



Royal Academy
of Engineering

Impact of Giving

September 2023

How together we're building a sustainable
society and an inclusive economy

Every gift tackles the greatest challenges we face today

In 2022/23, Academy supporters contributed **£4,730,873** 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. Thank you to everyone who supported our work last year.

Together, we're bringing the power of engineering to life

The breadth of impact outlined in this report should, I believe, give everyone who has recently supported the Royal Academy of Engineering a great sense of pride.

We know our strategy and our plans are ambitious. The urgency and complexity of the challenges we face today – from climate change to the need to safeguard public health – demand such an approach. But the progress we are seeing confirms that our ambition is paying off, thanks to the determination and commitment of the entire Academy community.

Our community spans academia, industry, government, entrepreneurs, and the full range of engineering disciplines. Much of the Academy's impact comes from our ability to generate new collaborations and inspire new thinking. Whether we are bringing teachers together to see engineering differently, partnering with organisations across Africa to end toxic pollution, or supporting civil servants to approach complex policy decisions with an engineer's mindset, our approach is guided by a spirit of togetherness and cooperation. After all, every engineer knows community can lead to new ideas, new insights, new improvements, and new solutions.

So, however you have contributed to the Academy this year, I would like to thank you for being at the heart of our community – and at the heart of all the progress you can read about in this report. I hope it gives you a sense of the wide-ranging impact you help to create, and makes clear our enormous gratitude for your support.

Professor Sir Jim McDonald FREng FRSE
President, Royal Academy of Engineering



The progress you make possible



£1.3bn

IN ADDITIONAL FUNDING RAISED BY STARTUPS SUPPORTED BY THE ACADEMY **ENTERPRISE HUB** OVER THE LAST TEN YEARS



25,000

STEM LEARNING OPPORTUNITIES DELIVERED THROUGH OUR **WELSH VALLEYS ENGINEERING PROJECT**



8,500

TEACHERS ACROSS **6,000 SCHOOLS** BENEFITED FROM OUR CONNECTING STEM TEACHERS PROGRAMME IN THE PAST TEN YEARS



63.8m

VIEWS OF OUR **THIS IS ENGINEERING** FILMS SINCE THE CAMPAIGN LAUNCHED IN 2018



42

PROFESSIONAL ORGANISATIONS LISTENED TO AND ABLE TO SHAPE POLICY THROUGH THE ACADEMY-LED **NATIONAL ENGINEERING POLICY CENTRE**

How the Prince Philip Fund is a catalyst for impact



We were deeply honoured to be able to recognise the legacy of our late founding Senior Fellow, HRH The Duke of Edinburgh, by establishing the Prince Philip Fund. Everyone who supports the fund is helping to tackle the most pressing challenges of our time.

HRH The Duke of Edinburgh made an immeasurable contribution to the Academy and to the engineering profession. Today, his influence and passion live on through this uniquely named fund, which allows us to invest wherever the need is greatest. It will underpin our work for decades to come, and is already helping the Academy to increase diversity in engineering, support the next generation of engineers, inspire innovation and put engineering expertise at the heart of decision-making – all of which you can read about in this report.

We would like to thank everyone who has supported the Prince Philip Fund. If you would like to find out more about the fund or make a donation, please visit www.raeng.org.uk/about-us/support-us/impact-of-support/prince-philip-fund

“Everything that wasn’t invented by God was invented by an engineer.”

HRH The Prince Philip, Duke of Edinburgh KG KT OM GBE, Senior Fellow

We were honoured to host a wide-ranging conversation between HRH The Princess Royal and the last surviving Founder Fellow of the Academy, Professor John Caldwell OBE FREng.

You can watch the conversation at www.raeng.org.uk/founder-fellow

Why do you support the Academy?

Our work is only possible thanks to the generosity of Academy Fellows, friends, corporate partners, universities, and trusts. Here are some of the reasons why individuals and organisations chose to support the Academy.



“

Rio Tinto is proud to partner with the Academy, which inspires a pipeline of talented engineers and fosters engineering excellence to accelerate our planet's net zero journey. Personally, as an engineer, I cannot help being inspired by the Academy's remarkable Fellowship and its leading thinking, which supports advancements in countless areas benefiting society. At Rio Tinto, we recognise the invaluable role that engineers play in furthering our purpose of 'finding better ways to provide the materials the world needs'."

