapping services, contributing to a 40% increase in revenue.
- Scaled community outreach and partnerships by establishing collaborations with local councils, schools and NGOs, directly impacting 3,700 community members across schools, women's groups and the elderly.

BleagLee has since secured US$1.2 million in additional funding and is well positioned to expand into Senegal.

Over a decade of support

149 businesses from 22 countries supported with invaluable training, mentoring, and communication resources.

Over 28,000 people employed by Africa Prize businesses.

More than 10 million people have benefited from Africa Prize alumni's products and services.

Africa Prize alumni have **secured $39 million** in grants and equity funding.

New regional Hubs launched to unlock potential of engineering entrepreneurs

Enterprise Hub Newcastle launch

In 2025, our network of regional Enterprise Hubs grew, with new hubs opened in Newcastle and Liverpool.

Based in the city's historic Stamp Exchange, Enterprise Hub Newcastle, opened in March, will draw on the unique expertise of our Academy Fellows, local academic institutions, business leaders, and policymakers to support innovation and entrepreneurship among engineers.

Newcastle has a strong pipeline of engineering talent, with 52% of undergraduate and postgraduate students enrolled in STEM subjects; significantly above the UK average of 45%.

However, this promising pipeline has not yet translated into high levels of STEM and engineering jobs in Newcastle compared to the UK average. Matching talented graduates with engineering employment remains a challenge.

Enterprise Hub Newcastle will seek to address these challenges, by collaborating with others in the wider startup ecosystem in the northeast to offer programmes, mentorship, and funding for entrepreneurial engineers at all stages of their careers. The Academy's network of expert Fellows, funders, business leaders and policymakers will also help mentor local entrepreneurs and attract investment.

In June, the Academy launched Enterprise Hub Liverpool, the Academy's fifth hub outside of London.

Liverpool's three main universities have a wealth of science, engineering and technology talent with 53% of higher education students in the area enrolled in STEM courses. Despite this, Liverpool experiences low growth and employment in engineering and technology industries.

The Hub is designed to support local engineering and technology innovators and entrepreneurs with equity-free funding, smart and flexible training, and mentoring from industry experts.

We believe Liverpool has huge potential to be a hive of deep-tech companies, as the home of two science and innovation districts with strengths in sectors including advanced manufacturing, life sciences, new materials and AI technology.

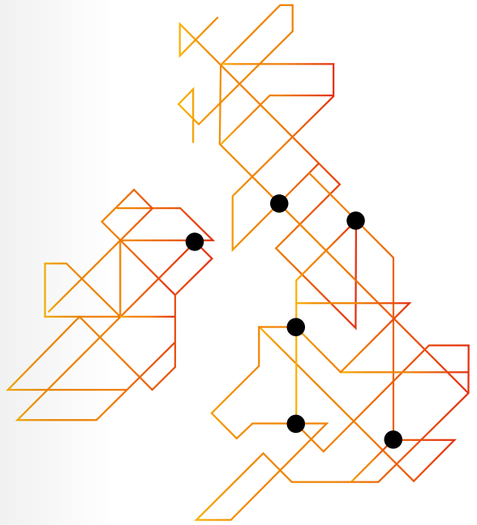
"We have established regional hubs in locations where we believe the conditions for accelerating engineering economy growth are right. Places where we know there is an already rich innovation environment, a strong local research base, and where engineering businesses can start, survive and scale. But significantly, also places where we believe the full economic potential of the engineering sector has not yet been realised. Newcastle absolutely fits that frame."

Gillian Gregg
Associate Director of Regional Engagement, Royal Academy of Engineering

Enterprise Hub Liverpool

Enterprise Hub Liverpool launch

Enterprise Hub network



London: April 2013
Belfast: October 2020
Swansea: March 2023
Glasgow: May 2024
Newcastle: March 2025
Liverpool: June 2025

A top three ranking for the Enterprise Hub

Our Enterprise Hub was ranked among the UK's top three startup accelerators in the *Financial Times'* list of Europe's leading startup hubs, and placed 14th out of the top 150 in Europe

This year's list saw our Enterprise Hub rise from fifth to third place, based on the cultivation of successful new companies.

Entries were assessed on three main criteria: feedback from alumni; recommendations from external experts such as investors, entrepreneurs and academics; and analysis of the most successful startups launched from each hub.

