Figuring out the question

A workbook for researchers having challenging conversations about research and evidence

SENSE about SCIENCE
THE POLICY INSTITUTE
KING'S College LONDON
wellcome

Figuring out the question

When someone questions research or challenges scientific information, it can be tempting to respond immediately to what they have said. You may begin explaining the evidence, correcting inaccuracies or defending a decision. But the question you hear may not be the whole question—and it may not reveal what is really driving the conversation.

This short workbook is intended for researchers who talk with people about research and evidence, especially on disputed subjects.

It provides insights from vaccine programmes, conspiracy research and public engagement practice to examine how people express uncertainty, mistrust and disagreement—and how you can respond in ways that are constructive and respectful.

It contains the following content and exercises to help you:

Questions are rarely just questions

Exercise 1: How do I listen now?

Exercise 2: What's really being asked?

Wasn't the COVID-19 vaccine rushed?

Exercise 3: What's really behind a question or challenge about research?

Digging deeper

Situating your research

Recognising when not to engage

Exercise 4: Responding to what people really want to know

Questions are rarely just questions

A question about vaccine safety, for example, might be rooted in a friend's experience of harm. An angry statement might come from feeling ignored or powerless or be a way of asking for reassurance or respect. A challenge to official information could be triggered by mention of a distrusted institution or a sense that important decisions are being made without considering the people they affect. Distrust of science may also be fostered by lack of access to reliable information and by the political environment, especially on issues which have become very polarised.

To understand what lies beneath a question, challenge or an action, such as refusing a vaccine or sharing a bad statistic, **we have to ask and listen**.

The aim of this workbook is not to win arguments or find hidden meanings behind everything people say. Through real-life examples, listening exercises and reflection prompts, we will help you become more **thoughtful about what you hear**, more **aware of the assumptions** you bring, and more **curious** about the experiences and concerns that may underly a question.

Listening more thoughtfully can improve public engagement. It can also help you communicate more clearly with colleagues, students, funders, and public audiences. It can strengthen grant applications, pitches and team discussions, and make it easier to anticipate questions or concerns around contentious research. In other words, the time spent reading this workbook and practising the exercises can pay back in clearer thinking, stronger communication, and better research relationships.

Exercise 1: How do I listen now?

Think about how you currently listen and respond to questions that challenge your research. There are no right or wrong answers. This is a snapshot for you to return to at the end of the workbook to see what might have changed.

Reflection

Think about a recent conversation you've had, or social media post you've read in which someone questioned or challenged your research.

- What did they say?
- What did you think they meant?
- Did their words frustrate or disappoint you?
- Did you ask or investigate what was behind their concern?
- Did you read or listen to the end of what they said?

Think of a conversation about your own research – the one above or another – that you'd like to revisit. Keep it in mind as you work through this document and consider what you might do differently next time, making a note of the following questions:

- What is the situation?
- Who is involved?
- Why does this matter to me?

Deep listening[1]

