Reimagining R&D Briefing

How do we get to a 2045 where

R&D delivers both economic and societal benefits

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CaSE
Campaign for Science and Engineering

Introduction

The future of UK research and development (R&D) is at a pivotal moment. It faces a complex interplay of global and domestic uncertainties including from a changing geopolitical context, domestic political fragmentation, declining public trust in institutions and rapid technological development. Now is the time for the R&D sector to take deliberate steps to ensure R&D remains resilient and relevant in the decades ahead.

CaSE has developed a long-term vision for UK R&D in 2045 that sets out desirable outcomes that the sector would like to see, as well as the challenges and trade-offs that need to be addressed for this to become reality. The vision is based on views gathered through an extensive consultation process with CaSE's membership – including businesses, universities, charities and learned and professional societies – as well as a diverse array of stakeholders across the R&D sector.

The vision sets out four themes for a successful UK R&D system in 2045:

1) R&D delivers benefits for the economy and society

2) R&D is embedded in society, with greater public involvement

3) R&D fosters national capability while being outward looking

4) R&D features in an open innovation system, with strong public and private collaboration

This vision is intended to guide both the R&D community and the UK Government in shaping the future of the R&D system. CaSE is exploring the themes from the vision in greater depth through a series of roundtables. The discussions aim to further explore the challenges, opportunities and trade-offs identified.

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The views and recommendations expressed within this report are those of Campaign for Science and Engineering (CaSE) and inclusion on this list does not imply endorsement for the contents of the report.

About this briefing

This briefing draws on a roundtable discussion and provides recommendations to unlock progress towards the first and second theme from the vision, which sets out that in 2045:

R&D delivers benefits for the economy and society by:

- **Driving growth and public benefit, improving lives across the UK while addressing national and regional societal needs.**
- **Being a core part of the UK's identity and economy, with strong public and political consensus supporting long-term investment.**
- **Having public trust in research as R&D institutions and researchers behave ethically, transparently and are accountable for the impact of research.**
- **Ensuring innovation being developed is shared equitably, that benefits are widely distributed and technologies such as AI are treated as public goods.**

R&D is embedded in society, with greater public involvement by:

- **Being fully integrated into society with public awareness that R&D supports key challenges such as healthcare, climate change, crime reduction, and the cost of living, rather than being seen as a separate sector.**
- **Increasing public participation in R&D, with citizens actively involved in research, funding decisions, and policy development.**
- **Having stronger connections between R&D and communities, recognising that societal challenges are not solely found within the R&D sector.**
- **Promoting scientific literacy for all, embedding critical thinking, evidence-based decision-making, data literacy, and AI skills in education from an early age to reduce barriers to participation.**

Participants were asked to assess the feasibility of these themes of the vision within the current policy landscape, explore trade-offs and identify policy interventions needed to deliver it. This briefing highlights what stakeholders identified as some of the barriers to delivering this vision, and what could be improved. The briefing sets out recommendations towards making this vision a reality, which are aimed at Government, the research community, businesses and funders.

Building a more inclusive and trusted R&D system

What is working well?

Across society, there has been a widespread loss of public trust in governments, public institutions and politicians. Science and research seem to have weathered this collapse in trust fairly well. Opinion polls – including CaSE's own – consistently find high levels of trust in scientists as messengers and in science as a concept. However, trust is fragile and isn't held uniformly across society, with the groups least represented in scientific roles tending to be less trusting. Recent studies emphasise a shift towards greater uncertainty and apathy, and more qualified levels of trust.

More broadly, CaSE's public opinion research – in common with many other studies – emphasises that trustworthy behaviours, such as transparency and honesty, are valued by the public. Additionally, CaSE has found a great deal of appetite for more information about how R&D is solving problems and that place is a powerful connection point.

Taken together with insights from CaSE's roundtable, this emphasises the importance of demonstrating how R&D is tackling the issues the public cares about, both on a local and wider, societal level.

What could be improved?

Strengthen trust, accountability and transparency

In our discussions, stakeholders highlighted concerns about accountability when research or innovation leads to unintended harms, as well as wider questions about whether government, industry and research institutions always act transparently and in the public's interest. This reflects CaSE's recommendation in our 2026 report on R&D in a shifting voter landscape that the R&D sector must prioritise and incentivise trustworthy behaviours, meeting public demand for specificity and accountability about what the sector does, why priorities are chosen and who delivers research.

Trust is both an outcome of, and a prerequisite for, a healthy R&D system. Where institutions are perceived as unresponsive, inequitable or insufficiently transparent, public confidence in research, new technologies and public investment may be undermined.

Strengthening trust will therefore require meaningful transparency and respectful engagement across the whole R&D system.