"Our work supporting talented entrepreneurs and business leaders has helped them to transform breakthrough engineering innovations into disruptive spinouts, startups, and scaleups that seek to solve the pressing problems of our time. We hope this ranking helps us to attract even more engineers from all backgrounds to apply for our schemes and get the support they need to make their innovation into a credible startup company."

Paul Taylor CBE FREng
Chair of our Enterprise Committee

Since launching in 2013:

500+

RESEARCHERS, RECENT GRADUATES, AND SME LEADERS SUPPORTED TO START UP AND SCALE UP BUSINESSES

£4.8 billion

VALUATION OF COMPANIES CREATED BY HUB ALUMNI INCLUDING AN INCREASE OF £2.5 BILLION SINCE RECEIVING ENTERPRISE HUB SUPPORT

5,600+

JOBS CREATED BY HUB ALUMNI, INCLUDING 2,600 NEW JOBS SINCE RECEIVING ENTERPRISE HUB SUPPORT

£3.4 billion

RAISED IN ADDITIONAL FUNDING BY HUB ALUMNI, INCLUDING £2.5 BILLION SINCE RECEIVING ENTERPRISE HUB SUPPORT

Your impact on policy and engagement

Our insights and experience have a vital role to play across a wide range of sectors. Engineers should be involved at the heart of decision-making, not just locally, but nationally and internationally. Your support ensures we continue influencing decision-making and building awareness of the relevance and impact of engineering across society.

National Engineering Policy Centre report flags the risks AI poses to the environment, people, and the economy

In partnership with the Institution of Engineering and Technology, and BCS, the Chartered Institute for IT, we launched a new National Engineering Policy Centre (NEPC) report calling for progress towards environmentally sustainable AI.

AI systems and services, such as data centres, place high levels of demand on energy, water, and critical materials, but the full extent of this demand is often unclear.

The *Engineering Responsible AI* report is the first on AI sustainability from our engineering responsible AI programme. It calls on governments to ensure that tech companies accurately report on how much energy and water their data centres are using.

The report proposes five foundational steps that governments can take to reduce unsustainable resource consumption and related environmental impacts. These include steps to improve understanding, enable more sustainable infrastructure, and support clear leadership to accelerate change.

Interest in the area was demonstrated by the extensive media coverage of the report, including mentions from the BBC, the *Guardian*, and ITV in the UK, as well as BBC Arabia and CBS in the US.

The chair of the report's working group also published an op-ed in *The Engineer* on the case for environmental regulation.

If implemented, these foundational steps will help guide the UK and other countries towards a more sustainable future with AI. We will now consider longer-term interventions, and the capacity for AI systems and services to deliver societal benefit.

Read the full *Engineering responsible AI: foundations for environmentally sustainable AI* report

© This is Engineering

National Engineering Day spotlights role models of modern engineering

On 13 November National Engineering Day used its theme of engineering role models to disrupt perceptions of 'what engineering looks like' and spark curiosity among potential new audiences.

Our research shows that engineering-specific role models are a strong influencing factor on whether or not young people choose engineering. Having someone to look up to is cited as a key reason why young people pursue a particular passion or career. But with women and minority ethnic engineers representing only 16.9% and 14% of the engineering workforce in the UK respectively, role models can be hard to find.

We also noticed a lack of statues across the country representing engineers – especially modern engineers or engineers who are women. In the summer of 2024, we launched a public call for nominations of engineers making a difference to the world and received 158 nominations for 96 role models, many of whom we shared on National Engineering Day.

Macclesfield-based engineer Alice Kan was spotlighted as the Academy's 'engineering role model', for her pivotal role in the manufacture of the COVID-19 vaccine and her current work on vaccines for Ebola.

To celebrate Alice's contribution to engineering, we commissioned a striking new statue of Alice, which was displayed outside Prince Philip House. The statue encapsulates Alice's remarkable journey and achievements, with a central, dynamic figure standing strong to symbolise her resilience, leadership, and unwavering determination. Alice is also shown looking upward, representing hope, optimism, and her visionary approach to the future in the modern and colourful statue.

"It's crucial that we recruit new engineers from all parts of society to build a more inclusive future. That is why, for this year's National Engineering Day, we commissioned an exciting new statue of manufacturing engineer Alice Kan to challenge stereotypes and get people talking about contemporary engineers and the fascinating work they do."

