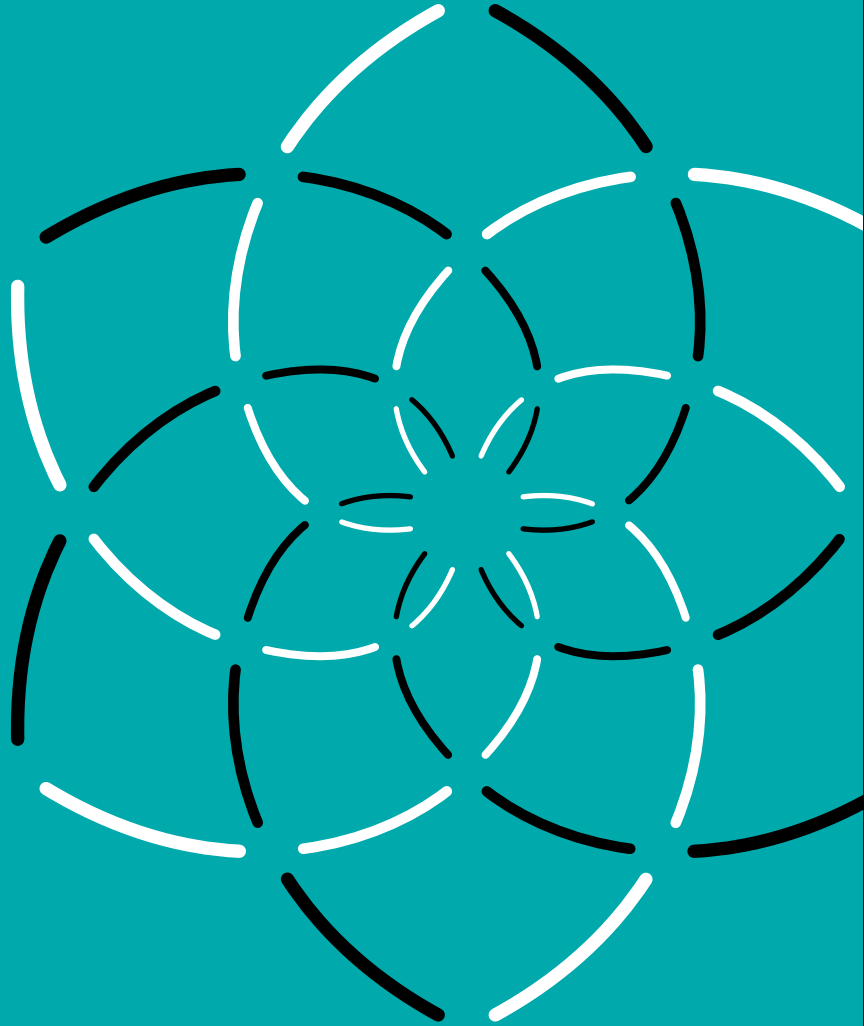


Engaging Environments

Lessons from the NERC-funded
Engaging Environments Programme



National
Co-ordinating
Centre for
Public Engagement





**National
Co-ordinating
Centre for
Public Engagement**

The National Co-ordinating Centre for Public Engagement (NCCPE) is internationally recognised for its work supporting and inspiring universities to engage with the public. We work to change perspectives, promote innovation, and nurture and celebrate excellence. We also champion meaningful engagement that makes a real and valued difference to people's lives.

The NCCPE is supported by UK Research and Innovation, the devolved Higher Education funding bodies, and Wellcome, and has been hosted by the University of Bristol and UWE Bristol since it was established in 2008.

Introduction

Between October 2017 and October 2018 the Engaging Environments Programme sought to develop consortia of partners, working together to engage the UK public with environmental science. The project aimed to realise more effective approaches to public engagement, moving beyond standard dissemination methods, to co-creating engagement with communities, artists, and publics.

There has been rich learning from the project, relating to how engagement is viewed and valued by the Natural Environment Research Council (NERC) academic community. These include the benefits of taking more collaborative approaches to engagement; drawing on and building the evidence-base for effective practice; understanding the motivations, interests and needs of publics and researchers and identifying some of the structural changes needed within research organisations if public engagement is to thrive.

The National Co-ordinating Centre for Public Engagement (NCCPE) acted as a coordinating hub for this programme, bringing the projects together to pool learning, make connections and produce this shared resource.

