

Imperial College
London



Societal Engagement **in action**

2016/17: Our year
in highlights



IMPERIAL'S ENGAGEMENT AT A GLANCE



6,800

school students have taken part in over 280 outreach activities

20,000+

visitors to the 2017 Imperial Festival



300+

researchers, clinicians and members of the public trained in patient and public involvement since 2015



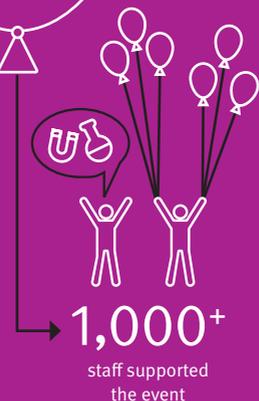
7,000+

attendees at White City community pop-up events



16,855

teachers registered to use Reach Out CPD, continuing professional development resource



1,000+

staff supported the event

3,500

visitors joined us for our 5 Fringes



Engagement in action



At Imperial, we're putting engagement into practice across our nine campuses as well as at schools, hospitals, cultural and community spaces.

This builds on a proud legacy of civic engagement: Imperial has always been deeply rooted in London life and our pioneering research has brought benefits to wider society since 1907. Over the past year, we've found a real sense of momentum for engagement amongst the College community. Collaboration is at the heart of engagement and we're excited to work with our staff and students to help them realise their ideas.

Here, you'll find a few of the many brilliant examples of engagement that are happening right now across the College. Our Outreach team continue to raise the aspirations of young people – the extraordinary success of this year's STEM Potential programme shows how much school students can achieve when given support – and we're extending our reach beyond local schools through the online science news service Reach Out Reporter. Our new Societal Engagement Seed Fund is promoting truly thought-provoking and interactive ideas. The student community's enthusiasm, as exemplified by the President's Award-winning Science Club, inspires us all. We're also exploring new ways to involve patients and the public in our health and healthcare research.

Our ambitious plans for The Invention Rooms at White City are being realised:

the doors are open and the workspaces are in use. Listening to and partnering with our local community has been immensely rewarding, and we'll continue to build lasting connections.

This two-way dialogue with society is key to our future activity. Collaboration enriches Imperial's research and teaching, ensuring that what we do is relevant and beneficial to society. We want to deliver more high quality initiatives and experiences that we can all learn from, and through our popular new training programmes and Engagement Academy, we're helping even more staff and students in getting their projects off the ground.

We have some amazing people working in engagement, and the value of this work is being championed from the most senior level at the College. The support of our President, Professor Alice Gast, and our Provost, Professor James Stirling, has underpinned our successes so far. With support from staff, students and partners, we can embed a culture of societal engagement in all we do.

Thank you for your support.

Professor Maggie Dallman
Associate Provost (Academic Partnerships)
Imperial College London

Partnering with the public

In an increasingly connected world, partnership with society can help universities deliver outstanding research outcomes.

We're always looking for opportunities to bring fresh perspectives to our research, and to use these insights to help shape our work.

Universities have a unique responsibility in society, as accountable sites of transformational education and research. Inspirational engagement activities can help to ensure that members of the public, regardless of their background, can participate in research that's relevant to their daily lives.

We're thrilled to see an increasing array of innovative public engagement activities being championed by passionate staff across the College. These activities often facilitate collaboration between researchers and the public to tackle global challenges that impact us all, such as air quality, food security and antimicrobial resistance.

We also aim to create a dialogue about our research through events like our Festival and Fringes. Over 23,500 visitors have joined us for these events in the past year, taking part in a range of interactive experiences and exploring our laboratories and facilities.

Everyone can benefit from participating



“All the staff and students were incredibly willing to talk about their passions, which inspired future generations.”

Festival visitor

in engagement activities: from our researchers, students and partners to members of the public.

An important part of this process

is asking and listening: engagement is a two-way conversation.

We've launched new training opportunities for staff, including an Engagement Academy designed to enable staff to explore different engagement methods and acquire practical skills. We're also developing online resources and networks to share good practice and help our staff source funding and forge partnerships.

By embedding public engagement within our work, we can increase the quality and value of our research, enrich our teaching, and increase our wider benefit to society.

Imperial Festival

In May 2017, around 20,000 people visited our South Kensington Campus to experience the wonder of science through our sixth annual Imperial Festival. Members of the public enjoyed interactive demonstrations, workshops, tours, talks and performances on everything from flying robots to the future of food.

