



National  
Co-ordinating  
Centre for  
Public Engagement

---

# **NCCPE response to the R&D Roadmap consultation**

**August 12<sup>th</sup> 2020**

## Overview

The Government's UK Research and Development (R&D) Roadmap aims to ensure the UK is the best place in the world for scientists, researchers and entrepreneurs to live and work. This will help to power up our economic recovery and level up the UK.

*They describe the roadmap 'as the start of a big conversation on what actions need to be taken and how. Over the coming months we will develop the proposals in our roadmap in a comprehensive R&D plan. This plan will only be effective if it is developed with people and organisations across the UK. We therefore welcome responses to the high-level questions outlined in this survey'.*

The consultation includes 8 questions:

1. How can we best increase knowledge and understanding through research, including by achieving bigger breakthroughs?
2. How can we maximise the economic, environmental and societal impact of research through effective application of new knowledge?
3. How can we encourage innovation and ensure it is used to greatest effect, not just in our cutting-edge industries, but right across the economy and throughout our public services?
4. How can we attract, retain and develop talented and diverse people to R&D roles? How can we make R&D for everyone?
5. How should we ensure that R&D plays its fullest role in levelling up all over the UK?
6. How should we strengthen our research infrastructure and institutions in support of our vision?
7. How should we most effectively and safely collaborate with partners and networks around the globe?
8. How can we harness excitement about this vision, listen to a wider range of voices to ensure R&D is delivering for society, and inspire a whole new generation of scientists, researchers, technicians, engineers, and innovators?

**We have included our response to each of these questions below.**

**Please contact:** [nccpe.enquiries@uwe.ac.uk](mailto:nccpe.enquiries@uwe.ac.uk)

## 1. Raising our research ambitions

*Researchers are driven by curiosity – by a desire to ask fundamental questions about how the world works and why – and by a drive to solve problems at the intersection of knowledge and societal need. By supporting research, we advance the frontiers of knowledge, increasing our understanding of the world and of each other. We form global collaborations and alliances. We invent the highly disruptive new technologies which can transform the world around us, improving living standards and health outcomes. And we use these insights to tackle the greatest challenges facing the world – those that cross boundaries and impact on our whole society.*

*The unprecedented increase in public investment announced at the Budget signals a step change in our overall ambitions for UK research, and will enable us to push harder at the frontiers of knowledge, unlocking brilliant new technological breakthroughs and enabling applied research to create transformative benefits for government, businesses and communities right across the UK.*

### **1. HOW CAN WE BEST INCREASE KNOWLEDGE AND UNDERSTANDING THROUGH RESEARCH, INCLUDING BY ACHIEVING BIGGER BREAKTHROUGHS?**

Please comment here (500 words max)

The National Coordinating Centre for Public Engagement (NCCPE) is committed to increasing the involvement of the public in research, and to maximising the public benefit of R&D through purposeful public engagement. We welcome the Roadmap's aspiration to:

- *Engage with people and in places across the country, to strengthen and improve our research and innovation system and inform our priorities and choices*

R&D offers enormous potential to transform our society and economy – but involves very significant political choices about where and how to invest to realise this potential. When these choices are out of step with society (e.g. GM crops) or misunderstood (e.g. vaccinations) the backlash, erosion of trust, and impact on behaviour can be profound, and have long lasting social and economic fallout.

Done well, engaging the public can help develop research more attuned to society's needs and sensitive to its concerns. It can inform research choices, build ownership of the outcomes of research, and enable it to be acted on to generate significant public benefit. We have seen a host of promising developments in engaging the public with research and innovation in the last 20 years. The Roadmap provides a once in a generation opportunity to consolidate these.