The booklet pulls together key learning from the programme, that we hope will be useful for anyone working to develop more effective public engagement with environmental science, whether as a researcher or as an engagement professional.

Foreword

Investment

When we launched Engaging Environments at NERC, our hope was to foster excellent examples of public engagement across the NERC research community. We wanted to raise the bar for quality activities that were genuinely engaging for public audiences, and that directly addressed complex environmental issues and debates.

We also wanted to demonstrate how much NERC values impactful public engagement. Indeed, Engaging Environments is NERC's biggest single investment in public engagement to date, and the first public engagement grants processed through the Je-S system alongside our research and innovation funding.

We very much welcome the fact that public engagement is central to the initial thinking in the launch of UKRI. We are keen to ensure we develop our approach in light of broader development and by learning from outputs and feedback from this programme. All this will inform our thinking around future funding in this space.

Relevance

When we developed the 2016 NERC public engagement strategy, we asked why, as a public funder of environmental science, public engagement with research is so important, concluding:

“As environmental science will continue to be at the heart of some of our society’s biggest challenges, NERC has both an opportunity and a responsibility.”

NERC science is essential to forming and delivering policy that makes it possible for the environment, people and businesses to succeed together. The UK public recognise this work as critically important and in their consciousness, it is only matched by future health challenges, to which environmental considerations are increasingly linked. According to our 2017 Public Attitudes survey, 76% of the public want to understand more about the science we fund. The projects funded through Engaging Environments have shown us it is possible to respond by bringing together those with the skills and knowledge to deliver quality public engagement in environmental science.

Thank you

I would like to thank all those involved in these collaborations who have made Engaging Environments a success so far and look forward to the legacy that will continue.

Alison Robinson

Director of Corporate Affairs,
Futures & Change
Natural Environment Research
Council
March 2019



Alison Robinson, Director of Corporate Affairs, Futures & Change, NERC

Introducing the projects

The Climate Communication Project

Bringing together leading academics and practitioners to 'audit' UK capacity and expertise in public engagement with environmental science; develop the first synthesis of key research and recommendations and listen to community groups' views and needs. Co-creating a capacity-building model for climate change communication which provides the groundwork for further science engagement activities.

Project report taking stock of the current climate communication knowledge base



Climate Stories

Developing a new model for engaging about environmental issues, by bringing together environmental scientists, artists and members of the public to co-develop empowering narratives of change. Producing a book, film and art works documenting the transformative power of this engagement for the professional practice of scientists.

Flier for a Climate Stories song-writing workshop

ENCOMPASS - Engaging Communities with Environmental Science

Aligning research with the concerns of communities around contemporary (environmental) issues. Examining how the practice of community organising can be used with environmental science. Sharing the research agenda with the communities and establishing its relevance to them and to their issues.



Students with Earthwatch helping to develop a forest school curriculum at Nansen Primary School, Birmingham

Engaging Environments hub

Supporting the projects to work together and share learning, drawing on the NCCPE's expertise in engagement and culture change. Facilitating collaboration between the projects and the wider sector to ensure that stakeholders and other relevant organisations have opportunities to get involved in the work.

Delegates at the Engaging Environments Symposium hosted by the NCCPE



Photo: Morag MacDonald



The Underwater Ocean Choir, held at Plymouth Pirate weekend, engaging families with underwater noise pollution

Future of Our Seas

Creating a replicable 'blueprint' for public engagement, with institutions, trainees and community groups. Co-designing engagement that is effective across environmental science and evaluated. Building the approach using consortium building; training drawn on cutting edge social science; mentoring support for trainees; public 'proof of concept' events and good press and publicity.

Opening up science for all

Scoping a national community of practice (CoP) for public engagement with environmental research, working to address barriers to participation for scientists and publics. Exemplifying opening up environmental science through four local CoPs, open access citizen science training and our blog. Supporting collective learning, capacity-building initiatives, and shared resources.



A free online introductory course about citizen science

What was distinctive about Engaging Environments?

Engaging Environments drew on many different traditions and approaches to engaging the public with environmental science.

Distinctive to the project as a whole was a commitment to building consortia of organisations wanting to work together; developing and enhancing evidence-based practice and encouraging researchers to leave their comfort zone.

