

Public Engagement Annual Activity Report 2024



Executive summary

Introduction

STFC supports public engagement (PE) through a combination of routes, including the provision of dedicated grant schemes, partnership working and the extensive engagement programmes delivered via national laboratory sites which are unique in the access they can provide the public to our work and people. A key initiative for STFC Public Engagement programming is to work with Wonder audiences, individuals from the 40% most deprived areas of the UK. This report presents an overview of the public engagement activities in 2024, aligned with the refreshed STFC Public Engagement Strategy (2024–2028). It highlights achievements, identifies areas for growth, and sets the stage for future strategic development.

Key insights

Strategy Aim 1: Celebrating STFC science, technology, people and careers



We delivered **911 events and reached 130,300 participants** through direct public engagement activity, grants funded activity and National partnerships activity



81.6% of surveyed participants felt inspired by STFC science and people



We awarded **20 new public engagement projects** rooted in STFC science and technology across Spark, Legacy, Nucleus, and Fellowship schemes

Strategy Aim 2: Working in partnership



STFC collaborated with **552 groups** and organisations across the UK



92% of partners felt their expertise shaped the activities



Partnerships ranged from national initiatives like Association of Science and Discovery Centres' (ASDC) Valuing Inclusion to local collaborations with libraries and community groups

Strategy Aim 3: Building capacity



260 individuals were trained in public engagement delivery



1,571 STFC staff contributed nearly **19,000 hours** to public engagement activities



72% of trainees reported increased confidence in delivering public engagement



Interact Symposium 2024 attracted **184 attendees**, with **42%** planning to change their practice as a result

Strategy Aim 4: Reaching diverse audiences



33.6% of audiences were from Wonder communities



48.4% of participants were aged 8-14



Of the **911 events** delivered, approximately **10%** were delivered online, enabling a wider geographic reach

Strategy Aim 5: Delivering high quality public engagement activities and evaluating outcomes



We finalised and published our

Public Engagement evaluation strategy



We **refreshed** our evaluation framework to align with the new strategy



We **reviewed** 2024 activity with the Advisory Panel for Public Engagement and **produced a report** to share and celebrate our work

Looking ahead

We will continue to prioritise our work with Wonder participants and deepen our understanding of good practice with these groups.

We will support grant holders and National partners to further embed the evaluation framework into their activity.

We will look to grow our public engagement offer in geographical 'cold spots' of activity.

Celebrating STFC science, technology people and careers

Our public engagement portfolio of grants, partnerships and activities highlight the diverse range of people, skills and places that contribute to STFC's work and provide increased opportunities for both individuals and communities to be involved with our work. In 2024, these opportunities included:

- · 911 events which lasted 25,132 hours
- · 114 resources

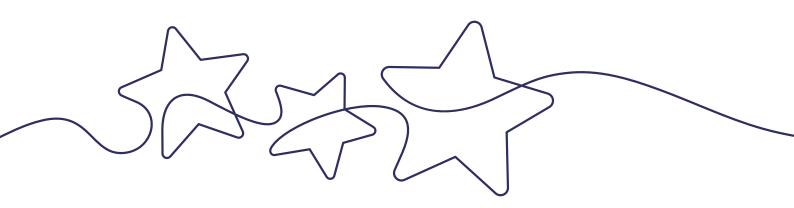
These events reached **130,300 participants**, 100,034 participants through public engagement grant activity and National Labs Public Engagement (NLPE) team delivery, and 30,266 through National Partnerships and Borrow the Moon activity.

We are committed to maintaining a dedicated public engagement grant funding scheme to enable the wider research and engagement community to celebrate and share STFC science, technology people and careers. In 2024, our Public Engagement grant programmes awarded **20 new public engagement projects**. A list of 33 grant funded projects that were active in 2024 and submitted data can be found in the Appendix.

Our funded activities have been designed to celebrate our science and inspire our audience. After their involvement with our activity:

81.6% of participants felt inspired by STFC science, technology and people.

