

INVESTING IN THE FUTURE

Creating pathways to engineering

With 2 million more engineers needed by 2020*, The Smallpeice Trust is committed to enhancing and strengthening the talent pool in engineering-related professions, including opening up more opportunities to disadvantaged or under-represented groups in society.

These groups are highlighted in the Widening Participation in Higher Education report by the Department for Business, Innovation and Skills (BIS), which showed an estimated 71% of students that studied A-Levels in state schools and colleges at age 17 in 2007/08 progressed to Higher Education by 2009/10.

This is in contrast to the estimated progression rate of 87% for independent schools and colleges.

Another under-representation in the talent pipeline is highlighted by the gender gap. As girls tend to end up concentrated in sectors that offer narrower scope for reward and are under-represented in areas of skills shortages and high potential like STEM. This fact is compounded more by the statistic that the UK has the lowest proportion of female engineers in the European Union – less than one in ten! This problem traces back to girls' subject choices at 16 and the perception of engineering as a career, which is being negatively reinforced through gender stereotyping during careers advice.

Apprenticeships

The Smallpeice Trust works successfully with partner organisations to encourage young people into Apprenticeship Programmes. Between 2012 and 2022, engineering enterprises will need to recruit around 56,000 engineering technicians per year. Apprentices form an important part of meeting this demand for technicians. However, the number of level 3 Apprenticeship Programme Achievements from England, Scotland and Wales, totalled 25,978 in 2012/13 – a shortfall of 30,000*.

50,000 STUDENTS TOOK PART IN OUR
IN-SCHOOL AND ON-CAMPUS COURSES.

*Engineering UK report 2015.

WHAT WE DO

Daring young people to imagine

The Smallpeice Trust provides lots of opportunities for universities and corporate partners to sponsor our STEM Days and Ignition & Momentum courses. We can work with you to develop a programme that works for your organisation too.

Together, we can offer courses that not only educate but raise awareness among students, their families and teachers about the contribution the engineering sector makes to the general and economic wellbeing of society.

Ignition Courses

These out-of-school courses are designed for students from Years 8–9 (13/14 year olds) and cover a wide range of engineering sectors, from automotive engineering to cyber security. Hands-on and interactive, each Ignition course provides a comprehensive insight into the world of engineering. Giving each student the opportunity to work alongside the experts and experience a range of fun, hands-on activities.

STEM Days

We hold STEM Days in schools for young people in Year 8–12 as well as in primary schools for students aged 10–11. Hosted by a Smallpeice Trust educator, they are designed to complement the national curriculum in science, technology, engineering and maths by demonstrating the link between the wider world. Activities range from designing, testing, and refining low-emission vehicles, propelled gliders, crash-proof vehicles, reservoirs, speakers, wind turbines, railways and bridges.

Aspire Experience

We also hold after school and weekend STEM-based activities for young people and parents. They not only provide useful information about career opportunities in STEM subjects but pro actively encourage parents to support their children's aspirations in these subject areas.

Momentum Courses

Aimed at years 10–12 (14–17 year olds), the Momentum courses give students the opportunity to delve deeper into the world of engineering outside of the classroom and discover what's possible when they know how. Hosted at leading universities throughout the country, the Momentum courses give students the opportunity to run experiments in laboratories and explore life on campus as they prepare for their UCAS applications.

Think Kits

Our Think Kits come with the tools and resources to start a STEM Club for up to 20 Year 8–9 students within the school. Each kit is risk assessed and compliments the national curriculum in science, technology, engineering and maths and brings these subjects to life in new ways.

Bespoke Package

At the heart of all Smallpeice opportunities, you will find our in-house programme development expertise. If you are keen to engage with young people via a programme not described above and feel Smallpeice's in-house programme development team could help, we would love to hear from you. We have developed a number of bespoke packages for our partners.