To inform future engagement activity, we are comprehensively evaluating the Festival's impact: to date, we have surveyed over 500 staff, students and visitors about the Festival. 92 per cent of the academic presenters and exhibitors described it as a rewarding experience, highlighting the Festival's importance in our growing culture of engagement.

“I was really proud of being part of Imperial over the festival weekend – made me see what an open and exciting place it can be, filled with enthusiastic and brilliant scientists who are keen to share what they do with the wider community.”

– Imperial academic staff member





The inaugural Societal Engagement awards presentation

Celebrating our people

The President's Awards for Excellence in Societal Engagement celebrate transformational and inspirational engagement activity.

The winners of these awards have gone above and beyond their day-to-day responsibilities to deliver effective engagement activities. The Leadership category celebrates individuals who have supported other staff and students in their own engagement endeavours, and the President's Medal is awarded to an individual whose engagement activities have been truly outstanding.

This year, we recognised the achievements of exceptional teams and individuals through five awards. Among them, the 2017 President's Medal for Excellence in Societal Engagement was awarded to Austin Burt, Professor of Evolutionary Genetics at Imperial. Professor Burt is a Principal Investigator for Target Malaria, a research consortium that aims to develop ways to control the spread of malaria in sub-Saharan Africa. The Target Malaria team has opened up a valuable dialogue with the public about their research, enabling discussions in local villages as well as with national governments, regulators, NGOs and the media. The team hopes to start trials in three African countries soon.

This year also saw our first student winner, Beth Rice, a postgraduate student in the Department of Physics. Beth received the Student Award for establishing and running a Science Club for young girls at the Baytree Centre in Brixton, South London. The Club offers hands-on experiments designed to open the girls' eyes to what science is and what scientists do, and encourage their curiosity about the world around them.

“Running the Science Club has kept me in the real world... It's really fun, and great to have a completely different challenge to focus on away from my research.”

Beth Rice,
Science Club





(L–R) Local residents from around the Edward Woods Estate in Shepherd’s Bush receive help with technology; a scene from *True Cut*, written by an Imperial Alumnus

Seeding new opportunities

The Societal Engagement Seed Fund supports staff pioneering innovative approaches to engaging the wider public with Imperial’s research and education.

During the first round in Spring 2017, we awarded £10,000 across four different teams for proposals that pioneered a new engagement method or developed an existing activity in an exciting new direction. Here are the winning projects:

What the Tech? Digital skills for the elderly
Imperial College Business School has set up a digital skills programme to help elderly residents with their technology needs and to reduce their sense of isolation. Read more about this project in action overleaf.

Making sense of our mistakes: fostering conversations about healthcare through theatre

This proposal, led by the Department of Surgery and Cancer, sparks conversations around the challenging subject of healthcare mistakes, through a theatrical production and an interactive discussion. The play, *True Cut*, written by an NHS doctor and Imperial alumnus, is about a young surgeon who makes a serious mistake in the operating theatre. It’s previously been performed for the clinical community but the Seed Fund has enabled public performances at local community theatres.

Translating TB

Translating TB harnesses the linguistic skillsets of local London communities and academic institutions to translate a new animated film for raising awareness about latent tuberculosis (LTBI). The project, led by the National Heart & Lung Institute, will translate the film into the most common languages spoken among London communities eligible for LTBI testing and treatment. It will then be screened at public events in Bromley-by-Bow and White City.

Public involvement in research design

The Centre for Environmental Policy aims to develop a protocol for including public perspectives in research design. The pilots are based on the preparation of two funding proposals, which focus on the health impact of large transportation infrastructure projects. Communities most impacted by Crossrail or HS2 have been involved through engagement sessions.

A participant at one of Translating TB’s local community events



Learning from the community

Project leaders Anna Lawrence-Jones and Kirsten Dalrymple on sparking conversations about healthcare mistakes at a local theatre.

“We were really keen to reach out to the diverse community around the White City Campus, to build academic-lay collaborations, and to understand the priorities of the local audience through the post-performance discussion. We’ve recruited Dawn and Kumaran from the White City community to join our project team as partners and share their expertise in engaging the community. So we’re hosting the event at an accessible local theatre rather than an academic space, and we’ve developed visually attractive, jargon-free advertising. Dawn and Kumaran advised on ways to facilitate dialogue after the play, including allowing for contributions through free-text, postcards and Twitter. The panel of experts will also be seated within the audience rather than on stage.”