Move from engagement to genuine participation

Stakeholders felt that maintaining public support requires more than communicating research outcomes: people need meaningful opportunities to shape R&D decisions and priorities. CaSE's 2024 public dialogue, People's Vision for R&D, emphasised that the public's emotional connection to R&D can be strengthened through the opportunity to learn more about R&D and involvement in it, and that the behaviours of the R&D system can support an increased sense of public agency and ownership in R&D.

CaSE's R&D in a shifting voter landscape report also calls for the sector to value, resource and act on public participation by listening proactively, partnering with communities and recognising that R&D can feel closed or elite to some groups.

However, as noted in our roundtable discussions for this report, short-term funding and incentives often prioritise research outputs over long-term relationships, leaving engagement fragmented, one-directional or too late to influence decisions.

There are many examples of participatory approaches, including community-led research programmes such as the British Science Association Ideas Fund and work done by The Young Foundation. Furthermore, Sciencewise, funded by the Government and run through UKRI, is an example of a long-running and internationally respected programme for public dialogue, (that is delivered by a consortium of organisations such as Involve and the British Science Association), bringing public voices into policymaking about science and technology. If we look across different sectors at approaches used, the Bank of England Citizens' Forum shows a good example of where public perspectives are gathered regularly to understand and inform policies.

These models can strengthen trust, legitimacy and the relevance of research by ensuring public perspectives inform decision-making and the research process. Yet such approaches remain difficult to sustain and scale. Embedding meaningful engagement and involvement across the R&D system will require long-term investment, stronger coordination and greater recognition of engagement as a core part of research and development. There is also a need for better training and incentives for researchers to deliver public involvement, alongside best practise guidance on delivery and evaluation to ensure any engagement and involvement activities are of high quality and aid research.

Empower universities as community anchors

It was highlighted in our discussions that universities are uniquely placed to support meaningful public engagement in research. As major research institutions embedded in communities across the UK, they often provide the most visible and accessible connection between the public and the R&D system. Their geographic reach gives them significant potential to act as local convenors, connecting research activity with the needs and priorities of the places they serve.

By strengthening community-led research, deepening local partnerships and co-producing knowledge with communities, universities can help demonstrate the tangible value of R&D and make research more relevant and responsive. Supporting this role would not only enhance place-based impact but also help bridge the gap between national R&D ambitions and local needs.

However, participants argued that government funding and policy often treat universities' teaching and research roles as if they work in the same way. This can create unrealistic expectations, financial pressure and confusion about the different roles played by research-intensive, teaching-focused and locally embedded institutions. A more tailored approach would make these roles clearer and ensure funding and policy better reflect each institution's strengths, national priorities and local needs.

Recommendations

1 Building a more inclusive and trusted R&D system

- **Government senior leaders and decision-makers should demonstrate sustained and visible support for public involvement in R&D.** Those holding the greatest power in the R&D system must use their position to empower practitioners of public involvement, and prioritise these activities, even at difficult moments. Chief scientific advisers and decision makers should have a clearer and more visible role in explaining how evidence informs government decision-making, including where evidence is uncertain or contested.

- **Create and promote opportunities for those working in non-research organisations or roles to develop skills in public involvement.** This should include trusted intermediaries, including the NHS, local authorities and charities, to communicate the practical local and human benefits of R&D in their local area. Those carrying out public involvement should consider, build on and action good practice principles, including the People's Principles for Involvement in R&D, which were developed collaboratively by participants in CaSE's People's Vision for R&D public dialogue.

- **Government and funders should make public engagement a core part of R&D funding through dedicated awards, fellowships and grants, and setting clear expectations for how communities can be involved at different stages of research and innovation.** Applicants should be encouraged to demonstrate meaningful engagement plans from the outset, with appropriate accountability for delivery.

- **Funders should provide long-term funding for community partnerships that allow communities, researchers and delivery organisations to build trust and develop work together over time.** Genuine engagement requires sustained, coordinated investment rather than short-term project activity.

Sustaining public and political support for R&D investment

What is working well?

There are positive foundations for sustained public and political support for R&D. CaSE's study Public Attitudes to R&D 2025 has shown broad public support for R&D, with 88% agreeing it is important for the Government to invest in R&D. However, this support is fragile and shallow due to the public's lack of connection to R&D, shown by 50% of respondents not able to think of how R&D benefits them.

There are also signs of growing political support for R&D. The Office for National Statistics data for 2024 shows that overall R&D investment increased in both cash and real terms. The new UKRI strategy and delivery plan provide a clearer framework for long-term public investment, including £2.6 billion of formula funding for university-based research and innovation in 2026-27. UKRI is also developing a communications approach to build public confidence that R&D investment delivers value. Alongside this, closer alignment between UKRI's priorities and the Government's industrial strategy creates opportunities to connect R&D investment more directly to economic growth, public benefit and national capability. Together, these developments give the sector a stronger platform to demonstrate the practical value of R&D and to maintain political support for long-term investment.

