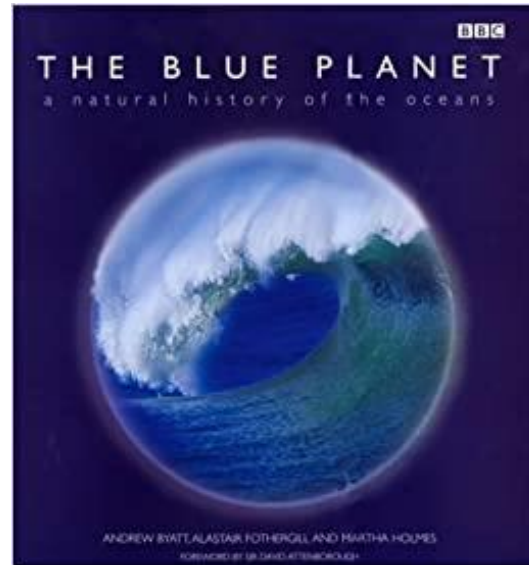
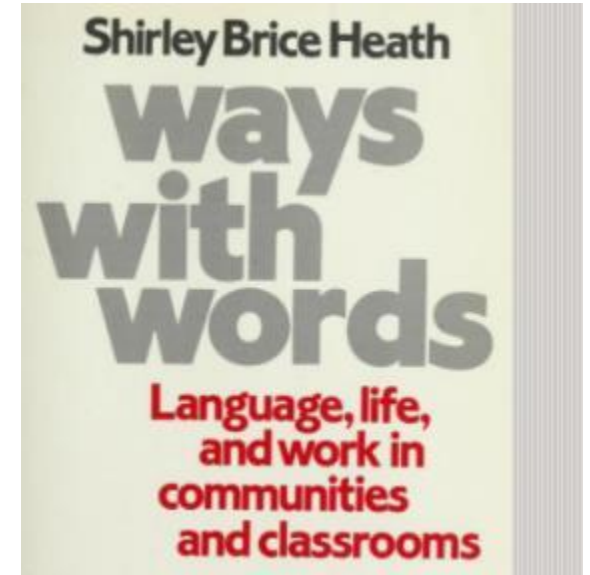


# **Science communication & public engagement: pathways to societal impact**

Paul Manners

Director, National Coordinating Centre for Public  
Engagement, UK

# Introduction



National  
Co-ordinating  
Centre for  
Public Engagement



National  
Trust



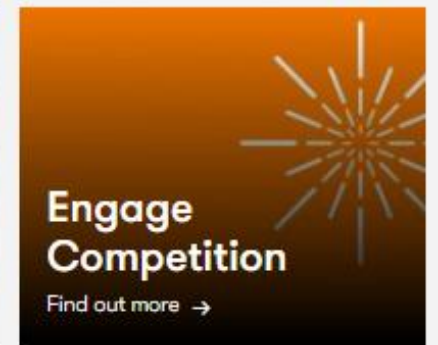
National  
Co-ordinating  
Centre for  
**Public Engagement**

We help universities  
engage with the public

How can we help you with public engagement?

Enter search terms...

Search



[publicengagement.ac.uk](http://publicengagement.ac.uk)

# 1. Context



# 2. Craft



# 3. Change



# 4. Capability



# 1. History & context



**Why is it important to engage with the public?**



**Secretive and untrustworthy**

**Irrelevant and out of touch with society**



**Unaccountable and a waste of tax payers' money**

**Elitist and reinforcing inequality**

(1985)

# **The Public Understanding of Science**

**Dr W.F. Bodmer, F.R.S.**

Report of a Royal Society

*ad hoc* Group endorsed

by the Council of the Royal Society



[Link](#)



(1985)

# **The Public Understanding of Science**

**Dr W.F. Bodmer, F.R.S.**

Report of a Royal Society

*ad hoc* Group endorsed

by the Council of the Royal Society



Science and technology play a major role in most aspects of our daily lives both at home and at work.

Scientists must learn to communicate with the public, be willing to do so, and indeed consider it their duty to do so. [ ] The Royal Society should make improving public understanding of science one of its major activities.

[Link](#)

(2000)



(2000)



[Link](#)

(2000)



Public confidence in scientific advice to Government has been rocked by BSE; and many people are uneasy about the rapid advance of areas such as biotechnology and IT.



[Link](#)

(2000)



Public confidence in scientific advice to Government has been rocked by BSE; and many people are uneasy about the rapid advance of areas such as biotechnology and IT.

The crisis of trust has produced a new mood for dialogue. In addition to seeking to improve public understanding of their work, scientists are beginning to understand its impact on society and on public opinion. Direct dialogue with the public should move from being an optional add-on to science-based policy-making and to the activities of research organisations and learned institutions, and should become a normal and integral part of the process.



[Link](#)

# Why Academics are Becoming Irrelevant (and How to Stop it)



## Pointless research: top 10 Ig Nobel award winners for silly science

As the government prepares to crack down on 'irrelevant' research, we look at some of the things we'll be losing, courtesy of the Ig Nobel awards.

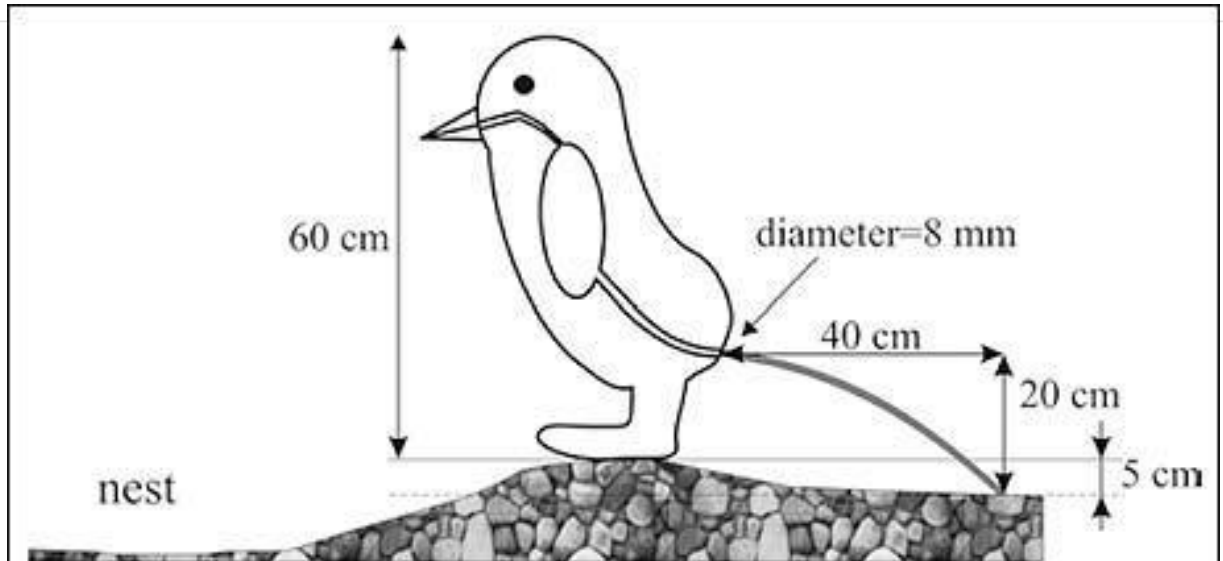


Fig. 1 Position of model penguin during defaecation and physical parameters used to calculate rectal pressure necessary to expel faecal material over a distance of 40 cm

(2009)

## **Research funding plan should be abandoned, say academics**

A petition bearing 18000 signatures calling for the abandonment of economic impact assessment has been delivered to the government



Thousands of academics and researchers have signed the petition

(2009)