What we learnt

It is important to invest in consortium building

- Remember that building relationships between organisations and individuals requires time and mutual respect
- Work from the start to build a common vocabulary and working practices in your team

Use and contribute to the evidence-base for public engagement

- Draw on the existing evidence base from environmental science engagement, and other disciplines, and be prepared to question and challenge your own assumptions about what works

Encourage researchers to step out of their comfort zone

- Explore the different ways in which diverse audiences find meaning and relevance in environmental science, for example by working with creative storytellers or community organisations

“ I was beginning to understand the importance of considering what was inside the mind of our audience.”

Amy, Plymouth, Future of our Seas.

What was distinctive about Engaging Environments?

It is important to invest in consortium building

Consortium building was an integral part of the Engaging Environments programme. Each team invested from the outset in getting to know each other and their key partners.

Future of Our Seas started with an internal *Knowledge Audit* – a podcast series in which team members interviewed each other about their past experiences with environmental science engagement. This helped to create a common vocabulary and understanding.

ENCOMPASS worked with partners Citizens UK to deploy their community organising approach to establish which contemporary issues resonated with civil society. Issues raised were often found to have an environmental dimension, opening up new pathways for research and engagement.

Opening up science for all adopted a community of practice approach: “a group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger-Trayner 2017). The approach involved creating online and face-to-face spaces for the project team and wider community to foster collective values, share learning and community assets, and examine barriers and opportunities around public engagement with environmental research.



Capturing the learning from the Opening up science for all project

The Engaging Environments Hub brought together delegates from across the environmental sciences and engagement sectors at a one-day symposium, to collectively address the challenges of engaging the public with environmental science. Participants had a wealth of experience and advice, especially around the value of collaborating and building strong partnerships.

What was distinctive about Engaging Environments?

Use and contribute to the evidence base for public engagement

There exists a broad evidence base – academic and practice-based – that can be used to inform good public engagement practice. But it isn't always easy to access. The teams went out of their way to ground their work in evidence and to share this evidence with others. They all built reflection and learning into their approach.

The Climate Communication Project

brought together leading academics and practitioners working on public engagement with climate change to produce a report benchmarking best practice in climate change communication.

A survey mapped the landscape of engagement and how evidence is being used, and an expert elicitation workshop dug deeper. For example, experts agreed robust scientific evidence should be at the heart of climate communication, but that doesn't mean scientists can't advocate for policies or use evocative communication methods.



Lessons learned from The Climate Communication Project

Future of Our Seas built a comprehensive public engagement training programme drawing on psychology and neuroscience as a means to understand why certain areas of environmental science have become controversial and contested. It proved an eye-opening experience to early-career marine scientists, helping them to develop new ways to tell stories about their science.

Opening up science for all developed an online open-access citizen science training programme drawing upon the expertise of the project team, and their wider national and international citizen science networks.

“ I am rather young in the science field and I didn't know much about citizen science before last year. This course has helped me find more authentic ways to engage the public with the work that I currently do and seek to do in the future.” MSc student, natural science

What was distinctive about Engaging Environments?

Encourage researchers to step out of their comfort zone

All of the Engaging Environments projects challenged their teams to push boundaries and take some risks; the goal was to be as open as possible to trying new approaches.

Climate Stories invited climate scientists to experience their own narratives of change working with community groups, through creative writing, printmaking, song-writing and theatre making.

“ I've really enjoyed the process of writing a song....You can take it and sing it in a pub or a square and so the message can be transported everywhere.” Freya, Climate Stories participant

“ Some people are out of their comfort zone and quite obviously uncomfortable... people[have] been encouraging each other in a very non-threatening and non-confrontational way. There's no time to be scared or to have trepidation...you just have to get stuck in.”

Natalie, Climate Stories participant



Photo: Bernd Eggen

Song-writing tutor Rosie Eade working on a song with Natalie

The Climate Communication Project invited climate scientists and public engagement practitioners to join co-production workshops with diverse and underserved community groups, which involved using collaborative poetry-writing exercises to develop a safe space for discussion around two topics: their community and climate change. These workshops allowed participants to listen to a selection of different voices and understand that engagement with climate change is dependent on the lived experiences of each community member.

Finding common ground

Environmental science issues can be complex, critical and sometimes contentious. Unless common ground can be established, engagement will break down. Aware of this, our project teams put great emphasis on listening to communities and to exploring the values that motivated people. This meant not always starting from the science.