Key to achieving this will be valuing public engagement and supporting it effectively. There are a number of problems in how the R&D system currently operates which inhibit high quality engagement, many of which are referred to in the Roadmap, and which will need to be addressed to deliver on its aspirations. These include:

**Research culture:** there is evidence that the research system still operates with perverse incentives (e.g. de-valuing of external engagement and collaboration; and a toxic culture of 'unhealthy competition, bullying and harassment' identified in the recent Wellcome Research Culture report)

**Research purpose:** by incentivising 'outputs' over outcomes, and in particular a 'publish or perish' culture, at the expense of a broader range of activities to engage with users through the process

**Research process:** engagement is often viewed as a secondary 'bolt on' activity; the expertise of engagement professionals undervalued; engagement with different users (e.g. business and publics) operating in separate silos; a lack of innovation in methods; a lack of deliberation and user engagement early in the process. There is a lack of investment in evaluation and learning about 'what works'

Things can be done differently, with many innovative approaches to engaging the public gaining traction across the R&D system, which could be scaled up. The embedding of **patient and public involvement** in health research, pioneered by NIHR is one example. Another is **Responsible Research and Innovation (RRI)**. RRI emphasises the need to build trust in science; to take account of public views; and has developed a host of tools and approaches to build robust, socially sensitive scientific knowledge. UKRI's **Sciencewise programme** is another example of a strategic approach to public engagement. AHRC's **Connected Communities** programme was a 6 year £30M investment in community-focused research, which demonstrated the value and impact of engagement methods.

## 2. The application of new knowledge

*Research is critically important in helping to address significant issues, such as healthy ageing, achieving net zero carbon emissions, and addressing climate change. Applied research plays a vital role in ensuring that resilience, efficiency and effectiveness of public services is improved, that healthcare outcomes are advanced, and that evidence is deployed to solve real world problems and address threats to our security.*

*This requires having a healthy and vibrant ecosystem of institutions in which researchers are free to follow their curiosity, to test radical new ideas, to tackle complex societal problems, and to form new connections, collaborations and networks. It requires a broad span of approaches, from people developing new theories and insights into natural phenomena and the application of research in technological and industrial settings, through to systems research to improve patient care or tackle the barriers to inclusivity in society.*

## 2. HOW CAN WE MAXIMISE THE ECONOMIC, ENVIRONMENTAL AND SOCIETAL IMPACT OF RESEARCH THROUGH EFFECTIVE APPLICATION OF NEW KNOWLEDGE?

Please comment here (500 words max)

The Roadmap challenges us to maximise the impact of research through application. There are many examples of this being done well, evidenced for instance through the REF 2014 case studies. The NCCPE's review of these revealed how nearly half involved some engagement with the public.

**Responsible Research and Innovation** and **Patient and Public Involvement in health research** are examples of robust methods to involve the public that have been developed in different domains. They ensure that research is grounded in the context of application by actively involving users – including the public - throughout the process. So how can this work be scaled up?

### **Use a theory of change approach**

R&D is a complex social intervention, with many uncertainties. We have found a 'theory of change' approach particularly valuable, both in considering how to frame new calls, and in supporting research teams to develop coherent plans for their work. The approach requires you to think through

- What is the purpose of the approach?
- What is the context (the existing knowledge base; the social need it is addressing; other interventions working in this space)
- What is the rationale for the proposed approach?
- What activities will be put in place to pursue these goals?
- What is its potential contribution to the knowledge base? And how might it contribute to wider public benefit? What outcomes might we achieve?

Such an approach also provides reviewers with useful intelligence with which to judge the planned approach to research and application. The recent removal of 'pathways to impact' from the UKRI application process may have reduced bureaucracy, but it has also removed high level consideration of impact from the process. There is an urgent need to consider how the application and review process might be enhanced. We could usefully learn from how funders in the social sector invest to realise social outcomes.

**Develop impact and engagement capability**

The application of knowledge is a complex, social process. It is heavily dependent on skilful approaches to collaboration ('engagement'), and the effects ('impact') are often subtle and difficult to evidence. We need to become much more skilful and reflective about 'what works'; to provide training for researchers; and to invest in engagement and evaluation expertise.

