

Inspiring everyone to think more deeply about science and its place in our lives

Strategy of the Royal Institution
2018 to 2023





A message from Sir Richard Sykes, Chairman of the Royal Institution

I am delighted to present this ambitious strategy for the Royal Institution of Great Britain (Ri). It sets out our vision, mission and strategic priorities for the next five years and will help us inspire even greater numbers of people to think more deeply about science and its place in our lives.

This document is the culmination of months of hard work from Trustees, staff and Ri stakeholders and I would like to thank them all for their valuable insights and dedication. Our strategy is built on recommendations from our supporters, friends and members, and a detailed understanding of the needs of our audiences.

On a personal level I feel privileged to be involved with this inspiring charity at such an exciting time. We are building on our great heritage to create an amazing future and I urge all of you to join us on this wonderful journey.



Introduction

Science and its applications have an enormous impact on all our lives, but in order to maximise the potential of science for the benefit of social wellbeing, cultural enrichment and economic prosperity, it is crucial to have an environment in which people are inspired to think more deeply about science and its place in our lives.

Several factors threaten this environment. While the evidence we have gathered shows that the public has a strong appetite for science, the majority do not hear or see enough about science, they do not feel informed about research and scientific advancements and they do not always trust science reporting. For children there is a lack of science at home, the primary curriculum is being squeezed by literacy and numeracy, and exploration gives way to exam pressures during secondary education. Our own analysis points to a complicated landscape, with some audiences feeling confident about science, while others

lack the support necessary to engage with science, or even actively reject it.

We are uniquely placed to address these issues and the world needs the Ri today more than ever before. We are already a world-renowned destination for the public to explore science. We have a digital presence reaching across the world; our YouTube channel has 36m video views, 12m of which were in the last 12 months, and we have over 390k YouTube subscribers with 50k joining us in the first quarter of 2018 alone. Digitisation of our archive and our plans to make past CHRISTMAS LECTURES available on the Ri website have the potential to take inspirational content to new audiences.

We have a rich network of volunteers delivering Masterclasses, and explosive science in schools shows, through which we reached 35,000 children in 2017 alone, almost doubling the total in the first two years of this programme.

We have a rich heritage on which to build and there exists a great affection for the Ri among our peers in the science community. We have a loyal community of over 4,200 Ri Members. We have our wonderful building, where over 19,000 science enthusiasts attended more public events over the past year than ever before; our Summer Schools and Family Fun Days are consistently sold out; and the L'Oréal Young Scientist Centre is operating at capacity.

This is an ambitious strategy. Over the next five years we will build a diverse community of individuals who through a lifelong engagement with us will be inspired to think more deeply about science and its place in our lives. There are no other charities, with both national and international reach, that are focused on building such a sustained, deep engagement with science.



'We've arranged a society based on science and technology, in which nobody understands anything about science and technology. This combustible mixture of ignorance and power, sooner or later, is going to blow up in our faces. Who is running the science and technology in a democracy if the people don't know anything about it?'

Carl Sagan

The needs of our audiences

The environment in which we are operating has changed and will continue to do so. Our own information gathering, as well as external studies on public attitudes towards science, demonstrate that the general public of all ages – adults, young people and children – aspire to be more engaged with science.

According to a study about Public Attitudes to Science (PAS)¹, the UK public is as enthusiastic about science as it has ever been. Over two-thirds of adults agree ‘it is important to know about science in their daily lives’. However, over half ‘do not feel informed about science, research and scientific developments’, while the same proportion say they ‘hear and see too little about science’.

There is an abundance of information at our fingertips, particularly online. Yet the public is questioning this information in a ‘post-truth’ and ‘fake-news’ society, with a third of respondents to the PAS study believing ‘scientists adjust their findings to get the answers they want.’

While there is low trust in science reporting, more than half of the public would like ‘to hear directly from scientists,’

and nearly two-thirds believe ‘scientists should listen more to what ordinary people think.’

Attitudes to science notably differ within the population, with women and less affluent people being less confident or interested in science.

There is also widespread concern that not enough young people are choosing to study Science, Technology, Engineering and Mathematics (STEM) after the age of 16. This is especially true of women, working-class and some minority ethnic groups who remain under-represented.

Research has shown that the period between the ages of 10–14 is a critical time for the development of young people’s attitudes to science², with families exerting a considerable and growing influence on young people’s aspirations.


The UK government’s Industrial Strategy highlights the need to both increase young peoples’ engagement with STEM and to strengthen public confidence in areas such as big data³. The Ri will provide this bridge between audiences.