What we learnt

Think hard about what will motivate people to get involved

- People bring strong values and opinions on environmental science, which can bring challenges and opportunities for engagement. Understanding how to navigate this effectively is crucial
- As well as paying careful attention to what motivates the public to get involved, it's important to develop a better understanding of what motivates researchers to be enthusiastic about or resistant to public engagement

Invest in people

- Innovative training, resources and capacity-building help researchers to better understand and navigate the values of the audiences they engage with

Invest in partnerships

- Bringing people together to plan and co-design engagement opens up new possibilities, and enables rich learning for all involved. It can help non-scientists better understand science and scientists

“What if innovation meant actually sacrificing the [scientific] evidence but getting completely different groups of people feeling included?”

Opening up science for all, quote from science NGO manager

Finding common ground

Think hard about what will motivate people to get involved

It's important to remember that it can't be taken for granted that researchers will want to get involved in public engagement.

Many were less motivated to engage because they were:

- concerned that they would be expected to know all the answers
- doing research that had no clear or immediate relevance to the public
- unclear how to engage when their values did not align with those of their potential audiences
- keen to inform decision-making but didn't want to tell people what to do
- anxious about how innovative methods of public engagement would be received by colleagues and publics

Climate Stories found that many researchers have a deeply personal desire to bring 'wonder' to others. They see emotional connection as a key way of engaging the public with environmental science and the impact of environmental change.

The Climate Communication Project team focused on the social science of communicating climate change: the insight this provides helps understand how to 'connect' people with the science in meaningful ways.

Future of Our Seas found their trainee early career researchers highly motivated to draw on social science and neuroscience to translate their research into memorable stories, metaphors and language for the public.

ENCOMPASS found that being aware of the passions of researchers and community members is vital to developing collaborative approaches – the overlap is where collaborative action can emerge.



'Wordle' showing key issues raised at the ENCOMPASS Kick-Off meeting on 28th November 2018

Finding common ground

Invest in people

It seems obvious – but it is vital to emphasise: engagement is all about people. Putting their needs centre stage; investing in their skills; strengthening their networks; these are all vital steps to supporting purposeful public engagement. The teams went about this in a variety of ways but for all, it was a central focus of their work.

Capacity building

A planned training programme was considered not only valuable but essential by several project teams. A commitment of between three and six days was found to be the most productive. For Future of Our Seas this involved creating a shared common language and shared goals and was combined with mentoring, leading up to the delivery of engagement activities.

For ENCOMPASS, the community organising training brought people from a variety of backgrounds together to build relationships, and understand where and how they may act together. For Climate Stories the three-day residential workshop provided the space for people to develop dramatically new ways of sharing their research.



Photo: Bernd Eggen

Getting creative at the Climate Stories workshop

Resources

The Climate Communication project and Opening up science for all focused on resources: either the development of new, or the evaluation and dissemination of existing materials and techniques. They found people were hungry for knowledge and recommendations for best practice in order to improve public engagement with climate change in the UK.

Finding common ground

Invest in partnerships

Investing in partnerships, alliances and communities produced illuminating results for all teams. At the heart of several of the projects was bringing community organisations and researchers together to co-create approaches.

Opening up science for all established four local communities of practice (CoP) in Reading, Greater Manchester, Newcastle and London to bring together environmental scientists, researchers from other backgrounds, public engagement teams and community groups to share their experiences and participate in activities. Whilst each CoP took a slightly different approach, for example meeting for a picnic in Reading or hosting a community science festival in Greater Manchester, the CoPs enabled participants to share their enthusiasm and practice with like-minded others. All four have secured alternative funding beyond the lifetime of the project to continue.



Finding ways to connect: the Reading Community of Practice picnic

ENCOMPASS worked in partnership with the Citizens UK (CUK) membership around Birmingham's Clean Air Zone (CAZ) – a plan to lower the levels of predominantly transport-derived pollutants to below the legal limit. There was concern from CUK members and local communities that less affluent areas within the CAZ would be hit hardest by the charge; this charge is unavoidable by those who live, work or worship within the zone. CUK members and local communities were supported by ENCOMPASS when meeting council representatives to secure a working relationship. This relationship widened the agenda, linking accessibility to sustainable modes of transport with neighbourhood safety and green infrastructure.

