I was honoured to take up the role of President of the British Science Association in September 2016.

The Association has been championing public engagement and science communication for over 180 years, and yet, all too often, it is still seen as something that is done in someone’s spare time. 2016’s tumultuous political events bring in to even sharper focus the need for us reach out and explain what we do. Thus, I intend to use my year as President to focus on the importance of public engagement; challenging universities, businesses and policy makers to place a greater value on it.

Too often, academics have limited support or training when it comes to engaging with the public, and relatively few receive rewards or recognition for doing so. As a result, they can struggle to engage local communities with their work and strain to demonstrate the importance of research and innovation in our society, which leaves the public questioning what is going on behind what they see as closed doors.

Scientists and researchers need to be encouraged to communicate what they do and why they do it, focusing on discussions about how their work may impact everyday life or help solve the societal challenges we face. Additionally, they need to share their love of knowledge and discovery, and find ways of involving the public on an equal footing.

The British Science Association plays an important role in offering both leadership and support: sharing best practice through managing the UK Science Festivals Network and creating professional development events like Culture Shock, that encourage science communicators to learn from other sectors and vice versa; providing high profile platforms, such as the British Science Festival, for researchers to discuss their work with the public; and inviting non-scientists into the conversation with campaigns like, Science, not just for scientists: 100 ideas, which was launched in the summer of 2016.

I look forward to working with the organisation to encourage the higher education sector, industry and government to ensure that good public engagement is better recognised, rewarded and resourced.

Professor Dame Nancy Rothwell, President & Vice Chancellor, The University of Manchester President of the British Science Association 2016/17
2016 was a year of change at the British Science Association as we said farewell to Chief Executive, Imran Khan, and welcomed Katherine Mathieson into the role. We also have a new Royal Patron: HRH Prince Andrew took over from Her Majesty the Queen, who stood down from a number of her Patronages at the end of the year, and we look forward to working with the Duke in the years ahead.

2016 saw new programme developments too; the inaugural Huxley Summit took place; we launched a new education initiative – the Youth Grand Challenges – supported by the Bill & Melinda Gates Foundation; and started development of a new digital platform for the CREST Awards.

The Huxley Summit is named after Thomas Huxley, who famously debated Darwin’s theory of evolution against the Bishop of Oxford at the organisation’s annual meeting in 1860. We hope that the Huxley Summit will create a space for leaders – from across business, politics, science and other sectors of society – to come together to discuss the key scientific and social challenges we are facing, and debate ways to tackle those together. This notion of positioning science as ‘not just for scientists’, but something for all of us to feel that we can take ownership of or be interested in, unites the BSA team’s approach to all of our work.

Turning to our longer-established programmes, it is great to see the British Science Festival continue to leave a legacy of establishing science engagement in previously under-served areas, as we travel across the UK; Swansea is the latest city to announce a new annual science festival – a result of Swansea University’s successful hosting of the Festival in 2016. Meanwhile, the 2016/17 academic year marks the 30th anniversary of the CREST Awards. Over 400,000 young people have achieved CREST Awards since the programme’s inception in 1986. Our focus is now on increasing the reach, ensuring that more students from disadvantaged backgrounds have the opportunity to benefit from a CREST Award.

We are thankful for the support of our funders, partners, members and volunteers, for your invaluable contribution in enabling these activities and helping us work towards our vision of making science a fundamental part of society and culture.

Rt Hon the Lord David Willetts
Chair of the British Science Association
OUR IMPACT IN 2016

Website visitors

482,340 visitors across the BSA’s websites

Media coverage

2,761 pieces of coverage in print, digital and broadcast media

Social media

87,650 Twitter followers on all BSA accounts

17,603 Likes on BSA Facebook channels

4,959 subscribers on LinkedIn

28,270 views of BSA YouTube videos
Total participants in BSA activities

137,144 people

- Students involved in Demo Day during British Science Week: 106,000
- Citizen science participants: 2,000
- CREST teachers and volunteers: 2,354
- Scientists and speakers at regional branch events: 874

Total audience for all BSA activities

916,237 people

- British Science Week participants: 850,178
- British Science Festival event attendees: 16,341
- BSA Branch event attendees: 39,168
- Science in the City audience: 9,952
Using CREST Award activities is a great way to engage and enthuse girls in the STEM subjects. So thanks to the BSA for recognising our hard work and achievements and we look forward to taking part in more projects in the coming year.”