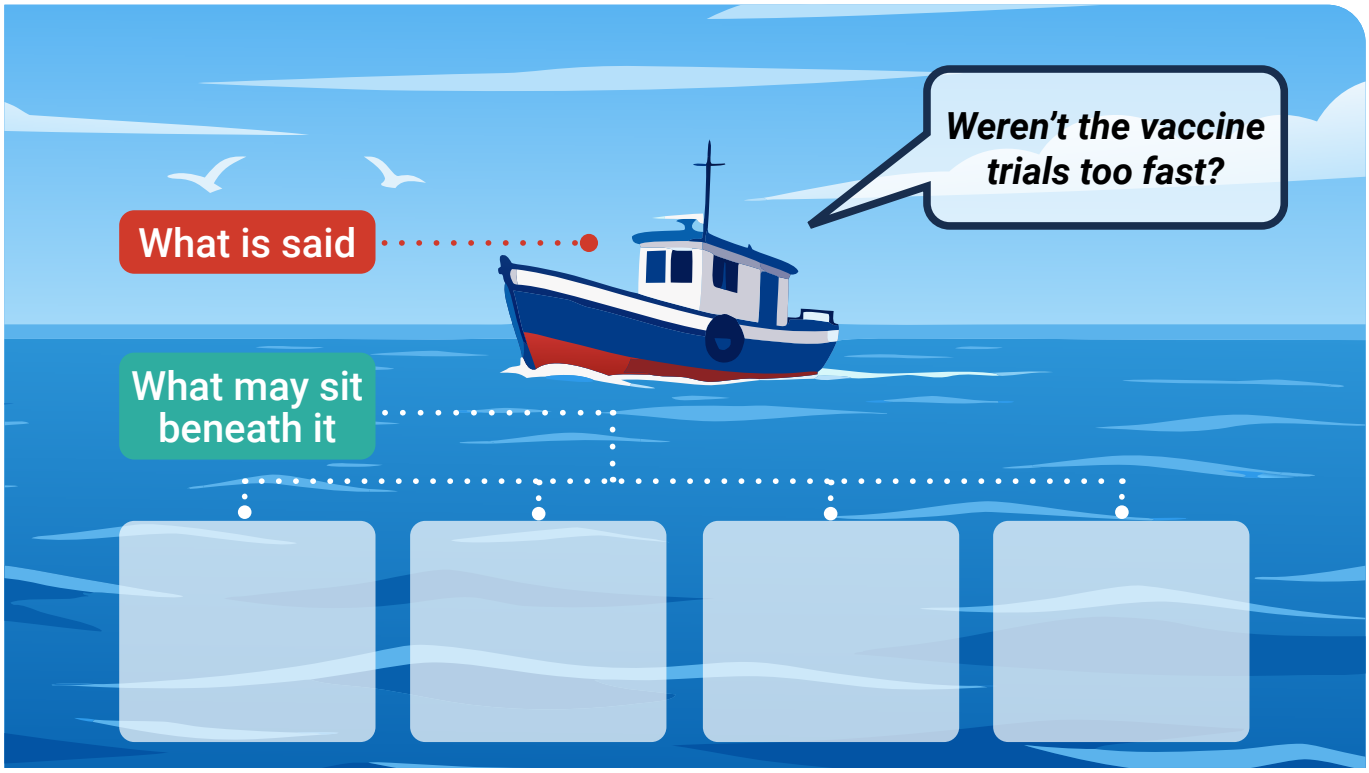
It may sound obvious that listening is crucial to understanding what people are really saying. It helps you work out whether there is really a question for you to answer and whether there is the possibility of a meaningful conversation. You don't have to agree with someone to listen well. The aim is to better understand a point of view. This is especially important when there is a big difference between your conclusions or your respective access to institutions and systems of influence (power).

We all make quick judgements about people, often before they have spoken. Emily Kasriel, an expert in deep listening in relationships, advocates taking a moment to put aside your own agenda.[2] If you approach a conversation with humility and genuine curiosity you give the other person more of an opportunity to say what's really on their mind, to explore their own views and listen in return.

[1] This means means listening with curiosity, empathy and respect, while being aware of your own assumptions and biases, so that you can understand the meaning and concerns behind someone's words. For further reading see Ronald M. Epstein and Mary Catherine Beach, '"I Don't Need Your Pills, I Need Your Attention:" Steps toward Deep Listening in Medical Encounters', *Current Opinion in Psychology* 53 (October 2023): 101685, https://doi.org/10.1016/j.copsyc.2023.101685.

[2] Emily Kasriel, 'Deep Listening', *Stanford Social Innovation Review* 20 (2021), https://doi.org/10.48558/K52F-1711.

Exercise 2: What's really being asked?