[click here to watch the video](#)

“ I have now been on three Smallpeice courses and each one has been eye opening, giving me the opportunity to work with companies like The Royal Navy and visit very different locations”

Emily, Student

“ Physics and Engineering aside, the opportunity to spend time on campus, meeting and working with new people was just invaluable. The level of support shown by all Smallpeice staff before and during the event was brilliant. ”

Parent

IN 2015/16 we worked with **50,000 STUDENTS**



HELD **50**



RESIDENTIAL COURSES

43% of students were female



IMPACT RATING of **84%**



587 STEM DAYS

“ The STEM Days are always very well received by our pupils and they learn a great deal about the importance of teamwork from participating in them. Thank you again for organising such a successful day. We really appreciate the work that you put into it. ”

Isabel S Cullen, Hermitage Academy

“ Hosting a course with The Smallpeice Trust is really important. We both share this mission of inspiring the next generation of scientists and engineers, and working together has proved immensely useful over the last 10 years. ”

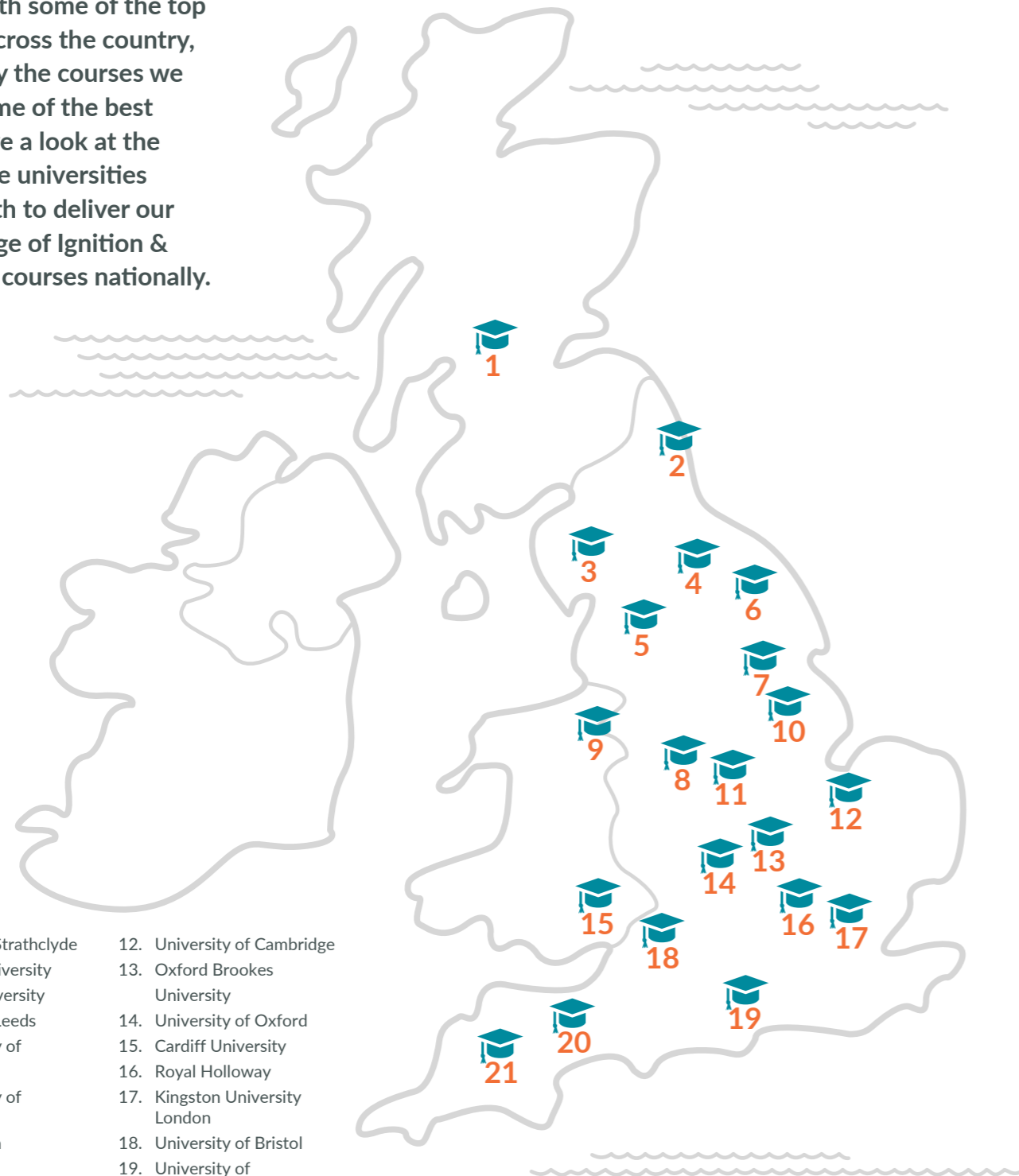
Professor Simon Cox, University of Southampton



[click here to watch the video](#)

UNIVERSITIES

We work with some of the top educators across the country, which is why the courses we offer are some of the best around. Have a look at the calibre of the universities we work with to deliver our exciting range of Ignition & Momentum courses nationally.