Andrew Cathcart, Science Teacher and STEM Coordinator, Belfast Model School for Girls
British Science Week

As the largest national celebration of science, technology, engineering and maths, British Science Week is a grassroots campaign encouraging people of all ages to engage with science. British Science Week continues to be widely celebrated in schools, with over 1,200 events taking place in schools during the Week. We helped teachers across the UK bring their classrooms alive with science by creating a whole host of activities and resources.

Among other events and competitions, over 106,000 young people participated in Demo Day, our annual campaign encouraging secondary school teachers and technicians to show students the exciting world of science experiments.

CREST Awards

For the past three decades, the British Science Association has been encouraging young people to discover and engage with science through the CREST Awards, our flagship education programme that provides educators with a framework for curriculum enhancement. September 2016 saw the start of CREST’s 30th anniversary year and we released a ‘30 Inspirational Ideas’ resource booklet to celebrate. Further events will follow in the summer term of 2017.

CREST Awards are student-led, meaning that young people, aged 5-19, take ownership of their projects and choose to undertake them in areas they enjoy or see as relevant.

In 2016, almost 45,300 primary and secondary students received a CREST Award.

52% of participants were girls.

In a new project that seeks to expand CREST to underrepresented audiences, we awarded grants to 55 schools with an above average percentage of students from black, Asian and ethnic minority backgrounds, a higher than average number eligible for pupil premium, and also those in rural areas. These grants will enable around 1,600 students to participate in the CREST Awards. This grant scheme will be repeated in 2017.

"The whole experience was amazing – I got a real feel for what working in a science setting is like."

Rosy Halfyard, CREST Gold Award holder

Youth Grand Challenges

In 2016, with support from the Bill and Melinda Gates Foundation, we launched a new competition to encourage young people to develop creative solutions to global health and development challenges. A suite of CREST-aligned resources, on the theme of infectious disease, will be launched in early 2017 to support educators and young people entering the competition.

Making Science Real in Schools

In partnership with the British Council, the British Science Association represented the UK in the Making Science Real in Schools European education project. In 2016 we hosted an international conference where representatives from our seven partner countries shared best practice and created a ‘Youth Manifesto’, that highlighted the top five things students believe to be important for the future of education.

National Science + Engineering Competition

In partnership with Engineering UK and funded by the Department for Business, Energy and Industrial Strategy, this competition recognises and rewards young people’s achievements in STEM project work. 2016 saw over 2,800 entrants from young people aged 11-18. The winners of each category went on the European Union of Young Scientists Contest in Brussels, where they won additional prizes.
ENGAGEMENT
Growing and diversifying audiences

“My team is responsible for the expansion and growth of the BSA’s public-facing programmes and events. Working alongside our dedicated volunteers, local partners and supporters, we produce a range of national and regional activities that aim to grow and diversify the community of people who are interested in and involved with science.”

Ivvet Modinou – Head of Engagement, British Science Association

British Science Week
In addition to thousands of events in schools, British Science Week also sees events and activities happening in museums, community spaces and public places for people of all ages. Our Engagement Team coordinates the national and public-focused programme for the Week, including citizen science partnerships and collaborations with organisations representing different sectors.

We also support community groups that work with audiences who are underrepresented in science via our British Science Week Community Grants.

50 community groups, reaching over 16,000 participants, were awarded British Science Week grants.

The grants are extremely successful in reaching marginalised groups and audiences with a lower socioeconomic status and in increasing participants’ interest in science. 81% of attendees of grant-funded events who did not work in a science-related job recorded an increase in their level of interest in science as a result of attending.

In British Science Week 2016, we also launched our partnership with The Story Collider; an American organisation that brings true, personal stories about science to life through live shows and a weekly podcast. This partnership supports the British Science Association’s vision of positioning science as part of our culture and society. True stories, told live, are a powerful tool for creating emotional connections and expressing the human side of science. We ran five Story Collider events across the UK with 28 speakers and 310 attendees.