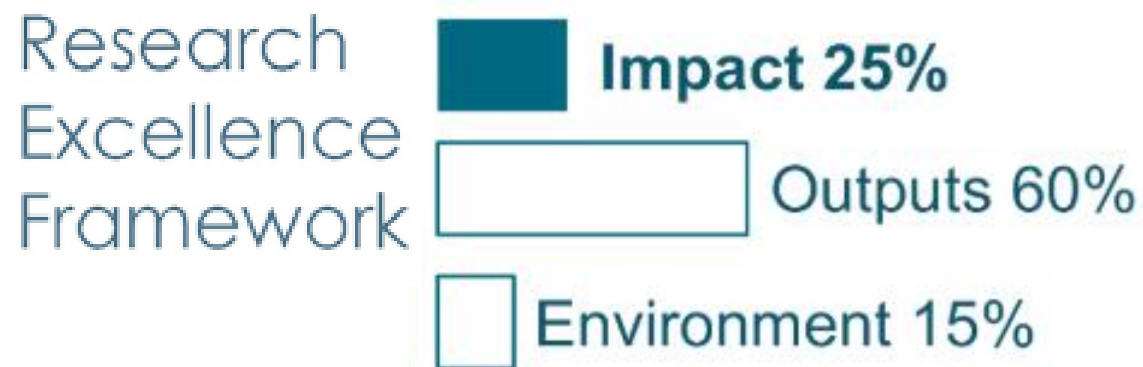
## Research funding plan should be abandoned, say academics

A petition bearing 18000 signatures calling for the abandonment of economic impact assessment has been delivered to the government




Thousands of academics and researchers have signed the petition

# REF 2021



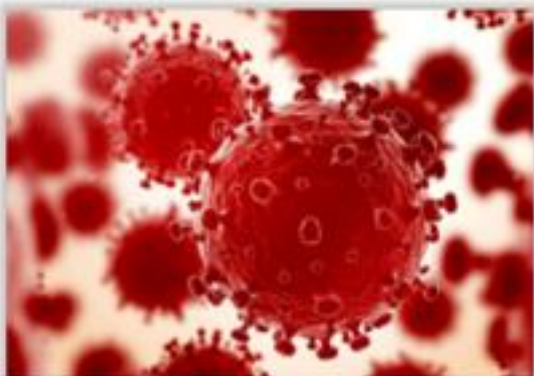
“For the purposes of the REF, impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”





## Coronavirus: the science explained

This site lays out the evidence and facts about the virus, the disease, the epidemic, and its control



What is coronavirus? The different types of coronaviruses



Disinfecting surfaces for coronavirus: Does it reduce infection?



Coronavirus seasonality: Is the spread likely to vary?

7 Jul 2020

News > Global Health Security > Science & Disease

## Trust in scientists is eroding and we need to get it back. Transparency is more important than ever

Follow

**KATHERINE MATHIESON**



## UK scientists must not be blamed for giving advice, says Royal Society head

**Exclusive: intervention comes after minister appeared to scapegoat scientists over Covid-19 errors**



▲ 'If the science was wrong, advice at the time was wrong, I'm not surprised if people will then think we then made a wrong decision,' said Thérèse Coffey. Photograph: Hannah McKay/Reuters

May 12, 2020

The Independent Scientific Advisory Group for Emergencies (SAGE)

### The Independent SAGE Report

**COVID-19: what are the options for the UK?**

**Recommendations for government based on an open and transparent examination of the scientific evidence**



Public Health  
England

Protecting and improving the nation's health

**Beyond the data: Understanding the impact of COVID-19 on BAME groups**

# COVID-19 and Health Inequality

8th December 2020



UNIVERSITY OF LEEDS



#LEAVE

No One

Behind



HM Treasury

#SpendingReview

# £4 BILLION

TO LEVEL UP REGIONAL INFRASTRUCTURE



# SO SKEWED: COMPARISON OF UK REGIONS' RESEARCH FUNDING



Source: Richard Jones and Tom Forth



# What Researchers Think About the Culture They Work In

2020

SHIFT  
LEARNING

## 12 Key Themes from the Townhalls



1.

Unstable  
contracts &  
careers

2.

Bullying &  
harassment

3.

Unhealthy  
Competition

4.

Poor  
management

5.

Deteriorating  
mental  
health

6.

Long hours  
culture

7.

Inaction on  
diversity &  
inclusion

8.

Mistrust of  
complaints  
procedures

9.

Early career  
challenges

10.

Pressure to  
publish

11.

Lack of  
recognition  
& promotion

12.

Gender  
inequality &  
personal  
sacrifices

“A kinder research culture  
will build stronger, deeper  
support for research.”

nature

“A mean and aggressive research working culture  
threatens the public’s respect for scientists and  
their expertise”