1. Public Attitudes to Science, IPSOS MORI 2014
2. Aspires, young people’s science and career aspirations age 10-14, King’s College
3. <https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>



‘Families are key to shaping people’s ideas of what you want to do, so anything involving kids should also involve families as well. It’s all very well running things for school groups but if they go home and their parents don’t support that interest in science or take it any further, then it’s a wasted opportunity.’

External stakeholder, public engagement



'The value of science – it teaches children to question and problem-solve in an open way but I don't think our education system nurtures it. Exam culture means teachers will spoon-feed answers to children.'
Secondary school teacher

Our survey about the needs of the public¹ shows that over 40% of adult respondents would like to 'have more of a say in how science impacts society' and 50% declare an interest 'in visiting an exhibition or attending events and activities related to science.'

Our audiences are pleased with their experience and learning they get from Ri events. Nevertheless, we will seek to increase their awareness of the full breadth of our activities and listen to those who would like the Ri to reach beyond the world of science.

When developing this strategy, we have taken account of these findings in the wider context of our operating environment:

- The scarcity of funding which has repercussions for our funders, partners and key intermediaries like schools
- The national strategy for public engagement currently being developed by the 'National Forum for Public Engagement', of which the Ri is a key member
- The challenges our democracies are facing and the importance of well-informed citizens
- The shortage of STEM skills in business and industry

1. Royal Institution, Barker Langham, Audience segmentation and engagement analysis

Our audiences

The Ri conducted some in-depth audience analysis which explored people's existing relationships with science, how they might benefit from greater involvement with the Ri and the best ways of reaching them. From this we were able to segment the public into seven distinct groups. Of these we have identified the following four as key to the Ri achieving its mission.

Two of these segments (Connectors and Pioneers) are characterised by having high scientific knowledge and understanding and a relatively high income. They form the

core of our current audience. The other two segments (Seekers and Followers) are characterised by a lower level of scientific knowledge and understanding, and a correspondingly lower income. Increased engagement with these audiences is where we anticipate the greatest social impact, contributing to a more inclusive society.

We anticipate funding this outreach to under-served audiences, at least in part, through grant-funding and donations.

CONNECTORS

Connectors are a large group of cultural enthusiasts with an eclectic and intellectually stimulating array of tastes not confined to science. As well as being omnivorous, they are also voracious in their consumption. They value in-depth learning, finding meaning, satisfaction, and creative stimulation in diverse avenues and activities.

PIONEERS

Pioneers are a small group of steadfast scientists and science enthusiasts. Their strong relationship to science is a key part of their identity. They are overwhelmingly likely to have attended university and specialised in science, with more than half continuing to complete postgraduate studies. They are deep-thinkers with positive attitudes towards science subjects across the board.

SEEKERS

Seekers are marked by a strong interest in science coupled with relatively low levels of cultural engagement. Emotional and creative stimulation are important drivers for this group, and they exhibit a real thirst for knowledge. While active online, they face some specific challenges when it comes to physically engaging with all the things they would like to, including a lack of time, money and confidence.

FOLLOWERS

Followers' attitudes towards science mimic those of the national average and, in general, they are some of the least likely to engage with science subjects. That being said, they show greater enthusiasm for pure science disciplines than segments with similar educational levels, suggesting a level of aspiration that is currently untapped.

Royal Institution audience segmentation and analysis, Barker Langham, 2017



Our vision, mission and values

The long-term strategic priorities that will drive our action are founded upon a vision, mission, beliefs and values that are shared across the Ri, and with our partners and audiences.

We have distilled the outcome of focus groups with staff and external stakeholders, to develop a vision that encapsulates the need to create a two-way debate between science and society, relating science to people's everyday lives. It is aspirational, and inclusive.

Building on the findings of our audience analysis, we have re-positioned and clarified our vision and mission to better resonate with our audiences and stakeholders, and reflect our expertise in the field of public engagement with science.

Our vision is:

A world where everyone is inspired to think more deeply about science and its place in our lives

Our mission is:

Building on our heritage to create opportunities for everyone to discover, discuss and critically examine science and how it shapes the world around us

Our values are:

- We will be audience focused, developing respectful, close and long-lasting relationships with our communities
- We will be accessible to all, creating physical and digital opportunities for everyone to engage with science and make their voice heard
- We will be impact-driven, monitoring the quality and depth of this impact to inform our work
- We will be grounded in our heritage, building on over 200 years of pioneering science engagement
- We will be a considerate employer, caring for and developing our staff and volunteers

Strategic objectives

Six strategic objectives will drive and bring focus to our activity over the next five years. They are demanding and ambitious. They build upon our strengths and expertise while stretching us to expand our reach, collaborate more intensively with other organisations and reinforce our physical and digital presence.