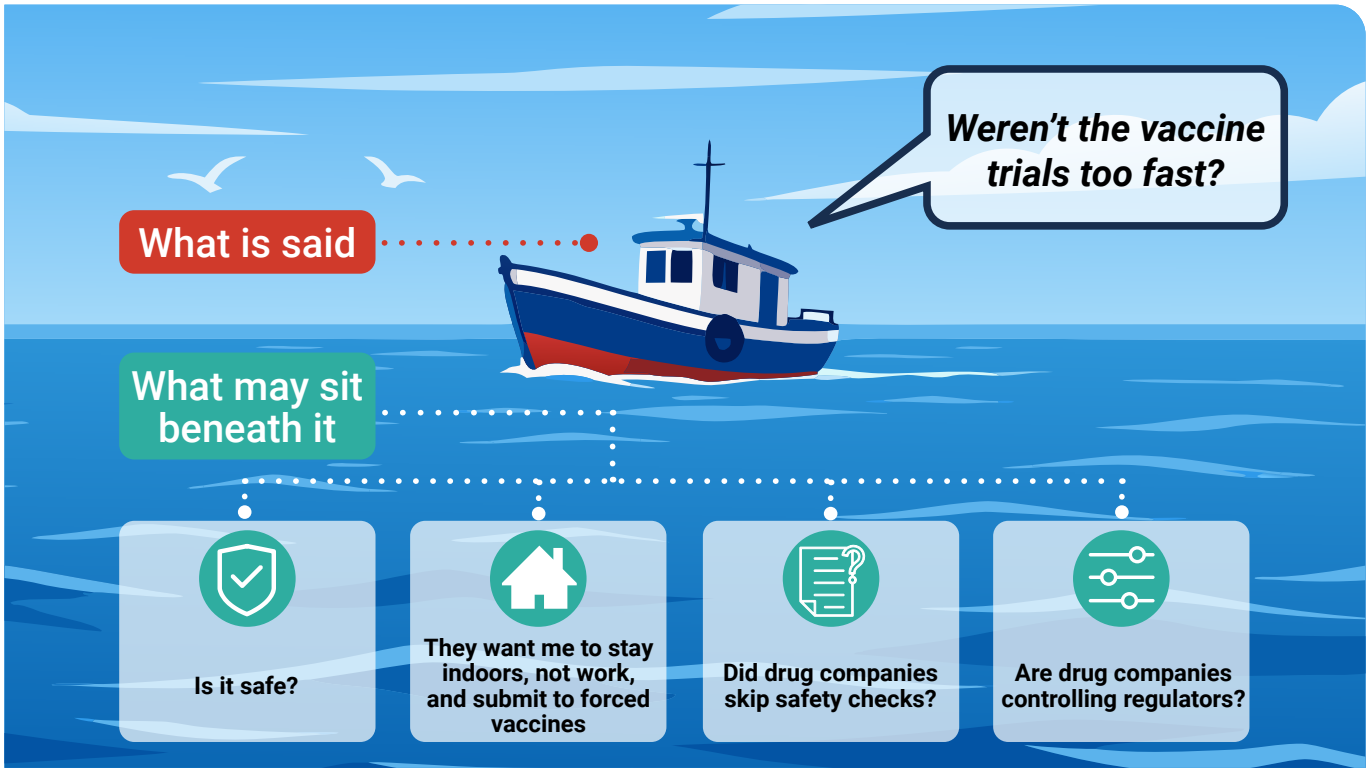
Public concern about the speed of COVID-19 vaccine development and approval became a major test of the trust people had in science, regulation and public health decision-making.

Sometimes the question really is the question. During the pandemic, some people were genuinely asking about the speed of vaccine development because they had read that vaccines could take years to develop. For others though, questions about speed were connected to wider concerns about how decisions were being made, and in some cases they signified protest.

Fill in the boxes above with what you think people's underlying questions and concerns might have been.

Wasn't the COVID-19 vaccine rushed?

Is this what you thought people were really asking?



During the COVID-19 vaccine rollout, many people asked 'Was it developed too quickly?'. The concerns about the rapidity of vaccine development were not marginal: in the ONS Vaccine Opinions Study,[3] among adults in England who remained unvaccinated as of September 2021, 55% felt the vaccine had been developed too quickly, and in the Vaccine Confidence Project/ ORB UK tracker,[4] among hesitant respondents, 31% said approval may have been rushed.

But when people had the opportunity to explain what they really wanted to know, it became clear that speed was only part of the concern. They also wanted to know whether testing had been skipped, whether the vaccine was safe, how long-term effects would be monitored, and whether regulators and pharmaceutical companies were in league with each other.

So, the real question was often:

> **'Can I trust that being fast doesn't mean the vaccine is less safe?'**

[3] Office for National Statistics, 'COVID-19 Vaccine Opinions Survey - England', Office for National Statistics, 2021, https://doi.org/10.57906/SF2W-6794.
[4] Heidi Larson *et al.*, *The Vaccine Confidence Tracker: UK* (ORB International; Vaccine Confidence Project [London School of Hygiene and Tropical Medicine], 2021), https://orb-international.com/wp-content/uploads/2021/06/The-Vaccine-Confidence-Tracker-UK.pdf.