Avoiding potholes

Our project teams learnt a lot of practical lessons about building capacity, developing consortia and doing public engagement.

There are lots of potholes on the way which need to be navigated for successful outcomes for all.

What we learnt

Quality engagement takes time – so plan for it

- Don't underestimate how long quality engagement takes to design, build, establish and evaluate. The same goes for forming project teams and building capacity. Make sure you plan this in at the start

Change is difficult

- Understand that building capacity and consortia, and doing public engagement, require changes to how you work and who you work with. Enthusiasm, positivity and curiosity are key ingredients, but changing practices is difficult. Be prepared for this, but remember that change is inevitable

Be practical and learn from other people's experience

- It is not enough to be ambitious and share a common purpose; you need to take account of the practical considerations in planning and developing your engagement. There are lots of practical tips and guidance out there – use them!

“Time pressure! Although perhaps obvious, nearly everyone involved in Future of our Seas has commented on the amount of time and resources required to produce public engagement interventions which engage deeply. Nearly all of the project consortium committed many more hours than anticipated to the project.” Ian Rowlands, Future of our Seas team

Avoiding potholes

Quality engagement takes time – so plan for it

Quality engagement requires time to design, build, establish and evaluate. It demands collaborative project teams, capacity-building activities and a strong sense of the audience.

Building teams can't be rushed

Never underestimate the time it takes to build an effective team. A key element of the Engaging Environments programme was to build consortia and we had dedicated time and resources to do this – but even so, all the teams would have liked to have more time to invest in this area.

So where does that time go?

- Effective team building and developing a shared common language and values
- Getting to know and supporting each other
- Mentoring
- Developing quality engagement activities

Quality engagement requires careful planning

So what practical steps can be taken to help ensure the engagement activities work well; both between project collaborators and with the public?

- Allow budget for meetings and mentoring; these can be overlooked, but taking short cuts can impact on the quality of the project
- Be realistic about what is possible, especially when you are nurturing new partnerships or innovative approaches. Be prepared to ask for more money to realise your ambition, or to scale back your ambition. Sometimes less is more
- Learn from what works and what doesn't. Recognise the process is iterative and refine approaches over time
- Just because it is time consuming or initially unfruitful, don't assume it is not worth it. Once relationships are built, it is possible to act quickly, based on trust and mutual understanding



Future of our Seas, Plymouth event

Change is difficult

The skills you need to do good science and good engagement are different, if complementary.

Researchers need to be open to working in new ways, with new people and this can be personally and professionally challenging as well as rewarding.

“ I’m an inter-disciplinary scientist and you can’t build effective communities if you focus on one area; you need to be aware and appreciative of others’ needs and be open to new things.” Climate Stories participant

The teams identified some principles which help people to navigate change:

1. We need to unlearn stuff

- Be open minded and open to feedback
- Tell stories rather than explain concepts: people want to understand why you care
- Encourage researchers to recognise what they don’t know and the limits of what they do know. Invite them to discuss and reflect on their assumptions

2. We need to work together

- Don’t be afraid to reach out beyond your disciplinary/organisational boundaries, and to do this sooner rather than later
- Trust and personal relationships are important – nurture these. Leave hierarchies at the door
- Recognise that partnership-working requires compromise – be prepared for trade-offs and to have your own assumptions challenged

3. We need to work in expert ways to navigate this territory

- This is complex and challenging work that requires discretion, judgement and juggling of priorities. It requires really well-designed methods such as the expert elicitation used in the Climate Communications Project or the communities of practice approach in Opening up science for all. Don’t underestimate the skills needed and be open to different approaches

Be practical and learn from other people’s experience

All the project teams felt that they had ‘missed tricks’ or run up against challenges that they would be able to anticipate and navigate better next time. We asked them to provide their top tips to help others practically and to benefit from their experience. These are some of the things they wish they had known:

- Beware of spreading yourselves too thin
- Don’t promise a solution
- Resist a ‘theory of everything’: the phrases ‘environmental sciences’ and ‘public engagement’ cover a lot of ground so work out where you will focus
- Community partnerships must be two-way
- Understand better that different social groups react to different language
- Don’t assume a researcher who has done public engagement work wants to do it again or differently
- Seek to recognise involvement in public engagement in career structures
- Think hard about how to simplify the science without ‘dumbing down’: this can become a sticking point
- Remember school and religious holidays

At the end of this booklet we provide links to some of the many resources the teams have generated, to help others build on their work.



