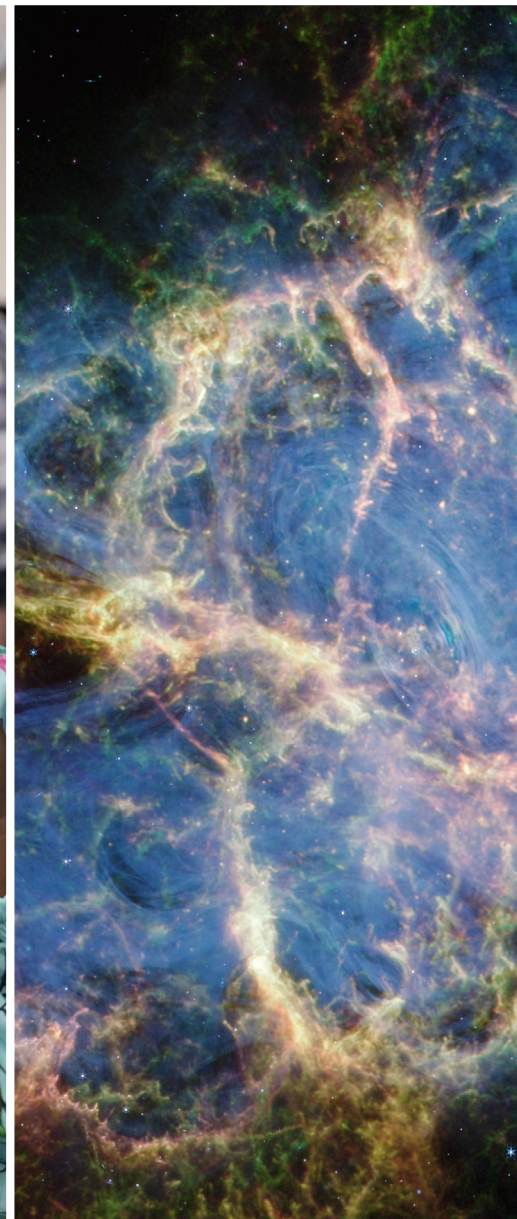




Science and
Technology
Facilities Council

STFC Public Engagement Strategy 2024–2028

For a society in which all people
feel able to engage with STEM,
research and innovation