What could be improved?

Connect innovation with economic and societal outcomes

Research and innovation investments often take many years to generate impact, which means it can often be hard to demonstrate immediate societal value. Economic growth has been a central rationale for R&D investment across successive UK governments. In our discussions, stakeholders recognised its importance in decision-making but noted that economic growth arguments alone do not always resonate with wider public audiences. Visible local economic benefits can help build support, but there is also a need to strengthen the case for how R&D improves communities, public services and quality of life.

Economic growth and societal benefit should be understood as mutually reinforcing, rather than competing, outcomes of R&D. R&D-led improvements in health, for example, can support public services and contribute to productivity through a healthier workforce. Likewise, investment that supports jobs, reduces costs or strengthens local economies can improve people's quality of life. A stronger narrative should reflect both sets of benefits and how they interact.

Secure enduring public and political support

R&D has benefited from broad cross-party support in recent decades, but this consensus should not be assumed to be permanent, with a risk to political buy-in if public support weakens.

CaSE's public opinion research consistently finds that support for Government investment in R&D is broad – although lower among those intending to vote Reform, it never drops below a majority for any voter group tested. However, this consensus is shallow, and divisions appear around specific issues; Green voters more likely to prioritise clean energy while Reform UK voters are more likely to prioritise defence and security technologies.

The spread of mis- and disinformation adds to this challenge. As people encounter greater volumes of unreliable or conflicting information, confidence in evidence and expertise can be harder to sustain. This can fragment public debate, make consensus-building more difficult and further weaken declining trust in the institutions that generate and use research evidence.

These trends have practical implications for the long-term resilience of the UK's R&D system. A more fragmented political and public landscape could decrease consensus over research priorities, reduce policy certainty and make it harder to sustain public confidence in expertise. Over time, this could affect the UK's ability to secure long-term investment, attract and retain global talent, maintain international partnerships and protect the public trust that underpins the sector's social licence to operate.

Responding to these risks will require the R&D sector to build broader and more durable public and political support. This means engaging with a wider range of communities, using trusted and accessible channels, and being clearer about how research delivers economic and societal benefits across different places and groups. Social media and other digital platforms are now a central part of how many people encounter information about research and should play a bigger role in how researchers communicate directly, accessibly and transparently with the public. However, digital communication should complement, rather than replace sustained local engagement, partnerships with trusted intermediaries, and clear explanations of decisions, trade-offs and uncertainties.

Safeguard the independence and intergrity of research

The R&D sector needs to make a clearer public case that science is independent and that it needs to stay independent. Independence is essential for maintaining the integrity of research and ensuring that evidence can inform decisions in the public interest, including where this may not align with political priorities. At the same time, independence should not be presented as detachment from public needs.

The experience of the Covid-19 pandemic showed how quickly scientific advice can become politicised. The More In Common Britain Talks Trust in Science report found that the pandemic had a profound impact on the public's relationship with science and scientists: for some, scientists provided security and appeared more relatable, while for others, changing advice and the association with politicians damaged trust. This underlines the need for researchers and institutions to explain how the R&D system works, why its principles matter and how long-term research capacity helps protect society against future risks. This includes defending continued investment in areas such as vaccine research, even if political support decreases, by demonstrating their value to public resilience and preparedness over the long term.

Recommendations

2 Sustaining public and political support for R&D investment

- **Government, funders, universities, businesses, charities and public bodies should align around a clearer, more coherent, cross-sector narrative of how R&D delivers both economic and societal value.** This should be grounded in evidence, use accessible language and reflect the different ways people experience the benefits of research and innovation across the UK.

- **Funders and the R&D sector should better support researchers to engage with the public through various mediums.** This should be through funding and developing training programmes, and standards for public engagement that help maintain trust and quality. Including training researchers to effectively use social media channels to communicate science to different audiences.

- **Government and funders should work with the R&D sector to develop evaluation approaches that better capture the long-term economic, social and place-based value of research and innovation.** These should move beyond narrow project-level metrics and recognise the quality of public involvement, the value created through research processes and the wider conditions that enable impact.

- **Funders should invest in longitudinal evidence on societal value by supporting data and evaluation systems that track delayed, indirect and systemic benefits over time.** This would help Government, funders and institutions understand the full return on R&D investment, make better decisions about future funding and communicate more clearly how research and innovation improve people's lives.

Building a more coordinated, diverse and adaptive innovation system

What is working well?