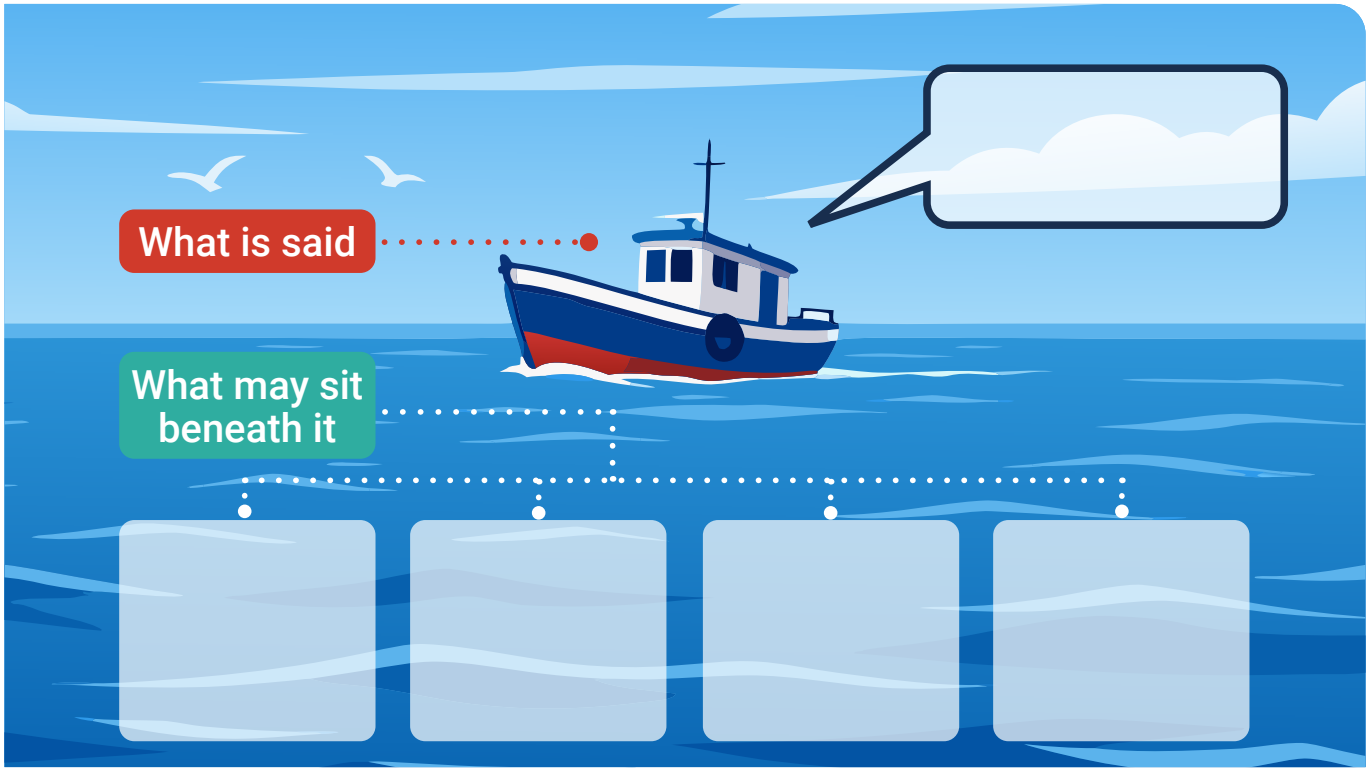
Understanding what prompted these questions made it possible to give more useful answers that responded to the underlying concerns: that vaccine researchers were able to move quickly because they were building on earlier work, and that the usual delays were unlocked by the exceptional levels of funding and global cooperation, which also meant that some processes could be run at the same time. Safety checks were still carried out, and post-authorisation monitoring continued.

The materials also supported a broader communication shift: speed was reframed from a possible source of risk into evidence of preparedness, collaboration and scientific capability. The strongest communications materials did not simply assert safety but were accompanied by clear explanations of the systems and processes that minimised risk.

Exercise 3: What's really behind a question or challenge about research?

Think of a conversation that you've had about your research in which someone asked a question or challenged you. **Write the question or statement in the top box in the graphic below.**

What someone says first may be only part of what they want to communicate. Put yourself into the shoes of the person who raised the concern. What other questions could be underlying their concern? **Put your ideas about what the actual questions might be in the other boxes.**



We need to give people enough space to explain the issue in their own words or to look at what else they are saying. Think about what follow-up questions you could ask in return to tease out what they might really be trying to ask.

In the following section you will get some ideas of how to work out whether there is something else going on beneath a question about your research.