Our objectives are audience and internally focused, recognising that our aspiration for everyone to think more deeply about science cannot be achieved without increasing our staff and financial capacity.

Our audience focused strategic objectives are to:

1. Inspire everyone to develop a lifelong journey with science
2. Increase the public's awareness of, and participation in, the work of the Ri
3. Engage business and policymakers in discussions about the place of science in society
4. Support scientists in their efforts to engage with the public

And our internally focused strategic priorities, that represent an essential foundation for delivery, are to:

5. Grow our financial capacity to support our mission
6. Develop and care for our staff and volunteers whose expertise and passion provide the cornerstone of our success

They address the high-level conclusions from staff and stakeholder workshops which provide a further rationale for change:

- We will expand our reach nationally, and internationally, through a 'digital first' approach and the building of a regional presence via strategic partnerships
- We will invest heavily in digital offers for adults and children, building on current success in video and embracing more diverse audiences across digital platforms
- We will evolve our educational activity into a scalable and sustained offer that is more joined up, more consistently accessible and tailored to children of all ages, locations and social demographics
- We will make our public programmes even more topical and relevant, reflecting how science affects people today. More events will be themed and have a cultural dimension
- We will increase deployment of our heritage in support of our activity. Investment in digitisation, online delivery and a more visible research programme on the relationship between science, culture and society, both now and in the past, will provide academic leadership
- We will drive unrestricted income and philanthropic support to grow our financial capacity, investing in our staff, building and digital channels, as a foundation to increase the scale and quality of our activities

'There's just stuff in science and then there's a big gap, and then eventually it appears as technology to people. The Ri could be the bridge between science and life.'

External stakeholder, corporate



Objective 1:

Inspire everyone to develop a lifelong journey with science

Rationale

We want more people to be more involved in science and intend to reach out to all of those who could benefit from engagement, in the most effective ways and through the most effective channels. As our research has found, one-off inspirational events are not enough - we intend to provide sustained engagement as people grow from childhood through to adulthood. We will make our activities more audience focused, more joined up and expand into new geographies.

Approach

We will structure our offering around the lifelong needs of our audiences and develop age appropriate activities and content. We will stimulate learning and signpost opportunities to engage with science and critically examine its implications. These activities and content will be available face-to-face and online.

We will tailor our approach to the four priority audience segments identified through our audience analysis. See page six for more information on our audience segments.

Key deliverables

- To engage with people 100m times across all our programmes and platforms
- Engaging digital content for adults, young people and children
- A unique national and international science club
- A step-change increase in Ri Membership at all levels
- An enriched adult programme with new themed events to enable discussion of complex, multi-disciplinary areas
- A joined-up programme of activities for schools, teachers and families, reaching greater numbers
- New tailored activities for adults and children who are Followers and Seekers
- Maintenance and digitisation of our collection, to increase people's access to the rich history of science
- An expansion of the L'Oréal Young Scientist Centre model



Objective 2:

Increase the public's awareness of, and participation in, the work of the Ri

Rationale

While there is strong recognition and great affection for the Ri among our immediate community, our profile with the wider public has significant scope to grow. Growing our profile would enable us to reach and engage with more people and inspire everyone to think more deeply about science and its place in our lives.

Approach

We will drive recognition of the Ri mission, vision, activity and impact. We will undertake integrated communication activities across marketing, PR and stakeholder engagement, to secure continued goodwill and support, and drive greater participation and increased educational outreach.

Key deliverables

- Investment in marketing and communications, including commercial sales expertise
- Creation of a responsive press office, with clear processes for rapid media reaction and regular campaigns around our high profile events
- A planned stakeholder engagement programme
- Increased attendance at major science conferences and events, particularly through high profile conference speaking opportunities

Objective 3:

Engage business and policymakers in discussions about the place of science in society

Rationale

Engage with the public is necessary, but not sufficient. Businesses and policymakers make decisions affecting all of us and have the power to use science to make the world a better place. To do this effectively, they can benefit from thinking about their work in a wider perspective, incorporating views from outside their sector, including from the public.

Approach

We will develop a leading 'knowledge exchange' programme to allow decision-makers to discuss scientific advances and their applications, among themselves and with the public, and examine their role in the relationship between science, culture and society.