2,583 estimated total events
850,178 estimated total participants
661,248 estimated event attendees
2,000 participants in our partnership with Zooniverse to promote the citizen science project, Bat Detective

2,583 estimated total events
850,178 estimated total participants
661,248 estimated event attendees
British Science Festival

As Europe’s longest-standing science event, the British Science Festival has a rich history of bringing the country’s leading academics to a different UK city each year.

Our new-look Festival (refreshed and relaunched in 2015), targets an audience of non-specialist adults with a broad interest in science.

The 2016 Festival host was Swansea University and the programme featured content from local academics, the BSA’s 17 scientific sections, and other institutions and organisations across the UK. Our speaker highlights included George Abbey from NASA, Professor Uta Frith in conversation with journalist David Adam, TV personality Rick Edwards and music duo, Public Service Broadcasting.

Many, if not all, of the 16,341 attendees left feeling more positive and inspired about science.

93% of respondents rated Festival events as excellent or good

70% of visitors stated that they felt more interested in science

Award Lectures

The British Science Association’s Award Lecture programme actively encourages scientists to explore the social aspects of their research, and identifies rising stars who excel at communicating their work. The 2016 Award Lectures featured some fascinating research topics, including Dr Daisy Fancourt’s, ‘Can music change your immune system?’ and Dr Tamsin Edwards’, ‘Place your bets the collapse of the Antarctic ice sheet’.

In 2016 the British Science Association’s Award Lectures went on tour for the first time ever, visiting both science and non-science festivals across the UK.

UK Science Festivals Network

The UK Science Festivals Network serves to unite, celebrate and develop science festivals. Just over two years ago, the BSA took over the administration of the Network, and has since been raising the national profile of science festivals across the UK, as well as helping the whole Network share best practice. In 2016 there were 36 member festivals who reached a record 1.7m people through face-to-face interactions.

Science in the City

This programme was supported by the Royal Society of Chemistry and was designed to reach audiences who are not currently engaged with science. Following the success of the 2015 pilot, 2016 saw 14 science busking events take place, run by members of the UK Science Festival Network, reaching almost 10,000 people who do not usually participate in science activities. 91% of surveyed participants rated the event they engaged with as ‘Excellent’ or ‘Good’.

Science Live

Science Live, launched in March 2016 with support from the Wellcome Trust, is a new event platform, connecting scientists, presenters and content providers, with those who want to organise and volunteer at events.

Since its launch, our online community has been growing, allowing organisers, volunteers and speakers to find opportunities in their local area. In just nine months we attracted 648 speakers and 366 volunteers.

Via Science Live we want to support and encourage more people throughout the UK to put on and discover events – leading to more engagement with, understanding and enjoyment of science.
CULTURAL DEVELOPMENT
Putting science in the hands of society

“My team’s activities bring leaders and professionals from a diverse range of sectors into discussions around science. At our events, we often hear non-scientists say, ‘I’m sorry I’m not a scientist, but I have an idea’. We believe that the world’s biggest challenges need collaboration from different sectors and we aim to facilitate discussions between business leaders, opinion formers, policy makers, scientists and the media that wouldn’t normally take place. We want these activities to help put science in the hands of society, and not just scientists.

If you would like to discuss our research, policy, campaigns and thought leadership work, please do get in touch – we’d love to hear from you.”
Jon Fitzmaurice – Head of Cultural Development, British Science Association

“They [the newspaper] have confidence in me to deliver, I have confidence in seeking their help. It was a genuine two-way exchange of expertise.”
Ivor Mason, Professor of Developmental Biology, King’s College London, on placement at The i
Tackling the big societal issues
In 2016, the British Science Association undertook a number of projects exploring the views of the public about scientific and technological advances that could potentially have a significant impact on their lives, the economy and society. These included two series of Future Debates (local events organised in partnership with our branches and other organisations around the UK) on autonomous systems and genomic medicine. Altogether 39 events were held, with 135 speakers and 2063 attendees.