Key

- | | |
|---------------------------------|--------------------------------|
| 1. University of Strathclyde | 12. University of Cambridge |
| 2. Newcastle University | 13. Oxford Brookes University |
| 3. Lancaster University | 14. University of Oxford |
| 4. University of Leeds | 15. Cardiff University |
| 5. The University of Manchester | 16. Royal Holloway |
| 6. The University of Nottingham | 17. Kingston University London |
| 7. Loughborough University | 18. University of Bristol |
| 8. University of Birmingham | 19. University of Southampton |
| 9. Harper Adams University | 20. University of Exeter |
| 10. Coventry University | 21. Plymouth University |
| 11. University of Warwick | |

OUR PARTNERSHIPS

It's by working with charities and our corporate and education partners that we can help young people change the world through science, technology, engineering and maths.

These partnerships range from national and international companies, the armed forces, educational institutes as well as charities and universities. Including industry-leading names such as Babcock International, BAE Systems, E.ON UK, HS2 Ltd, Jaguar Land Rover, Lockheed Martin, National Grid, National Nuclear Laboratory, RAF, Leonardo, Shell and Tomorrow's Engineers.

Testimonial

“As a major engineering employer, we are passionate about helping young people to understand where their science, maths and technology studies can lead them. We believe it is important to run our work experience programmes for both girls and boys on an equal 50/50 basis, to build an early awareness and expectation of the inclusive workplace they will eventually enter, particularly if it is with National Grid. Working together builds understanding and appreciation of the different perspectives necessary to solve engineering challenges and helps shape individuals so that they

understand the value of collaboration. Our longstanding partnership with The Smallpeice Trust has firmly established this as the flagship of our schools engagement programme.”

Tony Moloney
Head of Education & Skills,
National Grid



“FOR THE UNIVERSITY OF SOUTHAMPTON, HOSTING A COURSE WITH THE SMALLPEICE TRUST IS REALLY IMPORTANT AS WE BOTH SHARE THIS MISSION OF INSPIRING THE NEXT GENERATION OF SCIENTISTS AND ENGINEERS.”

Professor Simon Cox, University of Southampton

GET INVOLVED



What it means to be a partner

We work with each and every one of our partners to create bespoke STEM Days and courses that not only engage with young people across the country but also help to raise the profile of businesses both large and small.

This enables you to enhance the awareness of your industry and improve brand recognition through local exposure and PR initiatives.

The partnership also demonstrates your CSR policy to your stakeholders as well as providing continual professional development for your own young employees as they mentor up-and-coming engineers. An effective way to build your network of emerging talent to support your recruitment strategy and address the gender gaps within the industry.

- **Raise industry profile**
- **Boost brand recognition**
- **Improve CSR policies**
- **Motivate existing employees**
- **Support recruitment strategy**
- **Staff development**

What we need from you

Our relationship with partners is one of the cornerstones of our success. It's with their support that we're able to offer young people real life STEM experiences outside of the classroom, involving interactive projects organised and led by engineers and technical specialists.

That's why we're always looking to foster new partnerships with organisations that live and breathe engineering or value its place in our world. Whether it's providing crucial funding and facilities or offering course guidance and mentors, getting involved means playing a vital role in giving young people the starting blocks they need to build a future in engineering – and in turn, create a rich talent pool for years to come.

With your support, we can help them to 'dare to imagine'

You can change the direction of young people's lives by raising aspirations and inspiring futures.

To help us to make the difference that will enable the engineers of tomorrow to reach new heights, contact The Smallpeice Trust on:

01926 333200

or email

info@smallpeicetrust.org.uk

A stylized illustration of a laboratory flask and test tube with bubbles, set against a background of various sized circles.

YOUR SUPPORT WILL GIVE
YOUNG PEOPLE THE STARTING
BLOCKS THEY NEED TO
BUILD A FUTURE IN ENGINEERING.

