

GUIDANCE DOCUMENT ON
**SCIENCE COMMUNICATION
AND RESEARCH CULTURE**
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**Science Communication and Research Culture:
Guidance Document for Research Funding and
Performing Organisations**

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SCIENCE COMMUNICATION AND RESEARCH CULTURE

Guidance Document for Research Funding and Performing Organisations

Table of Contents

Foreword	5
About this Guidance	6
Introduction	7
1. The Changing Landscape of Science Communication	9
1.1. Theories, Opportunities, and Challenges	9
1.2. Models of Science Communication	10
1.3. Trust in Science	12
1.4. Artificial Intelligence and Science Communication	15
1.5. Science Communication in European and Global Research Policies and Frameworks	17
1.6. Science Communication in Research Ecosystems: Roles and Responsibilities	18
2. Embedding Science Communication Across the Research Lifecycle	20
2.1. Positioning and Mission Setting	20
2.2. Research Assessment Processes and Practices	21
2.3. Research Processes and Recommendations	23
2.4. Knowledge Translation and Exchange	24
2.5. Research Impact	24
2.6. Creating the Conditions for Effective Science Communication	25
3. Principles for Responsible and Effective Science Communication	27
4. From Principles to Practice	30
Tool: Reflective questions for RFOs and RPOs on embedding science communication into research systems and processes	30
4.2. Further Self-Reflection Tools	33
Conclusion	34
Resources	35
Reference List	37
Annex 1 Overview of European & International Organisations and Policy Frameworks that reference science communication	38
Annex 2 Quality Indicators for Science Communication	44
Annex 3 Suggested ways forward for RFOs and RPOs in the use of AI for science communication	45
Annex 4 Recommendations on Enhancing Trust in Science	46

Foreword

Science is an essential part of our societies. However, the value of research depends not only on the knowledge it creates, but also on our ability to share that knowledge, to engage openly with different perspectives, and to enable people to understand and participate in the processes through which scientific knowledge develops.

Research funding and performing organisations have an important responsibility in creating the conditions for this engagement. Through the research they fund and perform, the policies and incentives they establish, and the support they provide to researchers and research professionals, they can help ensure that science communication is recognised not as an additional activity, but as an integral part of a strong, open, and responsible research culture.

Science Europe and its members have worked together over several years to advance this ambition. Our 2022 Position Statement Science Communication for Greater Research Impact set out a shared vision for embedding science communication more firmly in research systems. The 2024 High-level Conference on Science Communication, organised with the Research Foundation Flanders (FWO) and the Fund for Scientific Research (F.R.S.-FNRS) explored how research organisations can strengthen their institutional approaches to science communication. Our 2025 conference on Trust in Science, co-organised with the French National Research Agency (ANR), reinforced the importance of openness, integrity, transparency, and meaningful engagement in strengthening the relationship between research and society.

This guidance builds on that collective work and on the experiences of Science Europe's Member Organisations, and comes at an important moment. Evolving digital technologies and artificial intelligence are rapidly transforming how science is communicated and encountered, while misinformation, polarisation, and changing patterns of public engagement with science create new challenges for researchers and research organisations. At the same time, there are significant opportunities to develop more open, inclusive, and participatory relationships between research and society, highlighting its value and contribution in tackling common challenges and reinforcing its role in serving the public good.

There is no single model for responding to these developments. Research systems, organisational mandates, and societal contexts differ across the world. What research organisations can do, is reflect critically on the conditions they create for responsible and effective science communication: how it is recognised, resourced, supported, and embedded in the research lifecycle.

With this guidance, we invite research funding and performing organisations to reflect on their own approaches and to continue learning from one another. We hope it will support organisations in strengthening the conditions for responsible and effective science communication, while also providing a useful resource for the wider research community and contributing to a broader reflection on how research and society can engage with one another. Ultimately, our ambition is to help foster research cultures in which communication and engagement with society are recognised and supported as integral to open, trustworthy, and excellent research. We look forward to continuing this work together with our Member Organisations and the wider research community, as the relationship between science and society continues to evolve.



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About this Guidance

This guidance is intended to support research funding organisations (RFOs) and research performing organisations (RPOs) in reflecting on how science communication is understood, supported, and embedded within their own contexts. It offers a formative framework that organisations may adapt to their national setting.

This document presents an overview of the evolution and importance of science communication. Building on previous Science Europe work on a variety of policy topics, it identifies eight principles for responsible and effective science communication. Finally, the guidance demonstrates the different points in the research lifecycle in which science communication can be embedded.

The principles and lifecycle perspectives set out in this document are designed to be used flexibly. Research organisations can use them as part of strategic planning processes, internal discussions between all those involved in supporting science communication, or as part of a review of existing policies and practices. They can also serve as a reference point for peer exchange and mutual learning across organisations that face similar challenges.

The guidance concludes with a series of questions for self-reflection within the organisation:

- How is science communication currently positioned within your organisation's mission, strategy, and culture?
- What strengths or gaps are there in your organisation's existing approaches to communication and public engagement?
- How can your organisation support dialogue between its different professional communities, which may include researchers, communicators, policy teams, and leadership?
- How can your organisation develop or revise its strategies, policies, and support structures related to science communication?
- How is science communication embedded across the lifecycle of the research your organisation funds or performs, from strategic priorities and funding processes to project implementation and impact?

An overview of EU and international policy frameworks for science communication, quality indicators for science communication, incorporating science communication in funding calls, and other useful resources can be found in the Annexes.

Introduction

In an era where scientific discovery increasingly guides critical policy decisions and directly influences our daily lives, the societal value of science is often scrutinised. The ability to effectively communicate the research process and its outcomes is crucial to inform the public, support scientific literacy and understanding, tackle mis- and dis-information, demonstrate the value of science in addressing global challenges, and to build public trust in science.

For the purposes of this guidance, science communication is understood as the process through which research and society interact around scientific knowledge, how it is produced, and its relevance and implications for society. In its [Strategy Plan for 2021–26](#), Science Europe recognises science communication as a key thematic area as part of its priority to strengthen the role and contribution of science in tackling societal challenges.

Position Statement

In June 2022, it published the position statement [Science Communication for Greater Research Impact](#), based on input from its Working Group on Communication. The statement established a vision that frames science communication as an integral pillar of research culture, which drives public engagement and informs policy development.

Conferences

The March 2024 [High-level Conference on Science Communication](#), organised in partnership with the Fund for Scientific Research (F.R.S.-FNRS) and the Research Foundation Flanders (FWO), provided an opportunity to expand this perspective. It advocated robust institutional mechanisms, professional acknowledgement of communicators' contributions, and proactive measures to tackle misinformation in an increasingly digital world. It also raised political awareness on the need to consider science communication as a fundamental component of the research process that should be strategically embedded from the outset.

A second [conference](#) was organised in December 2025 with the French National Research Agency (ANR). This event focused on the role of research funding and performing organisations in reinforcing public trust in science.

Survey of Science Europe Member Organisations

During 2025, following up to its 2024 conference, Science Europe conducted a survey among its Member Organisations to map how science communication is structured and supported across research funding and performing organisations. The aim was to produce more detailed guidance to support these organisations (both within Science Europe's membership and beyond) in strengthening their approaches to science communication.

The outcomes of this survey show not only broad recognition of the importance of science communication, but also significant variation in how this recognition is reflected in organisational strategies, funding processes, and career frameworks.

While science communication is widely recognised as important for public trust, societal relevance, and openness, its integration into organisational structures, funding processes, and researcher support systems remains uneven. The findings also point to growing recognition of the need for professional expertise, institutional support, and appropriate incentives,

Science communication is understood as the process through which research and society interact around scientific knowledge, how it is produced, and its relevance and implications for society.

alongside emerging challenges related to misinformation, researcher harassment, digital communication, and Artificial Intelligence.

Overall, however, the survey suggests a broader shift towards more strategic and structured approaches to science communication in research systems.

Community input

To complement the perspectives of Science Europe Member Organisations, input was also sought from both individual researchers and organisations representing them, specifically the Marie Curie Alumni Association (MCAA) and Eurodoc. Their valuable feedback provided an additional researcher perspective on the issues and recommendations addressed in the guidance. Together, this work has helped shape Science Europe's evolving approach to science communication and public engagement, which will be carried forward in its Strategy Plan for 2027–2032.

Aim of the guidance

This guidance builds on the activities and input outlined above to identify common principles and practical considerations that can support research organisations in strengthening their approaches to science communication, against an evolving environment shaped by new digital technologies and more global information flows.

It aims to provide a practical overview of science communication for research funding and performing organisations, and to share best practices on integrating science communication into research programmes more seamlessly. It also seeks to equip research organisations with the tools to transform principles into actions by combining the insights gained with current trends and practical considerations. This will help ensure that science communication not only broadens the reach of research, but also reinforces its relevance in addressing current challenges.

Key terms used in this guidance

Science communication: The process through which research and society interact around scientific knowledge, how it is produced, and its relevance and implications for society.

Public engagement: Activities that create opportunities for dialogue and interaction between researchers and different publics.

Participatory approaches: Co-creation approaches that actively involve stakeholders, communities, or publics in shaping, contributing to, or discussing research.

Research cultures: The behaviours, values, expectations, attitudes, and norms of research systems.¹ For research funding and research performing organisations, research cultures represent the link between policies and practices, and the attitudes, behaviours, and daily activities of researchers and research professionals.

Research impact: The contribution of research to society, culture, the environment, the economy, policy, or public services beyond academia.