The UK has strong foundations for a more open and effective innovation system. Its research base is supported by translational institutions and collaborative infrastructure that help connect discovery research to development, adoption and wider public benefit. For example, the Catapult Network provides sector-focused facilities and expertise across areas such as high value manufacturing, cell and gene therapy, offshore renewable energy and connected places, helping businesses and researchers de-risk innovation and move ideas closer to use. There is also growing policy attention to place-based innovation, especially since Andy Burnham became the new Prime Minister (which occurred after this roundtable), and more alignment between research and the needs of the public with the Government's Industrial Strategy. These assets provide important building blocks, but the challenge is to make them work together more deliberately, so that strengths in discovery research are matched by clearer routes to development, adoption and impact.

What could be improved?

Move beyond linear and closed-system thinking

In our conversations, stakeholders highlighted that current UK policy frameworks can imply that innovation moves in a linear sequence from research to commercialisation to adoption, largely within a national system. In practice, innovation is more iterative and interconnected - discovery, development, translation and use often shape one another. R&D activity and markets are also increasingly global, so a discovery made in the UK will not automatically be commercialised or adopted domestically.

This matters because economic and societal value can be created at different points in the innovation process. The UK may be strong in research in one area, but weaker in commercialisation or adoption. Government therefore needs to identify where capability already exists, where bottlenecks occur and which innovations are most likely to increase public value. This also complements CaSE's work on Mapping the economic returns of R&D in the UK, in collaboration with The British Academy, where it was recommended that Government intervention should not take a one-size-fits-all approach and instead adopt targeted approaches to capture value from innovation processes.

It was suggested that a more open and systems-based approach would also reduce the risk of treating innovation as a zero-sum competition between institutions, sectors or countries. Strategic collaboration, including with international partners, will be important for maximising the benefits of UK R&D investment and ensuring that discoveries translate into economic and societal impact.

Build funding and coordination around long-term outcomes

It was also discussed that the funding system needs to support longer-term and more coordinated activity. Short funding cycles and pressure to spend budgets quickly can limit the ability of researchers, businesses and public bodies to address complex societal challenges. Treating 'research' and 'development' as a single pathway can also obscure their different timelines, incentives and routes to impact. A more effective system would use funding and coordination mechanisms that reflect these differences, support continuity where it is needed and create clearer routes from research activity to public benefit.

Recognise institutional diversity

Our discussions highlighted the need for a more diverse set of institutions and models within the UK R&D system. Different scientific and technological challenges require different combinations of expertise, infrastructure, incentives and time horizons. For example, universities and public research institutions make a vital contribution, particularly to discovery research and to the talent and skills required for the R&D sector. However, while many places have strong universities, they can lack a translational research institute that can fill a gap in the R&D pathway.

For some areas, the traditional university and spin-out model may not provide the continuity or integration needed to move from discovery to invention and deployment. It was suggested in our roundtables that challenges that depend on long-term infrastructure, multidisciplinary teams or close coupling between research and development may benefit from translational infrastructure or additional institutional models. Proposals such as a national network of Lovelace Disruptive Invention Labs illustrate one possible approach to creating dedicated environments for longer-term, cross-disciplinary work.

The practical implication is not that one model should replace another, but that the system should better recognise and use institutional diversity. A clearer articulation of the roles of universities, public research institutes, businesses and charities would help align strengths with national priorities and local needs.

Close regulatory gaps that affect trust and adoption

Stakeholders also mentioned that regulation is another important part of the innovation system in helping to build public trust and for successful adoption of innovations. Rapid developments in areas such as AI, data and biotechnology can move faster than national regulatory frameworks. Where regulation is unclear or fragmented, risks around safety, ethics and accountability may increase, and public trust can be weakened. This can also create practical disadvantages for responsible UK researchers and firms, who may face uncertainty, delays or higher compliance burdens while larger global companies are better able to absorb risk and scale quickly.

Clear, proportionate and adaptive regulation would help protect the public interest, support responsible innovation and give researchers, businesses and investors greater confidence to develop and adopt new technologies.

Recommendations

3 Building a more coordinated, diverse and adaptive innovation system

- **Government should develop a clear policy that recognises and supports institutional diversity.** This should highlight the distinct roles different institutions play, and how their strengths can be aligned with national priorities and local needs.

- **Government should Design policy around the different needs of 'research' and 'development' that deliver more targeted interventions that recognise the different purposes, incentives and timescales of 'research' and 'development'.** This would support more effective use of public investment, help address bottlenecks in the innovation system and create clearer pathways from new knowledge to public value.

About CaSE

Campaign for Science and Engineering (CaSE) is a non-partisan charity with a membership that cuts across R&D sectors. It takes a high-level, cross-sector view of the research and innovation environment, and gives impartial expert insight on the whole R&D system to decision-makers.

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