Key deliverables

- Topical events and round tables, critically examining and supporting ideas publicly to demonstrate thought leadership
- Partnerships with aligned organisations and an increase in corporate members of the Ri
- Policy and political engagement through open forum debates and a limited number of closed roundtables



Objective 4:

Support scientists in their efforts to engage with the public

Rationale

Many scientists have a limited understanding of the views of the public. They can lack opportunities and/or knowledge of how to engage with them and discuss their findings in a wider context when examining their impact on society. A thoughtful approach to science communication that includes recognition and understanding of the public's viewpoints is vital. We aim to have more scientists joining us in thinking more deeply about the place of society in science, to become advocates of our vision.

Approach

We will support scientists to engage with the public by providing training based on the expertise of our staff, connecting them to our programmes and facilitating a critical discussion of science and its communication to society, based on historical context and contemporary perspectives. We will help increase scientists' understanding of the public and will provide academic leadership of this sector in the form of an active research programme.

Key deliverables

- A science communication training programme for researchers
- An academic Research Centre for Science and Culture at the Ri
- Grants and internships for graduates and post-docs
- A Fellows of the Royal Institution Programme



Objective 5:

Grow our financial capacity to support our mission

Rationale

While we are now on a firm financial footing, increasing income through a sustainable mix of commercial activities, charitable activities and donations or legacies, will allow us to make long-term investments. Most importantly, it will enable us to do more; extending our current programmes and activities, introducing new initiatives and having a greater impact, for more people.

Approach

We will put in place a sustainable and mixed financial operating model, expanding and aligning Ri commercial activity to our Mission, deriving more value from our unique assets and intellectual property, and attracting greater philanthropic support.

Key deliverables

- Increased philanthropic support from donors (individuals, trusts and foundations) and corporate partners in the UK and abroad
- Venue Hire clients aligned more closely with our mission and becoming corporate supporters
- An expansion of other commercial activity including content licensing
- Investment in the Ri building



Objective 6:

Develop and care for our staff and volunteers whose expertise and passion provide the cornerstone of our success

Rationale

Our staff and volunteers are our greatest asset and we want to attract, develop and retain the very best. Investing in staff development and creating a sustained culture of collaboration, trust and reward will result in an even more engaged and committed Ri community.

Approach

We will recognise Ri staff and volunteer contributions, investing money and management time in development, engagement and reward, ensuring clear objectives and an understanding of individual contributions to Ri success.

Key deliverables

- Engaged employees and volunteers, including more two-way internal communications and a proven commitment to support development
- Market based rewards and a suitable range of flexible employee benefits
- Effective recognition of the contribution made by our volunteers



Monitoring success

If we are to continue our growth and success, we recognise that robust evaluation of our activities and their impact is essential.

Our objectives are challenging; we are seeking a depth and breadth of engagement that can only be measured in the longer-term. To meet the needs of our audiences, we will need to understand how those needs evolve over time to ensure we continue to appropriately tailor our activities.

We will undertake regular qualitative evaluation to measure our reach and understand our impact – including robust and enlightening feedback gathered through perception surveys and consultation with our audiences – to shape and improve our future activities. We will build on our existing measures, and secure the support of an external evaluator, to ensure that they are robust and consistently embedded within the activities of all teams at the Ri.

We will develop a suite of key performance indicators, such as a growth in Ri Membership, an increase in our social media followers, or the breadth of our media coverage, to provide a quantitative measure of successful delivery. We will ensure that our KPIs align with our qualitative measures.

In all, continuous evaluation will be central to determining the future direction of the Ri and the way in which our strategy evolves over the coming five years. Some of the initiatives we have set out may not be as significant a part of our strategy in three or four or five years' time. However, we will be confident, based on evidence, that what is included in our strategy is successfully meeting our vision for a world where everyone is inspired to think more deeply about science, and its place in our lives.

'The Ri could broaden its base of advisors – people who could help steer its path beyond scientists. It would be useful if it had involvement from social scientists, politicians and other thinkers from the media who can provide the encouragement for it to step out of its comfort zone...it has the credibility to tackle issues without fear of being labelled as biased or in the pockets of some other self-interested organisation.'