1. [Royal Society, 2018](#)

1. The Changing Landscape of Science Communication

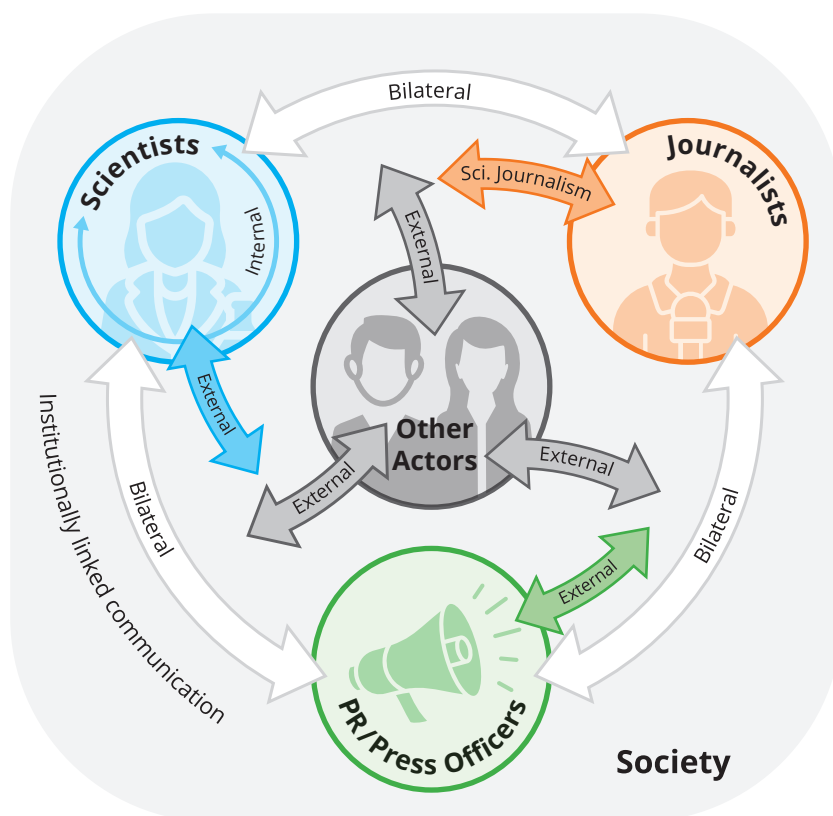
1.1. Theories, Opportunities, and Challenges

Science communication is the process of making scientific research, evidence, and methods accessible and understandable to a range of different audiences with distinct needs and different levels of knowledge. It is a broad, evolving set of practices that connect research with society, going beyond making scientific findings accessible and understandable, to also including communicating how science works, encouraging curiosity and critical thinking, and enabling people to engage with research as an ongoing, iterative learning process.

It can involve a wide range of audiences: not only policy makers, journalists and the media, industry stakeholders, and civil society organisations, but also diverse groups and individuals across society, including those who may not traditionally encounter or engage with scientific research.

Science communication encompasses dissemination, public engagement, dialogue, citizen science, scientific advice and science education, and can take many different forms: from blogs, social media posts, and podcasts, white papers and reports, to science demonstrations, festivals, exhibitions, interactive online platforms, and citizen science projects. Across these formats, a key aim is to create meaningful opportunities for people to encounter, question, and shape science, including in contexts where exposure to research has been limited.

The following diagram summarises the main interactions:



Schematic overview of the field and the actors of science communication. Modified version of original by Fabio Crameri and Lucía Pérez Díaz; original available at <https://s-ink.org/science-communication>, CC BY-SA 4.0

1.2. Models of Science Communication

Historically, science communication has mostly been seen as a one-way transmission of knowledge from experts to the public. In the late 20th century however, this ‘deficit approach’ became increasingly outdated as it became clear that how scientific knowledge is received and interpreted depends on the wider social context in which it is communicated.

Today, science communication is often described through a set of models that reflect different ways of understanding the dynamic and adaptive relationship between science and society. While these models are sometimes presented hierarchically or as a progression over time, in practice they co-exist and can be applied to different contexts depending on the purpose of communication, the nature of the research, and the audiences involved.

The Deficit Model

This traditional approach assumes that public scepticism or misunderstanding of science stems from a lack of knowledge. The goal is to ‘fill’ the public’s knowledge deficit through one-way transmission of facts. While often criticised, this approach remains relevant in certain contexts, such as risk communication or where clear, factual information is needed.



The Dialogue Model

Emphasising two-way communication, this model seeks to foster mutual understanding between scientists and their audiences. It recognises that non-academic audiences bring their own experiences, knowledge and values to discussions about science and encourages listening as much as explaining. This includes creating opportunities to discuss uncertainty, limitations, and differing interpretations of evidence, particularly in areas where scientific knowledge is still evolving.



The Participatory Model

The most recent evolution, this model involves interest-holders across the public more directly in the production, circulation and adaptation of knowledge, for example through citizen science or co-created research agendas and outputs. It values inclusivity, collaboration, and social responsibility, positioning research as a shared endeavour. Participatory approaches can also help develop a more nuanced understanding of how scientific knowledge is developed, including the role of uncertainty, disagreement, and revision as part of the research process.



Participation can take different forms and levels, from consultation to more active involvement in shaping research. Not all activities involve full co-creation, and care must be taken that groups who have little or no prior contact with research institutions or opportunities to engage with scientists are not overlooked. Reaching these audiences requires a broader mix of approaches, including more accessible, curiosity-driven, and context-sensitive forms of engagement that can act as entry points to science.

Participatory approaches can also present practical challenges, such as ensuring quality, managing different levels of contribution, and supporting researchers with the skills needed to work in such a way. For this reason, participatory models are best understood as part of a wider landscape of science communication practices, to be applied flexibly and in combination with other approaches depending on context, objectives, and audiences.

Lay Expertise

This model focuses on non-scientists as 'knowledge actors' who can contribute experiential, practical, professional, or contextual knowledge in certain contexts. However, it is important to recognise that not all experiential knowledge is reliable, valid, or relevant beyond that context. The concept remains subject to ongoing debate, and is perhaps best understood as an extension of participatory approaches, complementing them, while maintaining clear distinctions between different forms of expertise.



Across all models, effectively communicating uncertainty remains a common challenge. Scientific knowledge is often preliminary and evolving, and subject to revision as new evidence emerges. Communicating this uncertainty transparently, without undermining confidence in the research process itself, is particularly important in policy-relevant fields and areas of emerging research where evidence may be incomplete or rapidly developing.

In practice, these approaches are often combined and applied in different ways, with different levels of participation and engagement as needed. Dialogue-based approaches emphasise two-way exchange and mutual understanding between scientists and the public, while participatory and co-creative approaches involve citizens directly in the research process through citizen science or co-designed research agendas. Together, these models reflect a broader understanding of science communication as a shared and dynamic process, rather than a purely informational one. However, not all forms of science communication require the same level or type of participation, and approaches should be selected strategically and be proportionate to the objectives, context, and capacities involved.

These different approaches also highlight the importance of understanding how different groups engage with science in different ways and under different conditions. Research organisations may benefit from drawing on audience research and segmentation approaches to better understand how different groups engage with science, as identified notably by Schaefer et al. (2018).² Publics differ not only in their attitudes towards research, but also in their media use, levels of engagement, and information needs. In publicly-funded research systems, this may include audiences who broadly value science but do not actively seek out scientific content. Reaching such groups may require different formats, channels, and forms of engagement than those typically used for already-engaged audiences.

Discussions at Science Europe's 2024 [High-level Conference on Science Communication](#) reflected this broader understanding, highlighting the importance of participatory frameworks where science communication becomes a dynamic exchange and engages the public as active contributors, rather than as passive recipients.³

Approaches should be selected strategically and be proportionate to the objectives, context, and capacities involved.

The Covid-19 pandemic illustrated the practical implications of this shift: when misinformation proliferated, challenging public health efforts, communication in the form of transparent dialogue emerged as a critical tool to counter vaccine hesitancy. It was argued that early and candid engagement with communities could have fostered greater confidence in scientific guidance.⁴

2. Schäfer et al., 2018. *The different audiences of science communication: A segmentation analysis of the Swiss population's perceptions of science and their information and media use patterns*
3. Hindle et al., 2024. *Report of High Level Conference 'Unlocking the Power of Science Communication in Research and Policy Making'*
4. Hindle et al., 2024.

Beyond crises, this participatory approach aligns with contemporary theories of science communication as a process that thrives on collaboration and inclusivity, and essentially acts as a “social conversation around science.”⁵ In the context in which research funding and performing organisations operate, it can be understood more operationally as structured activities designed to communicate research processes and results, inclusively engage relevant audiences, and support the understanding and use of research. This more applied perspective provides a basis for how science communication can be embedded across research processes, funding mechanisms and organisational practices which will be explored further in the following sections.

Digital technologies have further transformed science communication by enabling direct engagement with diverse audiences through social media, podcasts, online events, and open-access publishing. For example, digitally-enabled collaborative research practices such as crowd-sourcing can involve wider publics in knowledge production, helping to strengthen engagement with research and fostering a greater sense of participation in the scientific process, while online platforms can facilitate dialogue, participation, and knowledge exchange between researchers and society.⁶

However, while these developments have expanded opportunities for science communication beyond traditional one-way dissemination of research findings, and increased the speed and reach of scientific communication, their use has also increased the incidence of misinformation, politicisation of science, and online harassment of researchers. In this context, the need for clear and responsible communication has become more pronounced, particularly where scientific evidence is misrepresented or used selectively in public debate.⁷

At the same time, the growing emphasis on open science creates opportunities for science communication to play a more central role in the research ecosystem. As scientific outputs become more openly accessible, effective communication is essential in helping diverse audiences understand its meaning and relevance.

Open science creates the conditions for transparency and participation; science communication ensures these values are realised by making scientific knowledge more meaningful and engaging. This approach is reflected in a range of international recommendations on open science and science communication that emphasise the importance of making research outputs accessible and understandable to diverse audiences. This includes the use of clear and, where appropriate, multilingual communication, which provides new opportunities to reinforce trust and support more inclusive and participatory approaches to knowledge creation.