The NCCPE provides a range of training and development courses that build capacity in these different areas, and we are working increasingly closely with other agencies like Vitae, Praxis Auril, NCUB and ARMA to develop a more joined up approach. The Concordat for Knowledge Exchange is an important development, providing a clear articulation of the key principles and enablers of effective knowledge exchange.

**Fund development time and brokerage**

Impactful research typically depends upon the quality of relationships between researchers and research users. The Connected Communities programme modelled new approaches to funding, investing in 'co-design' projects for instance, funding both community organisations and researchers to work together to refine the focus of a research project to ensure it addressed a significant need. Scaling up new modes of 'collaborative' funding will be essential to enhance application.

### 3. Driving up innovation

*Innovation is the process by which ideas are turned into economic growth – where discoveries are translated into new products, services and jobs, creating positive change in businesses, public services, government and wider society. The UK is ranked 5th in the Global Innovation Index 2019 and in the top 10 best countries worldwide to start, locate and scale a business. We already attract significant venture capital – at a level that exceeds that of Germany, France and Sweden combined. We are home to 77 unicorns (start-ups valued over US \$1bn), more than a third of the total across Europe and Israel. And yet, we underperform in innovation compared to research.*

*We need to do more to make the most of our world-class research base and to increase the productivity of UK businesses all over the UK. We need to ensure our excellence in discovery research, design, engineering, data science, and creative arts translates into commercial applications – increasing the productivity of our existing industries and creating new growth opportunities for the UK. The UK has lower levels of R&D activity by businesses compared to our competitor nations, and that investment is focussed on large investors in a few sectors.*

### **3. HOW CAN WE ENCOURAGE INNOVATION AND ENSURE IT IS USED TO GREATEST EFFECT, NOT JUST IN OUR CUTTING-EDGE INDUSTRIES, BUT RIGHT ACROSS THE ECONOMY AND THROUGHOUT OUR PUBLIC SERVICES?**

Please comment here (500 words max)

#### **Defining innovation**

The definition of innovation as ‘the process by which ideas are turned into economic growth’ is unnecessarily narrow. UKRI’s definition provides a more holistic framing: ‘Innovation is the application of knowledge or ideas for the development of products, services or processes – whether in business, public services, or non-profit sectors [ ] for economic growth and societal impact’. Achieving a consistency in how innovation is defined, and its purpose, is vital.

The research sector’s rapid response to Covid19 demonstrates vividly how innovation can be applied on many fronts, from clinical medicine to mental health, from arts and culture to science education. Taking an integrated view of social, economic, health and cultural outcomes provides a much more productive platform to maximise the full public value of investments in R&D.

#### **Involving the public in innovation**

‘Publics’ or citizens, have an important stake in, and potential contribution to make to innovation across different domains, including the economic. This can helpfully be demonstrated using the perspectives in the Knowledge Exchange Framework.

**Perspective 1: Working with business.** The public can make a significant contribution to engagement with business, for instance through approaches to social innovation. This involves actively involving customers, consumers and audiences in the development of new products and services and in critique of existing products and processes

**2: Working with the public and third sector.** By involving service users in the enhancement of public services (e.g. Patient and Public Involvement) public engagement can make a significant contribution to innovation in the public sphere

**3: Skills, enterprise and entrepreneurship.** By investing in community skills development and lifelong learning and in 'Engaged learning' to develop graduates' awareness of and interaction with communities, public engagement has a major role to play in increasing human and social capital; and through the development of social enterprises and social entrepreneurship

**4: IP and commercialisation.** Through encouraging open source products and platforms, public engagement contributes to open innovation processes, and the wider diffusion of knowledge

**5: Local growth and regeneration.** By engaging with vulnerable or disadvantaged communities and by opening up facilities for community use, public engagement makes a significant contribution to place making and civic responsibility

**6: Research partnerships.** By supporting the public to engage with and get involved in research, for a variety of purposes, public engagement contributes to valuable social outcomes, evidenced in the NCCPE's review of the 2014 REF case studies

This integrated approach is currently far from embedded, with public engagement often 'bolted on' or not even factored in to the framing of calls. The Roadmap could accelerate progress by requiring consideration of the role of publics in all calls, and the development of appropriate plans to involve them, if and when it serves a clear purpose. There are impressive examples of this beginning to happen, for instance in the current UKRI call for a coordinating hub for the Greenhouse Gas Removal Demonstrators, which highlights the importance of public engagement and participation to ensure 'economically, socially and environmentally viable options' are pursued.