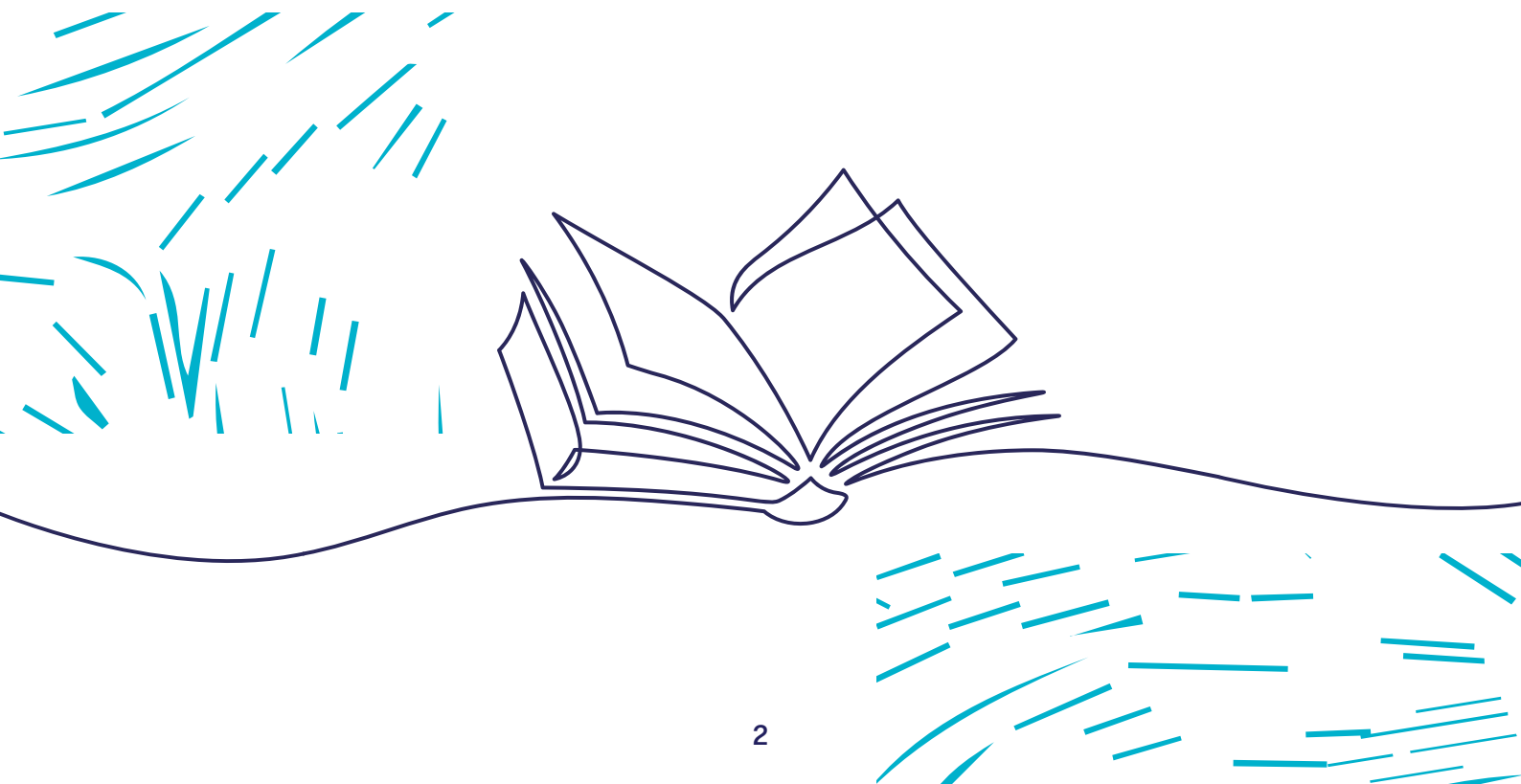
Public Engagement Strategy 2024 – 2028

The Science and Technology Facilities Council (STFC) is a world-leading research and innovation organisation, with a unique role within UK Research and Innovation (UKRI) supporting research in astronomy, physics, computational science and space science, and operating world-class research facilities for the UK. We enable developments in areas as diverse as food security, medical imaging, vaccine development, and data science. STFC funding enables the UK to continue to play a leading role (nationally and internationally) in areas where some of the most ground-breaking discoveries of the last fifty years have been made and explored.

Our research seeks to understand the Universe from the largest astronomical scales to the tiniest constituents of matter – and everything in between. Through our public engagement (PE) we use these big ideas, questions and the stories of the people undertaking the science to enthuse and inspire people about the work that we do and its impact in their lives. By showcasing the diversity of roles and career options in science, technology, engineering and maths (STEM) within STFC we hope to inspire the next generation to consider the varied options that exist for them to explore.

We enable public engagement 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. STFC also support inspirational engagement at international facilities such as CERN via the [UK Strategy for Engagement with CERN](#).

Our new PE strategy builds on its predecessor which was, in itself, a step change for STFC in the way we approached public engagement work. Since the publication of that strategy in 2016 much has changed in the world. In terms of our operating context STFC and the other UK research councils were brought together as a single organisation, UKRI, with the opportunity for greater connectivity, collaboration and potential for public involvement in research. As a society we have weathered unexpected challenges with profound impacts on the ways we live and work and engage. We have learned a lot about effective virtual delivery of engagement and the importance of striving for inclusive practices that improve accessibility to all our PE programming. **This has influenced the shape of the new PE strategy and its implementation.**



In implementing the previous PE strategy we gave careful consideration to the audiences and communities we were working with and developed the Wonder Initiative as a lens through which all public engagement activity is seen to improve equity of opportunities. Wonder prioritises working with participants from the 40% most socio-economically deprived areas of the UK, in particular 8 to 14-year-olds and their families and carers. Wonder has allowed us to facilitate an increased proportion of this demographic to be involved in STFC PE activities while maintaining high quality outcomes. This has been a fundamental change in the type of communities both STFC PE teams and our grant holders engage with and has led to an increase in community co-development of programming. We are proud of this result and the community that created it.

The Wonder Initiative will continue for at least the lifetime of this strategy.

Our engagements are not delivered in isolation and we have developed effective strategic partnerships that have helped us achieve our common goals. These included a high-reach, high-impact campaign around the James Webb Space Telescope construction and launch, and programmes focused on expanding coproduction and engaging different audiences in environments familiar to them through our work with The Reading Agency and Association for Science and Discovery Centres.