1.3. Trust in Science

Trust in science rests on a delicate triangle between science, society, and policy, and depends in part on the extent to which research organisations and individual researchers are capable of demonstrating their trustworthiness. While trust reflects the confidence that individuals and communities place in researchers and research systems, trustworthiness relates to the

5. Bucchi & Trench, 2021. *Rethinking science communication as the social conversation around science*

6. Hedges & Dunn, 2018. *Academic Crowdsourcing in the Humanities*

7. Hindle et al., 2024.

qualities and behaviours that make such trust warranted. Research funding and performing organisations cannot directly create trust, but they can demonstrate trustworthiness through transparent processes, high standards of integrity, openness about uncertainty and limitations, and meaningful engagement with society. Strengthening trust in science therefore depends not only on how research is communicated, but also on how research organisations conduct and present their work.

Levels of public confidence in science influence how research is understood and used, shaping its legitimacy and impact in society. Where trust is weakened, there may be implications for evidence-informed policy making and societal progress. Trust in science also depends on the demonstration of trustworthiness. When addressing this issue, research organisations should reflect on the role they play in society, and communicate clearly about both the potential and limits of scientific knowledge, and the evolving nature of evidence in ways that remain accessible and understandable to different audiences.

This also requires careful reflection on how research is communicated within broader institutional communications. Under pressure to demonstrate visibility, relevance, or impact, there is a risk that scientific communication may unintentionally oversimplify findings, overstate certainty, or blur the distinction between evidence and promotion. While science communication and institutional communications can both strengthen trust in research organisations, maintaining that trust depends on ensuring that research is communicated honestly, proportionately, and in ways that remain faithful to the underlying evidence, including its uncertainties and limitations.

This expectation is closely aligned with wider efforts to strengthen research cultures through work to improve research integrity and responsible research assessment.⁸ Both emphasise the importance of representing research honestly and transparently, and of recognising the complexity and evolving nature of scientific knowledge. As organisations seek to demonstrate the value and societal relevance of research, communication should support informed understanding rather than inadvertently encouraging the overstatement of findings, certainty, or impact.

It is also useful to distinguish between different levels of trust in science, which may relate to individual research findings or researchers, or to research institutions and the broader research system. While trust in specific findings can vary depending on the topic or context, trust in institutions plays a particularly important role in shaping how scientific knowledge is received and used over time. When trust in institutions or the research system more broadly comes under pressure, challenges can arise for the communication and uptake of scientific evidence.

Traditionally, trust in science has been anchored in a relatively contained ecosystem of recognised institutions, such as universities, public research organisations, national academies, and research funding bodies. These institutions acted as gatekeepers of scientific credibility, and mediated how scientific knowledge reached a wider audience. Within this model, trust was concentrated in a limited number of broadly accepted authorities.

The findings of the three-year Horizon Europe [Verity Project](#), concluded in August 2025, dedicated to understanding and enhancing trust in science,

Research organisations should reflect on the role they play in society, and communicate clearly about both the potential and limits of scientific knowledge, and the evolving nature of evidence in ways that remain accessible and understandable to different audiences.

8. OECD, 2026. *Reforming research assessment for better science*

identify a shift towards more distributed forms of trust.⁹ More opportunities for public participation in knowledge creation and sharing have broadened the range of actors involved in communicating about science. Scientific information now circulates through more diverse networks, including individual researchers with public profiles, citizen scientists, advocacy groups, non-governmental organisations, independent experts, and online influencers, often operating outside traditional institutional structures. Audiences increasingly draw on multiple sources to assess credibility, sometimes valuing perceived transparency, independence, or personal connection as much as formal expertise.

By reflecting a wider range of perspectives and societal contexts can bring positive effects to the practice of science communication. At the same time, it also introduces challenges, as not all actors operate according to the same standards of rigour, and mis- and disinformation can spread together with well-founded scientific knowledge.

To understand this changing trust landscape, and its implications for research funding and performing organisations, the French National Research Agency (ANR) and Science Europe organised a [conference](#) in December 2025. The event explored key levers for action and practical solutions to promote open, transparent, and trustworthy science by identifying the factors that undermine public confidence in science, scientists, and research institutions, examining the dynamics between science, society, and the media in the dissemination of scientific knowledge, and sharing best practices in science communication and public engagement.

The discussions highlighted that maintaining trust in science requires co-ordinated action across the research ecosystem, with responsibility resting on researchers, public institutions, research funding and performing organisations, policy makers, and the media. Transparent and ethical practices, meaningful public participation, strong education systems, and sustained international co-operation will all be essential to ensuring that science continues to serve society and support informed democratic decision making. Based on the participants' interventions, a number of recommendations were identified to strengthen this trust in a changing informational and political environment. The recommendations can be found in [Annex 4](#) ↗.

Policy discussions on trust in science have also highlighted the important role that research funding and performing organisations can play in strengthening the relationship between science and society. [Recommendations](#) developed through stakeholder policy labs as part of the Horizon Europe-funded lanus Project¹⁰ emphasise that research funding organisations can help foster trust by embedding transparency, integrity, and meaningful science communication requirements within funding programmes and evaluation criteria, while RPOs can strengthen public confidence by engaging more actively with societal stakeholders and supporting researchers in responsible public communication. Across both types of organisations, providing training, institutional support, and recognition for science communication activities can help ensure that engagement with society becomes a more visible and supported dimension of the research system.

9. Gurzawska et al., 2026. *Ecosystem of Trust: A Systems Approach to Trust in Science*.

10. As of the publication of this guidance, the website of the lanus Project was no longer accessible. It was last archived on 2 September 2026 at <https://web.archive.org/web/20260902063513/https://trustinscience.eu/>

1.4. Artificial Intelligence and Science Communication

The development of Artificial Intelligence creates new opportunities and challenges for science communication, as its use reshapes how scientific information is created and understood. AI-enabled tools can support accessibility and reach through translation, personalisation, and data-driven insights, while also streamlining communication workflows. At the same time, its use can accelerate the spread of misinformation and enable the creation of convincing synthetic content, raising questions about how scientific knowledge is generated and how trust in that communication is maintained.¹¹

The growing use of large language models and other AI applications has intensified debates about how audiences distinguish reliable scientific information from manipulated or misleading content in an increasingly AI-mediated information environment. AI is changing not only how science communication is created and shared, but also how people find and access scientific information. AI-powered search engines, recommendation systems, and chatbots increasingly influence which information people see and how it is presented. This creates new challenges around the accuracy, transparency, and reliability of scientific information, as well as understanding where that information comes from. Questions also arise regarding transparency about the use of AI itself, particularly where AI tools make substantial contributions to the creation, adaptation, translation, or dissemination of scientific content. These developments have implications for public trust in science, particularly where automated outputs obscure the role of human judgement or the sources and limitations of underlying data.

However, bearing in mind that ‘the public’ comprises a wide range of groups with different levels of knowledge, attitudes, and engagement with science, shaped by national, cultural, and political contexts, the effects of AI (mis)use on trust are unlikely to be uniform, and require more targeted, context-sensitive approaches rather than a one-size-fits-all response. Different audiences may also have different relationships to science, institutions, and digital media, meaning that communication approaches effective in one context may not necessarily work in another. While some common challenges can be identified across countries, how this is manifested, and the appropriate responses, will vary depending on local conditions and research systems.

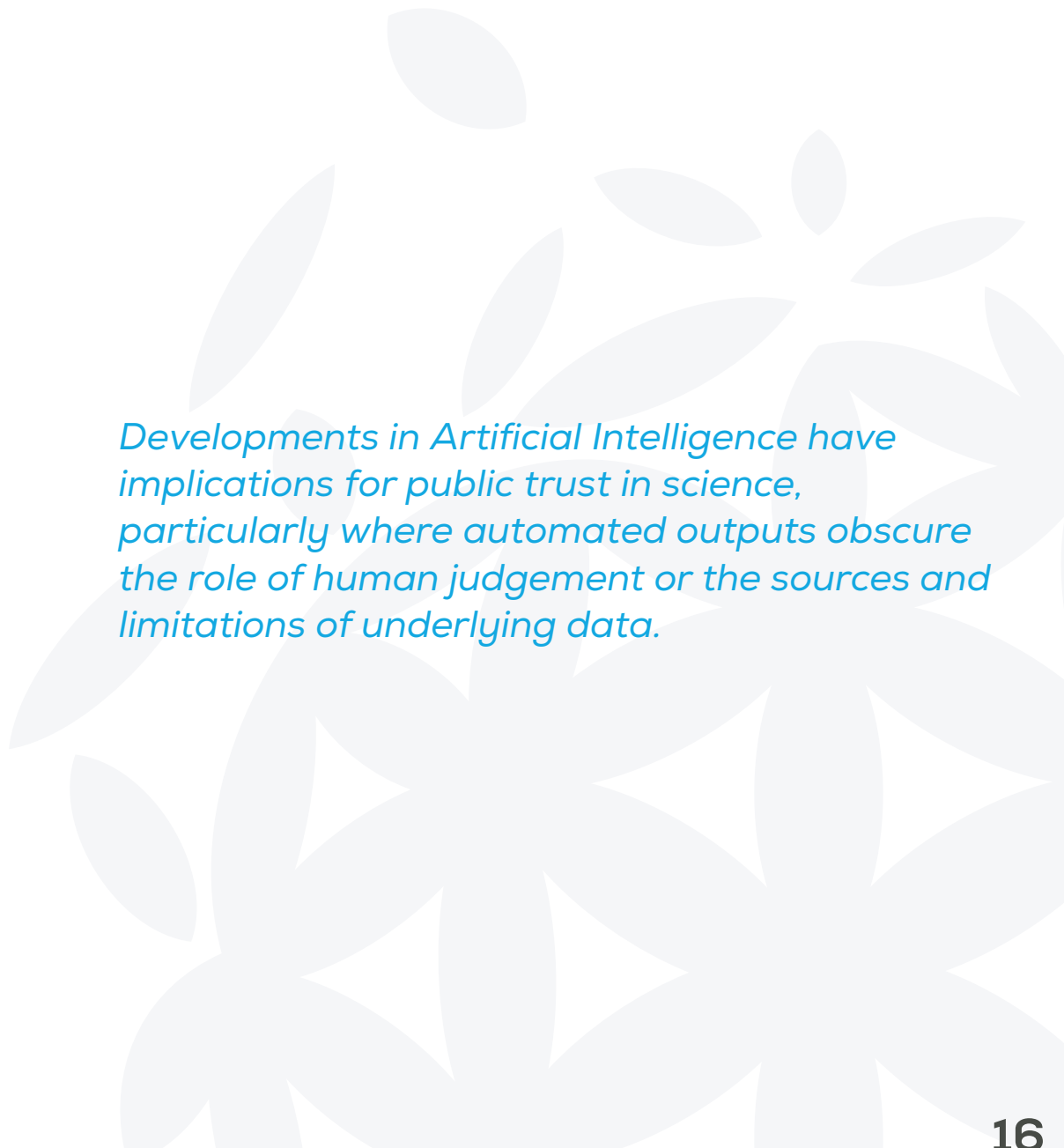
Science Europe supports its Member Organisations in exploring the implications of AI for research systems and related processes. It has established a dedicated Working Group on Artificial Intelligence to provide a platform for collective reflection and exchange, and has hosted a series of webinars to examine various aspects of AI use. As the use of AI in science communication becomes more widespread, research funding and performing organisations may also need to consider the governance arrangements that support its responsible use. This may include developing appropriate policies, guidance, and quality assurance processes to ensure that AI-assisted communication remains subject to human oversight and that responsibility for published content remains clearly defined. This reflects the recommendations of the European Commission’s Scientific Advice Mechanism, which emphasises a human- and community-centric approach to AI in science supported by institutional investment in governance, skills and infrastructure.¹²