“The British Science Association’s work provided a unique and valuable insight into public views on our policy priorities. We felt the events were run thoughtfully and effectively, and the subsequent analysis was insightful and robust. Given both the sensitivity and complexity of the topic, it was very beneficial to be able to work with an independent body with expertise in both science and public engagement.”
Katrina Nevin-Ridley, Director of Communications, Genomics England

Science, not just for scientists
In July 2016, we launched ‘Science, not just for scientists: 100 ideas’, a crowdsourcing campaign designed to collect ideas from across society on ways to make science a more fundamental part of culture. In 2017, we will continue to publish the ideas submitted and contributors so far include, the UK’s first astronaut, Helen Sharman, and Stella Duffy, Founder of Fun Palaces.

“"I truly enjoyed the discussions at the Huxley Summit. They stimulated deeper reflections about how science and society could understand and appreciate each other better - so important for our modern world with all of its challenges."”
Dr. Alexander Moscho, CEO, Bayer UK/Ireland, who attended the 2016 Summit

Leading science communication
Working with science communication and engagement professionals is an essential part of the British Science Association’s strategy. This group can widen audiences, improve our own work, and actively promote science as a fundamental part of culture and society. In 2016 the British Science Association published A Changing Sector: Where is science communication now? A snapshot of the science communication and public engagement sector in the UK, it explored who science communicators are, what they do, and what their vision is for the future of the sector.

Based on findings from the report, we launched a series of training events aimed at supporting established and budding science communicators alike: The BSA’s ‘Culture Shock series’ and Masterclasses in Science Communication encourage seasoned practitioners to learn from other sectors, and give budding science communicators a comprehensive overview of the sector respectively.

92% of attendees at 2016 BSA Masterclasses reported that the event gave them “a comprehensive overview of the sector”
90% of attendees agreed that they had “developed skills that would be useful for their career in future”

75% of Fellows reported they had noticed a considerable change in their confidence of working with the media since their placement in 2016.

Media Fellowships
Established in 1987, the Media Fellowships Scheme is one of the British Science Association’s longest running programmes. It aims to break down the barriers between scientists and journalists, and has placed over 250 researchers, technicians, doctors and engineers at media outlets across the UK. In 2016, 11 Fellows were hosted within media outlets including BBC Breakfast, The Financial Times, The Daily Mirror and Channel 4 News.

IMPACT REPORT 2016
We are incredibly grateful for the hard work and commitment shown by our fantastic network of volunteers. From running events in their communities, advising the development of our programmes and speaking about our vision at a grassroots level, we could not achieve all that we have done without them.

Scientific sections
Our 17 scientific sections are comprised of volunteers from academia and industry covering a range of STEM areas. They are integral to the British Science Festival programme, curating a quarter of the event content each year, as well as advising the BSA on the latest developments in their own fields and on ways we can improve our programmes.

The sections and their recorders are:
- **Agriculture and Food** - Nicola Stock
- **Archaeology and Anthropology** - Fiona Coward
- **Biological Sciences** - Penny Fletcher
- **Chemistry** - Sharon George
- **Economics** - David Dickinson
- **Education** - Richard Churches
- **Engineering** - Radu Sporea
- **General** - Susan Watt and Anne-Maria Brennan
- **Geography** - Richard Waller
- **Geology** - J o Wright
- **History of Science** - Fem Elsdon-Baker
- **Mathematical Science** - Tony Mann
- **Medical Science** - Andrew Holding
- **Physics and Astronomy** - Kate Lancaster
- **Psychology** - Antonia Hamilton
- **Science and the Arts** - Heather Bameett
- **Sociology and Social Policy** - Rob Meadows and Emmanuelle Tulle

Branches
Our 32 volunteer-led branches help extend the reach of the BSA’s activities across the UK by working at a grassroots level. Their widespread networks, expertise and creativity help share our vision with a huge group of people around the country. In 2016, our branches held over 523 events between them, involving over 874 scientists and reaching an audience of more than 39,000 people.