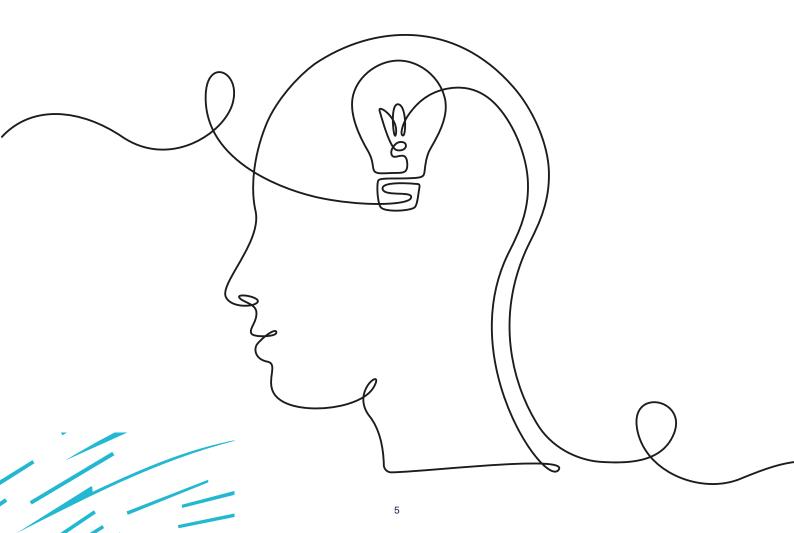
"I have been inspired to maybe become an astronomer because after the trip I have realised that I love space and I want to discover more planets... Also I want a job where I can communicate with other people."



61.1% of people will seek out further opportunities to engage with STEM.

"I feel much more inspired to study physics. I was especially amazed by all the different fields in which nuclear physics can be applied and the way in which physicists from all over the world come together to work on a common goal in improving our understanding of the universe, and also finding ways to provide Earth with sustainable energy."

We have supported STFC staff and STFC-funded researchers to participate in our programming. This year 1,571 of these key individuals were involved with our grant holder and NLPE programming, contributing a total of more than **18,000 hours**.



Working in partnership

We appreciate to be truly effective we need to work in collaboration with practitioners and organisations that connect us to skills and communities that are different but complementary to our own. These collaborations are at national, regional, and local levels.

In 2024, STFC-funded public engagement activity worked with 127 partners across the UK. The map on the following page illustrates the geographic spread of these partnerships.

Most of these partnerships were at a local or regional level; however, we do work with key national partners. In 2024, we partnered with the Association of Science Discovery Centres (ASDC) and the Reading Agency to deliver nation-wide activity. We also work closely with the Ogden Trust (see Aim 3).

Our partnership with ASDC, <u>Valuing Inclusion 2024</u>, supported 13 science and discovery centres to become more equitable, inclusive and accessible through their implementation of a new theory of change focused on inclusive evaluation outcomes and the development of new associated practical resources for inclusive STEM engagement.

Our <u>Reading Sparks</u> partnership with The Reading Agency harnesses the power of reading and the diversity of library spaces to engage families with STEM activities and build science confidence in communities living in deprived parts of England. In 2024, work focused on library services in Barnsley, Calderdale, Hull, Oldham, Warwickshire and Swindon, delivering over 30 sessions across these sites, reaching in excess of 220 people, 72% of which were from our priority Wonder demographic.

Across our PE programmes, partnership work took many forms, from short interactions to co-creation. STFC Public Engagement grant holders have described their partnerships in the quotes below.

Our strategy focuses on equitable partnerships with clear goals that recognises the skills and experience each party brings. 93.75% of community groups, teachers and partners felt their expertise and priorities shape the funded activities delivered. The grant holder below describes how partners have worked effectively sharing skills and expertise.

"Our partner organisation helped shape the programme to ensure children of Black heritage felt welcome in STEM. They designed and delivered a careers-focused session for the children, both online and in person."

- Public Engagement grant holder

"The activities were co-created with the young people using a carefully planned framework. Students undertook activities that were purposeful and related clearly to objectives that were stated explicitly at the start of the project. I was able to bring my experiences of creating resources for families relating to science and working with young people with SEND. Each person from our partnership brought with them their own skill set and expertise. Together we created family resources that were inclusive; widely-enjoyed and brought together the history of science with contemporary Space science."

- Public Engagement grant holder.