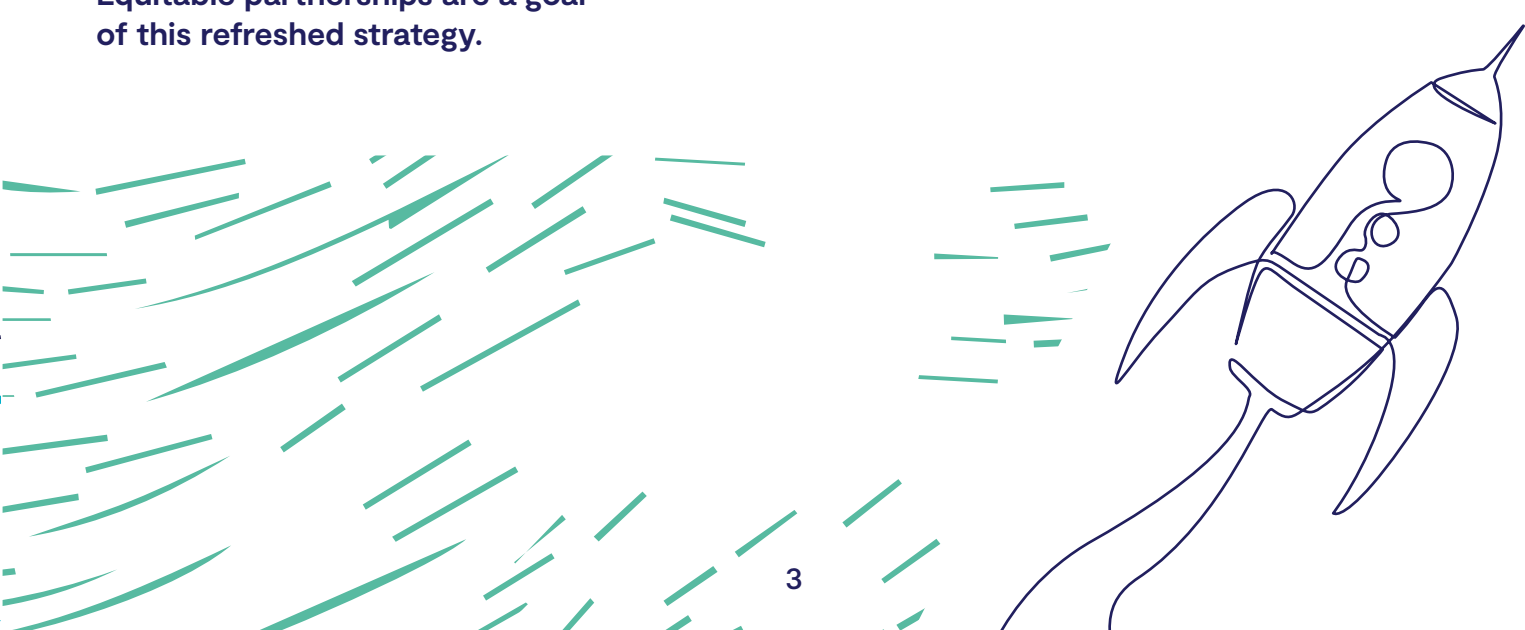
Equitable partnerships are a goal of this refreshed strategy.

Wonder

Science and technology can inspire people from all backgrounds. In reality, we know that the playing field isn't level. The STFC Wonder Initiative focuses on working with participants from the 40% most socio-economically deprived areas of the UK, in particular 8 to 14-year-olds and their families and carers. It aims to connect people from all backgrounds with our science and technology by listening, understanding and responding to what people want to know about science and technology.

Our aims for Wonder Phase 1 focused on delivery, developing effective partnerships and capturing and sharing learning from all aspects of the initiative. By the end of 2022 we significantly increased our reach with Wonder communities through grants, partnerships and our own activity delivery. We prioritised Wonder in grant applications and PE delivery planning, established a range of new initiatives co-created by public engagement delivery organisations and community organisations and have begun sharing our learnings.

Through the delivery period of our new PE strategy phase two of Wonder will continue to make Wonder communities our priority, encourage increased co-curation and co-development of engagement programmes with Wonder communities and advocate for audience-led approaches to engagement.



STFC Public Engagement Strategy 2024 – 2028

Our vision is for a society in which all people feel able to engage with STEM, research and innovation.

For STFC, delivering the highest-quality public engagement is vital, and is how we maximise the likelihood of positive outcomes and impacts from our programme.