Digging deeper

Use the prompts below to help you explore what's being said — where the concern comes from, what matters most to the person, and what they need from the conversation. Use the questions that feel useful, and put them into your own words.

Where does the concern come from:

- What led you to feel this way?
- Was there a particular experience that has shaped your view?
- Where did you first hear about this?

Find out what is at stake:

- What are you worried might happen?
- How does this affect you or people you care about?
- What matters most to you about this?

Understand what the person needs:

- What would you like to know?
- What would help you feel more confident?
- What would a good response look like to you?
- Is there anyone or any source you would trust on this?

Check your own understanding:

- It sounds as though your main concern is… Have I understood?
- Is this mostly about safety, or is something else worrying you?
- Have I missed anything important?
- Is that the question you most want answered?

Situating your research

Sometimes a person just needs clear information — science can often seem contradictory, confusing and complex. Too often, the supporting information that people need to make sense of research is incomplete or left out of the explanation altogether.

Clear research communication explains the **wider context,** including:

Context issues	Things to communicate
Why are you doing this research?	It's important to explain **how the research could affect people's lives and benefit the wider public but without overstating its potential**. It's also important that when you are engaging the public in conversations about your own research that you are able to explain the purpose of that engagement and why you've asked them to be involved.[5] ***44% of people in the UK said that explaining how research improves ordinary people's lives helps build trust.***[6]
Scientific concepts	**Explain the scientific concepts underlying the research in clear language.** Try to use familiar examples to show what they mean and why they matter. Sometimes explaining key concepts, that seem obvious to you, help everything make sense. For example, understanding that different types of radiation sit on a spectrum helps explain why X-rays can damage cells, while MRI does not carry the same risk. ***Close to half of people (44%) surveyed agreed that scientists don't care if ordinary people understand their work.***
Status of findings	Be clear about **whether findings are novel, developing, or confirming other studies**. Has the research been peer reviewed? What are the uncertainties? Be open about them and the limitations of current scientific understanding. People living with multiple sclerosis may have heard claims of 'breakthroughs' for years without seeing meaningful change in their own treatment or daily life. Being clear about the difference between early-stage research and treatments that are ready for use can help avoid raising unrealistic expectations and undermining trust.
Who is paying for it?	Be honest and open about **who is funding your research**. A recent RAND report[7] found that open science practices, including transparency about funding sources, strengthens integrity and legitimacy. ***Almost half (46%) of the public believe that scientists won't publish results their funders don't like.***
Governance and regulation	Explain who **oversees the research**, how **ethical and safety standards are checked,** and how **researchers are held accountable**. Some people mistakenly believed that stem-cell researchers were creating babies in laboratories because they were unaware of the strict rules and oversight governing this research, including regulation by the Human Fertilisation and Embryology Authority.

[5] Sense about Science, *Why are you asking me? A guide to communicating your purpose and motives for involving people in your research*, Trustworthy Communication (2026), www.senseaboutscience.org/trust-in-scientists/why-are-you-asking-me.
[6] The Policy Institute at King's College London and Sense about Science, *Trust in scientists: The role of values and moral and political identities in the UK* (2026), https://www.kcl.ac.uk/research/trust-in-scientists-the-role-of-values-and-moral-and-political-identities-in-the-uk.
[7] R. Milne *et al., Public Trust in Science and Scientific Trustworthiness* (RAND Europe, 2026), https://wellcome.org/insights/reports/public-trust-science-and-scientific-trustworthiness.

Good practice means always including context information when communicating about research as it can be difficult for people to engage fully without it.

A statement or question may also be driven by something broader or deeper, for example:

- A previous experience
- Feeling ignored or excluded
- Lack of choice or control
- Feelings of unfairness or lack of access.

Distrust of science may be fostered by lack of access to reliable information or by the political environment, especially in cases where science has become politicised.[8] It's important to find out what people already know. They may know the factual answer but believe something different because of an experience they have had. You can reassure someone without agreeing with everything they say. Make space for their concerns and be clear that there is a space in the conversation, even if some of their facts aren't correct. When correcting a misconception, do so respectfully and explain the evidence without dismissing their experience.

An information problem and a trust problem require different responses. More facts may help and it's important that you are across the facts and aware of what information and misinformation is out there. But facts alone are unlikely to resolve a concern if it hasn't been properly heard.