trust

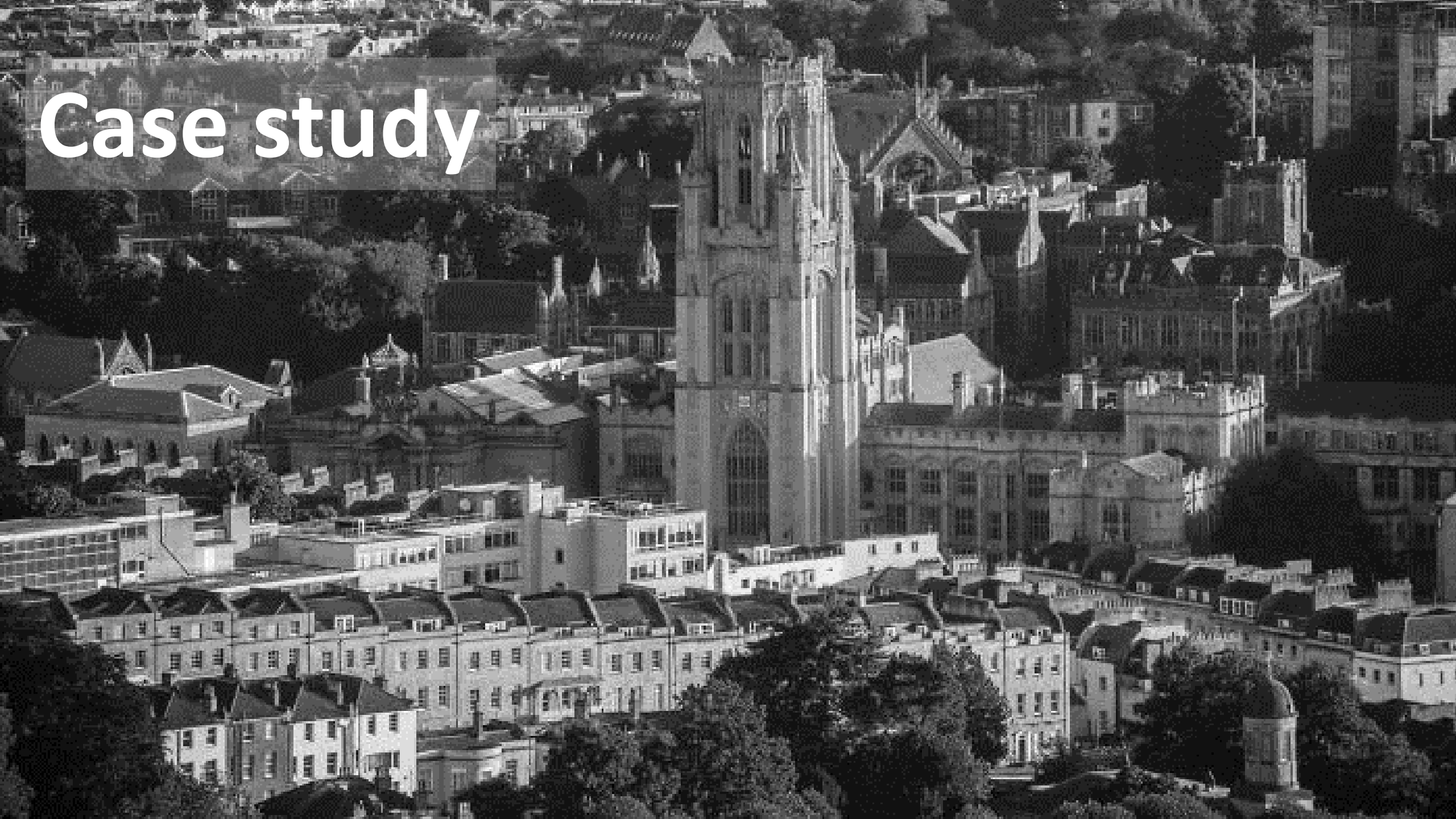
social responsibility

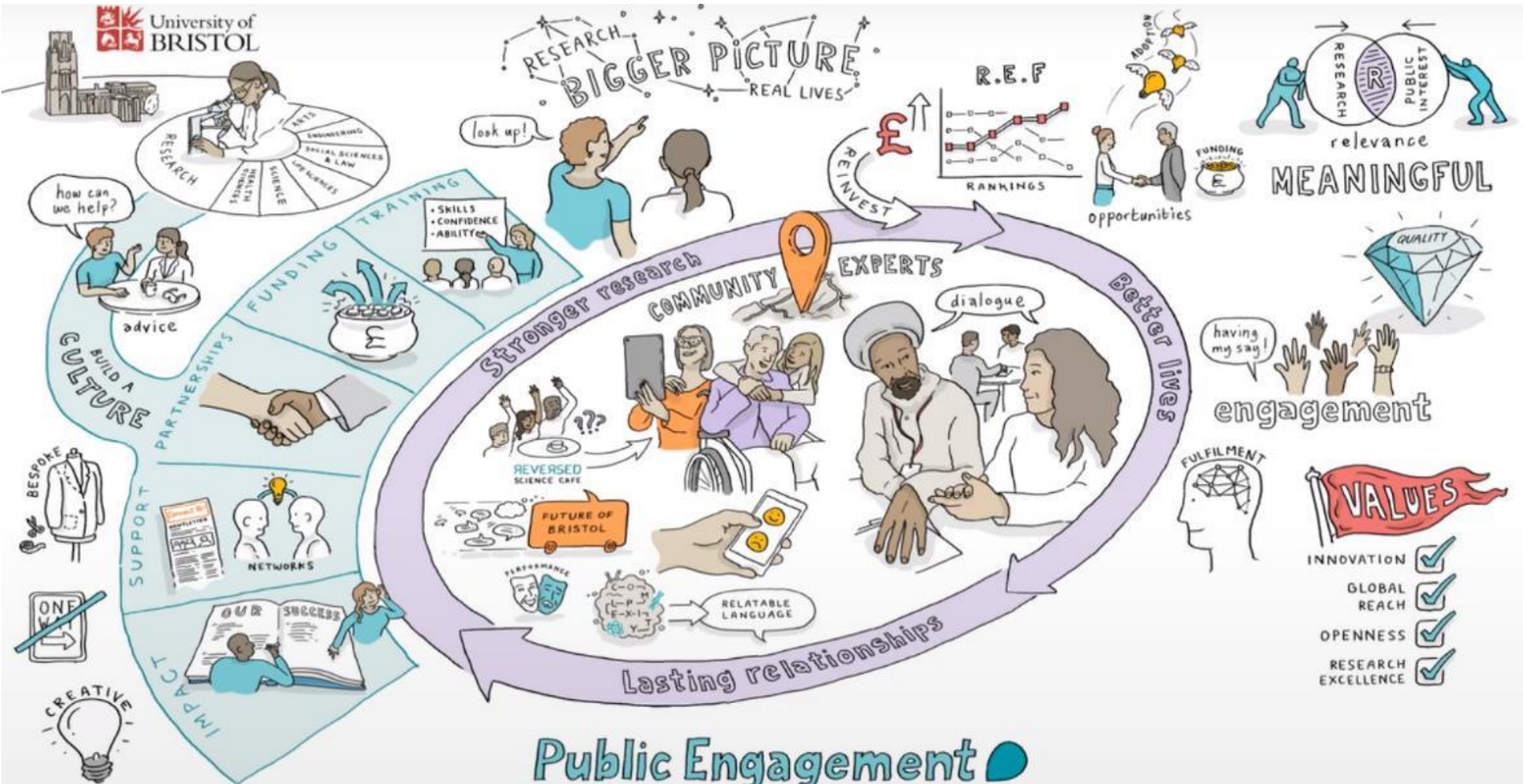
relevance

accountability

- Do these motivations for engagement resonate with you, and apply in your context?
- How is science funding and policy changing in response to these kinds of social pressures?

# Case study





# Public Engagement

Strengthening research with conversations that count

## 2. The craft of public engagement



# THE ENGAGED UNIVERSITY

A Manifesto for Public Engagement



National  
Co-ordinating  
Centre for  
Public Engagement

## What is public engagement?

“Public engagement describes the myriad of ways in which the activity and benefits of higher education and research can be shared with the public. Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating mutual benefit.”



# What is the 'ENGAGEMENT' in Public and Community Engagement?



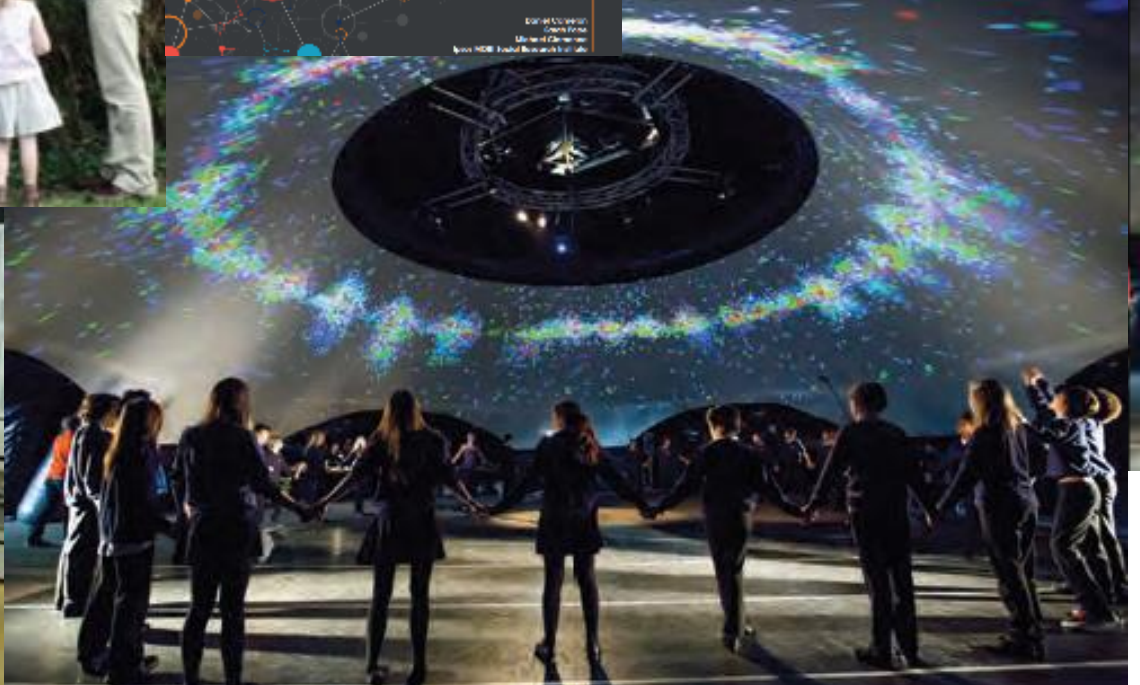


Ipson NGRH  
Social Research Institute

# DIALOGUE ON DATA

Exploring the public's views  
on using administrative data  
for research purposes

DR WENDY WILSON  
Senior Policy Manager  
Clinical Research  
Ipson NGRH Social Research Institute







- Patient involvement
- Dialogue and co-production
- Co-design
- Citizen science
- Widening participation
- Community engagement
- Informal learning
- Media
- Outreach
- Exhibitions