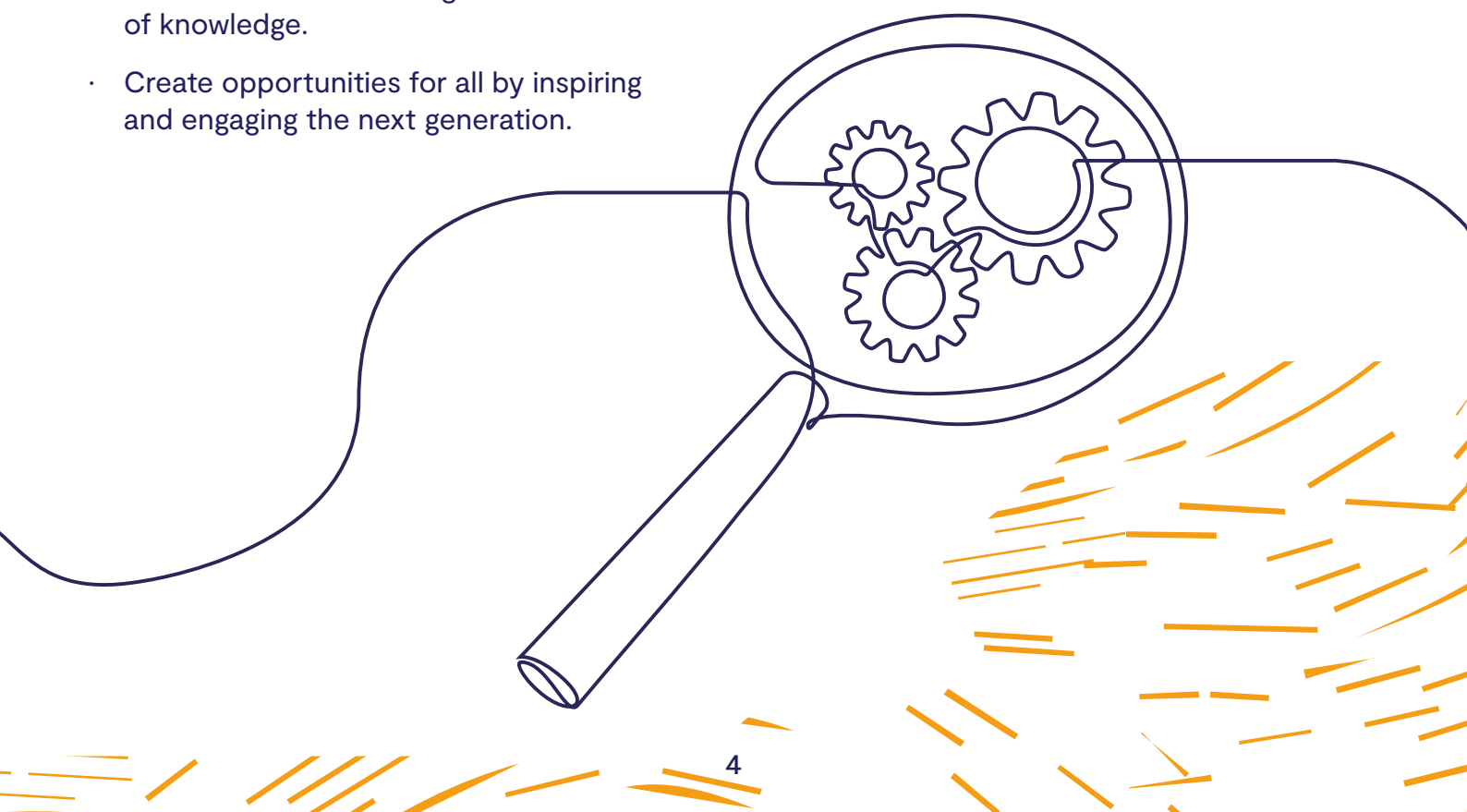
We will continue to support approaches to engagement that are ambitious, creative, cross-disciplinary, collaborative and inclusive and that highlight and provide insight into scientific practices and processes. These approaches will demonstrate sound planning and effective evaluation and reflect learning from the wider public engagement community. People should feel welcomed, valued and listened to and wherever possible have opportunities for onward engagement identified.

Our approaches are framed by the UKRI public engagement strategy and its goals to:

- Build a sense of shared endeavour by making research and innovation relevant and accessible to all.
- Make sure the benefits of research and innovation are shared widely by supporting collaboration and valuing diverse forms of knowledge.
- Create opportunities for all by inspiring and engaging the next generation.