#### 4. Inspiring and enabling talented people and teams

*To achieve our ambitions for UK science, research and innovation, we must be world-leading in the way that we inspire and enable talented people. This means being the best place in the world for attracting, training and retaining diverse, talented people and teams across the whole spectrum – from excellent scientists, researchers, engineers and technicians, through to entrepreneurs, business leaders and investors.*

#### 4. HOW CAN WE ATTRACT, RETAIN AND DEVELOP TALENTED AND DIVERSE PEOPLE TO R&D ROLES? HOW CAN WE MAKE R&D FOR EVERYONE?

Please comment here (500 words max)

We identify three important pathways which can help address this challenge.

##### **Outreach and widening participation (WP)**

There is a vital role for outreach in ensuring that young people are inspired and supported to consider roles in research. The investment in the **National Centres for Collaborative Outreach** has helped to build capacity and a more strategic approach to this. The new **OFS targets** (e.g. to eliminate the unexplained gap in non-continuation) have set really challenging goals. Work by KCL and UCL to identify the barriers to long term participation in science, and the development of the **Science Capital Teaching Approach**, are encouraging a much more evidence-informed approach to engaging young people in STEM. The recent British Academy **'Shape'** campaign seeks to ensure the ongoing vitality of the humanities and social sciences.

Researchers have a huge contribution to make to these national engagement programmes, and through these, to the aspiration to 'make R&D for everyone'.

##### **Opening up research**

The recent Black Lives Matter protests have brought into stark relief the importance of tackling racism. There has been long standing attention paid to diversity within the research community, for instance through the Anthea Swan and Race Equality Charter processes. Progress is still slow. The recent Wellcome review of Research Culture revealed that 41% of respondents thought that their institutions' EDI initiatives were 'tokenistic'. Efforts in this area clearly need to be scaled up.

The 2018 **Common Cause** project examined how to increase the participation of BAME communities in research. It explored widening participation, action on the curriculum, research and structural inequalities within the HE sector. It identified 10 principles which provide a very constructive framework for addressing the current crisis.

<https://www.commoncauseresearch.com/>

An area that requires urgent attention is the absence of any sector wide data capture or monitoring of the reach or impact of research and knowledge exchange on people with protected characteristics. EDI is not a consideration in how the higher education sector allocates and monitors funding for research and innovation. This is in stark contrast with the funding and monitoring of engagement activity in other sectors, for instance the Lottery funders, who require applicants to address inclusion in how they deliver and evaluate the reach of their projects.

##### **Investing in engagement and Knowledge Exchange professionals**

R&D is a very complex process. It involves risk, long term planning, effective collaboration, and sophisticated methods and project management. It relies heavily on skilled professionals to maximise its chances of success – but their contribution is often under-valued, and their influence limited to playing ‘support’ roles. Research centres now employ a wide range of skilled professionals in these roles, from experts in technology transfer, Impact specialists, Patient Involvement leads to Public Engagement Professionals. However, many of these staff are on short term contracts, with limited long term prospects or progression into leadership roles. They also often operate in ‘silos’ within their institutions. This also requires urgent attention, to better balance sector capability.