The branches and their chairs are:
- **Scotland**
  - **Aberdeen** - Heather Doran
  - **Caithness** - Patrick Kieran
  - **Edinburgh** - J ohn Bradshaw
  - **Glasgow** - Rebecca Donnelly
  - **Moray and Highlands** - Howie Firth
  - **Tayside and Fife** - Brian Kelly
- **Wales and Northern Ireland**
  - **Belfast** - Ruth Kelly
  - **North Wales** - Rachel Mason
  - **Swansea** - Eliza Wilde
- **North of England**
  - **Hull** - Newly Formed
  - **Leeds** - Lizzy Orr
  - **Manchester** - Michael O’Toole
  - **Newcastle** - Louise Niven
  - **North and East Yorkshire** (Affiliated Branch) - Stephen Lusty
  - **North West Sc iBar Network** - Lorelly Wilson
  - **Preston** - Liz Granger
- **South of England**
  - **Bristol and Bath** - Bob Foster
  - **Cornwall** - Matt Creasey
  - **Reading** - Ceni Brenner
- **South East of England**
  - **Brighton and Hove** - J im Parkinson
  - **Central London - Science London** - Daimona Kounde
  - **Hampstead Scientific Society** (Affiliated Branch) - Doug Daniels
  - **Lewes** - Stephen Wilkins
  - **Oxford** - Cristina Vagnoni
  - **Richmond Scientific Society** (Affiliated Branch) - David Williams
  - **South Hampshire and Isle of Wight** - Kat Conner

**CREST Youth Panel**
The CRESTYouth Panel is made up of 40 inspirational young people aged 13-19 who are passionate about science. Through their biannual meetings, their voice and input ensures that our projects involving young people are kept relevant and fresh.

**CREST Mentors**
Mentors are invaluable for the young people undertaking CREST projects and offer a source of practical advice, support and inspiration; in the past year we have had 573 CREST Mentors.

**CREST Teacher Advisory Network**
The teachers who volunteer as part of our Teacher Advisory Network are an amazing resource, with their feedback and experience we are able to deliver an Award scheme that supports teachers and understands the education and STEM landscape in schools today.
Council 2016/17

**Chair**
Rt Hon the Lord David Willetts

**Treasurer**
Valerie Marshall

**Vice Presidents**
Professor Louise Archer (Education)
Matt Locke (Engagement)
Deborah Bull (Cultural Development)

**Elected members**
Dr Kerry Leslie (Affiliates)
Dr Tom Crick (Branches)
Professor Brian Ratcliffe (Affiliates)
Dr Suzi Gage (Students)

**Appointed members**
Dr Andy Richards
Dr Emily Dawson
Dr Steven Hill

The following sit on Council but are not trustees:

**President**
Professor Dame Nancy Rothwell

**Past President**
Professor Dame Athene Donald

**President-elect**
Professor Dame Uta Frith

**General Committee**
All Council members also sit on General Committee

**Affiliates**
Professor Lorna Dawson
Ben Johnson (Chair)
Dr Emmanuelle Tulle

**Branches**
Dr Steve Cross
Brian Kelly
Victoria Kowalkowski
Rachel Mason
David Thomson

**Members**
Sarah Chick
Nigel Eady
Oliver Usher

**Sections**
Deborah Cohen
Dr Fred Elsdon Baker
Dr David Shankland

**Students**
Jessica Leigh Jones

**Affiliates**
The British Science Association is proud to have a strong network of affiliates including universities, companies, research councils and other charities and organisations that share our vision and mission. Academy of Medical Sciences
Anglia Ruskin University
Aston University
British Psychosocial Society
British Society for Immunology
Canal & River Trust
Centre for Life
City of Westminster College
Clifton Scientific Trust
Graphic Science
London Mathematical Society
London Transport Museum
Mother Nature Science
National Museums Scotland
National Nuclear Laboratory
National Space Academy
Natural History Museum
Physiological Society
Research Councils UK
Rothamsted Research
Royal Society of Biology
Society of Professional Engineers
University College London
University of Aberystwyth
University of Birmingham
University of Brighton
University of Huddersfield
University of Leeds
University of Portsmouth
University of Surrey
University of York

**Supporters**
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3M
AXA
Bayer

**Friends**
We would like to thank the following individuals for their continued support of our vision, mission and programmes:
Dr Eric Albone
Dr Susan Allen
Mr Brian Coleman
Mr David Hammerson
Mr Jason Hill
Dr Jonathan Milner
Mr Neasan O’Neill
Mr Stephen Robinson
Mr John Sheasby
Miss Judith Stanton
Dr Alan Wills