External stakeholder, public engagement



The Royal Institution is uniquely positioned to meet these needs

We believe we are unique in our approach as demonstrated by:

- Our long-term approach to science engagement, with depth, and a focus on experimentation and the process of science
- Our efforts to inspire people to think critically about science within the context of their own lives – not just learning or teaching
- Our choice of topical, relevant programmes, with a multi-disciplinary and cultural dimension
- Over 200 years of engaging the public with science and our wonderful science archive and collections
- The great respect and affection held for the Ri by our peers
- Our outstanding digital success on YouTube

We also have a strong position regarding:

- The wide range of ages, professions and backgrounds of our audiences
- Our potential to create bridges between our audiences
- The passion and skills of our staff who are experts in science communication, engagement with the public, and the history of science and culture
- The combination of online-offline resources
- Our capacity to act as a broker between scientists and the public, and our access to relevant expertise

Our strategy involves collaborating with others. It is through partnerships that we are able to magnify the potential impact we will have.

The Ri is part of a collective of organisations ('The National Forum') who are together forming a national vision for public engagement with science. Our Director of Science and Education is a member of the Forum and has ensured that our strategy contributes and adheres to the national vision for science engagement.

From our 200+ years of engaging with the public and scientists, we have developed expertise and gathered evidence that:

- Repeat engagement with science has a greater impact than one-off events, however inspirational they may be
- There is a wealth of historical learning about the place of science in culture which can be applied to contemporary discussions on this topic
- Our aspiration should not just be about creating the scientists of tomorrow, but rather active citizens who have a diversity of viewpoints and are able to take part in informed discussions about the future of science

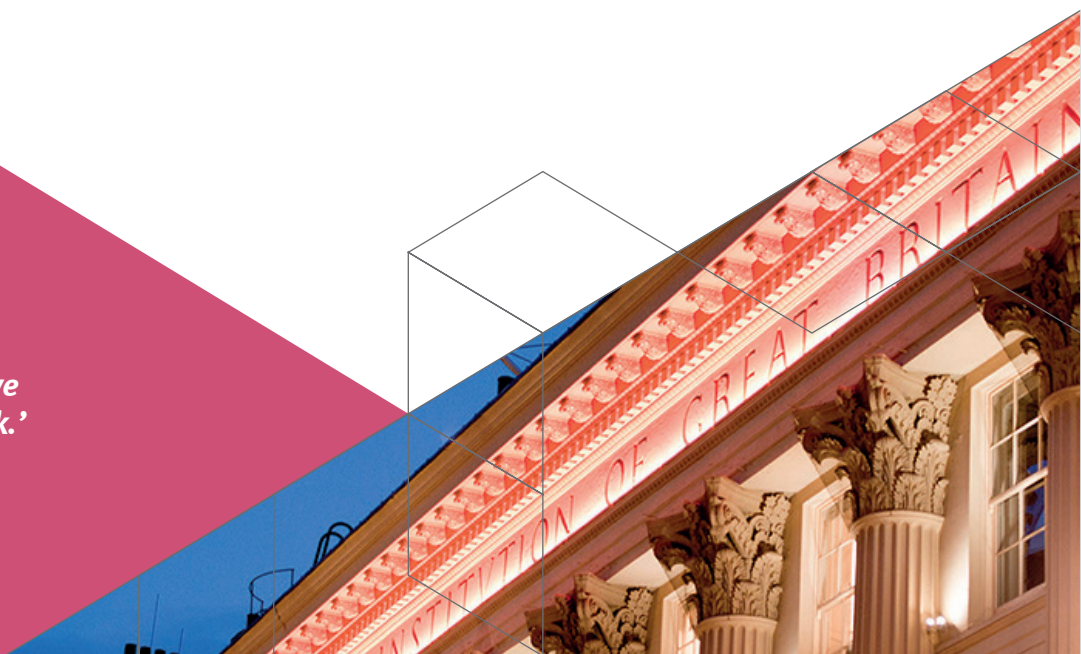
We are uniquely placed to deploy expertise and knowledge, and contribute to creating a world in which everyone thinks more deeply about science and its place in our lives.

We have:

- More than 400,000 subscribers to the Ri YouTube channel, with 36 million video views
- A strong community of over 4,200 Ri Members with a loyalty rate of 75% in adult members
- Over 1.5 million viewers of the CHRISTMAS LECTURES
- Around 50,000 young people taking part in our family days, schools shows, workshops and Masterclasses
- Over 19,000 people attending over 80 lectures in our historic theatre last year
- Approximately 400 volunteer presenters running Masterclasses for 2,000 schools
- The L'Oréal Young Scientist Centre operating a full capacity

'There's this constant need to help society by saying "Hang on, how do you know this? What is your warrant for saying that? Where's your evidence?" So, all these organisations [like the Ri]...we need 10 times as many I think.'

External stakeholder, public engagement





**To continue your journey with the
Royal Institution and be part of
our future visit www.rigb.org**

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