## 5. Levelling up R&D across the UK

*The UK's research and innovation system has remarkable strengths right across the UK. From precision medicine in Glasgow to marine innovation in the Western Gateway, from compound semiconductors in South Wales, to future food processing in the Midlands and eco-Innovation in the North West Coastal Arc, the UK has centres of excellence in research and innovation across the country. At a local level R&D investment can transform areas by acting as a driving force for social innovation, local growth and improved productivity.*

*To unlock these benefits in more areas of the UK, we should do more to build on a wider range of R&D strengths. We should also do more to enable places all over the UK to thrive and to fulfil their potential in R&D.*

### 5. HOW SHOULD WE ENSURE THAT R&D PLAYS ITS FULLEST ROLE IN LEVELLING UP ALL OVER THE UK?

Please comment here (500 words max)

The NCCPE is a partner in the new Civic University Network. We strongly endorse the response from the network.

The NCCPE has been working closely with UKRI to develop effective approaches to 'place-based' working. In 2019 we were commissioned to conduct a rapid review of how university research, innovation and engagement might be better aligned to the needs of areas of the UK experiencing significant disadvantage in its different forms. The review synthesised existing knowledge and consulted with a range of stakeholders and experts, including a number of organisations working outside the research sector. It explored innovative approaches in other sectors – for instance the Local Trust's investment of £100m over 10 years into some of the most economically challenged communities in the UK.

[https://www.publicengagement.ac.uk/sites/default/files/publication/achieving\\_equity\\_in\\_place-based\\_research\\_summary\\_report\\_september\\_2019\\_final.pdf](https://www.publicengagement.ac.uk/sites/default/files/publication/achieving_equity_in_place-based_research_summary_report_september_2019_final.pdf)

As well as detailing interesting and effective practice, the review identified three important areas of challenge in developing effective place-based approaches to research and innovation, which will need to be addressed in the new Place Strategy:

- **Citizen / community-led working:** interventions at a community level often 'do to' communities rather than engage publics actively in their shaping and delivery. We need to shift the paradigm to conduct research and innovation in citizen-centric ways. This goes beyond the provision of research to communities, to explore how researchers can create the conditions for communities to articulate and address the research & innovation challenges they want to address, and build community leadership and resilience.
- **Being sensitive to inequality:** it is important to acknowledge profound structural inequalities, for instance in how place and poverty are inextricably linked (brought into stark relief by the disproportionate impact of Covid 19 on BAME communities). This is compounded by lack of investment in these communities, including lack of research and innovation funding. We need to better understand how research and innovation funding can be targeted to contribute value to places experiencing significant disadvantage.

- **Working in system-oriented and collaborative ways:** the causes and impacts of disadvantage are complex, as are attempts to address them. Researchers should not 'go it alone' in seeking to address them, but work collaboratively with other types of organisation committed to achieving social outcomes, at different geographic scales. Such 'engaged' methods take significant time and resources, to build trust and mutual understanding, and investment to secure the involvement of collaborators from outside the R&D community.

The NCCPE review informed UKRI's current Enhancing Place-Based Public Engagement programme. The programme has targeted communities from the 40% most socioeconomically deprived areas of the UK, and the projects and partnerships are driven by a geographically defined community's need that can be approached by engagement. The projects cover a diverse range of topics from plastic pollution to period poverty, and net zero carbon emissions to air quality. Each of them are actively encouraging people who would not usually get involved in research to take part in ground-breaking discovery and innovation. The NCCPE is coordinating the programme, and it will provide vital intelligence to inform the longer term Place strategy being developed by UKRI.

## 6. Developing world-leading infrastructure and institutions

*Our future success in R&D will rely on a diverse network of infrastructure: internationally competitive, high-quality and accessible facilities, resources, data and services.*

*The UK is home to over 500 nationally and internationally significant research and innovation infrastructures, providing us with a breadth of expertise across sectors.*

*We need to take a flexible approach to supporting research infrastructure to deliver better value for money and keep assets continuously maintained and cutting-edge. Higher quality infrastructure will help attract and retain the best staff and create a more vibrant research environment.*

### 6. HOW SHOULD WE STRENGTHEN OUR RESEARCH INFRASTRUCTURE AND INSTITUTIONS IN SUPPORT OF OUR VISION?

Please comment here (500 words max)

#### ***Ensuring our infrastructure investments engage with the public***

There are many examples of existing infrastructure investments taking a strategic approach to public engagement. STFC's work is particularly impressive. They ensure that all of their facilities take engagement seriously and develop strong community-focused engagement activity. The ISIS neutron and muon source and the Diamond Light Source have dedicated public engagement staff, while other facilities have informal networks of talented volunteers. All the facilities and campuses work to a collective strategy, and shared evaluation framework, with a recent focus on engaging with people in the 40% most deprived locations in the UK.