11. Tyler, et al., 2023. *AI tools as science policy advisers? The potential and the pitfalls*

12. Science Advice Mechanism to the European Commission, 2024. *Successful and timely uptake of artificial intelligence in science in the EU*

Discussions during a Science Europe webinar on AI and science communication in November 2024 highlighted both its potential and limitations in this area. While AI tools can assist science communicators by improving efficiency and accessibility, ethical science communication ultimately depends on human judgement and responsibility. Concerns were also raised about the reliability of AI outputs and the broader environmental and societal implications of their use, although the longer-term effects of AI-generated science communication on public understanding, engagement, and trust are still emerging areas of research. Possible ways forward for research funding and performing organisations on the use of AI for science communication, developed from discussions during the webinar, are presented in [Annex 3](#).

Together, these developments underline the evolving environment, shaped by technological change and shifting dynamics of trust, in which science communication now operates. This background, therefore, provides context for understanding the policy frameworks, principles, and organisational approaches to science communication discussed in the following sections.



Developments in Artificial Intelligence have implications for public trust in science, particularly where automated outputs obscure the role of human judgement or the sources and limitations of underlying data.

1.5. Science Communication in European and Global Research Policies and Frameworks

Science communication features increasingly across European and international research and innovation policy frameworks, such as those of the European Research Area, the Organisation for Economic Co-operation and Development or the G20 Research and Innovation Working Group where it is linked to objectives such as reinforcing public trust in science, societal engagement, openness, and evidence-informed decision making. While these frameworks generally avoid prescribing specific organisational models or practices, they help shape the broader policy environment in which research funding and performing organisations operate, and influence expectations for responsible engagement across the research lifecycle.

At European level, science communication is embedded in instruments such as Horizon Europe, the European Research Area (ERA), and related initiatives that address citizen engagement, widening participation, and research careers. These frameworks emphasise the role of communication in connecting research with society and strengthening trust in science. In parallel, EU-level programmes and initiatives support capacity building, mutual learning, and experimentation in science communication, providing opportunities for organisations to exchange practices and draw on emerging evidence.

Internationally, organisations such as UNESCO, the Organisation for Economic Co-operation and Development (OECD), the G20, the Global Research Council (GRC), and the Coalition for Advancing Research Assessment (CoARA) highlight science communication as an element of responsible and open research systems and that science communication should be included in responsible research assessment, as an integrated and valuable output of research performing organisations.¹³ Recurring themes in their activities include transparency, inclusivity, integrity, and the recognition of public engagement activities within research assessment and career development, alongside respect for institutional autonomy and contextual diversity.

These discussions have also highlighted the importance of ensuring that expectations around science communication remain realistic and appropriately supported. Effective science communication is a shared responsibility across research systems and should not place disproportionate burdens on individual researchers, particularly those at earlier career stages.

These policy frameworks therefore provide the wider policy backdrop against which science communication is evolving, and which research funding and performing organisations may wish to take into account as they reflect on their own approaches.

A more detailed overview of European and international organisations and R&I policy frameworks that reference science communication is provided in [Annex 1](#).

13. Pedersen et al., 2026. *From Principle to Practice in Reforming Research Assessment*

1.6. Science Communication in Research Ecosystems: Roles and Responsibilities

Research today operates in a complex and interconnected ecosystem that brings together scientists, policy makers, industry, educators, civil society organisations, and citizens. Within this ecosystem, the generation, interpretation and application of scientific knowledge is crucial to shaping societal responses to major global challenges. Science communication plays a central role in enabling these interactions, supporting understanding of research and its methods, and ensuring that the benefits of research are accessible, trusted, and used for the public good.

Science Europe's [Vision and Framework on Research Cultures](#) (2025) sets out an ambition for research cultures in which "research is embedded in society and seen as a shared endeavour where all domains and forms of knowledge production are valued, and everyone can play a role." In such research ecosystems, public engagement is embedded across the research lifecycle wherever appropriate, supporting, for example, understanding of the scientific method, dialogue around uncertainty, and trust in research systems as credible sources of knowledge.

This perspective is reflected in Science Europe's 2022 position statement [Science Communication for Greater Research Impact](#), which frames science communication as an intrinsic part of the research process and a contributor to scientific excellence. The [2022 Science Europe High Level Workshop on Research Ethics and Integrity in the Context of Public Engagement](#) further explored the relationship between communication, ethics, and trust in the research ecosystem. Discussions highlighted the role of research organisations in supporting responsible public engagement and ensuring that communication reflects the core principles of reliability, honesty, respect, and accountability that underpin trustworthy science.

The conclusions of the [2024 High-level Conference on Science Communication](#) further reinforced this view, highlighting how effective science communication can demonstrate the societal value of research investment, and strengthen trust between science and society. Together, these developments position science communication as a connective function that helps transform research from an isolated activity into a collaborative endeavour.

Science communication also contributes to accountability and legitimacy in publicly funded research systems by enabling scrutiny beyond academic communities. This supports informed public discourse and evidence-informed policy making, while also promoting scientific literacy, critical thinking, and inclusiveness. In this way, science communication can help strengthen collaboration across the research ecosystem.

Finally, effective science communication can support evidence-informed decision making by improving the accessibility and usability of research findings for policy makers and public authorities. It can also support transparency and trust by clarifying how scientific advice is generated and how evidence contributes to policy making. In this way, science communication strengthens the interface between research and policy as part of a broader research ecosystem.

Within this context, research funding and performing organisations play a central role as intermediaries between the research community and society. Through their strategic priorities, research assessment processes, and institutional support structures, they shape the conditions under which science communication takes place.

Embedding science communication in research funding programmes and organisational practices can strengthen both external engagement and internal research culture, reinforcing its role as a component of research quality and excellence. For research organisations, sustained and well-supported science communication can enhance their credibility and standing in society, particularly in publicly funded research systems. By making research processes more transparent and accessible, science communication can strengthen trust in research organisations and help demonstrate the societal value of research investment. Internally, it can also foster a more connected research environment, encouraging dialogue across disciplines, supporting shared understanding of organisational missions, and reinforcing a culture of openness in how research engages with society.

This requires co-ordination across organisational functions, including research support, leadership, communication and policy teams, and with researchers themselves. For researchers, science communication can bring direct professional benefits alongside its broader societal role. Engaging with diverse audiences on research processes and findings can help clarify ideas and improve the way research is discussed and understood. It can also support critical reflection on the broader relevance and societal context of research, while opening opportunities for interdisciplinary exchange and new perspectives.

Increased visibility through communication can support networking, profiling and help develop new collaborations within and beyond established academic circles. Over time, sustained engagement can help build professional reputations and trust, complementing more traditional ways of recognition such as publications and conferences. Finally, it can also help researchers reflect on the wider relevance and possible implications of their work, while creating opportunities for new perspectives, collaboration, and exchange across disciplines. Discussions at the 2024 Science Europe conference highlighted the importance of recognising these benefits while professionalising communication roles and equipping researchers with appropriate skills and support, while avoiding unrealistic expectations that individual researchers should act as expert communicators in all contexts.

This framing illustrates why science communication should be seen as a core feature of contemporary research systems and the pivotal role of research funding and performing organisations. This provides the foundation for the following discussion on how these principles can be embedded across the research cycle in practice.

Science communication plays a central role in enabling the interactions between scientists, policy makers, industry, educators, civil society organisations, and citizens that are crucial to shaping societal responses to major global challenges.

2. Embedding Science Communication Across the Research Lifecycle

Building on this broader context, research funding and performing organisations can strengthen science communication by embedding it more strategically across the research lifecycle. Through their strategic priorities, funding mechanisms, evaluation processes, and institutional support structures, they can shape the conditions under which science communication takes place, and how research engages with society. Embedding science communication across the research lifecycle also involves engaging with cross-cutting challenges influencing the communication and trustworthiness of science.