“I’m really excited to be part of this project, as it’s a good way for everyone to have a voice and could lead to learnings for doctors, patients, carers and family members.”
– Dawn Brown, a member of the project team

Community collaborations

We're working with our neighbouring communities in White City to ensure that Imperial's work is relevant locally as well as globally.

Our vision for local community engagement is to work in partnership with local residents and organisations to make an enduring and positive impact. We aim to inspire local people from different ages and backgrounds by raising and realising aspirations through innovative engagement.

The development of the White City Campus offers significant opportunities to realise these goals. White City is a vibrant part of London, with a rich history and a strong sense of community. This diverse neighbourhood has considerable local talent and entrepreneurial flair, which we're planning to nurture and support in the future.

Listening to the people who work and live in White City has been essential to our understanding of how Imperial can make a positive contribution. We're strengthening relationships with a range of local partners, from professional football clubs to gardening associations, to ensure that our activity has a deep and lasting impact.

Over the past year, we have been out in the community holding a series of pop-up science activities that have engaged more than 7,000 local residents. These include a sport and science day with Queen's Park



“Imperial staff and students are full of energy and enthusiasm, and they really care about making a difference.”

Carly Bond,
Big Local Manager

This year's W12 Festival featured an Imperial-hosted 'Maker Zone', with a variety of fun activities for people of all ages.

Rangers, a festive-themed science stand at the White City Christmas event (including a levitating sleigh!) and a maker zone at the W12 Community Festival.

The opening of The Invention Rooms (see overleaf) marks the next ambitious phase of our local engagement, providing a dedicated space for a range of hands-on activities and events that explore the wonder of science and technology. We're also piloting a number of projects and initiatives, ranging from tech drop-in sessions for the elderly to a women's leadership programme.



The drone building project at The Invention Rooms, White City Campus

What the Tech?

What the Tech is a free weekly drop-in session for older members of the community to get to grips with technology.

Local residents are invited to bring along their devices – including phones, tablets and laptops – and, over a cup of coffee, volunteers from Imperial College Business School provide help to get them Skyping and emailing. The project is run in partnership with the Edward Woods Community Centre and the Urban Partnership Group.

Build your own drone

In partnership with the White City Youth Club, we've piloted a drone-building project for local young people in and around White City.

More than twenty 11 to 17 year olds took part, working in teams to build drones from scratch. At the end of the four-week project, the final drones were put to the test in an obstacle race in the White City Adventure Playground. The winning team completed the obstacle course in an incredible 42 seconds.

Explore The Invention Rooms

We're excited to be opening a new community innovation space at White City called The Invention Rooms. Here you can join us for a range of hands-on activities and events to explore the wonder of science and technology.

They are a mixture of workshops, design studios and interactive spaces that will bring together our neighbours from the local community with Imperial's academics, students, alumni and partners. Here's what you can expect to find inside:

Advanced Hackspace

The Advanced Hackspace is a cutting edge workshop facility for students, staff and partners to develop new ideas and prototypes.

The workshop equipment includes 3D printing and digital manufacturing, woodwork and metal work, and a bio-lab, which enables synthetic biology and molecular fabrication.

Reach Out Makerspace

The Reach Out Makerspace is a workshop and design studio for young people from the local community to get hands-on experience of making and prototyping.

There will be after-school programmes and equipment to make just about anything – from wearable technology to household gadgets.

Interaction Zone

Opening in spring 2018, the Interaction Zone will be a warm and welcoming space for local events and activities, including science workshops, tech drop-in sessions and social events.

There will be meeting rooms, as well as an informal café and outdoor terrace area where you can pop in and have a cup of coffee with us.

An artist's impression of The Invention Rooms



A Makerspace taster session for the local community

Inspiring young minds

We're seeking to engage more young people with the world of science and technology, regardless of their background.

Our staff and students work with schools, colleges, parents and community organisations, sharing their expertise to engage young people in science, technology, engineering and maths (STEM). We aim to raise aspirations, ensuring that young people understand what opportunities are available after leaving school, and helping them to fulfil their potential.

Curriculum support for school students includes practical science lessons and demonstrations at the Wohl Reach Out Lab and the Festival of Schools Day, and our annual Outreach summer schools, attended by nearly 600 students this year. Subject-specific schemes are another way in which we support learning and progression to higher education, and includes our Pathways to Medicine course and our Sutton Scholars programme, which teaches coding

and digital skills to Key Stage 3 students.