## Reasons to engage...

### **INSPIRING**

Inspiring, involving and informing the public about research

### **CONSULTING**

Actively listening to the public's views, concerns and insights

Working in partnership to solve problems, drawing on each other's expertise

### **COLLABORATING**

# Who are the 'PUBLIC' in Public Engagement?





## CIVIL SOCIETY & THIRD SECTOR

Charities & associations; societies and clubs



## POLICY

Policy makers,  
regulators, civil  
servants

## PUBLIC SECTOR

Professionals and  
practitioners



## BUSINESS

Companies, SMEs,  
entrepreneurs





## **CIVIL SOCIETY & THIRD SECTOR**

Charities & associations; societies and clubs



## **POLICY**

Policy makers,  
regulators, civil  
servants

## **PUBLIC SECTOR**

Professionals and  
practitioners



## **BUSINESS**

Companies, SMEs,  
entrepreneurs



**PUBLICS**



**DEMOGRAPHICS:**  
age, ethnicity,  
gender,  
economic  
status, level of  
education,  
income level &  
employment

voter



communities of place & interest

## CIVIL SOCIETY & THIRD SECTOR

Charities & associations; societies and clubs

## POLICY

Policy makers,  
regulators, civil  
servants

## PUBLIC SECTOR

Professionals and  
practitioners



service  
user

citizen



## BUSINESS

Companies, SMEs,  
entrepreneurs



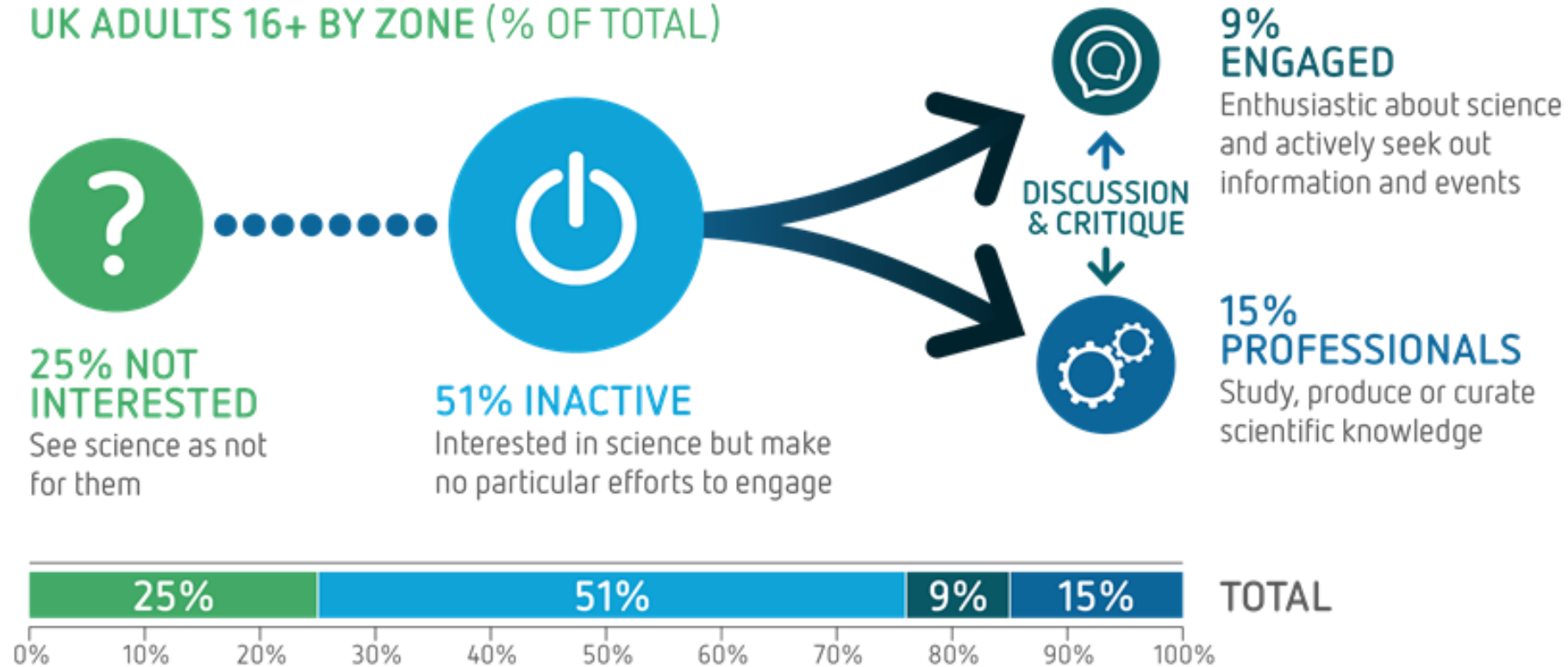
customer

employee

**PUBLICS**

# Our audience model

## UK ADULTS 16+ BY ZONE (% OF TOTAL)



Source: King's College London 'Culture Tracker' 2016, which questioned a representative sample of UK adults about their relationship with science.

We use the model to help us decide where to focus our time and energy: we prioritise the activities which are most likely to transition people from the 'Not interested' or 'Inactive' groups to the 'Engaged' or 'Professional' groups.

[LINK](#)



# What kinds of outcomes are typically realised by Public and Community Engagement?



## Search REF Impact Case Studies

Browse the index below or search all Case Studies using keywords [e.g. "NHS"].

Learn about [advanced search options](#) and read our [Terms of Use](#).

[Link](#)

# Assessing impact

## Engaging publics with research



Reviewing the REF impact case studies and templates  
Executive summary

[www.publicengagement.ac.uk](http://www.publicengagement.ac.uk)

[Link](#)

# Understanding



Stimulating curiosity,  
understanding and  
empathy

# Understanding



## Typical outcomes include:

- Enhanced knowledge and understanding
- Enhanced enjoyment, inspiration and creativity
- Changes to attitudes and values

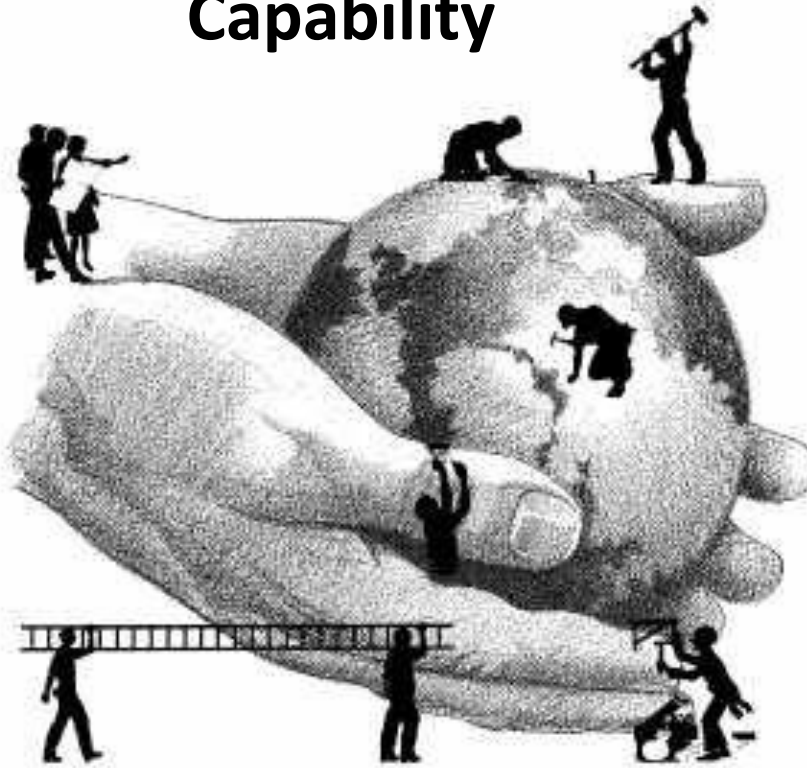
## Understanding



### Typical outcomes include:

- Enhanced knowledge and understanding
- Enhanced enjoyment, inspiration and creativity
- Changes to attitudes and values

## Capability



Building capacity and  
strengthening  
networks

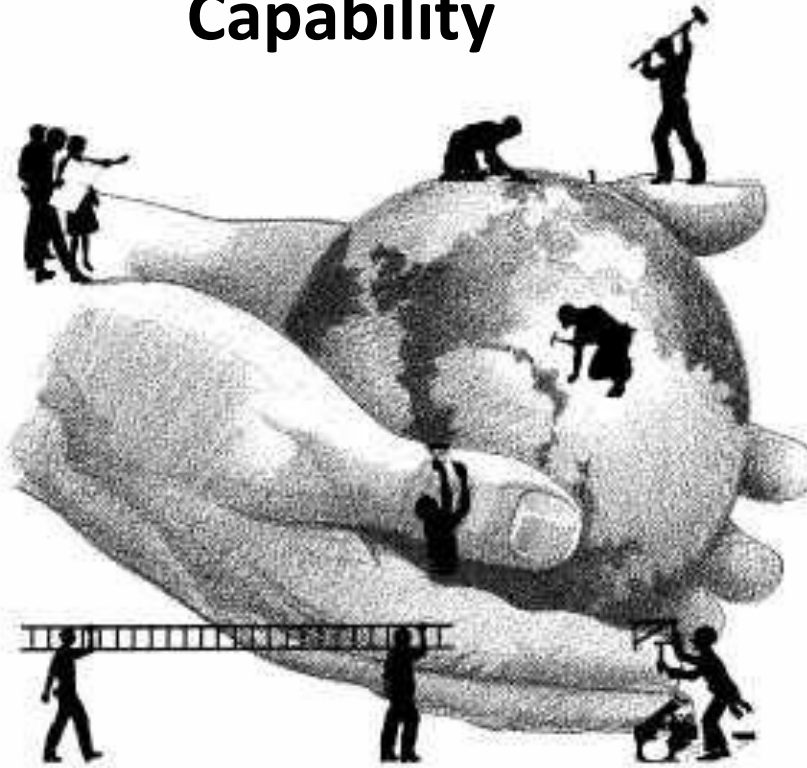
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## Capability