Graphic minutes from the Engaging Environments Symposium, October 2018.

Artwork Sam Church

Making the case...

Long term, strategic approaches to public engagement are not always considered important to research groups. Our projects have sought to gain support for their work, embedding it into the institutions that they are part of and galvanising people to get involved. They have learnt a lot along the way and identified some of the key factors that help win support and commitment for this important work, which is vital if it is to be sustained.

“ We do public engagement because it is beneficial to our research, and it breaks down barriers.” Environmental Researcher, ENCOMPASS project

1 Lesson 1: This is about culture change

Universities tend not to prioritise public engagement and often value other activities much more highly – for instance, publishing in high impact journals or engaging with other sectors like policy or business. Understanding this context – and how to address it – is important. Drawing on resources like the NCCPE has produced can help to address this, and win support from senior staff.

2 Lesson 2: NERC’s support matters

The fact that NERC had invested in this project, and backed it with strong senior advocacy, helped teams to convince colleagues of its value. They also made explicit links to the Research Excellence Framework and the potential of the activities to contribute to impact case studies, as well as to institutions’ broader civic agendas. These external imperatives help in winning support for the work.

3 Lesson 3: This is about better research

The teams highlighted to researchers that engagement is a route to enriching research, by helping to frame and focus it on issues of concern to the public or by actively involving people in it. Having influential champions for this kind of approach, offering exemplars of what can be achieved by working in this way, and providing in depth training and support, proved essential.

4 Lesson 4: This involves taking well-managed risks

Helping researchers leave their ‘comfort zone’ to encounter new methods and engage with new people requires really skilful brokerage, and can be risky. The teams all sought to provide safe and carefully managed pathways. The role of their partners was crucial; they often had deep and trusted relationships with these communities, and skilled and creative ways of involving them.

5 Lesson 5: Focus on the value of the work, and talk about it

The projects learned that it wasn’t enough to believe in the value of the work and to keep this within the team; that value had to be understood, evidenced and communicated. They all invested in evaluation, to reflect on what was and wasn’t working. It required a lot of energy to share work in progress with key influencers in their own organisations and beyond, to try to interest and involve them in their work.

6 Lesson 6: Build allies and alliances

The final lesson takes us back to where we began – with the power of consortia and networks. All the projects sought to identify influential champions for their work. Senior research scientists who value this work and embrace it provide important role models, as do university leaders who understand its contribution to the institution’s broader engagement agendas. Equally, if not more important, were the partners from outside the research sector, from local groups for whom environmental science resonates, to national community networks or engagement specialists. Strengthening these networks and building trust and common purpose between them helps the work to send down deep roots and to be sustained.



Delegate at the Engaging Environments Symposium

Photo: Murrig Macdonald

Resources



In this section we signpost you to some of the resources produced across the project.

The Climate Communication Project

Project website and blog

www.theclimatecommsproject.org

Climate communication in practice: how are we engaging the UK public on climate change?

<https://bit.ly/2ucTCuQ>

Creating Lasting Change for Climate Communication: Lessons learned from the Climate Communication Project

<https://bit.ly/2ug20cZ>

ENCOMPASS

Project website

www.encompassuk.wordpress.com

An introduction to Community Organising and Citizens UK

www.citizensuk.org/what_we_do

Climate Stories

Project website

www.climatestories.org.uk

Future of our Seas

Project website and blog

www.futureofourseas.wordpress.com

Opening up science for all

Project website

www.research.reading.ac.uk/openupsci

An introduction to Communities of Practice (Wenger-Trayner, 2015)

<https://bit.ly/2JnZITE>

Introduction to Citizen Science: a free online course

<https://bit.ly/2JozyAh>

NCCPE

Project website

<https://bit.ly/2yiBgdT>

Methods of Engagement

<https://bit.ly/2OfEMNI>

Culture change resources, to help you make the case for public engagement

<https://bit.ly/2FIWEDh>

**National Co-ordinating Centre
for Public Engagement**

Tel 0117 328 7190

Email nccpe.enquiries@uwe.ac.uk

Twitter @NCCPE

www.publicengagement.ac.uk