These organisational roles are also reflected in policy discussions on trust in science, most recently as part of the Janus Project. These discussions similarly highlight the influence of these organisations in shaping how research is communicated and how engagement with society can be supported across the research system.



Different moments in the research impact lifecycle where science communication can be embedded in research organisations' processes, structures, and practices to enhance the reach, relevance, and societal impact of the research being undertaken. Modified version of image presented by David Budtz Petersen (Aalborg University) during a Science Europe workshop on science communication in January 2023

2.1. Positioning and Mission Setting

Beginning with the mission statement, the positioning of science communication within organisational structures strongly influences its visibility, resources, and strategic integration.

Explicit reference to science communication in mission or values statements or strategic plans can help signal that communication is considered a core element of research activity rather than an add-on. At this stage, organisations may also clarify the purposes of science communication in relation to their mandates, whether these relate to public accountability, policy engagement, societal dialogue, or impact. Embedding these commitments in

practice may also involve aligning organisational priorities with appropriate governance arrangements, resources, professional expertise, and ways of monitoring progress, while recognising that the specific approaches adopted will vary according to organisational context and mandate.

2.2. Research Assessment Processes and Practices

The processes by which researchers, research projects, and research institutions are evaluated and assessed (both for funding allocation by RFOs, and career progression exercises by RPOs) are key areas where research organisations hold responsibility and can show leadership to strategically value and embed science communication in research processes.

From the beginning of the process, science communication can be encouraged and incentivised. Considering how results may be communicated can also shape the research idea conception, research design, guide stakeholder engagement strategies, and ensure that findings are delivered in ways that maximise their accessibility and potential impact.

Considering how research findings will be communicated at this stage can also encourage earlier reflection on the societal relevance of the research and on the stakeholders who may benefit from, contribute to, or be affected by its outcomes.

To support implementation in assessment processes, science communication can be integrated across different stages of the research lifecycle: proposal development, project implementation and post-project evaluation. The following aspects of science communication may be considered at each stage:

Application stage (proposal design)

- **Defining clear objectives:** such as supporting the uptake of the research findings; improving understanding of research processes or results; encouraging dialogue and participation; informing policy makers of the outcomes, or where appropriate, supporting evidence-informed behavioural, policy or industrial change.
- **Defining target audiences:** such as other researchers, policy makers and other public groups, taking account their needs; prior knowledge and engagement; motivations; media use; and their role in supporting, using or being affected by the research.
- Depending on the nature of the research and the objectives of the communication activities, organisations may also wish to consider opportunities for involving intended audiences in the design and delivery of science communication. In some contexts, particularly where research relates directly to specific communities, patients, service users, or other societal groups, communication activities can benefit from being developed collaboratively with those who are expected to use the research. Such approaches can help ensure that communication activities are relevant and responsive to different needs and perspectives, while also strengthening trust, mutual learning, and the quality of engagement. The extent and forms of such involvement should remain proportionate to the objectives, context, and resources available.

- **Identifying appropriate formats or channels:** taking account of different audiences' needs and the type of engagement envisaged, choosing the appropriate manner in which to communicate. This may include using clear, audience-appropriate language; visual or multilingual materials where relevant; and selecting formats such as social media, community-based activities, or broadcast media (e.g. radio and television), according to the context and intended audiences. Consideration should also be given to ensuring that the chosen formats are accessible to different groups, taking account of factors such as previous levels of engagement, language, disability, digital access, cultural context, and geography.
- **Support for researchers:** considering whether researchers have the relevant experience, skills, time, and resources to carry out the proposed communication activities, and identifying any need for training, guidance, or institutional support (e.g. in audience engagement, use of different media, or working with external partners).
- Science communication is more likely to be effective when support is planned from the outset of a project and embedded in organisational processes, rather than relying on individual researchers to develop communication activities independently. Particular attention may be needed to ensure that expectations placed on early-career researchers remain proportionate and are accompanied by appropriate support, recognition, and opportunities for skills development.

Conduct stage (project implementation)

- **Implementing planned communication activities:** adapting approaches as needed to respond to emerging findings or audience needs, proportionate to the scope of the project.
- **Ongoing monitoring:** tracking whether activities are reaching intended audiences and supporting engagement with the research. Depending on the objectives and context, evaluation may also consider indications of changes in awareness, attitudes, practices, or engagement over time, while recognising the difficulty of directly attributing broader behavioural or societal changes to individual communication activities.

Post-project stage (evaluation and reporting)

- **Monitoring and evaluating outcomes:** assessing how communication activities contributed to the project objectives, while recognising the difference between communication activities, audience engagement, and wider impacts. Broader cultural or societal change may occur over longer periods and are often influenced by many factors beyond communication activities alone, making direct attribution difficult. Evaluation may therefore combine quantitative and qualitative approaches, such as reach, participation, feedback or longer-term impacts where appropriate, including consideration on which audiences were reached (and which were not), to support organisational learning and reflection, using these insights to inform and adapt future activities.

Science communication is more likely to be effective when support is planned from the outset of a project and embedded in organisational processes, rather than relying on individual researchers to develop comms activities independently.

- **Reflecting on effectiveness:** identifying lessons learned to inform future practice and approaches. The role of evaluators is also important in this context. Reviewers are increasingly asked to assess science communication components as part of proposal evaluation, but may not always have specific expertise or guidance in this area.
- **Providing clear and proportionate guidance** can help reviewers assess these elements more consistently. This could include simple criteria, guiding questions, or examples of good practice to help them consider whether the proposed approach fits the research, whether the intended audiences and formats are appropriate, and how well the communication activities reflect principles such as transparency and inclusion. An expert on science communication could also be included in the assessment panels.
- Frameworks such as the [QUEST indicators](#) (see [Annex 2 ↗](#)), developed as part of an EU-funded project, can support this process by providing a structured yet flexible way to consider the quality and effectiveness of science communication. These indicators emphasise aspects such as clarity, relevance to target audiences, transparency about the research process, and the potential for meaningful engagement.

In practice, such frameworks can be used to guide both proposal development and evaluation, for example by helping applicants to design more robust communication plans and supporting reviewers in assessing their quality in a consistent and informed way.

Integrating science communication into research processes can support continuous dialogue and learning.

2.3. Research Processes and Recommendations

Integrating science communication into research processes can support continuous dialogue and learning. Throughout the research cycle, organisations may need to support researchers in communicating the evolving nature of scientific knowledge, particularly in areas of high public interest or controversy. Clear guidance, training, and institutional support can help researchers and communicators navigate challenges related to mis- or dis-information, while respecting scientific autonomy and integrity.

In some cases, working with knowledge brokers and professional communicators helps ensure that the research is communicated clearly and appropriately, while reducing the burden on individual researchers and maintaining quality and consistency. In practice, this may involve participatory activities that enable the public to be involved in the research process, engagement with policy makers and practitioners, or interaction with the media.

Embedding communication in this way can support the timely and responsible uptake of research findings in policy and practice. This approach also responds to concerns that science communication can become overly focused on promotion or institutional visibility, by emphasising dialogue, transparency, and meaningful engagement throughout the research process.

Therefore, effective science-policy communication depends on a clear understanding of the respective roles of policy-makers and researchers. Researchers contribute evidence-based insights grounded in high-quality

science, while it is policy makers' responsibility to balance this evidence with broader socio-economic and political considerations. Maintaining this distinction relies on transparent communication about the evidence itself, including its sources, uncertainties, limitations, and, where relevant, any potential conflicts of interest. Such transparency helps safeguard scientific autonomy while enabling research to inform policy in a credible and trustworthy way.

2.4. Knowledge Translation and Exchange

In this guidance, knowledge translation and exchange refers to the inclusion of communication and engagement expertise within the team responsible for communicating the outcomes of research.

Researchers do not need to be – and should not be expected to be – expert communicators in addition to practising excellent science. Science communication is itself a professional discipline, requiring skills in translation of complex concepts, audience analysis, strategic messaging, and media engagement.

Embedding these specialists strategically in research projects or processes ensures that communication is not an afterthought, but an integral, expertly managed part of the research lifecycle, ultimately strengthening the societal and policy impact of the work. Involving professional communication expertise in research projects and organisational processes can also help ensure high-quality engagement while ensuring that communication responsibilities are appropriately shared and supported, rather than relying solely on individual researchers.

2.5. Research Impact

Finally, science communication can support pathways to research impact, by helping research outputs inform and engage relevant audiences, such as policy makers, industry, practitioners, or the wider public, while also creating opportunities for dialogue through which researchers can better understand societal needs, perspectives, and contexts. The Coalition for Advancing Research Assessment (CoARA) has recently called for the [societal impact of research to become a core criterion in how research is assessed and funded](#), together with academic excellence, underlining its importance in strengthening the relationship between research and society.

Beyond academic publication, this may involve adapting how research is communicated to suit different contexts and needs. Effective communication at this stage can help ensure that research outputs are understood and can meaningfully influence policy or practice, thereby contributing to societal impact. In 2024, Science Europe published [Guidance on Science for Policy Activities](#), on how research funding and performing organisations can interact with policy processes to help ensure research informs policy and delivers societal impact.

It is important, however, to recognise the distinction between communication activities, audience engagement outcomes, and societal impacts. Effective communication can help research reach relevant audiences and support understanding and engagement, but wider societal change is influenced by many factors beyond communication activities alone. Communication

should therefore be understood as one contribution to impact pathways rather than as a direct cause of societal change.