Building capacity

Alongside funding and delivering PE activities, it is important that we contribute to the sector by increasing its capacity for public engagement. This could be through training, funding or advocating for the value of public engagement. In 2024, STFC public engagement grant holders and the National Labs Public Engagement Group trained 260 individuals to support public engagement through a variety of activities, programmes and events.

The PEER Forum, the STFC Public Engagement Early-Career Researcher Forum (known as the 'PEER Forum'), supports talented scientists, engineers and users of STFC's facilities in the early stages of their career to develop their public engagement and outreach goals. This helps ensure the next generation of STFC scientists and engineers continue to deliver the highest quality of purposeful, audience-driven public engagement and provides networking and skills development opportunities. In 2024, the PEER Forum began developing a suite of PE case studies, publication anticipated in early 2025 and featured prominently at the Interact 2024 symposium.

In Summer 2024, the third cohort of 15 participants began a 12-month Outreach and Public Engagement Leadership Development programme. This programme provides training for physicists working in higher education or research institutions across the UK who want to, or are already, leading outreach and public engagement and is co-funded with the Ogden Trust. The programme was developed and delivered by Gurukala. A longitudinal evaluation of the programme was also initiated.

In 2024, in partnership with The Ogden Trust, SEPNET, the Royal Astronomical Society and the Institute of Physics alongside local host partners NUSTEM and Northumbria University, STFC Programmes Directorate successfully delivered the Interact Symposium, attended by 184 academics and public engagement professionals. This one day conference explored six themes, ranging from evaluation to leadership in public engagement, through 24 Lighting talks and 20 workshops. Feedback showed approximately 96% of participants thought it provided a good breadth and quality of topics and 42% of attendees will alter an approach to a project as a result of learning acquired during Interact.

In addition to the larger capacity building programmes above, Programmes Directorate PE team supports grant holders to do public engagement through peer learning, resource development and sharing and networking opportunities, such as Interact Symposium detailed above. In 2024, 92.0% of grant holders and partners feel that their partnership with STFC adds value to their work. One grant holder commented:

"Being part of the STFC Public Engagement network of grant holders and having the opportunity to frequently chat to other public engagement experts (grant holders as well as STFC Public Engagement staff) has been really beneficial. It's been an amazing way to learn, gain new skills and get feedback on ideas. Partnering with STFC has also raised the profile of our work and given it more credibility. Without the funding provided by the STFC, our project would not have been able to make the significant progress we've achieved over the past several years."

The National Labs Public Engagement Group also plays a role in capacity building through training National Lab staff to deliver public engagement. An example of an established NLPE training programme is the Early Careers Engagement (ECE) programme. As part of graduates and apprenticeship schemes, staff are required to complete three days of public engagement activities. The programme is launched with a one-day training course to further develop public engagement skills and confidence. In 2024, 109 staff attended the training course with 72% of the trainees felt the sessions increased their confidence in doing public engagement. One staff member set themselves a public engagement goal "to get out and inspire and to show the world what we do at STFC and our values."

Improving connections with diverse audiences

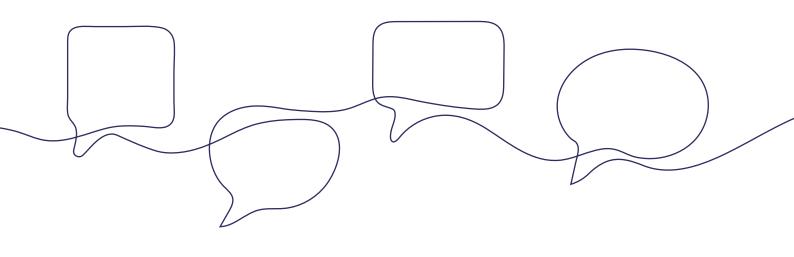
Science is for everyone, and everyone should be able to access resources and opportunities. We actively work to improve equity of access to our programming, particularly for those from the 40% more deprived areas of the UK through the Wonder initiative. 33.6% of all audience from National Labs Public Engagement and PE grant holder activity were from Wonder communities. Some examples of activity in 2024 are described below.

The Royal Observatory Edinburgh NLPE team increased their engagement with Wonder schools by 67% through listening to what teachers and classes needed and wanted, building up trusted relationships and embedding into schools' yearly programme. AstroCymru Ltd, a Sparks Award grant holder, delivered 20 astronomy and art workshops in 2024 to schools in Wales, with 70% of schools located in Wonder areas.