The aims of the STFC PE strategy reflect the priorities of our communities of engagement practice and identify the ways for us to most effectively support delivery of the UKRI PE strategy and outline how we will progress our engagement work with the STFC PE community over the period of this strategy. The STFC PE community includes, but is not restricted to: STFC PE teams, STFC staff, PE grant holders, researchers, teachers, informal educators, families, PE professionals, STEM engagement organisations, science centres and museums. Our strategy will be supported by STFC site specific delivery plans.

- **Aim 1:** Celebrating STFC Science, Technology People and Careers.
- **Aim 2:** Working in partnerships.
- **Aim 3:** Building Capacity.
- **Aim 4:** Improving our connections with diverse audiences.
- **Aim 5:** Delivering high quality public engagement activities and evaluating outcomes.



Aim 1:

Celebrating STFC Science, Technology People and Careers

We will celebrate and share the huge range of inspirational and globally impactful science and technology research STFC supports and delivers. Our public engagement portfolio of grants, partnerships and activities will highlight the diverse range of people, skills and places that contribute to this work and provide increased opportunities for both individuals and communities to be involved with our work.

Over the next five years we will:

- Continue to offer a wide range of opportunities to help share stories of STFC through enjoyable, accessible public engagement programmes.
- Highlight the diversity of routes into UK STEM careers and help people feel that STEM is relevant/valued in their lives.
- Support STFC staff in our world leading national facilities to participate in and coordinate programmes of national scope and regional significance.
- Connect to new people, spaces and science by working with partners Maintain dedicated public engagement grant funding schemes to enable the wider research and engagement community to celebrate and share STFC science, technology, people and careers, reviewing and revising schemes where appropriate.

Aim 2:

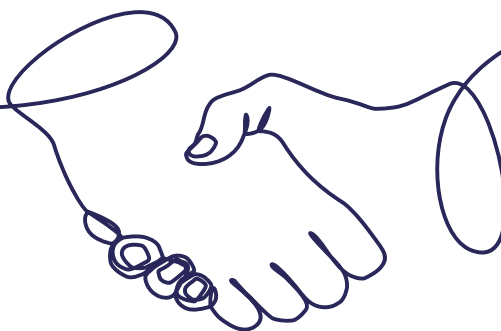
Working in partnerships

STFC values partnerships in public engagement and the power that they bring to the rich landscape of STEM engagement. STFC appreciates that 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 should be at national, regional, and local levels.

STFC recognise that building these effective partnerships is a long-term pursuit, but we believe that this is where impact and added value can be unlocked.

Over the next five years we will:

- Continue to work in carefully selected, equitable partnerships to improve the quality, reach, and impact of our engagement, and to ensure the legacy of the work developed together.
- Co-create new partnerships with clear goals, that deliver excellent STEM engagement and meet the needs of all parties involved.
- Explore partnerships at different scales and durations to help broaden our geographic and demographic reach.



Aim 3:

Building Capacity

STFC will continue to advocate for the value of public engagement as part of scientific and research endeavours and provide support for institutions and individuals to do this.

Alongside funding and delivering PE activities it is important that STFC play our role in seeking to increase the capacity and capabilities of our staff, partners, and communities to ensure the future vitality of public engagement.

Within STFC we will hold ourselves to high standards with respect to development and delivery of PE and the ways in which we can broaden the opportunities for involvement across our staff body.

Over the next five years we will:

- Advocate for the value of public engagement.
- Provide funding and participation opportunities that facilitate public engagement skills development.
- Support the public engagement work of STFC staff and grant holders through peer learning, resource development and sharing and networking opportunities.
- Support PE practitioners to incorporate STFC science into their work, seeking to develop communities of practise.
- Serve as an exemplar of how to develop and deliver high quality public engagement and share our learning widely.



Aim 4:

Improving our connections with diverse audiences

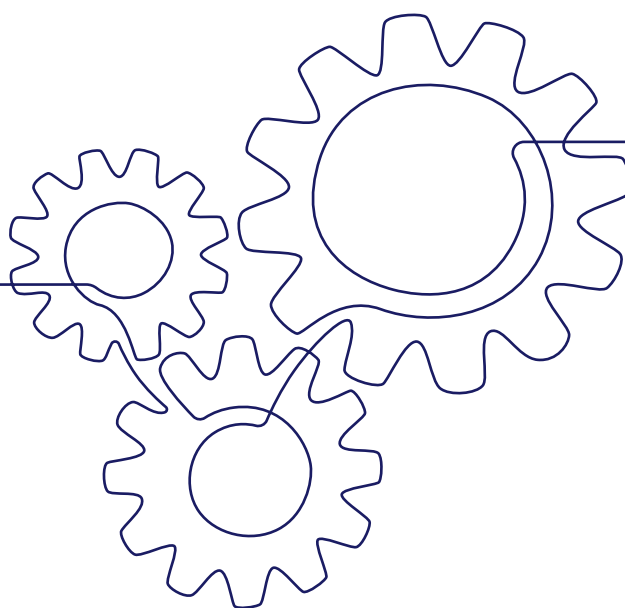
Science is for everyone and everyone should be able to access resources and opportunities.