There can be other reasons why people have challenging questions, including:

- A desire for debate or attention
- A need to make sense of the world in a way that fits existing beliefs
- Enjoying the sense of identity or belonging linked to social and cultural networks
- Conspiratorial thinking. While a lack of accurate information may play a role, it's often more about emotional resonance than accuracy, where the conspiracy theories offer a story that fits how people were already feeling.[9]

Some questions may be asked in bad faith, and a meaningful conversation will not always be possible. Listening can help you decide whether someone is open to discussion, simply wants to have their say or is trying to provoke a reaction.

Good listening is not always about spending more time on a conversation — sometimes it helps you recognise when to step away.

[8] Sabina Mihelj, *Crisis Communication in Times of Political Instability and Misinformation*, UK Academy of Social Sciences IAG Policy Briefings (Academy of Social Sciences, 2024), https://acss.org.uk/publications/crisis-communication-in-times-of-political-instability-and-misinformation/.
[9] Sense about Science, 'Talking about Covid Conspiracy', https://senseaboutscience.org/activities/talking-about-conspiracies/.

Recognising when not to engage

'Understanding the sorts of bad faith approaches [that] are out there can help put those who want good evidence-based discussions in a better position to deal with them.'[10]

Sometimes a conversation is genuinely about understanding the research. At other times, engagement may simply create more attention, reinforce polarisation, or give bad-faith actors another opportunity to spread misleading claims.

This can be particularly relevant on topics where researchers may face trolling, coordinated attacks or repeated attempts to provoke a response, such as climate science, vaccines, or research involving animals.

Before engaging, ask yourself:

1. Is the person using hostile or bad-faith engagement, particularly online? This includes things such as repeatedly requesting evidence or explanation, known as 'sealioning', or raising multiple points of varying validity in rapid succession, known as 'gish galloping'.
2. Are they using rhetorical arguments to distort, distract, or avoid engaging with the substance of the issue? People have the right to sound off about an issue that they care about, but you don't have to respond.
3. Is science/research really the issue? Sometimes people may mention science in what is really a moral or political argument, or a frustration about something else.

Consider your time, your well-being and the potential impact on colleagues or others involved in the research:

- Racist or otherwise unacceptable views may need to be challenged clearly rather than simply tolerated
- Choosing not to engage is not the same as avoiding difficult questions. Sometimes it is a judgement that continuing the conversation is unlikely to help
- You might decide to answer once and stop, respond for the benefit of the wider audience, direct people to trusted information, or not respond at all.

The aim is not to 'win' every exchange. It is to work out where conversation is likely to be useful.

[10] Adam Kucharski, 'Toxic Tactics', *Understanding the Unseen*, 16 September 2024, https://kucharski.substack.com/p/toxic-tactics/.

Exercise 4: Responding to what people really want to know

In this final exercise, think about how you might communicate your research. Below are some example questions to get you started. How would you respond? What other questions might you be asked — write them down and your answers in the spaces below.

Context issues	Things to communicate
How will the public benefit from your research?	
Does your research have any risks and what safeguards are there in place to protect the public?	
Who is funding your research? What does your funder expect for their money?	
What are the scientific concepts that someone needs to understand to be able to understand the research?	
How certain are you about your results? What don't you know?	

Continued on the following page:

Exercise 4: continued

Context issues	Things to communicate
What research are you going to do to fill the gaps in current knowledge?	

Try your answers out on friends or family to see if they can feel a good match between what you say and what the question would mean for them.

Figuring out the question helps us respond in a way that is relevant, clear, and useful. The ideas and exercises in this workbook offer a starting point — adapt them to your work and use them to support better conversations about research and evidence.

Published in November 2026

This publication is part of the Trustworthy Communications and Engagement project by Sense about Science and the Policy Institute at King's College London, funded by Wellcome.

The text in this document is licensed under Creative Commons Attribution-NonCommercial 4.0, which permits unrestricted non-commercial use, provided the original author and source are credited.

Design: Open Creative Communications
www.opencc.co.uk

Sense about Science is an independent body that promotes the public interest in sound science and evidence. Founded in 2002, Sense about Science works with decision-makers, world-leading researchers and community groups to raise the standard of evidence in public life and to ensure the public has access to the evidence behind important decisions.

For further information, contact Sense about Science:

www.senseaboutscience.org
hello@senseaboutscience.org

Sense about Science
Registered Charity No. 1146170
Company No: 6771027