Dr Daniel Walker

Senior Vice-President Research and Technology at Rio Tinto



“

I have received a lot through the Academy's Enterprise Hub, including mentoring, training and overall support. I want to make sure others also get the same benefits that I received through the SME Leaders programme."

Dr Alexander Reip

CEO and CTO of Oxford nanoSystem and Exceptional Pledger



“

When looking to encourage and support innovation and entrepreneurship in the engineering environment, the Academy was the Royal Commission's immediate choice as a partner. The Enterprise Hub, and associated programmes offered, were exactly what we were looking for. Mentorship, guidance, funding advice, and networking opportunities are all provided within a highly professional and collegiate environment where the startup companies and individuals driving them can thrive."

John Lavery

Secretary of the Royal Commission for the Exhibition of 1851



“

The Enterprise Hub is the best accelerator [and] gave me knowledge, experience and connections. It was a head start in converting my academic research into a business that provides tools for sustainable and efficient chemical manufacturing. I support others in solving topical problems – in other words, in developing world-class engineering."

Dr Nikolay Cherkasov

Founder at Stoli Chem, Enterprise Fellow and Enterprise Hub member



“

Supporting the work of the Enterprise Hub at the Royal Academy of Engineering is an investment in the future of engineering, innovation and progress. I believe that by nurturing and empowering graduate engineers and academics to embark on entrepreneurial ventures, we can forge a path towards a sustainable and prosperous future. I encourage individuals who share this vision to join me in supporting the Hub to help create a better world for generations to come."

Maria Dramaloti-Taylor

Managing Partner at Beacon Capital



“

I support the Africa Prize for Engineering Innovation because Africa has a pressing need for more home-grown, innovative engineering entrepreneurs. I've seen over nine years the incredible progress and business successes of circa 130 alumni of our Africa Prize programme, thanks to terrific training and mentoring by numerous volunteer Fellows and great support from Academy staff. Every year the standard goes up, with over 300 entries in 2023/24 for just 16 places on the programme. There is no better way to make a positive impact in Sub-Saharan Africa than to help develop great engineering entrepreneurs."

Malcolm Brinded CBE FREng

Chair of EngineeringUK and Head Judge of the Africa Prize for Engineering Innovation

Whatever the reason you donate to the Academy, thank you. Together, we are fostering talent and diversity, increasing innovation and putting engineering at the heart of policymaking.

Your impact on... talent and diversity

Thanks to your support, the Academy works every day to increase the diversity, quality and quantity of engineers in the UK and internationally, and to foster a truly inclusive engineering workforce that sets the highest standards of technical excellence, ethics and professionalism.

Celebrating 10 years of Connecting STEM teachers

For over a decade, Connecting STEM Teachers (CST) has created a national support network for teachers across all STEM subjects. CST ensures teachers have the knowledge and confidence to inspire the next generation of engineers, and we've now worked with 8,500 teachers across 6,000 schools through the project.

Throughout the 2022/23 academic year, 625 unique schools participated in CST activities, with these school children receiving an estimated total of 77,220 STEM experiences. This outreach included 39,379 female students and 37,841 male students.

The CST programme has showcased substantial achievements in the last academic year, from supporting teachers and disseminating resources, to fostering collaboration and promoting STEM engagement across a diverse range of schools.

We could not have done it without our supporters. Our strategic partners Shell, Amazon and the estate of the late Mr John Gozzard have all made CST possible, and we would also like to thank Boeing for its generous contribution to CST.

“

I'm absolutely delighted with the success of the CST programme since its launch in 2011. Evaluation has shown that there has been a positive impact on the confidence and efficacy of primary and secondary school teachers to introduce engineering into the Science, Technology, Engineering, Maths and Computing curriculums and their ability to talk to pupils about engineering careers and the pathways into the profession. The Academy's STEM teaching and learning resources have also been a big hit with teachers and pupils alike.”

Lynda Mann

Head of Education Programmes, Royal Academy of Engineering



Expanding our Welsh Valleys Engineering Project

In 2022, the Welsh Government's Minister for Economy, Vaughan Gething MS, called the Academy's Welsh Valleys Engineering Project (WVEP) an 'integral part' of the government's efforts to enable the South Wales Valleys to become a globally recognised centre for technology. We celebrated the project's fifth anniversary in 2022, and the impact of your support was clear.