- Increased capacity and confidence of participating publics
- Changes to behaviour, attitudes, health and wellbeing and to quality of life
- Strengthened communities and relationships

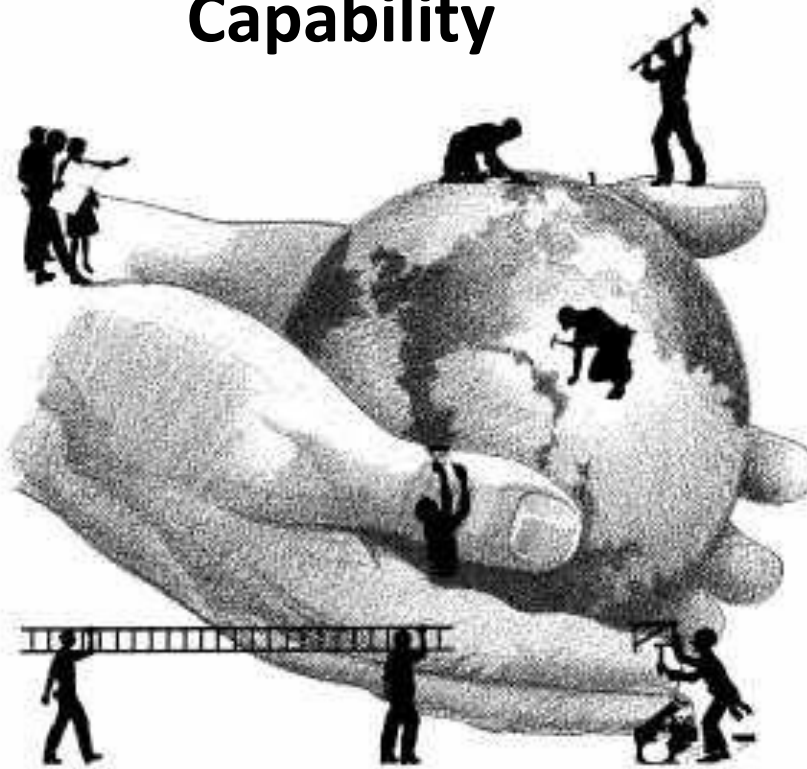
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## Innovation



Improving decision making and the way things work

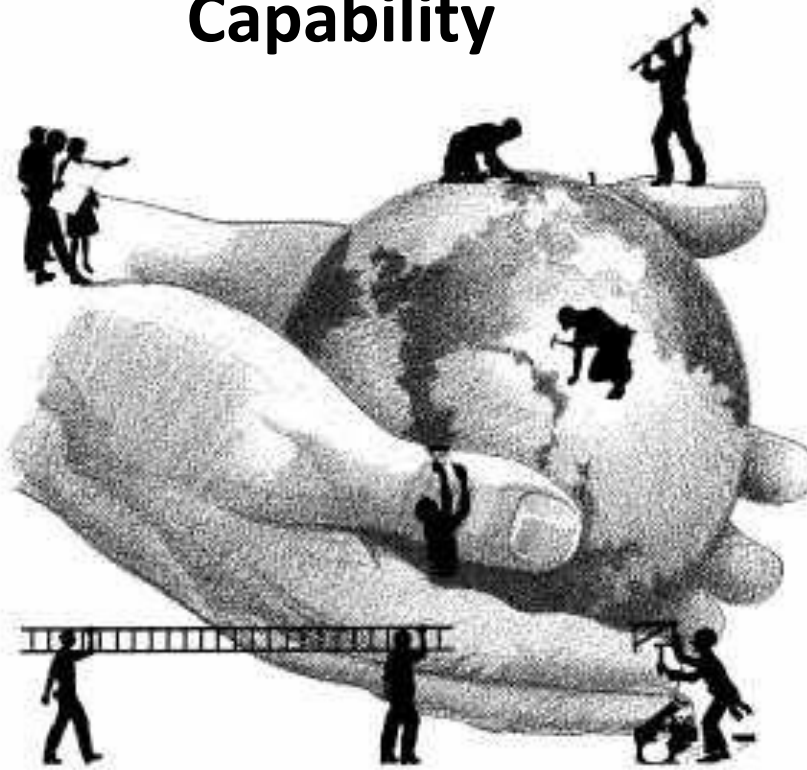
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- Increased capacity and confidence of participating publics
- Changes to behaviour, attitudes, health and wellbeing and to quality of life
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## Innovation



- Demonstrable impact on policies, productivity, public realm
- Economic return and resilience





University of Brighton

# IGNITE: ONE PROGRAMME, A WEALTH OF INSPIRING STORIES

Finding and fostering  
community–university partnerships

University of Brighton UKRI report



CUPP – Ignite Partnerships: Microplastics and ...  
University of Brighton



Copy link

CUPP

IGNITE PARTNERSHIPS

MICROPLASTICS AND

CHICHESTER HARBOUR

Watch on YouTube

[Link](#)

# 3. Navigating change



**BBC**

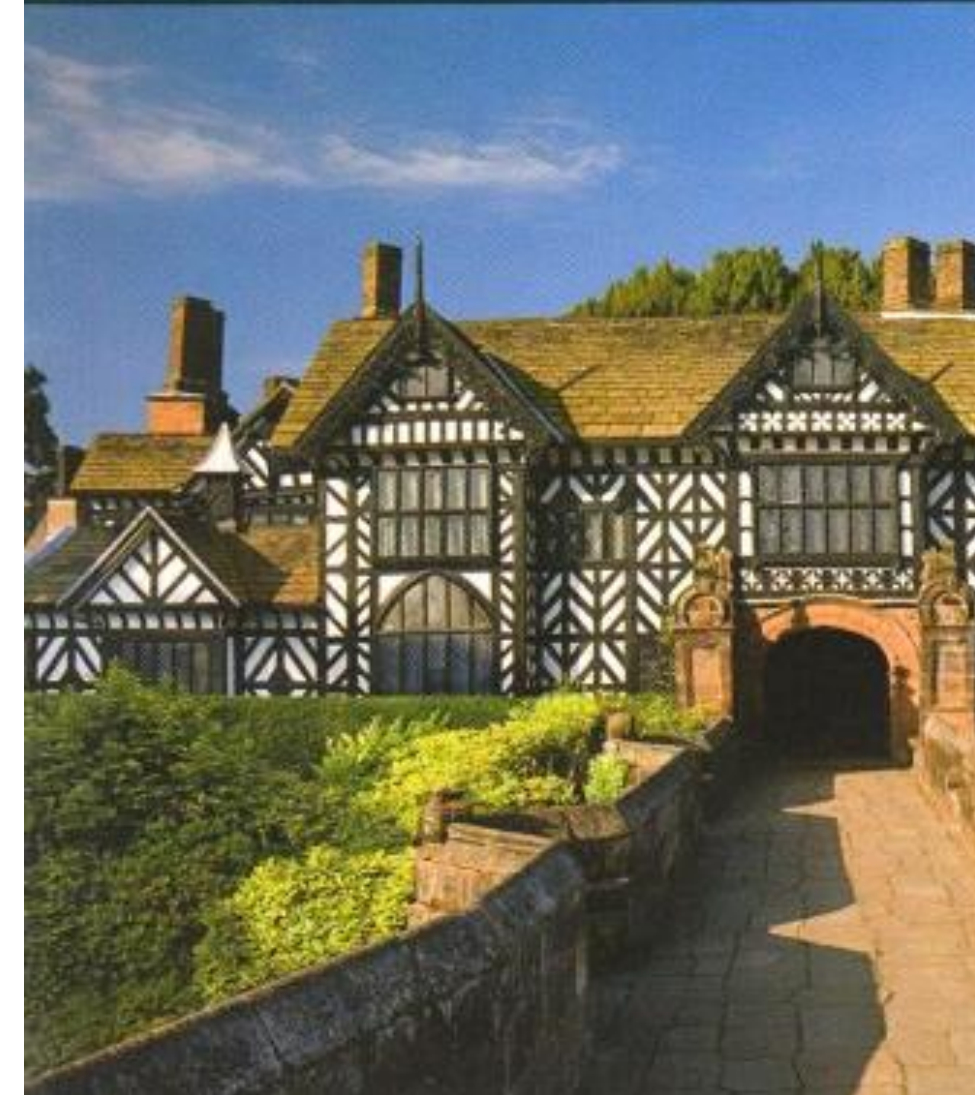
**B B C**





# HANDBOOK

FOR MEMBERS AND VISITORS 2008



# HANDBOOK

FOR MEMBERS AND VISITORS 2008



[Home](#)

[Our cause](#)

[Days out](#)

[Art & collections](#)

[Join & get involved](#)

[Holidays](#)

[Shop](#)

[Sign in / register](#)



## Days out

Where do you want to go?