As part of our National Partnerships, 13 science centres worked with local Wonder communities as part of ASDC Valuing Inclusion 2024 project and Reading Agency Reading Sparks worked with six library services in Wonder areas.

We also monitor the geographic spread of STFC PE activities in order to take steps to reduce any significant gaps. The map on the following page illustrates where STFC Public Engagement activity were delivered in 2024: Borrow the Moon (dark blue circles), National partnership events and activities (red circles), STFC PE grant holder activities (blue circles) and NLPE activity (purple circles). Through this exercise, NLPE Group have identified geographical gaps in our provision and are starting to address this in 2025.

We acknowledge that many communities are underserved by STEM engagement and our programming encourages inclusive approaches for all. In 2024, NLPE team took active steps were taken to ensure Harwell Open Week was an accessible and inclusive event, from ensure all tour routes were wheelchair accessible to developing sensory bags for neurodiverse visitors. A Legacy Public Engagement grant holder, Tactile Universe, delivered 14 workshops to Key Stage 2 and 3 pupils using 3-dimensional, tactile models of the universe to enable visually impared children to explore the universe.





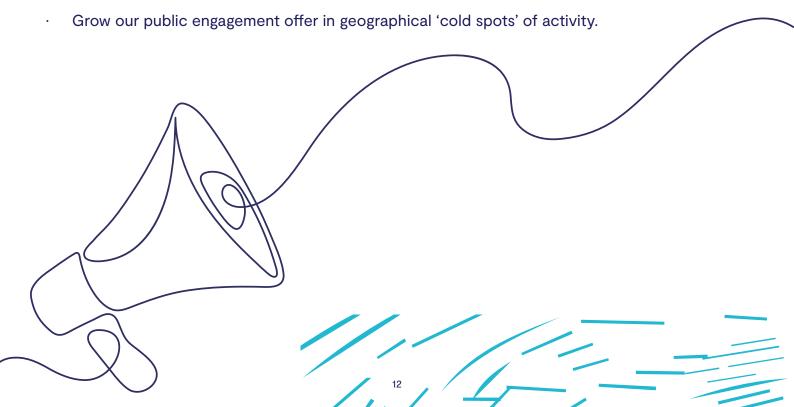
Delivering high quality public engagement activities and evaluating outcomes

STFC is continually improving our understanding of community need and actively reviewing if our programming is effectively meeting this through evaluation and reflection. We are supporting our grant holders and partners to do the same. The foundation for this is our Public Engagement Evaluation Framework, which was refreshed in 2024 to align with the new strategy and published online in January 2025.

This framework was launched to NLPE Group and STFC PE grant holders in January 2025, and evaluation data for 2024 calendar year was reviewed using this framework. We recognised that it is a challenge to transition to new outcomes for evaluation in the middle of a project, and accepted this would reduce our sample size for evaluation data. Some outcome data collected for this report only represents a small portion of all participants, as low as 6% for most outcomes. A transition to a new framework presents challenges, however, it is important to begin collecting data at the start of the strategy period to enable trend analysis. We will continue to support grant holders to embed the evaluation outcomes into their activity.

As part of our internal Plan, Do, Review processes (see diagram on following page), we have reviewed our activity for 2024 with our Advisory Pannel for Public Engagement (APPE). We reflected on activity levels, achievements and challenges for the calendar year. As a group, we have identified areas of focus for future years, which include:

- Continue to prioritise our work with Wonder participants and deepen our understanding of good practice with these groups;
- Supporting grant holders and National partners to further embed the evaluation framework into their activity;

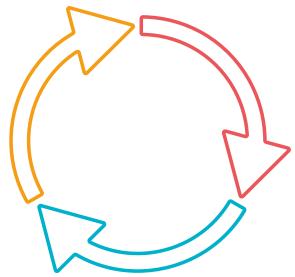


Review

- · STFC to collate and review data
- STFC will review data with APPE in June and make programme recommendations
- STFC will publish an annual report in Autumn