During the period of the last STFC PE strategy a detailed analysis of the people engaging with our programmes was undertaken in response to emerging research about science capital. In response to this the Wonder Initiative was put in place, where all STFC PE activities were looked at through the lens of trying to improve equity of access. Through the lifetime of this strategy Wonder demographic audiences will continue to be prioritised and minimum participation levels targeted as outlined in the STFC strategic delivery plan.

Over the next five years we will:

- Continue to prioritise working with Wonder audiences across all our engagement work to ensure that a high proportion of activity reaches children and young people facing economic disadvantage and traditionally reduced engagement opportunities.

- Encourage the consideration of co-creation, co-production models of public engagement and the value of lived experience to develop programmes and activities better positioned to meet wider community needs.
- Maintain a balance of in person and virtual activities across our portfolio to help meet different access requirements.
- Monitor the geographical spread of STFC PE activities, and take steps to reduce any significant gaps in opportunity.
- Acknowledge that equitable access to opportunities is denied to many communities, and that access can be affected by many factors (such as socio-economic deprivation, gender, class and disability) and STFC PE programming will encourage approaches that seek to reduce the discriminatory impact of these factors.



Aim 5:

Delivering high quality public engagement activities and evaluating outcomes

STFC are continually improving our understanding of public and community needs, effective activity planning, delivery, evaluation, and sustainability – both in terms of activity and programme level but also in relation to the reducing the environmental impact of our engagements. We will support our communities and partners to do the same.

Over the next five years we will:

- Lead the STFC community in what constitutes high-quality public engagement and the development of skills needed for their delivery.
- Refresh the evaluation framework and guidance for grant holders based on the newly developed STFC PE Theory of Change (a model that helps map our priorities and actions).
- Evidence the efficacy of our own delivery via an iterative process of research, planning, activity, evaluation, learning and sharing, specifically sharing the successes of good practice and reflecting candidly on challenges faced.
- Learn from the evaluation of programmes of our partners, the wider PE sector and beyond.

Evaluation

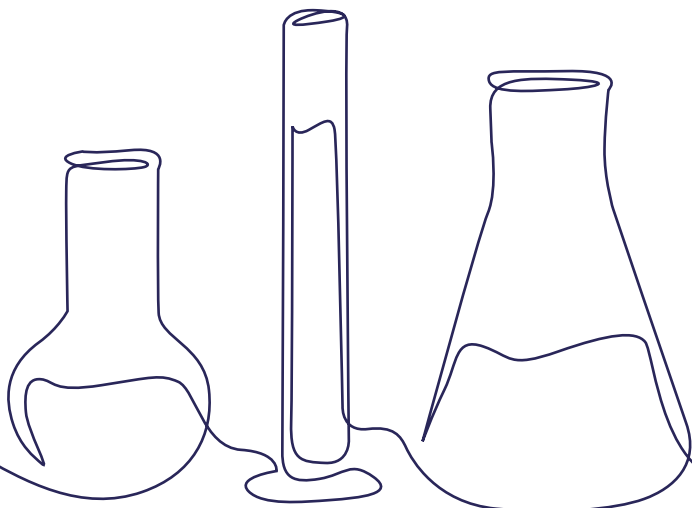
As part of this strategy, we are continuing our commitment to evidence-based evaluation. Using the Theory of Change and the new strategy as a starting point, we will be rewriting the evaluation framework. The framework will be launched in 2024 and data collection based on the new outcomes and metrics will begin in 2025.



NLPE

STFC has public engagement teams at its three main National Laboratory sites in Edinburgh, Daresbury and Harwell. Every year, these teams support more than 500 STFC technicians, engineers, scientists and other staff in running activities for schools and the public. Our programme is varied – for different people, in different places. We welcome visitors onto our sites, to be inspired by our staff, facilities, science and technology. At our vibrant open day events, thousands of people engage with our staff, through a wide array of activities enabling them to explore what happens at our laboratories. We also go out to connect with schools and community groups. Our work experience programme provides a valuable insight into life and work at a major STEM organisation, placing young people alongside the teams who support and lead the cutting edge work that the National Laboratories deliver.