Supporting these pathways creates opportunities for collaboration between researchers and those with expertise in communication, engagement, policy, and knowledge exchange. While researchers play a very important role in communicating their work and engaging with different audiences, science communication is most successful when it draws on a range of complementary skills and perspectives. Research organisations can support this by providing access to appropriate expertise, resources, and support structures that enable communication activities to be both effective and proportionate. This collaborative approach also helps recognise the diverse contributions of researchers, communication and engagement professionals, knowledge exchange specialists, and, where relevant, citizen and community contributors whose expertise and participation help research engage with and benefit society.

2.6. Creating the Conditions for Effective Science Communication

The stages described in the previous section illustrate how science communication may be integrated across the research cycle in ways that are flexible, and sensitive to context. They highlight the ways in which research funding and performing organisations engage with science communication, and its wider contribution to the relationship between research and society.

To make this integration effective in practice, research organisations also need to ensure that the appropriate organisational conditions and support structures are in place. Translating principles into practice therefore requires a set of enabling conditions within research organisations:

- **Leadership commitment and support** – Senior leaders play a key role in visibly championing science communication, framing it as a strategic priority linked to organisational objectives and societal impact, and the allocation of resources and rewards.
- **Clear policies and incentives** – Organisations can establish clear policies incentives that recognise and support science communication as a valued part of the research process. This may include training; access to relevant expertise; dedicated resources, and where appropriate, sufficient time within researchers' workloads to plan and undertake communication and engagement activities, together with the integration of communication activities into career pathways, and recognition of science communication within research assessment systems. As identified during the Science Europe [High Level Workshop on Research Ethics and Integrity in the Context of Public Engagement](#) in 2022, and elsewhere, public engagement activities remain insufficiently recognised in research assessment processes. Ongoing reforms present an opportunity to better value science communication and public engagement as components of research quality and impact.
- **Training and capacity building** – Researchers benefit from opportunities to develop communication skills that support effective engagement and exchange beyond academic settings, including communication about complex or politically sensitive topics.

While researchers play a very important role in communicating their work and engaging with different audiences, science communication is most successful when it draws on a range of complementary skills and perspectives.

Such support is most effectively addressed when combined with access to professional expertise, appropriate resourcing, and recognition of the time and effort involved in communication activities.

- **Dedicated support structures** – Access to professional science communication expertise can support researchers in developing and implementing communication activities, ensuring quality and consistency while avoiding undue burden on individual researchers.
- **Safe and respectful environments** – Research organisations have a role in protecting researchers who engage in science communication and public dialogue. This may include providing clear institutional policies and procedures; access to advice and support; guidance on responding to online abuse or harassment; and where necessary, protective mechanisms to address challenges that may arise in communicating on contested or controversial topics, or in high-risk or polarised situations.

Organisations should also recognise that exposure to harassment and other forms of inappropriate behaviour is not experienced equally. Women, early-career researchers, researchers with disabilities, and those from underrepresented or marginalised groups may face heightened risks or additional barriers to seeking support, and institutional responses should take these differences into account.

- **Learning and continuous improvement** – Embedding science communication across the research cycle also involves reflection and learning. Monitoring and evaluating communication activities can help organisations understand what works in different contexts and for different audiences, and identify ways to improve future practice. Sharing lessons learned, both internally and across organisations, can support more coherent and sustainable approaches over time.

3. Principles for Responsible and Effective Science Communication

Science Europe's 2022 Position Statement on Science Communication and the Strategic Conclusions of the 2024 High-level Conference on Science Communication highlighted the importance of strengthening organisational frameworks that enable researchers and institutions to engage meaningfully with society and support the accessibility and usability of research results.

The results of the 2025 Science Europe survey on science communication reinforce these messages. While it is widely recognised as an important dimension of research systems, its integration into organisational structures, funding processes, and researcher support mechanisms remains uneven across institutions.

Building on these earlier reflections and the evidence gathered through the survey, the following principles provide a shared reference point for effective and responsible science communication across research systems. They highlight key considerations on how it can be supported and embedded within research cultures and organisational practices.

PRINCIPLE 1

Embed science communication as an integral part of research cultures

Science communication should be recognised and supported as an intrinsic component of the research process and of the research cultures that research funding and performing organisations seek to promote. Communication and interaction with diverse audiences takes place strategically at appropriate stages of the research lifecycle and contributes to scientific excellence, societal relevance, and trust in science.



PRINCIPLE 2

Communicate with transparency, integrity, and clarity about scientific processes

Science communication should reflect the core principles of research integrity – reliability, honesty, respect, and accountability¹⁴ – ensuring that these standards apply not only to how research is conducted, but also to how it is communicated and used. This includes communicating not only scientific results, but also the nature of scientific processes, including uncertainty, limitations, and the evolving nature of knowledge, to support public understanding, demonstrate the trustworthiness of research and research organisations, and reinforce trust in science.



14. ALLEA, 2023. *The European Code of Conduct for Research Integrity – Revised Edition 2023*

PRINCIPLE 3**Enable inclusive dialogue, engagement, and inclusivity**

Effective science communication goes beyond one-way dissemination and prioritises dialogue and inclusive engagement. It should recognise diversity of perspectives, and promote meaningful interaction between researchers, citizens, policy makers, industry, and civil society. This includes using clear, accessible, and audience-appropriate language and formats that enable different groups to engage with and contribute to scientific discussions.

**PRINCIPLE 4****Support informed debate and responses to societal challenges through timely and relevant communication**

Science communication should provide timely, relevant, and accessible evidence that supports informed debate and decision making across disciplines. This helps demonstrate the value of research as an investment and public good, and supports science-informed responses to complex societal challenges.

**PRINCIPLE 5****Recognise professional expertise and foster collaboration**

Science communication should be recognised as a professional field of expertise that applies evidence-based approaches. Collaboration between researchers and professional communicators is essential to ensure that research outcomes can be effectively shared and understood by different audiences.

**PRINCIPLE 6****Provide appropriate resources, incentives, and recognition for science communication activities**

Effective science communication requires appropriate resources and institutional support. Research funding and performing organisations should promote incentives and recognition for science communication activities, including through training opportunities, career pathways, and research assessment practices that value diverse contributions. Expectations around science communication should also remain proportionate and appropriately supported, recognising differences in disciplinary practices, career stages, and institutional capacities. Organisations should also provide appropriate guidance and support to help researchers and communicators navigate potential risks associated with public engagement, including online harassment, abuse, and the misrepresentation or misuse of research findings.

**PRINCIPLE 7****Promote responsible digital and AI-enabled communication**

The use of digital tools and Artificial Intelligence in science communication should be guided by principles of accountability, transparency, and inclusivity. Promoting AI literacy and data transparency is essential to ensure the ethical and responsible use of these technologies and to safeguard trust in scientific communication.



PRINCIPLE 8**Safeguard trust and scientific autonomy through shared responsibility**

Improving science communication is a shared responsibility of research organisations, researchers, communicators, and policy makers. Effective communication should reinforce trust in science by respecting scientific autonomy and freedom of research, ensuring that communication activities do not compromise the independence of scientific inquiry or the integrity of research processes.



While these principles aim to provide a common reference point for responsible and effective science communication, their practical application will depend on the organisational contexts in which research funding and performing organisations operate. For this reason, the principles are not intended as a prescriptive model, but as a flexible framework to support reflection and adaptation. To help organisations consider how these principles relate to their own structures, processes, and priorities, the following section offers a self-reflection tool designed to support internal review, discussion, and the identification of possible areas for further development.

4. From Principles to Practice

The principles outlined above provide a conceptual framework for strengthening the role of science communication within research organisations. Translating these principles into practice, however, requires organisations to reflect on how science communication is positioned, supported, and valued within their own institutional contexts.

To support this process, the following self-reflection tool offers a set of guiding questions that organisations may use to assess their current approaches and identify potential areas for development. It is intended to be flexible and adaptable, and to recognise the diversity of mandates, structures, and resources across research funding and performing organisations.

Organisations may choose to use them selectively, depending on their mandate, size, disciplinary scope, and national context. They can be used to support internal discussions among leadership, researchers, professional communicators, and policy teams; to inform strategic planning or the design of funding instruments; or as a basis for peer exchange and mutual learning to support the development of a shared understanding of how science communication can be embedded across the organisation. While the questions are addressed to both RFOs and RPOs, some may be more directly relevant to particular organisational roles or mandates. Organisations are therefore encouraged to adapt them to their own structures, priorities, and stages of development.

TOOL

REFLECTIVE QUESTIONS FOR RFOs AND RPOs ON EMBEDDING SCIENCE COMMUNICATION INTO RESEARCH SYSTEMS AND PROCESSES



Positioning and leadership

- How is science communication referenced and positioned within the organisation's mission or values statement or strategy?
- Is science communication framed primarily as dissemination, or also as a two-way dialogue between research and society?
- How visibly is science communication supported and championed by senior leadership?
- How is the organisation's commitment to science communication featured in internal and external communications?

Research lifecycle and organisational processes

- At which stages of the research lifecycle is science communication currently considered (e.g. strategy, funding, project design, implementation, impact)?
- How are communication considerations reflected in funding instruments, evaluation criteria, or reporting processes?
- Are expectations around science communication proportionate to project size, scope, and disciplinary context?

- What infrastructures, processes, and governance arrangements are in place to support participatory or collaborative approaches to science communication involving external stakeholders, communities, or publics?
- How does the organisation support the meaningful involvement of external stakeholders, communities, or publics in the creation, interpretation, or communication of research knowledge?
- How does the organisation ensure that its science communication activities, including language, formats, channels, and participation opportunities, are inclusive and accessible?
- Where appropriate, how are patients, service users, stakeholders, communities, or other intended audiences involved in shaping science communication activities and materials?
- How does the organisation identify and engage audiences that do not already participate in science communication activities, including groups with limited prior exposure to research or research institutions?
- What steps are taken to identify and reduce barriers to engagement for groups that are not already engaged, traditionally under-represented or less visible in science–society dialogue?
- How does the organisation support creativity and experimentation in science communication formats, including participatory, digital, multimodal or artistic approaches?