WVEP works by enriching the curriculum in STEM subjects, supporting teachers and building links with local STEM employers. It brings real world-engineering practice into schools where engagement with STEM subjects post-16 has traditionally been low. WVEP has now delivered over 25,000 STEM learning opportunities, with additional Welsh Government funding in July 2022 ensuring the programme could be expanded to include all 54 schools in Blaenau Gwent and Merthyr Tydfil.

In a sign of WVEP's long-term impact, in 2023 one former pupil of Cyfarthfa High School and The College Merthyr Tydfil – which are both involved with WVEP – became the first recipient of the Panasonic Trust higher education bursary. Elis Thomas is using the £15,000 bursary to study engineering at Cardiff University. We're looking forward to seeing what Elis and many more students go on to achieve after being inspired by WVEP.

“

It's been great to see just how many of our strong, local companies have dedicated their time and enthusiasm to working with so many schools on real challenges... There isn't a better way of seeing how engineering affects our lives, and how diverse the opportunities are for a career.”

Vaughan Gething MS

Minister for Economy, Welsh Government

Launching our Awardee Excellence Community

In July 2022, we launched our Awardee Excellence Community, creating a closer relationship between the Academy and our 3,000 current and past awardees and prize winners. Our goal is to build a powerful, vibrant, connected and diverse community of exceptional engineers, who support and inspire each other and work with the Academy to change the world for the better.

The initial response was hugely positive, with nine out of ten awardees surveyed saying they were interested in participating in the community. Immediately after it was established, awardees helped to shape our long-term strategy to 2040. Then, at our inaugural event in May 2023, we welcomed current and past awardees, Fellows and friends, to simultaneous activities in Belfast, Glasgow, London, Sheffield and online, with talks and workshops on issues from pandemic preparedness to sustainable water systems. With your support, we'll help the community to develop and keep increasing its impact.



Awardees in Sheffield, Photographer: Alwin Greyson

“

I am delighted to be part of the Awardee Excellence Community – this is an unrivalled opportunity to remain connected to the excellent work done by the Academy and extend my network with the best engineering has to offer.”

Dr Melanie Jimenez

Academy Research Fellow and Chancellor's Fellow – Biomedical Engineering, University of Strathclyde



Awardees at the inaugural event in Glasgow
Photographer: Jordan Yorkston

“

I attended the Royal Academy of Engineering Awardee Excellence Community inaugural event and had an incredible experience! [It] has strengthened my commitment to the field of engineering and has inspired me to push boundaries, think innovatively and make a positive impact in the world.”

Hanaan Mukhtar

Computer Science student, Kingston University and Amazon Future Engineers bursary recipient.



Hanaan Mukhtar
Photo: Benjamin Wetherall



In 2019, Sir Lewis visited the Academy after his election as an Honorary Fellow

Launching the first Masters in Science Motorsport scholarships

We continue to work in supporting greater diversity of engineers in the motorsport industry since the Hamilton Commission report, Accelerating Change: Improving Representation of Black People in UK Motorsport, which was co-chaired by Sir Lewis Hamilton HonFREng and our CEO, Dr Hayaatun Sillem CBE.

With the support of Mission 44, the charitable foundation established by Sir Lewis to build a fairer, more inclusive future in which every young person can thrive, we're excited to have the first recipients of the MSc Motorsport Scholarship Programme start in September 2023.

Through the scholarship programme, in 2023/24 and 2024/25, the Academy will select an annual cohort of at least five individuals from Black and mixed Black ethnic backgrounds, who are either final year undergraduates or recent graduates. Each will receive comprehensive support for their master's studies in subjects related to motorsport. Successful students will receive up to £25,000 of funding to cover tuition and living costs, as well as support such as access to networking events and motorsport experiences. Our objective is for 90% of scholarship awardees to be working in engineering roles – with the majority in motorsport – within two years of completing their MSc.

The next round of applications will open on 17 October 2023 and eligible individuals are able to register their interest in advance.

“

We look forward to seeing the progress and successes of the MSc Motorsport Scholarship recipients and continuing to work together with RAEng in advancing wider diversity in engineering and the sport.”

Jason Arthur, CEO Mission 44

Sir Ralph Robins Scholarship

The Sir Ralph Robins Scholarship was set up in recognition of Sir Ralph Robins FREng, past Chairman of Rolls-Royce plc, for his exceptional contribution to engineering and industry, generously supported by Rolls-Royce plc, friends and former colleagues of Sir Ralph, and charitable trusts. The scholarship is awarded annually to three Academy Engineering Leaders' Scholars, providing an additional £5,000 towards their undergraduate tuition fees and a possible internship at Rolls-Royce. The scholarship provides students from underrepresented and underprivileged backgrounds with life-changing opportunities.