We collaborate with teachers and partners including librarians, science centres or community group leaders to co-develop activities, initiatives and events. This builds trust and strengthens local connections and our training programmes support partners to deliver STFC themed activities wherever they are based around the country.



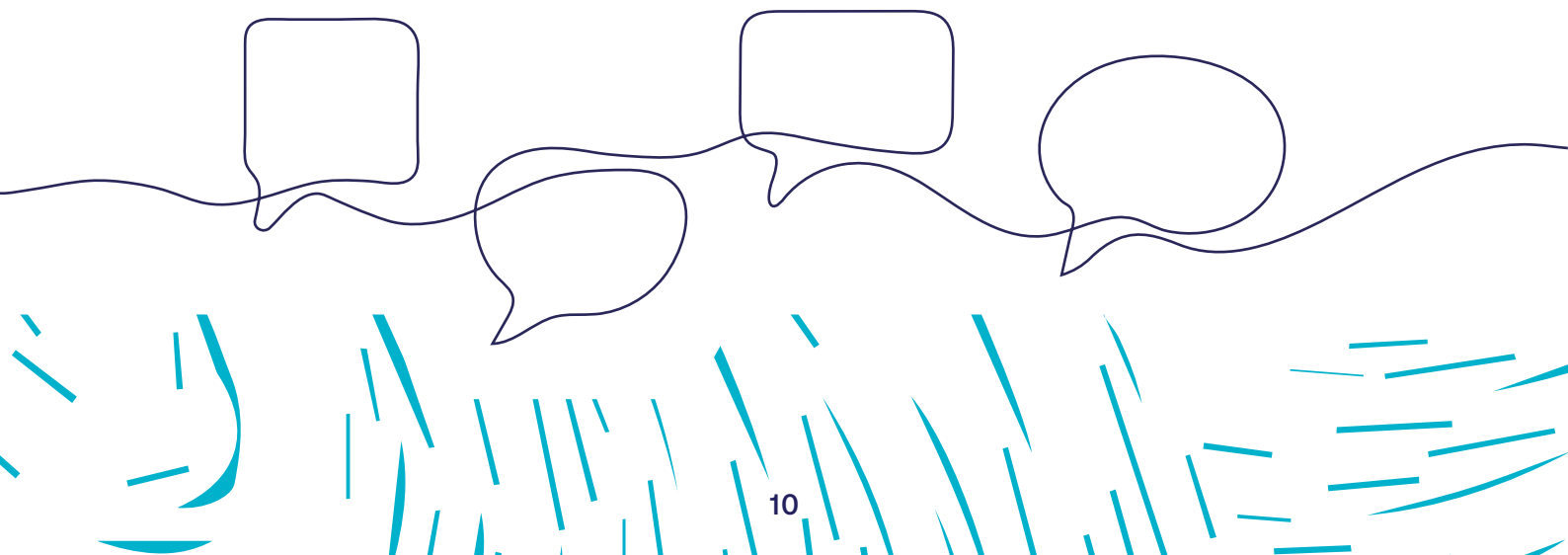
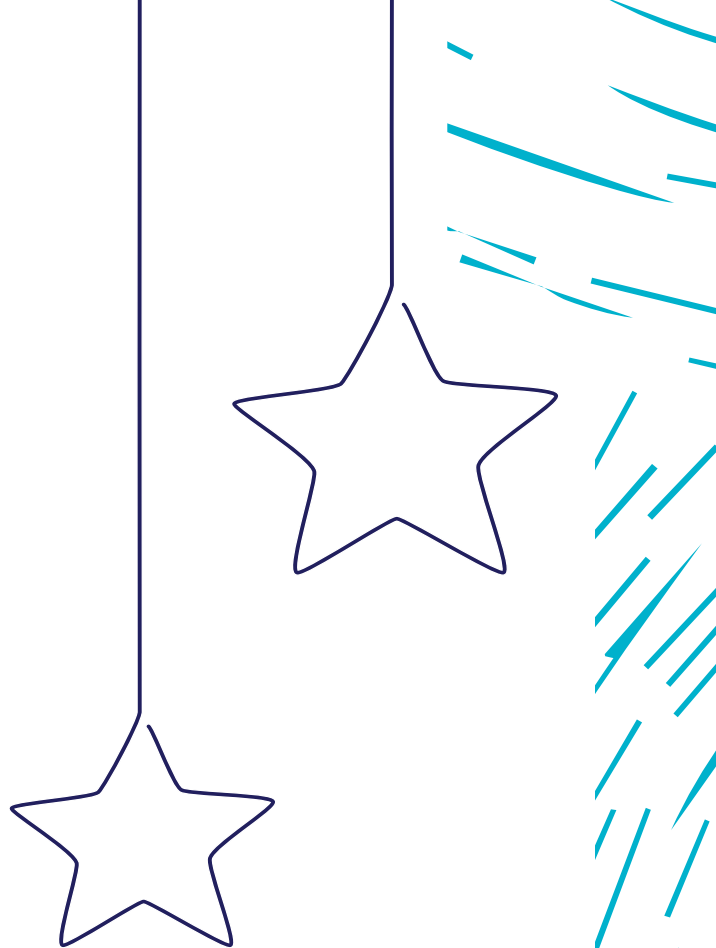
Swindon team