#### ***Supporting external engagement infrastructure***

Researchers can benefit enormously from the expertise, facilities and reach of external providers, such as science centres, museums and libraries. Funders like STFC and NERC have both invested in long term programmes with the Science Centre network, benefiting from their expertise and helping to support that sector's resilience.

#### ***Balancing 'hard' and 'soft' infrastructure***

Physical infrastructure is obviously essential to a well-functioning R&D system. But 'soft', people-based infrastructure is vital too, to maximise collaboration and involvement across the system. The importance of this was well made in the **Creating Living Knowledge** Report which argued that 'time is to collaborative research what a supercomputer is to big data'. The report argued for extending funding over longer time scales, and for a rebalancing of funding for partnerships and projects. The Dowling review of Business-University Collaborations in 2015 made a similar point – that investment in relationship building is crucial if effective, strategic research projects are to emerge: 'there is more to be done to help existing efforts evolve from short-term, project-based collaborations to longer-term partnerships focussed on use-inspired research'

An example of how to strengthen such collaboration is the **National Forum for PE in STEM**, a collective of funders and organisations involved in setting the national agenda for public engagement in STEM, including UKRI, The Royal Society, the Association of Science and Discovery Centres and the Science Museum. The NCCPE provides the secretariat. The Forum identifies areas where we can affect system-wide change through collective action, for instance through attention to diversity, or by better aligning investments.

The **Culture Capital Exchange** is an example of a network working to bring together researchers and cultural organisations to foster ground breaking collaborations across the innovation landscape. These kinds of networks will make a vital contribution to the Roadmap's vision.

Diversifying who gets to participate in research partnerships requires investment in match making and support, to galvanise new collaborative research ideas. The NCCPE has coordinated an Arts Council funded programme, the **Museum University Partnerships Initiative**, to broker more effective research partnerships with small and medium-sized museums. The '**Engaging Libraries**' programme, funded by Carnegie UK Trust and Wellcome, supports public libraries to run public engagement activities on research. Increasing the quality of interaction between different sectors fosters innovation and maximises the sustainability and resilience of these vital cultural resources.

## 7. Being at the forefront of global collaboration

*Research and innovation are inherently global, and international collaboration and mobility of talent are associated with more impactful research. The UK's leading researchers and innovators want to collaborate with the best talent in the world, in the best facilities in the world, regardless of borders. These international collaborations lead to new advances and discoveries, pushing the frontiers of knowledge faster and further. They underpin the UK's position as a world-leading knowledge economy and support trade, investment, diplomacy, defence and security.*

### 7. HOW SHOULD WE MOST EFFECTIVELY AND SAFELY COLLABORATE WITH PARTNERS AND NETWORKS AROUND THE GLOBE?

Please comment here (500 words max)

#### **Public engagement is global**

It can be easy to think that public engagement is essentially a local activity, engaging with communities and publics in the vicinity of the research institution. But for many researchers, their publics are global – for instance, working with communities in particular insecure or disadvantaged places to address specific health or educational needs, often supported by funds like the GCRF.

The UK also has an important international reputation for the distinctive approach we have taken to engagement and impact. The NCCPE fields many requests from universities and policy makers from around the world who view the UK's commitment to engagement and impact as world-leading, and who want to learn from the approaches developed in the UK. It is important that we consolidate this.