The 2022 Sir Ralph Robins Scholars are:

Craig Orrock – Heriot-Watt University, Mechanical Engineering BEng

Isabella Farr – Durham University, MEng Mechanical Engineering

Tedy Sam – London Southbank University, BEng Mechanical Engineering

Awardees have joined the Academy scholarship programme and have begun working on their individual personal development plans, which will support their progression throughout university and after graduation.

With your help we're building a stronger future for engineering. Visit: www.raeng.org.uk/about-us/support-us/impact-of-support to watch a short thank you video.

Inspiring young talent through *This is Engineering*



Charlotte Wilkes, Apprentice Mechanical Engineer at UKAEA. © This is Engineering

Our *This is Engineering* campaign brings engineering to life for young people. It shows that engineering is for everyone and explains how it can lead to careers in sectors from fashion, to food, to football. In 2022, thanks to your support, the campaign grew and continued to change perceptions. Up to 74% of young people who have seen the campaign now say they would consider a career in engineering.

We launched seven new films on our YouTube channel, sharing the stories of engineers who are helping people with brain injuries and creating carbon-free energy through fusion. The films have now been viewed over 63 million times in total, and this year on social media the adverts generated the highest level of impressions since our first campaign in 2018.

To bring the campaign into classrooms, we published new teaching resource packs focused on sustainable futures and water. These were available online and we distributed them for free to 675 schools where a high proportion of students receive free school meals. *This is Engineering* also supported the Edinburgh Science Festival in June 2022 with an 'Engineer the Future' exhibit. The exhibition showed how engineering innovations are set to revolutionise how we live and work, by reimagining famous masterpieces to include future sustainability technologies. 30,000 people visited our exhibit, in another example of our wide-ranging work to show young people, families and teachers the true power of engineering.

Your impact on... innovation

With your support, the Academy works in a wide range of ways to support a bigger, more resilient and more diverse network of engineering innovators, and to help entrepreneurs develop the connections, insights, commercial awareness and leadership skills to turn ideas into groundbreaking success.

Inspiring new thinking and growth across the UK

Our Enterprise Hub celebrates its 10th anniversary in 2023. Over the past decade, the Academy has supported over 350 of the brightest engineering and technology entrepreneurs through the Hub. This includes awarding over £11 million in grants, mentoring, training, and lifetime membership of an unparalleled network of like-minded innovators. Hub Member startups have gone on to raise over £1.3 billion in additional funding – an incredible testament to the impact of your support.

In 2023 we launched our latest regional centre – Enterprise Hub Wales – to help continue this growth and support the research and enterprise ecosystem across the country. Based in Swansea, Enterprise Hub Wales will foster startups, scaleups and deep-tech innovation, support job creation, and build collaborations with organisations across Wales.



The Royal Academy of Engineering has already contributed significantly to high-potential companies established in Wales, and the new Hub provides a powerful endorsement and further boost to this work."

Professor Gareth Davies

Principal Investigator and Chair of the AgorIP Project, which brings academics, clinicians and businesses in Wales together to pioneer research into cutting-edge technologies and drive commercial success.

We also secured funding in 2022 to develop Enterprise Hub Scotland, which is to officially launch in Glasgow in early 2024. Enterprise Hub Northern Ireland continues to expand and provide specialist training, events and opportunities for peer-to-peer networking. Meanwhile, the Academy's Taylor Centre in London continues to thrive, offering flexible meeting rooms and workspaces to help turn the brightest engineering technology entrepreneurs into the business leaders of tomorrow.



The Taylor Centre is the co-working destination of choice for Hub members and Fellows alike. Be it for client meetings, training sessions, meet ups or just serendipitous encounters with key ecosystem players, Taylor Centre is very much at the heart of the thriving entrepreneurship community at the Academy."

Ana Avaliani

Director of Enterprise, Royal Academy of Engineering

Publishing guidance for aspiring entrepreneurs

Our 2022 Spotlight on Spinouts report found that spinout companies – which build on ideas developed at universities and research institutes – generated £2.54 billion in equity investment in 2021, but still represent just 3% of high-growth businesses in the UK. To help build on this huge potential and encourage innovation to thrive, in August 2022 we published our Entrepreneur's Handbook.