The STFC public engagement team based in Swindon manages our dedicated PE grant schemes, mentor and support our grant holder community and evaluate their inspirational programmes. We work with national strategic partners to build the capacity and quality of our engagement programme, including reaching new audiences.

We have also developed a unique lunar rocks and meteorites loans scheme, with the real moon rock and soil samples returned by the Apollo Missions. Available for schools and other institutions to 'Borrow the Moon', it has inspired and engaged audiences of all ages since the partnership with NASA began.

Interact

Working with key sector partners STFC leads on developing and delivering the Interact engagement symposium, which is held every two years. A key priority for these symposia is to support and enable the physical sciences community to carry out impactful research- linked engagement with a wide variety of audiences. Interact also aims to celebrate and raise the status and quality of engagement, as well as embedding of engagement into research culture.



NLPE Early Careers Engagement Programme

STFC has made it a strategic priority for its early career staff to become involved in public engagement, delivering 1,500 days of activity over the course of STFC's Strategic Delivery Plan. Every year, around 100 staff join STFC on its apprentice and graduate schemes, mainly at its National Laboratory sites. Since 2021, these early career staff have been taking part in the Early Careers Engagement programme (ECE), which supports them to develop the skills, confidence and experience to undertake three days of public engagement per year, for two years. These skills are closely linked to apprenticeship and chartership standards, helping early careers staff to develop professional capabilities through participation in the scheme. The programme builds the capacity of STFC Public Engagement and ensures our audiences are engaged with staff in a wide range of roles and career stages. ECE is led by STFC's National Labs PE group and the Early Careers team.



Theory of Change

Principles and approaches to high quality PE

1

Celebrating STFC stories, people and facilities

2

Removing barriers and building bridges for participation

3

Sustaining collaborative partnerships

4

Creating inspiring and meaningful experiences

5

Evidence-based

Stakeholders

Society



Partners



Wider R&I ecosystem



STFC Public Engagement Teams



Short term outcomes

- Feel inspired by STFC science, technology and people
- Felt that STEM is relevant to my life
- Feel like working in STEM is an option for me
- Seek out further opportunities to engage with STEM
- Engage in informed conversations about STEM

- Community groups, teachers and partners feel their expertise and priorities shape the funded activities delivered
- Know and understand STFC and the PE funding environment, including priority areas
- Feel their partnership with STFC adds value to their work
- Develop their skills and confidence in engaging others with STFC science and technology

- Understand best practice in public engagement
- Value public engagement
- Support/resource public engagement work
- Recognise STFC as an organisation that delivers high quality public engagement

- Feel valued in their roles within the STFC community
- Understand our participants and partners needs
- Understand the wider research and innovation ecosystem
- Value diverse voices in public engagement

Long term outcomes

- People are inspired by and their lives are enriched by a connection to our science and technology
- The UK has a flourishing and diverse STEM workforce
- Public engagement is a thriving part of the research and innovation ecosystem
- The STFC PE programme contributes to the wider UKRI Public Engagement aim that everyone will benefit from UK research and innovation



Our vision

For a society in which all people feel able to engage with STEM, research and innovation

STFC Site map graphic





Rutherford Appleton Laboratory



Daresbury Laboratory



Royal Observatory Edinburgh



Boulby Underground Laboratory



Chilbolton Observatory



Polaris House, Swindon



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