Search by county, town, postcode or place



[View all places on a map](#)



[For families >](#)

With acres of space for little ones to run around plus family-friendly facilities, you're sure to have a great family day out with us.



[Groups >](#)

Whatever your group is interested in, we've got lots of inspiration and information for you to plan your visit.

‘We need to learn to love  
people as much as we love  
places’

*Fiona Reynolds,  
Director General*



## Days Out Segments

Curious Minds

Live Life to the Full

Young Independents

Explorer Family

Site name: \_\_\_\_\_ QNR ???

1. When did you visit (day/week)?

2. What time did you arrive and how long did you stay?

3. How many children have you been?

4. How many people of the following age range in your party?

5. How would you rate the quality of the following services?

6. What were the reasons for you not visiting?

7. Overall how would you rate your visit?

8. Overall how would you rate the place, how did you like it?

**Audience evaluation**

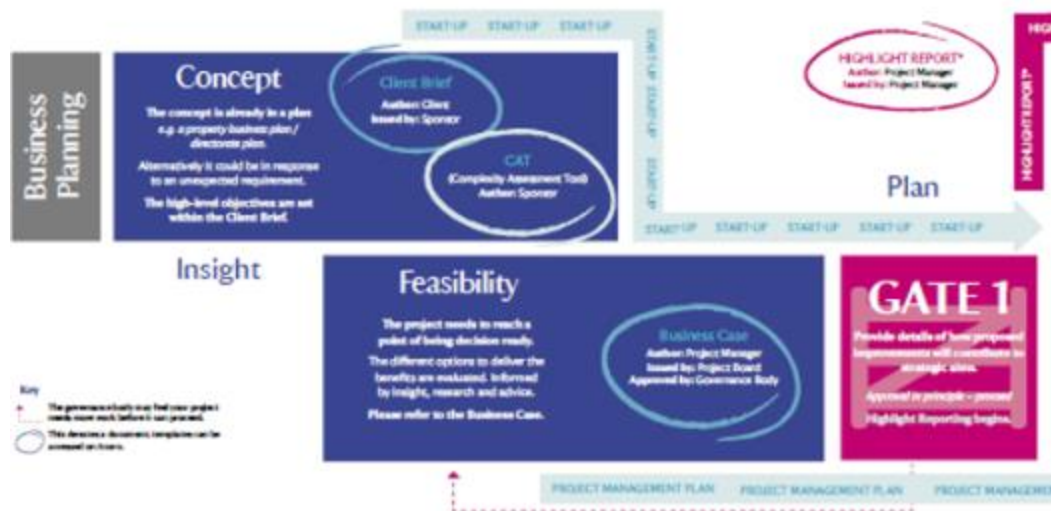
**Interpretation with insight**

We can't read minds... but we can ask what visitors think and study their behaviours. This guide explains how to use evaluation to create really engaging interpretation. It's not rocket science: everyone can evaluate as long as you are open, willing to talk to people and follow the principles outlined in these pages.

## Performance at our most visited

Month v Budget	Anglesey Abbey (EA)	Attingham Park	Belton House	Calke Abbey
Service	Green	Red	Yellow	Red
Visitors	Red	Red	Green	Green
Membership recruitment	Red	Green	Red	Green
Food & Bev contribution	Yellow	Yellow	Yellow	Green
Retail Contribution	Yellow	Yellow	Yellow	Green

## Project Management Framework



Administration	Apprenticeships	Brand and Marketing
Building Surveying	Conservation	Countryside Management
Curatorship	Estate Management	Finance
Food and Beverage	Fundraising	Gardening
General Management	Governance	IT
Membership	People and Legal	Retail
Visitor Services		

National Trust Jobs



# Who are we?

Research  
managers

Knowledge transfer  
professionals

Marketing and  
communications

Public affairs

Researcher  
developers

Development  
managers

Recruitment  
managers

Public engagement  
specialists

Public relations

Events managers

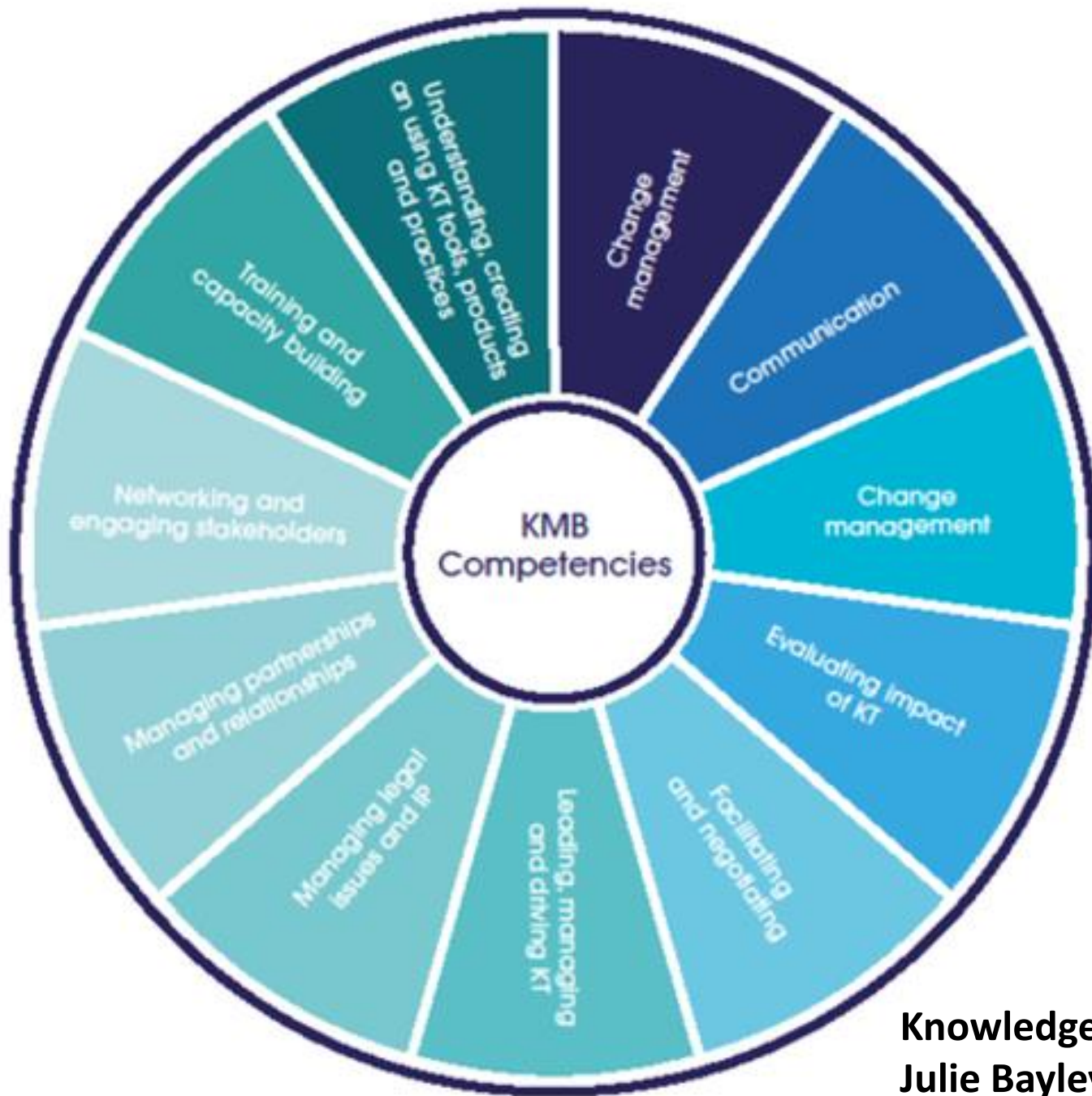
Impact specialists

Engaged  
researchers

Fundraisers

Scholarly  
communications

Alumni relations



## What are our skills?

1. Change management
2. Communication
3. Creating, sourcing and synthesising (research)
4. Evaluating impact of Knowledge Exchange (KE)
5. Facilitating and negotiating
6. Leading, managing and driving KE
7. Managing legal issues and IP
8. Managing partnerships / relationships
9. Networking and engaging stakeholders
10. Training and capacity building
11. Understanding, creating and using KE tools, products and practices