#### **Strengthening global engagement networks**

There are a host of important national and global networks committed to engagement including the Talloires Network; the Association of Commonwealth Universities; the Global University Network of Innovation (GUNI). The British Council and the Newton fund have made important investments in capacity building in this area.

Post Brexit, it will be vital that we invest in these global connections to maximise the reputation of UK research and innovation, and benefit from new and emerging models being developed in other contexts.

Focal points for these national and international networks include the following:

- Building capacity for effective collaborative research, ensuring that people are supported to use research methodologies to address the issues that matter to them
- Strengthening public interest and involvement in research, ensuring that it is not the province of the privileged few
- Building collaborative capacity, at local, regional, national and global scales. Covid-19 has reminded us that the biggest challenges we face are global in scale – requiring countries to collaborate on an unprecedented scale

## 8. Harnessing excitement about our vision

*Our mission is to inspire and enable people from all backgrounds and experiences to engage and contribute to research and innovation and show that science is for everyone. We will nurture the whole system of innovation that will improve lives, services and businesses right around the UK and beyond – creating a fairer, healthier, more prosperous and more resilient society. And we will celebrate our successes far and wide, showcasing our strengths, and promoting the UK as a destination for talent and investment, and a partner of choice.*

### 8. HOW CAN WE HARNESS EXCITEMENT ABOUT THIS VISION, LISTEN TO A WIDER RANGE OF VOICES TO ENSURE R&D IS DELIVERING FOR SOCIETY, AND INSPIRE A WHOLE NEW GENERATION OF SCIENTISTS, RESEARCHERS, TECHNICIANS, ENGINEERS, AND INNOVATORS?

Please comment here (500 words max)

We welcome the Roadmap's invitation to 'listen and engage'. The Roadmap provides a once in a generation opportunity to effect a paradigm shift in how the UK's R&D system engages with wider society to deliver public benefit.

We have argued that:

- Public engagement enhances all areas of innovation – and so needs to be factored in across the whole R&D system, not bolted on
- 'Levelling up' requires investment in long term partnership building – it can't be turned on like a tap, and demands that attention is paid to inequality and exclusion
- The economic impact of COVID19 will be profound, requiring very tough choices about where to invest R&D and other public funds. Public engagement will be vital to ensure these investments are in step with public priorities, and that the social and ethical consequences are anticipated and addressed proactively
- All of the above requires a major culture change and a strategic, integrated approach to organisational development across the whole R&D system. The NCCPE and the Public Engagement community can bring their experience and practical tools and expertise to bear on this challenge, based on many years of work.

We have highlighted the following **blocks and barriers** in how the current system works:

- There are few opportunities for citizens and other stakeholders to influence funding calls early enough in the process, with limited application of deliberation and other participatory processes
- Research funding is typically offered when teams have already decided their research direction – we need to invest in more co-design and development funding to help shape more purposeful, collaborative research that robustly reflects need
- Funding does not fully support non-academic participation, seriously limiting the time and expertise that collaborators can contribute
- The peer review process does not adequately recognise what quality engagement looks like, and the outcomes that could be expected
- The sector supports expert engagement professionals. However, these roles are precarious, and often driven by funding decisions, rather than strategic intent, with little career progression.



**We have highlighted these possible solutions**

- 'Skilling up' the sector in collaborative research methods
- Investing in purposeful partnership working to build 'collaborative capacity' inside and outside HE
- Recognising the need for brokers/ producers, who can lead these processes, and developing more robust career pathways for these experts
- Sharing of engagement processes, as well as outputs, to enable people to learn more about 'what works', and to feed this intelligence into the peer review and assessment process
- Learning from other sectors about how to invest in social change, evaluate the impact of interventions, and addresses the causes and consequences of inequality

If these steps are taken, we can be confident of a number of **positive outcomes** including increased involvement in research; more innovative research, that draws on a wealth of perspectives; increased understanding of the value of research and evidence, its limitations and opportunities; and research that is valued by and valuable to the public and which contributes to addressing the causes and consequences of inequality and helps to strengthen communities across the UK.