Plan

- · Implement programme recommendations
- · Plan for the upcoming year



Do

- Deliver public engagement activities
- · Collect data January December
- PE grant holders submit data during the submission window in January – March



Appendix

STFC Public Engagement grant activity in 2024

Project tile	Principle Investigator	Institution	Award type
"I'm a Space Person" careers postcard	Martin Archer	Imperial College	Spark Award
The Tactile Universe: Accessible astrophysics for vision impaired school children	Nicolas Bonne	University of Portsmouth	Public Engagement Legacy Award
Communicating STFC Research using a Mobile Planetarium	Lauren Doyle	University of Warwick	Spark Award
Celebrating Astronomy and Telescopes Related to North East England	Victoria Fawcett	Newcastle University	Spark Award
Bringing different worlds together: Engaging very low social and science capital audiences on Teesside through exoplanet science	Carole Haswell	The Open University	Leadership Fellow in Public Engagement
Astronomer Royal Telescopes in Scotland's Outdoor Residential Centres	Catherine Heymans	Institute for Astronomy, University of Edinburgh	Spark Award
Curiosity in Action	Lewis Hou	Science Ceilidh	Nucleus Award
Stars for Schools	Robert Izzard	University of Surrey	Spark Award
Reaching the under-served and growing population of home-educated students	Cristina Lazzeroni	University of Birmingham	Spark Award
Binding Blocks UK: Nuclear Physics Education - Empowering teachers and schools	Christain Diget	University of York	Public Engagement Legacy Award
Astronomy for Remote and Island Schools - STEM Clubs	Christopher Leigh	Liverpool John Moores University	Public Engagement Legacy Award
Remote3: Informing and Influencing a new Generation to STEM Careers	XinRan Liu	University of Edinburgh	Leadership Fellow in Public Engagement
Remote3: Remote sensing by Remote schools in Remote environments	XinRan Liu	University of Edinburgh	Spark Award
Games at the LHC	Kristin Lohwasser	University of Sheffield	Spark Award
SunSpaceArt - Building on Success	Helen Mason	University of Cambridge	Public Engagement Legacy Award

Project tile	Principle Investigator	Institution	Award type
STEM Person Of The Week Cymru - STFC role models in Wales	Wendy Sadler	Science Made Simple Ltd	Nucleus Award
I'm a Scientist: CERN Sixth Form	Shane McCracken	Gallomanor Communications Ltd	Spark Award
2000 + 1: A Maths Space Odyssey - a co-created maths, planetary science and astrophysics digital adventure game	Alison Megeney	Middlesex/ University	Spark Award
Nuclear Physics Outreach Programme	Rachel Montgomery	University of Glasgow	Spark Award
ORBYTS: Establishing researcher- in-school partnerships in the Midlands and North-East	Michaela Mooney	University of Leicester	Spark Award
Satellites Brick By Brick	Chris North	Cardiff University	Spark Award
Light and Space SEND Friendly Family Backpacks	Helen Pooley	University of Oxford, History of Science Museum	Spark Award
Eyes on Mars	Andrew Coates	University College London	Spark Award
Deep Space to Deep Impact: embedding astronomy in the new Curriculum for Wales	Paul Roche	Cardiff University	Nucleus Award
Reading between the lines: Translating light from science to art	Aurora Sicilia- Aguilar	University of Dundee	Spark Award
STEM Communities	Joe Shimwell	Northumbria University	Nucleus Award
Discovering Daresbury Laboratories	Sarah Sisson	Sphere Science Ltd	Spark Award
Somali Community Communicating Science	Sarah Sisson	Sphere Science Ltd	Spark Award
EMPower Oxford	Kathryn Boast / Sian Tedaldi	Oxford University	Spark Award
Plates for Education - UK	Rita Tojeiro	University of St Andrews	Spark Award
What are things made of	Mark Waters	4wardfutures	Spark Award
Engaging Year 10 Students Through Particle Physics Workshop Activities	Jeanne Wilson	Kings College London	Spark Award
Exploring, Creating and Designing Our Universe (Archwilio, Creu a Dylunio Ein Bydysawd)	Emma Wride	AstroCymru Ltd	Spark Award
Higgs Boson Dominoes as a Classroom Puzzle Activity	Seth Zenz	Queen Mary University of London	Spark Award





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