**Knowledge broker competencies,  
Julie Bayley and David Phipps**

[LINK](#)

## 'Engaged' Attributes

### Responsive

- You are motivated by other people's curiosity, interests and needs
- You adapt your communication and approach for different people



### Reflective

- You set explicit goals for your work and monitor these carefully
- You understand how your own values motivate your work

### Respectful

- You are sensitive to issues of diversity and inclusion
- You have the capacity to build and sustain effective partnerships

### Responsible

- You are sensitive to social and ethical issues and plan your work to take account of these
- You are committed to excellence, quality and innovation





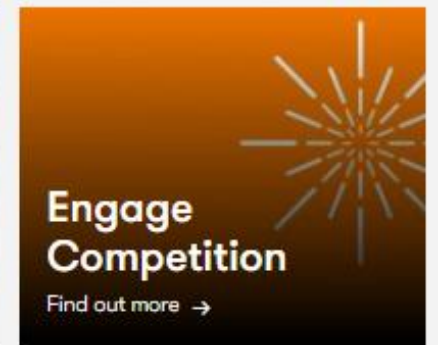
National  
Co-ordinating  
Centre for  
**Public Engagement**

We help universities  
engage with the public

How can we help you with public engagement?

Enter search terms...

Search



[publicengagement.ac.uk](http://publicengagement.ac.uk)

# Pathways to societal impact

- What insights has this session given you into the work that you do, the ways that you work, and the challenges that you face?





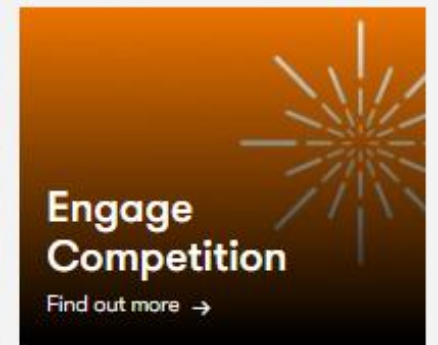
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Search



[publicengagement.ac.uk](http://publicengagement.ac.uk)

[Paul.manners@uwe.ac.uk](mailto:Paul.manners@uwe.ac.uk)

# Discussion

1. Irrelevant and out of touch with society  
Secretive and untrustworthy

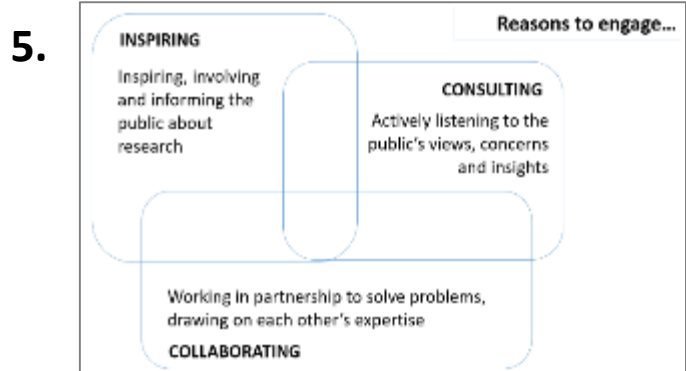
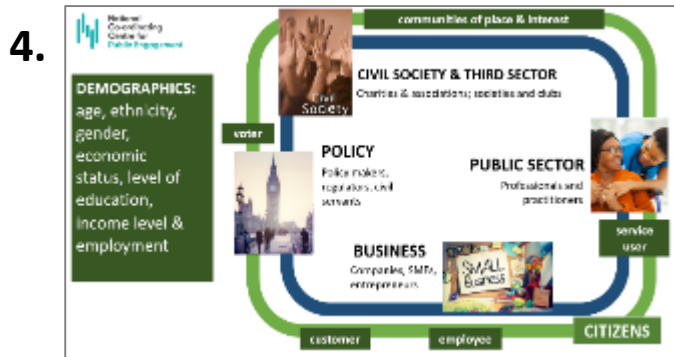
Unaccountable and a waste of tax payers' money  
Elitist and reinforcing inequality

2. Why is it important to engage with the public?

<p><b>trust</b></p> <ul style="list-style-type: none"> <li>• Researchers are trusted to act ethically and responsibly</li> <li>• New, controversial areas of research are debated and public attitudes taken account of</li> </ul>	<p><b>social responsibility</b></p> <ul style="list-style-type: none"> <li>• Research institutions are seen to act in socially responsible ways, minimising their environmental footprint and supporting social mobility</li> </ul>
<p><b>relevance</b></p> <ul style="list-style-type: none"> <li>• Research more finely tuned to society's needs</li> <li>• Innovation flourishes as new ideas &amp; insights flow into HEIs</li> <li>• Research outputs are easily accessible and widely used</li> <li>• Young people see research careers as relevant and attractive</li> </ul>	<p><b>accountability</b></p> <ul style="list-style-type: none"> <li>• Those with a stake in the impact of research feel they can influence investment priorities</li> <li>• The purposes and impact of research are understood and valued by wider society</li> </ul>

3.

Public Engagement  
Strengthening research with conversations that count.



6.

<p><b>Understanding</b></p> <p>Typical outcomes include:</p> <ul style="list-style-type: none"> <li>- Enhanced knowledge and understanding</li> <li>- Enhanced enjoyment, inspiration and creativity</li> <li>- Changes to attitudes and values</li> </ul>	<p><b>Capability</b></p> <ul style="list-style-type: none"> <li>• Increased capacity and confidence of participating public</li> <li>• Changes in behaviour, attitudes, health and wellbeing and to quality of life</li> <li>• Strengthened communities and relationships</li> </ul>	<p><b>Innovation</b></p> <ul style="list-style-type: none"> <li>• Demonstrable impact on policies, productivity, public realm</li> <li>• Economic returns and resilience</li> </ul>
--	--	---

7. 'Engaged' Attributes

<p><b>Responsive</b></p> <ul style="list-style-type: none"> <li>- You are motivated by other people's curiosity, interests and needs</li> <li>- You adapt your communication and approach for different people</li> </ul>	<p><b>Reflective</b></p> <ul style="list-style-type: none"> <li>- You set explicit goals for your work and monitor these carefully</li> <li>- You understand how your own values motivate your work</li> </ul>
<p><b>Respectful</b></p> <ul style="list-style-type: none"> <li>- You are sensitive to issues of diversity and inclusion</li> <li>- You have the capacity to build and sustain effective partnerships</li> </ul>	<p><b>Responsible</b></p> <ul style="list-style-type: none"> <li>- You are sensitive to social and ethical issues and plan your work to take account of these</li> <li>- You are committed to excellence, quality and innovation</li> </ul>

8.