Teachers play a pivotal role in inspiring pupils, and Imperial's continuing professional development (CPD) resources for primary and secondary school teachers are designed to support outstanding science

education. A total of 19,000 hours of CPD have been delivered through Reach Out CPD, which features web-based courses and classroom activities. In 2017, our online primary science news service Reach Out Reporter won the Education Resources Award for Best Free Educational Resource and the Educational Multimedia Award at the Learning on Screen Awards.

The STEM Potential programme supports around 390 school students per year who might otherwise experience a barrier in attending university. This cohort scheme, for school students in Year 10 and above, develops academic potential and provides the soft skills needed to prepare for A-levels and university life. Students attend sessions on academic writing, subject level masterclasses, interview techniques and personal statements. Participants moving from Year 10 into Year 11 are invited to a non-residential summer school in London,



"Reach Out CPD gives teachers confidence to teach and children confidence to think like scientists."

Lindsay Danby,
Salisbury Primary School



School students participate in the Sutton Trust Summer School

Mentoring STEM subjects

Harshil was a STEM Potential student between 2013 and 2015 and this year, as an Imperial student, he supported the scheme as a mentor.

"STEM Potential was a great introduction to what university would be like. It was an important step in making my learning style more independent and meeting like-minded students. I enjoyed myself on the programme and so when the opportunity to work as a mentor came up, I was keen to do so. I enjoy teaching when it enables me to share knowledge about my course here at Imperial, and it's helped improve my confidence in working with others and acting as a role model. I believe that being able to work within a university environment alongside other participants from a variety of backgrounds inspires students to apply for higher level education. Working with some of the smartest minds in their fields helps to show them what's possible when they apply themselves. I am consistently impressed by their innovative approaches and fresh perspectives."



designed to highlight the opportunities that science has to offer in the capital, while those transitioning from Year 12 into Year 13 gain an insight into university life through a residential course.

STEM Potential enhances participants' skillssets and expectations of studying at university. Though the programme is not recruitment-oriented, it is a testament to its success that 11 participants from our recently graduated cohort have been offered places to study at Imperial. STEM Potential also offers development opportunities for the mentors and academic session leaders, as well as for the participants' schools, with whom we're building our relationships.

In 2017/18, we are running hands-on activities to cultivate young people's technical and vocational skills at the new Reach Out Makerspace at White City. We are also expanding a pilot project to loan hampers of STEM activities to local primary schools.

Patient perspectives

Partnering with patients and the public to help us improve health and healthcare.

Patients and the public have long supported Imperial's work, from offering fresh perspectives on how research is designed and delivered to taking part in clinical research studies themselves. Collaborating on research in this way ensures that our work reflects the needs and views of the wider public, and is more likely to produce results that benefit health and social care.

We undertake public and patient involvement (PPI) in different ways, and across a wide range of research areas. For example, patient reference groups are involved in research and lay advisors sit on scientific panels. Patients also help us communicate with the wider public, with recent examples including co-producing materials such as patient information sheets for volunteers in clinical trials, and telling research stories through stand-up comedy.

Much of our work is led by the Imperial Patient Experience Research Centre (PERC), which promotes participatory approaches to active communication between patients, the public, researchers and clinical staff. PERC is comprised of a multidisciplinary group of clinicians, public health specialists



and social scientists, combining strengths in quantitative and qualitative research methods. The Centre has considerable expertise in eliciting and understanding lay perspectives on research and healthcare, translating the findings into action or policy recommendations, and disseminating findings to the public and professionals.

In 2018, one of our key ambitions is to broaden the diversity of those involved in our research, making patient and public involvement more representative. We're also developing an interactive digital platform and membership organisation that aims to reach audiences in new ways and involve them in health research.



“Patients and the public help shape much of our research... I am so impressed by their generosity in time and ideas”
 Professor Helen Ward,
 Director PERC

A public and patient involvement (PPI) session at Hammersmith Campus

Training our people

We want to make it possible for more staff and students to engage and involve patients and the public in their research.

In 2017, we co-developed Co-Creating Innovative Solutions for Health (CRISH), a new training module for healthcare professionals, researchers and patients. The course explored participatory approaches, providing different stakeholders with the skills to co-design projects and conduct research in a more inclusive way. A second version of CRISH will be available for 2018, adding translational medicine to the curriculum.

Next, we plan to launch a dedicated online PPI Resource Hub and an introductory web module to PPI for Imperial staff.

While the public funds over 50 per cent of research in infectious diseases, members of the public are rarely involved in identifying research questions.

This year, the NIHR Health Protection Research Unit in Healthcare Associated Infections and Antimicrobial Resistance developed and tested a new way to engage with members of the public about how they would prioritise research topics.