It's designed to support more academics from every background to understand and navigate the challenges of building a spinout. The handbook includes advice on topics from forming a business idea to securing investment. There are sections on negotiating with universities, business planning, market research and growing companies. It also includes numerous insights from Enterprise Hub members, entrepreneurs, technology transfer officers, and investors – to help explain the motivations and potential behaviours of stakeholders with diverse objectives. It's one of many ways you're helping to encourage the creation of spinout companies and helping spinouts fulfil their potential. Explore the full interactive handbook at reports.raeng.org.uk/entrepreneurs-handbook.



After receiving amazing support from the Enterprise Hub to develop my own business, which provided me with mentoring and other opportunities that I needed to start my venture, I know that the Entrepreneur's Handbook will provide an invaluable reference for those looking to spinout."

Florence Gschwend

Enterprise Hub member and Co-Founder and CTO of spinout company Lixea

Celebrating the UK's first Earthshot winner

We were delighted to discover that Notpla, one of the Academy's Engineering Hub members, had won the 2022 Earthshot Prize in its nominated category of solutions to 'Build a Waste-Free World'. The Earthshot Prize is designed to accelerate, award and scale the best and most ingenious solutions to repair and regenerate our planet.

Notpla was the first UK winner of the prize. It was recognised for its biodegradable alternative to plastic, made from seaweed and plants. Founders Pierre-Yves Paslier and Rodrigo Garcia Gonzalezo both have close links to the Academy, as Pierre completed the Enterprise Hub's SME Leaders programme (now named the Shott Scale Up Accelerator) in 2020 and Rodrigo began the same programme in 2022.

The Shott Scale Up Accelerator nurtures and strengthens the leadership capabilities of decision-makers in high-growth engineering and tech SMEs. Since 2016, it's helped 120 leaders benefit from equity-free grants, mentoring, networking, and membership of the Enterprise Hub. A cohort of 14 new leaders started receiving support in March 2023 and Notpla's success shows just how far they could go.



Notpla's achievement is truly remarkable as a symbol of UK innovation with a global impact, co-founded by entrepreneurs with a creative engineering solution to help to build a more waste-free world. We are incredibly proud that the UK's first winner of The Earthshot Prize is one of the Academy's Enterprise Hub members."

Dr John Lazar CBE FREng

Chair of the Academy's Enterprise Committee



The newest cohort of Shott Scale Up awardees with Senior Programme Manager, Cristina Lisii, and Programme Manager, Daniel Boggan.



Supporting groundbreaking ideas across Africa

The Africa Prize for Engineering Innovation, founded by the Royal Academy of Engineering, is Africa's biggest award dedicated to supporting and upscaling engineering innovation. In 2023, the prize was, for the first time, awarded to two individuals rather than one. Electrical engineer Anatoli Kirigawjjo was recognised for his community 'panic button', inspired by traditional African warning drums. Biomedical engineer Edmund Wessels was chosen for developing a portable gynaecological device that makes it easier for people in remote communities to access reproductive healthcare.

Anatoli and Edmund were selected following a pitching session in Accra, Ghana, and received £25,000 each to further develop their innovations. All 15 of the shortlisted entrepreneurs, who are based in 10 countries across sub-Saharan Africa, received eight months of training, mentoring and support to develop business plans, recruit staff, protect their IP and more. One – Tolulope Olukokun – also won the additional One-to-Watch Award, for developing a cargo bike with a battery-powered fridge to help farmers get fresh food to market. Across the globe, you help the Academy work every day to ensure new thinking thrives and is delivering social benefit to communities.

Your impact on... influencing policy change and engaging the public

Your support makes sure engineering expertise is at the heart of decision-making in government, communities and internationally, and it builds awareness of the relevance and impact of engineering right across society.

Guiding policy development through the NEPC

Led by the Academy, the National Engineering Policy Centre (NEPC) is a partnership of 42 professional organisations, covering the breadth and depth of our profession. Since its launch in 2019, the NEPC's partners have provided rapid policy advice on a wide range of urgent issues, along with deep insight on long-term challenges.

In September 2022, the NEPC published *The role of hydrogen in a net zero energy system*. At a time when attention on this area is increasing rapidly, the report provided a balanced and objective assessment of the key opportunities from low-carbon hydrogen, how its supply can be scaled up and, crucially, the risks and uncertainties that need to be managed if it is to fulfil its potential in a net zero energy system.