Support for researchers

- What practical support is available to researchers who engage in science communication or public dialogue, including access to infrastructure, guidance, professional expertise, quality assurance processes, and recognition of contributions?
- How does the organisation ensure that expectations around science communication are proportionate, adequately supported, and sensitive to disciplinary and career-stage differences?
- Are researchers able to access professional communication support when needed?
- How are doctoral and other early-career researchers supported in developing confidence and skills for public engagement, including through communication training embedded in doctoral education?
- How do supervisors, principal investigators, and research leaders contribute to creating supportive environments in which doctoral candidates and early-career researchers can participate in science communication with appropriate guidance, recognition, and support?
- How does the organisation support researchers in communicating uncertainty, complexity, or contested evidence?
- What support mechanisms are in place for researchers who experience misrepresentation, online harassment, or hostile public responses as a result of engaging in science communication or public dialogue?
- How does the organisation balance encouraging public engagement with its responsibility to safeguard researchers' wellbeing, academic freedom, and professional integrity, particularly in sensitive or polarised contexts?

Professional roles and recognition

- How are roles and responsibilities for science communication defined across the organisation, including the respective contributions of researchers, professional communicators, leadership, and external partners?
- To what extent are communication activities valued and acknowledged within research assessment, career development, or recognition systems?
- How are collaborations between researchers and professional communicators supported and resourced?
- How are expectations around researchers' involvement in science communication clarified, so that engagement is encouraged and supported without becoming an implicit obligation or burden?

Digitalisation, AI, and emerging challenges

- How does the organisation approach the use of digital and AI-enabled tools in science communication?
- What guidance or oversight exists to support the responsible and trustworthy use of AI for science communication?
- How is AI literacy supported among researchers and communicators?
- How prepared is the organisation to support science communication in sensitive contexts, such as public health emergencies, climate-related debates, or politically-contested research topics?

Research Impact

- How is science communication understood as contributing to research impact within the organisation, beyond academic dissemination?
- How are communication activities designed or supported to ensure research findings are understood and used beyond academic settings? How does the organisation support researchers and communicators in engaging with policy processes in ways that strengthen research impact while respecting scientific autonomy, integrity, and uncertainty?

Learning, evaluation, and improvement

- How are science communication activities monitored or evaluated, where appropriate?
- Are lessons learned shared within the organisation or across peer organisations?
- How does the organisation adapt its approaches to science communication in response to changing societal and technological contexts?
- How are insights from monitoring and evaluation of science communication activities used to inform future strategies, funding instruments, or organisational policies?

4.2. Further Self-Reflection Tools

To support organisations that wish to explore their science communication practices in greater depth, a set of quality indicators for science communication developed by the EU-funded [QUEST Project](#) is provided in [Annex 2](#) ⁹.

As previously noted, these indicators can be used in a variety of ways, for example to prompt reflection and discussion on how science communication activities are designed and implemented within organisations, or to inform the development of funding calls, proposal requirements, and evaluation approaches. They are not intended as a prescriptive checklist or performance measure, but as a qualitative framework that supports critical reflection and improvement over time.

Annex 2 also includes an illustrative example of how the QUEST indicators could be applied in practice, by showing how they might be used to integrate science communication considerations into a funding call, including at the proposal, assessment, and reporting stages.

Conclusion

Science communication is increasingly recognised as a fundamental component of contemporary research systems. As scientific knowledge plays a growing role in addressing complex societal challenges, the ability of research organisations to communicate research processes, results, and uncertainties clearly and responsibly has become more important than ever.

Research funding and performing organisations play a central role in shaping the conditions that enable effective science communication, through their strategies, funding instruments, evaluation frameworks, and institutional support structures. By embedding science communication within research cultures and across the research lifecycle, organisations can help strengthen trust in science, improve dialogue between research and society, and enhance the societal relevance of research.

This guidance does not prescribe a single model for science communication. Rather, it offers a formative framework of principles, considerations, and reflective questions that organisations may adapt to develop their own mandates and national contexts.

Continued exchange of experiences and practices among research organisations will remain essential as science communication evolves in response to technological change, shifting societal expectations, and new forms of public engagement. By working collectively to strengthen science communication, research organisations can contribute to more open, transparent, and trustworthy research systems that benefit both science and society.

Resources

Science Europe resources

- [Science Communication for Greater Research Impact](#) (Jun 2022)
- [Science Europe High Level Workshop on ERA 2022 Report: Research Ethics and Integrity in the Context of Public Engagement](#) (Dec 2022)
- [Science Communication Conference Strategic Conclusions](#) (Mar 2024)
- [Report of High-level Conference 'Unlocking the Power of Science Communication in Research and Policy Making'](#) (Jul 2024)
- [Report on the Trust in Science Conference: Analysing the Challenges and identifying solutions](#) (Apr 2026)

International organisations & networks

- [Co-Creating the European Competence Centre for Science Communication](#) (COALESCE)
COALESCE produces open-access resources and tools to achieve high-quality, evidence-based and interdisciplinary science communication.
- [European Federation for Science Journalism](#)
- [European Science Engagement Association](#)
- [PCST Network – Global Network for Science Communication](#)

Resources on science communication

- [Communicating research – tips and advice](#) (Swedish Research Council)
- [Promoting Science Communication: Strategies and Lessons Learnt from Europe](#) (Swedish Research Council)
- [Trust in Science](#): Presents insights from three projects funded by the European Commission to examine views and visions on trust in science across Europe, namely: Inspiring and Anchoring Trust in Science (IANUS), Probing the Impact of Integrity and Integration on Societal Trust in Science (POIESIS), and Developing Scientific Research with Ethics and Integrity (VERITY).
- [Le guide de l'expression publique des scientifiques du CNRS \(CNRS\)](#)
- [Framework for courses in science communication](#) (Swedish Research Council)
- European Commission Mutual Learning Exercises in Public Engagement
 - [First thematic report – Overview of Public Engagement in Research & Innovation](#)
 - [Second thematic report – Successes and challenges of public engagement](#)
 - [Third thematic report – Public engagement in R&I and framework conditions](#)

- [Cross-cutting Activity in Science Communication](#) (European Co-operation in Science and Technology, COST)
- [Public Communication about Science in 68 Countries: Global Evidence on How People Encounter and Engage with Information about Science](#)

Tackling misinformation

- [The Debunking Handbook](#)
A quick guide to the science of misinformation and its debunking. Written by a team of 22 prominent scholars of misinformation and its debunking, it represents the current consensus on the science of debunking for engaged citizens, policy makers, journalists, and other practitioners.
- [RESIST2 – Countering Misinformation Toolkit](#)
Produced by the UK Government Communication Service, this toolkit aims to effectively reduce the impact of mis- and disinformation through strategic communications. RESIST stands for Recognise mis- and disinformation, Early warning, Situational insight, Impact analysis, Strategic communication, Tracking effectiveness.
- [A Practical Guide to Debunking Information](#)
Prebunking is a proactive strategy for combating misinformation by preparing individuals to recognise and resist false or misleading information before it spreads. This guide, produced by Google, the University of Cambridge and BBC Media Action, provides practical advice on how to use this technique to tackle mis and disinformation.

Evaluation of Science Communication

- [Evaluating Science Communication: A Planning Template](#)
A simplified version of the Decision Tree for Evaluation of Science Communication produced by the Impact Unit of *Wissenschaft im Dialog*, which is committed to strengthening impact orientation and evaluation in German language science communication.
- [Impact Lab Toolbox](#)
Research, practical tools and instruments by Utrecht University, Leiden University, and the Dutch Research Agenda (NWA) to enable a more systematic approach to measuring impact in science communication.
- [Public Engagement Evaluation Toolkit](#)
A toolkit by the Queen Mary University of London to facilitate the evaluation of the design, execution and impact of public engagement with research.
- [Europlanet Evaluation Toolkit](#)
A dedicated evaluation toolkit to empower outreach providers and educators in measuring and appraising the impact of their activities.

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ANNEX 1

Overview of European & International Organisations and Policy Frameworks that reference science communication

European Union

POLICY FRAMEWORK / INITIATIVE	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOs AND RPOs
Horizon Europe	EU framework programme	Cross-cutting priority linked to citizen engagement, co-creation, and societal impact. Funded R&I projects are required to provide information on how they plan to implement “citizen, civil society, and end-user engagement” (where/if applicable). This may include “co-design activities (workshops or focus groups), co-creation activities (citizen science or user-led creation) and co-assessment activities (assisting monitoring, feedback, and evaluation of the governance of projects). Specific missions and clusters encourage co-creation and outreach activities to maximise societal impact.	Shapes expectations in funding calls and project design across disciplines.
Horizon Europe – Policy Support Facility	EU capacity building	Mutual Learning Exercises on citizen science, engagement, and science–policy interaction.	Supports voluntary learning and exchange without prescribing models.
Horizon Europe – WIDERA	EU programme	Encourages interaction between science and societal actors, especially in widening contexts.	Reinforces outreach and engagement as part of system strengthening.
EU-funded projects	EU R&I projects	Research and experimentation on trust, communication quality, and misinformation.	Provides tools, data, and insights organisations may draw on.
European Competence Centre for Science Communication (COALESCE)		Builds on the results of eight projects from previous Framework Programmes and aims to tackle issues such as the quality of science communication, trust in science, and the mitigation of the spread and impact of mis- and disinformation and fake news.	