Listening to the public

Members of the public were asked to allocate research funding between different questions using mock cheques, and record their reasons for how they allocated it. The project, supported by a PPI grant from the Imperial Biomedical Research Centre, captured views from hundreds of individuals and has since been published in *Health Expectations* journal. The process has been developed in a way that can be transferred for use by the public in other areas of health research.

Students and social action

Our dynamic volunteer student community is making a difference.

Our students volunteer with over 150 community and charitable partner organisations each year. They've been delivering hands-on activities at local museums and tutoring STEM subjects in schools as well as writing pen-pal letters to children suffering from serious illnesses and improving community spaces through gardening days. Students are also instrumental in supporting events such as the Festival and Fringe, helping out with Outreach activities, and fundraising for charities.

Volunteering schemes offer students enjoyable opportunities to develop transferrable skills and to stimulate

collaborations across different subject areas and campuses. We also encourage students to consider how their academic expertise and entrepreneurial spirit can be combined with their enthusiasm for social action. We want our students to share their backgrounds, interests and knowledge to make a positive impact on the surrounding community.

Students can take action on social issues through several platforms, such as Community Connections, which matches up students with volunteering opportunities and student-led enterprises and projects. Over the past academic year, 300 students have spent 25,689 hours volunteering through our accredited Imperial Plus programme, which offers longer-term support and training. The Imperial College Union also offers guidance and advice, plus seed funding for some of the most ambitious enterprise projects, to students who plan to trial new ideas for tackling a social issue.

Looking ahead to 2018, White City is an area where our students can make a worthwhile difference, providing quality experiences for the local community and opening up conversations. We're developing all our future Student Development projects with student input, empowering them to take action on the matters that they feel most passionate about. When students leave Imperial, we want to hear them saying, "I helped somebody", "I learned this from working in the community" and "I did that."

"Volunteering at the Festival is a great opportunity to improve your organisation skills and time management."

Katerina Stavri,
Chemistry undergraduate



Student volunteers tend to the Imperial secret garden during the College's Go Green Week 2017



The Pimlico Connection

The Pimlico Connection is a voluntary tutoring scheme through which Imperial students attend a local state primary or secondary school once a week to engage in tutoring and mentoring in Science, Technology, Engineering and Maths (STEM) subjects.

Over 2016–17, 80 volunteers trained as The Pimlico Connection tutors and took up places in 19 local state primary and secondary schools, and sixth form colleges. All of the tutors said that they saw their pupils grow in confidence, while 90 per cent felt that they'd gained new skills, including volunteering, communication, problem solving and public speaking skills.

"I could ask them to explain a specific topic that I was having trouble with and keep asking questions until I understood."

– Pupil, The Pimlico Connection

"One of the most important skills that we all developed was listening. To teach something important to children that may seem easy to us requires a great deal of understanding. Listening to what our pupils had to say was key to understanding what they might be struggling with, and this enabled us to teach in a more effective way."

– William, lead tutor,
The Pimlico Connection

OUR SUPPORTERS

Imperial would like to thank the many organisations and individuals whose support and advice have helped the College to shape and deliver our societal engagement activities:

The Mohn Westlake Foundation
JP Morgan Chase Foundation
The Berkeley Foundation
The Goldsmiths' Company
Garfield Weston Foundation
The Elsevier Foundation
The Maurice Wohl Charitable Foundation
The Sutton Trust
The Exilarch's Foundation
YOOX NET-A-PORTER GROUP
The Ben-Brahim Family Fund
Richard & Mary Weber
Christopher D Burke
Cindy W Tse
David R Scoffham

AHRC
BBSRC
EPSRC
ESRC
MRC
NERC
Research Councils UK
STFC

Cancer Research UK
Discover South Kensington
Harris Academies
National Institute for Health Research
Royal Albert Hall
Royal College of Art
Royal College of Music
The Brightside Trust
The Francis Crick Institute
The Imperial College Foundation
The National Coordinating Centre for Public Engagement
The Natural History Museum
The Science Museum
The Victoria and Albert Museum
The Wellcome Trust

We would also like to thank the many more whose support has made our work possible.

Find out more

Want to discover more about Imperial's engagement work with society?
Search: Imperial societal engagement

If you're interested in supporting our activities, please contact us:
societal_engagement@imperial.ac.uk

Principal photography: Thomas Angus/Imperial College.
Additional photography: Fergus Burnett (p4); Emma Rainbow (Harshil, page 15)
The Invention Rooms illustration: Terence Eduarte