The report examined the sustainability of hydrogen for major applications across the economy, including industry, power, transport, and heat and buildings. It highlighted that the UK government must act swiftly to scale-up low-carbon hydrogen production and avoid falling behind international competitors. The NEPC previously influenced the Prime Minister's Council for Science and Technology report on achieving net zero through a whole systems approach, and we will continue to work with government and industries to apply engineering principles to decision-making, share technical engineering insights and help apply a whole systems approach to the net zero transition.



Great British Bake Off stars, Dr Rahul Mandal, Andrew Smyth and Dr Giuseppe Dell'Anno, with their clock cake

Reaching millions on National Engineering Day

Held in early November, National Engineering Day was once again a central part of our ongoing *This is Engineering* campaign in 2022. The focus this year was on how engineering improves lives, and your support helped us reach millions of people – from parliament to prime time TV.

The day was promoted widely from the BBC Radio 2 Breakfast Show to the Channel 4 show Steph's Packed Lunch. Our National Engineering Day videos were watched over 200,000 times and related social media posts achieved potential impressions of 77 million – double the number for 2021. It meant that National Engineering Day trended at #3 on Twitter.

Three former stars of the Great British Bake Off – who are all engineers – also helped us make headlines. They built a unique, edible clock cake to showcase the skills you need to be an engineer (and a great baker).

We also marked the day with a parliamentary reception, hosted by Lord Mair FREng FRS. Over 70 parliamentarians, industry partners, Academy representatives, and *This is Engineering* campaign advocates joined us to discuss how we can keep encouraging young people to consider careers in engineering. Many other organisations also showed their support for the day, from Amazon creating an Engineering Heroes booklist to Transport for London displaying National Engineering Day-themed posters.



People always jokingly ask me why engineers do so well at Bake Off. There's no way of knowing for sure. But we do know that engineers are used to thinking creatively and tackling problems, small and large, on a daily basis."

Dr Giuseppe Dell'Anno

Great British Bake Off contestant and engineer

Supporting civil servants to use systems thinking

The Academy has championed systems thinking for many years. It's a powerful way to make sense of complexity, change our understanding and find better solutions, by seeking to solve multiple problems at the same time. For governments, it can help to structure integrated policy responses to complex challenges.

We were pleased to collaborate with the civil service's Systems Thinking Interest Group and the Policy Profession Unit to develop a suite of resources to help civil servants use systems thinking in policymaking. The resources, launched in 2022, include an introduction to systems thinking, a toolkit and a map that aligns systems thinking to existing civil service approaches and shows how it can influence each stage of policy design.

Academy Fellows also worked with the government Policy Profession Unit to create a series of interactive workshops for civil and public servants. Each workshop focuses on a specific policy challenge and shows how Policy Fellows used aspects of systems thinking to address it. The series was sponsored by Tamara Finkelstein CB, Permanent Secretary at the Department for Environment, Food and Rural Affairs and Head of the Policy Profession, and Sir Patrick Vallance HonFREng FRS FMedSci, former Chief Scientific Adviser and former Head of the Government Science and Engineering Profession.

In the past year, Engineering X secured a £1 million grant from the Clean Air Coalition to continue its work to end the open burning of waste.



Child sifting through dumpsite on fire in Bangladesh; Azim Khan Ronnie (2019)

Tackling the open burning of waste with Engineering X

Engineering X is an international collaboration with Lloyd's Register Foundation that brings together some of the world's leading problem-solvers to develop practical, sustainable and accessible solutions to the most pressing engineering, safety and sustainability challenges. A key focus for its recent work has been on the open burning of waste.

In August 2021, Engineering X partnered with the United Nations High Level Climate Champions (UNHLCC) team, launching a multi-stakeholder partnership to end the open burning of waste in Africa by 2040. The new partnership will help mobilise African governments to implement a landmark resolution, agreed in September 2022, to improve waste management through new technology, infrastructure, funding, and behaviour change campaigns.

Then, in June 2023, Engineering X awarded £500,000 to 16 projects in 13 countries, from Serbia to Senegal. Each project will help to improve understanding of the socio-economic factors that lead to waste being burned, as well as helping to put local solutions into practice. It demonstrates how the collaboration at the heart of Engineering X can help create awareness, momentum and a path to solving urgent challenges.



From the first moments, our team knew that partnership was the only way to end an unsafe practice that has been going on for centuries."