National Co-ordinating Centre for Public Engagement

We help universities engage with the public  
How can we help you with public engagement?

publicengagement.ac.uk



**Secretive and untrustworthy**

**Irrelevant and out of touch with society**



**Unaccountable and a waste of tax payers' money**

**Elitist and reinforcing inequality**

# Why is it important to engage with the public?



## trust

- Researchers are trusted to act ethically and responsibly
- New, controversial areas of research are debated and public attitudes taken account of

## social responsibility

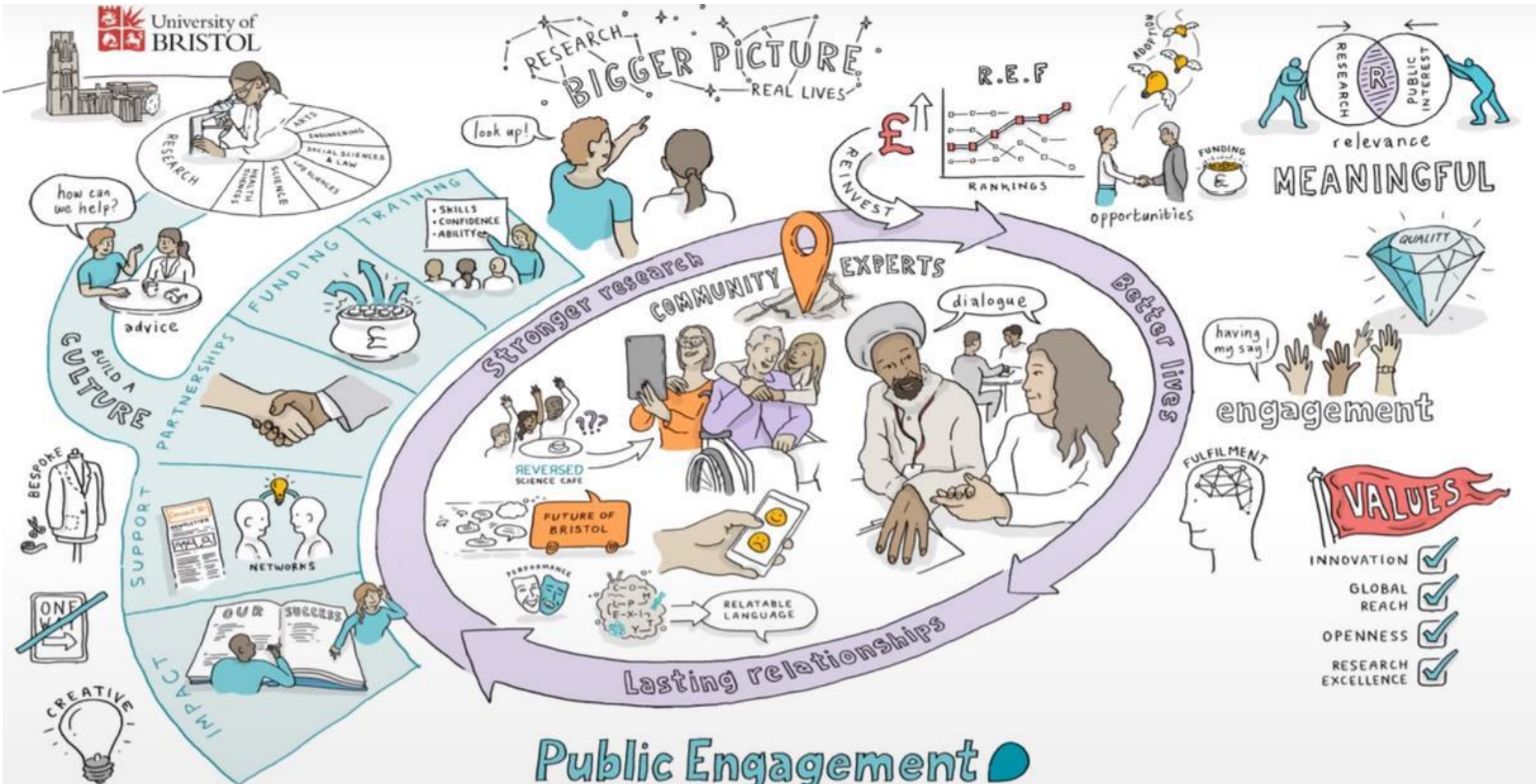
- Research institutions are seen to act in socially responsible ways, minimising their environmental footprint and supporting social mobility

## relevance

- Research more finely tuned to society's needs
- Innovation flourishes as new ideas & insights flow into HEIs
- Research outputs are easily accessible and widely used
- Young people see research careers as relevant and attractive

## accountability

- Those with a stake in the impact of research feel they can influence investment priorities
- The purposes and impact of research are understood and valued by wider society



# Public Engagement

Strengthening research with conversations that count

- VALUES**
- INNOVATION
  - GLOBAL REACH
  - OPENNESS
  - RESEARCH EXCELLENCE

**DEMOGRAPHICS:**  
age, ethnicity,  
gender,  
economic  
status, level of  
education,  
income level &  
employment

voter



communities of place & interest

## CIVIL SOCIETY & THIRD SECTOR

Charities & associations; societies and clubs

## POLICY

Policy makers,  
regulators, civil  
servants

## PUBLIC SECTOR

Professionals and  
practitioners



service  
user

citizen



## BUSINESS

Companies, SMEs,  
entrepreneurs



customer

employee

**PUBLICS**

## Reasons to engage...

### **INSPIRING**

Inspiring, involving and informing the public about research

### **CONSULTING**

Actively listening to the public's views, concerns and insights

Working in partnership to solve problems, drawing on each other's expertise

### **COLLABORATING**

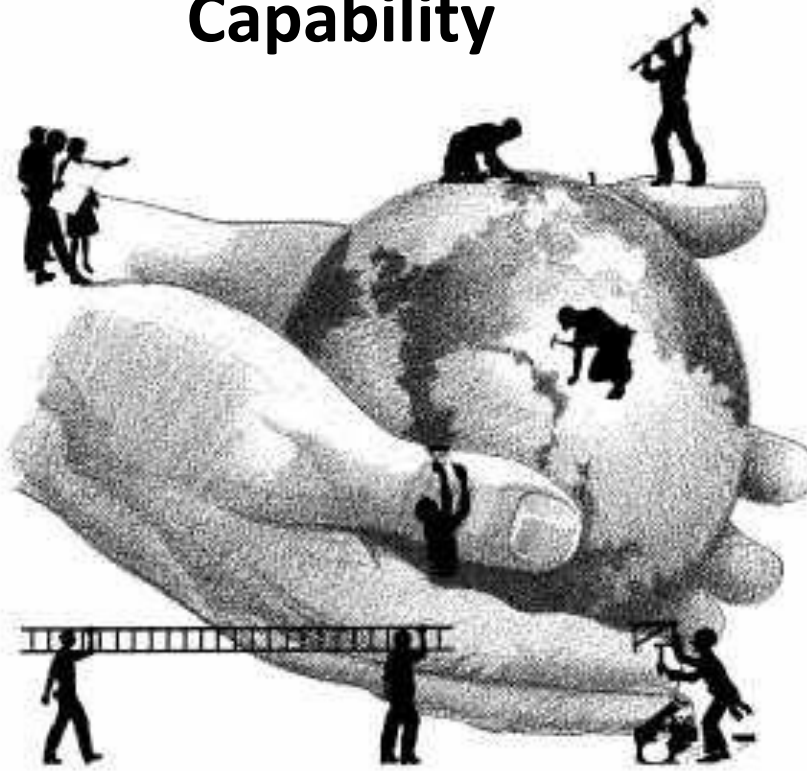
## Understanding



### Typical outcomes include:

- Enhanced knowledge and understanding
- Enhanced enjoyment, inspiration and creativity
- Changes to attitudes and values

## Capability



- Increased capacity and confidence of participating publics
- Changes to behaviour, attitudes, health and wellbeing and to quality of life
- Strengthened communities and relationships

## Innovation



- Demonstrable impact on policies, productivity, public realm
- Economic return and resilience

# What core, strategic functions do we all contribute to?



**Social intelligence**



**Service design**



**Support**

## 'Engaged' Attributes

### Responsive

- You are motivated by other people's curiosity, interests and needs
- You adapt your communication and approach for different people



### Reflective

- You set explicit goals for your work and monitor these carefully
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- You are committed to excellence, quality and innovation







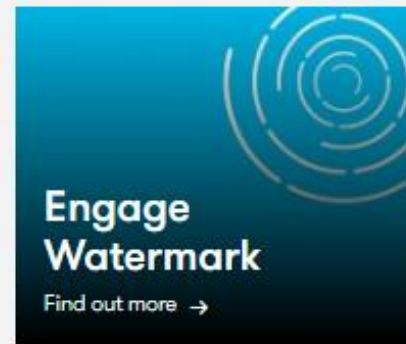
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## trust

- Researchers are trusted to act ethically and responsibly
- New, controversial areas of research are debated and public attitudes taken account of

## social responsibility

- Research institutions are seen to act in socially responsible ways, minimising their environmental footprint and supporting social mobility

## relevance

- Research more finely tuned to society's needs
- Innovation flourishes as new ideas & insights flow into HEIs
- Research outputs are easily accessible and widely used
- Young people see research careers as relevant and attractive

## accountability

- Those with a stake in the impact of research feel they can influence investment priorities
- The purposes and impact of research are understood and valued by wider society