Dr Hayaatun Sillem CBE
CEO, Royal Academy of Engineering

We also commissioned a digital mural (above) featuring Alice and four other inspiring engineers to further highlight the incredible diversity and creativity of modern engineering. The four engineers selected were:

- Navjot Sawhney, aerospace engineer and founder of The Washing Machine Project, the world's first flatpack, manual washing machine that doesn't use electricity or a fixed water source.
- Dr Shini Somara, mechanical engineer and science communicator, who is passionate about making engineering accessible to all.
- Meg Ginsberg, Assistant Project Manager at South West Water, whose unique perspective as a wheelchair user drives her mission to make the industry more accessible, adaptable, and diverse.
- Laura Hoang, human factors consultant, who is committed to inspiring young people, especially girls from ethnic minority backgrounds, to see engineering as a viable and exciting career.

Over the course of the day, we used social media and the press to amplify our messaging across platforms. National Engineering Day received more than 20 pieces of press coverage and generated significant attention on social media, with over 42 million impressions and 78,000+ engagements.

Several high-profile engineers and engineering champions posted, including Dame Stephanie Shirley CH DBE FREng, and Giuseppe Dell'Anno, former Great British Bake Off contestant. Particular highlights included a collaborative Instagram post with Ferrari and a post featuring Science Minister, Lord Patrick Vallance of Balham KCB HonFREng FRS FMedSci.

The Mayor of London Sadiq Khan also posted a message of support as did EasyJet, and Amazon shared our post on X. #NationalEngineeringDay was mentioned by TfL, the UK Space Agency, Raspberry Pi, Mission 44, and Network Rail, among others.

We would like to thank our corporate and university partners who joined us in celebrating National Engineering Day by sharing how their engineers are making a difference. We are grateful to our community of sponsors and partners who came together to further support and amplify our efforts.

Professor Denise Bower OBE, Mott MacDonald (Sponsor)

Thank you for supporting the 2024 President's Annual Appeal

With your help, we raised £57,963 for the Prince Philip Fund, the Africa Prize for Engineering Innovation, and the *This is Engineering* digital campaign.

Here are some of the reasons why individuals chose to support the Academy.

"The Academy has been doing fantastic things that matter to UK engineering and globally."

Professor Yulong Ding FREng

"Engineering is all about solving problems and what the world needs more of right now are real problem solvers!"

Nicholas Donofrio FREng

"*This is Engineering* is such an inspirational programme. I was involved in the beginning of this ambitious programme so I am delighted to see and read about its success."

Allan Cook CBE FREng

"Engineering is a critical resource in dealing with problems. We need to grow the UK engineering sector if our national productivity is to improve."

Nigel Hughes FREng

"This is an additional contribution to my regular annual donation to the Prince Philip Fund to help give the Academy more flexibility to explore new initiatives with non-restricted funding"

Professor Geoffrey Maitland CBE FREng

Thank you from our CEO

As I embark on my final months as CEO of the Royal Academy of Engineering, I would like to express my deep gratitude for your generous support during my time in post.

©bigTimages

Your commitment to our mission has been invaluable in driving innovation, fostering talent, and building a more inclusive economy and sustainable society through engineering.

Thanks to your generosity, we have been able to empower the next generation of engineers, advance groundbreaking solutions, and strengthen our communities in ways that will have a lasting impact.

What's clear to me as I reflect on this past year, and indeed my time here at the Academy, is that the confidence that our supporters and partners have shown in us has been pivotal to inspiring others to join our mission. It has been a privilege to witness the transformative effects of your contributions.

The work showcased in this report is a reminder of the power and potential of our Academy community. Working together, our Fellows, friends, awardees, donors, partners, and staff, are delivering meaningful impact through engineering, not only in the UK but internationally.

It has been an extraordinary honour to lead the Academy as CEO for what will have been eight years by the time I step down. As the Academy moves forward into an exciting new chapter of our Strategy 2030 – Engineering better lives, I am certain that under the leadership of our President, Sir John Lazar CBE FREng, your continued support will help shape the future of engineering for the better. Thank you for being a vital part of this journey.

With all good wishes,

Dr Hayaatun Sillem CBE
CEO, Royal Academy of Engineering

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We'd love to hear from you.

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