Andriannah Mbandi

Waste Lead for the UNHLCC team, which has partnered with Engineering X

A legacy for a changing world

Gifts in wills play a critical role in the Academy's work and we are hugely grateful to everyone who chooses to support us in this way. In 2022, Maurice Cahalan OBE FREng left a generous legacy to the Academy. Here, his daughter Christine explains why.



Maurice Cahalan OBE FREng

My father was born and educated in Australia, graduating from Adelaide University in 1945 with a BSc (Eng) in metallurgy. He worked in Zambia, Portugal, Spain, and Canada before settling in the UK, spending 30 years with the Rio Tinto

Zinc Corporation and 15 years as an independent consultant on technology transfer.

He was an Honorary Fellow and Past President of the Institution of Mining and Metallurgy (now IOM3) and Founding President of the Mineral Industry Research Organisation. In 1979 he was awarded an OBE for services to the minerals industry. Maurice was very proud to be elected a Fellow of the Royal Academy of Engineering in 1980 and took a keen interest in its work.

Conscious of the opportunities that a university education had given him, and as a former member of the governing bodies of Imperial College London and the Camborne School of Mines, he was a strong supporter of the Academy's education and skills programmes. Over the years he made regular donations to support a range of the Academy's activities, and hoped his legacy gift would support professional engineers of the future and their work on meeting the challenges of a changing world.

For more information on including a gift to the Academy in your will, please visit www.raeng.org.uk/about-us/support-us/how-you-can-help



Derek Mason

Continuing a lifelong passion

In 2022, we were honoured to receive a donation for our Graduate Engineering Engagement Programme from the family of Derek Mason. Derek's family collected donations for this gift at his funeral. His grandson George Bird explains why they wanted to remember Derek in this way.

Derek had a difficult start to education. [He was] disregarded due to dyslexia and being blind in one eye, [and] had to later attend night school to recover his qualifications. He was then awarded a full sponsorship from English Electric to attend university.

Derek fought hard to give underprivileged and discriminated-against students opportunities in competitive jobs throughout his life. He particularly clashed with his employer in the 1960s over their overtly racist actions, despite this leading to his dismissal. He then went on to teach mechanical engineering at a Bradford Technical College and the University of Bradford.

We hope that this donation to the Graduate Engineering Engagement Programme will continue Derek's actions of giving opportunities and support to those who have had a disadvantaged start in engineering, and getting graduates into jobs where they can make amazing change. We hope his legacy will live on.

Thank you from our CEO

I am sometimes asked, when I speak about my role at the Academy, what the hardest part of my job is. The answer is simple: it's to make sure we're doing justice to the profound opportunity we have to make a difference.

Engineering touches our lives on a daily basis and is a vital contributor to human progress. The Academy's role as a charity and National Academy provides us with a unique platform to influence both the engineering profession itself and how it engages with society, and in so doing to advance progress towards our vision of Engineering in the Service of Society.

When I look at the Academy's list of supporters – and when I meet with the individuals, corporate partners, universities, charitable trusts and foundations listed here – I feel immensely fortunate to be surrounded by people who share my passion for ensuring that engineering is a profession open to all and which fulfils its potential in serving societal need. Your generosity shows your commitment to making that a reality, and plays a vital role in enabling us to make a positive difference.

As the Academy works every day to harness the power of engineering to build a sustainable society and an inclusive economy, we depend on the kindness and partnership of people like you.

Thank you so much for your support. We look forward to continuing to work together to deliver even greater public benefit in the years ahead.

Dr Hayaatun Sillem CBE
CEO, Royal Academy of Engineering



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Our work would not be possible without our community of supporters

Organisations and universities who have supported us in the last year, with special thanks to our partners

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We send our appreciation to every individual and organisation named on this role of honour.

Charitable trusts and foundations generously supporting the Academy

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The Panasonic Trust
The Royal Commission for the Exhibition of 1851
The Worshipful Company of Engineers

Fellows, friends, awardees and Academy staff who have given in the last three years

Significant donors

Malcolm Brinded CBE FREng
Sir John Parker GBE FREng
Ian Shott CBE FREng

Major donors

David Gammon HonFREng
Sir Peter Gershon CBE FREng
Dr Philip O'Donovan FREng
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With additional thanks to donors who wish to remain anonymous.

Donors

Hakan Altinisik
Kathleen Atkinson, in memory of her late husband Professor Bernard Atkinson OBE FREng
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Royal Academy of Engineering
Prince Philip House
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