European Research Area (ERA)

POLICY FRAMEWORK / INITIATIVE	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOS AND RPOS
European Research Area (ERA)	EU research coordination	Communication linked to trust, citizen engagement, and societal relevance. The 2021 Pact for Research and Innovation identified the need to enhance science communication activities to engage stakeholders, local communities, and citizens in the design and implementation of R&I policies, to increase trust in and commitment to science and innovation, and to ensure that they respond to societal needs.	Frames expectations while leaving implementation to organisations.
ERA Policy Agendas (2022–24; 2025–27)	Voluntary EU actions	Actions on bringing science closer to citizens and enhancing trust.	Signals policy direction.
EU Council Recommendation on Research Careers (2024)	EU policy guidance	This states that “researchers should approach their work with open communication and ensure that their research activities are made known to the public at large, to improve public understanding of science and opportunities for co-design and co-creation of research.” It also calls on employers and funders to “recognise a diversity of outputs including science communication” in researchers’ assessments to improve career progression and as part of valuing diverse careers.	Links communication to careers and research culture reform.
Eurobarometers on Science and Technology		The European Commission carries out a regular public opinion survey on European citizens’ knowledge and attitudes towards science and technology. This survey gauges their perceptions of science, trust in scientific institutions, and interest in research, which are used to inform policy and communication strategies. The most recent Eurobarometer on this topic was published in February 2025.	Evidence and Monitoring
European Competence Framework for Researchers		The European Competence Framework for Researchers outlines essential skills and abilities in which researchers should develop to excel in their fields. “Making an Impact” involving communication with the public, promoting the transfer of knowledge, and increasing the impact of science on society is one of seven key competence areas.	Provides a useful reference when developing researcher training, career development and support for science communication and public engagement.

POLICY FRAMEWORK / INITIATIVE	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOs AND RPOs
European Competence Framework for Research Managers (RMComp)		RM Comp is a competence-based framework for research managers in the European Research Area which identifies the skills and competences required for effective research management. Stakeholder engagement is identified as one of seven competence areas.	Provides a useful reference when identifying ways to strengthen institutional capacity to support science communication and public engagement.
European Research Council	European funder of frontier research	Promotes public engagement by offering its grantees various opportunities and incentives to share their work. It runs the ERC Public Engagement with Research Award to encourage scientists to engage with the public and provides training to empower selected ERC grantees to communicate their research. Public engagement and outreach beyond publication in academic journals are also included as criteria in its assessment of research proposals. The ERC also funds the FRONTIERS initiative. Running until 2027, it offers grants for journalists from around the world who seek to develop their professional skills in covering complex scientific topics. These allow them to spend three to five months in residence at a European research institution performs frontier research in any discipline, including social sciences and humanities.	Examples of best practice in science communication

European Parliament

ORGANISATION	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOs AND RPOs
European Science-Media Hub (ESMH)	Networking hub	The European Science-Media Hub (ESMH) was launched in 2017 by the Panel for the Future of Science and Technology of the European Parliament (STOA). The network encourages mutual learning and knowledge-sharing between scientists, policy-makers and the media on the latest scientific developments and media trends.	Networking and professional exchange

International and Global Actors

ORGANISATION / INITIATIVE	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOS AND RPOS
UNESCO	Global	The 2017 UNESCO recommendation on Science and Scientific Researchers calls on governments and institutions to ensure enabling environments for open and responsible scientific communication. The 2021 UNESCO Recommendation on Open Science recognises science communication as a key pillar of scientific knowledge. UN Member States are encouraged to support and enhance “open science communication to support the dissemination of scientific knowledge to scholars in other research fields, decision makers and the public at large,” to build public trust in science while increasing the engagement of societal actors beyond the scientific community. UNESCO leads the International Decade of Science for Sustainable Development (2024–2033). Recognising science as a common good for humanity and reaffirming its fundamental role in tackling common global challenges such as climate change, this initiative aims to restore confidence in science, encourage critical and nuanced thinking, and strengthen worldwide scientific cooperation. Promotes the Global Media and Information Literacy Week, which takes place between 24 - 31 October. Among other issues, it is an opportunity to highlight the proliferation of mis- and disinformation and hate speech, the decline of trust in media and the transformative impact of digital innovations, all of which also have implications for the practice of science communication.	Anchors science communication in international commitments.
G20 Research and Innovation Working Group	Global	G20 Recommendation on Enhancing Science Engagement (2025) to create a more equitable and sustainable global science system by promoting open science, enhancing scientific literacy, and strengthening public trust.	Anchors communication in international commitments.

ORGANISATION / INITIATIVE	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOs AND RPOs
Organisation for Economic Co-operation and Development	International	Through the Global Science Forum, it provides a platform for dialogue, consultation, and mutual learning among high-level science policy officials from OECD member countries, to support them to improve their science policies and share in the benefits of international collaboration. The GSF has developed guidelines on science communication, in response to evolving challenges in communicating science effectively during the COVID-19 pandemic, identifying six common principles as being important for communicating science responsibly and effectively: Transparency; Inclusivity; Integrity; Accountability; Freedom and autonomy; and Timeliness. In projects on open research agenda setting (2017), open and inclusive collaboration (2018) and transdisciplinary research to address societal challenges (2020), it has focused on building trust in science and supporting citizen science. In October 2023 it embarked on a new project to expand the learning across different countries and regions on the policy actions that are necessary to facilitate citizen science.	Provides shared reference points across systems.
Global Research Council (GRC)	Network of national research funding organisations	Statement of Principles on Public Engagement (2020), endorsed its essential role in strengthening the relationship between science and society, and the key role played by national funding agencies in supporting inclusive, meaningful participation across the research process - helping to ensure accountability, foster mutual learning, and align research with societal needs. It also called for tailored approaches to engage different publics effectively and an appropriate leveraging of resources to further support and facilitate wider public engagements with science.	Encourages funder-led support for engagement.

ORGANISATION / INITIATIVE	SCOPE	HOW SCIENCE COMMUNICATION IS FRAMED	RELEVANCE FOR RFOs AND RPOs
Coalition for Advancing Research Assessment (CoARA)	Global coalition	CoARA aims to reform the methods and processes by which research, researchers, and research organisations are evaluated, recognising the diverse outputs, practices and activities that maximise the quality of and impact of research by emphasising qualitative judgement in assessment and the responsible use of quantitative indicators. In the Agreement on Reforming Research Assessment published in July 2022, members have undertaken, as part of efforts to recognise the diversity of research activities and practices [to] “Consider tasks like peer review, training, mentoring and supervision of Ph.D candidates, leadership roles, and, as appropriate, science communication and interaction with society, entrepreneurship, knowledge valorisation, and industry-academia cooperation,” as part of the implementation of these reforms. In addition, they should also “Consider also the full range of research outputs, such as scientific publications, data, software, models, methods, theories, algorithms, protocols, workflows, exhibitions, strategies, policy contributions, etc., and reward research behaviour underpinning open science practices such as early knowledge and data sharing as well as open collaboration within science and collaboration with societal actors where appropriate.”	Links communication to incentives for researchers and research careers.
European Federation of Science and Humanities (ALLEA)	European organisation	Science communication is framed as part of responsible research conduct, requiring transparent, accurate, and honest communication of research results, processes, and uncertainties to both the research community and society.	Positions science communication as part of responsible research conduct and integrity

ANNEX 2

Quality Indicators for Science Communication

The Twelve Quality Indicators for Science Communication, developed as a result of the EU-funded [QUEST project](#) (**Q**uality and **E**ffectiveness in **S**cience and **T**echnology Communication), provides a quality framework that could be incorporated into funding proposals or used in the post-project evaluation phase to evaluate the science communication activities.

Trustworthiness and Scientific Rigour



Scientific

It is based on reliable, rigorous scientific information, with references to scientific sources.



Factual

It is accurate, objective and fact-checked.



Balanced

It contains comments by independent experts. Key stakeholders are represented.



Transparent

It is open about the scientific process and honest about funding and affiliations.

Presentation and Style



Clear

The language is simple and accessible. The communication is focused and outlines key messages.



Coherent and contextual

The communication provides a wider context and is coherent in language and style.



Spell-binding

The communication is emotionally engaging and makes full use of the format's capabilities.



Interacting with the audience

The audience is involved in a dialogue and treated respectfully.

Connection with Society



Purposeful & Targeted

It has a clearly defined objective, understands its audience, and is tailored to the target groups.



Impactful

It brings about change in society and in individuals.



Relatable

It addresses real-life questions and problems and relates the results to peoples' everyday lives.



Responsible

It is socially or politically conscious and follows ethical standards.

ANNEX 3

Suggested ways forward for RFOs and RPOs in the use of AI for science communication

A workshop on the use of AI for science communication, organised for Science Europe Member Organisations in November 2024, explored the capabilities of these tools and the broader implications for trust and public engagement in science. It also underscored the ethical and practical challenges associated with its use. Below are the key conclusions from the event and suggested ways forward.

While Large Language Models can significantly support science communicators, streamlining workflows and improving efficiency and accessibility, they cannot replace human understanding and critical judgment. They should be used as an 'intern' that assists, rather than replaces, human capacities.

- The potential for bias, inaccuracy, and 'hallucinations' in AI outputs highlights the importance of human oversight in ensuring the reliability and credibility of AI-generated content. Science communicators should adopt critical thinking skills and implement thorough review processes to verify materials produced using AI before their dissemination.
- Research funding and research performing organisations should support science communicators and researchers to improve their AI literacy to promote its responsible use. This should be done through training that focuses on developing technical proficiency and understanding of the ethical considerations and the limitations of AI. Initiatives like the [Good Practice Principles on Science Communication and AI](#) provide a valuable framework for maintaining ethical standards while exploring AI's potential.
- The use of AI raises ethical concerns including the issue of biases in training data, the potential for misinformation and questions about its environmental impact.
- Transparency about how AI tools work and are used are crucial for ensuring public trust. Organisations using AI should also advocate greater transparency from AI developers regarding data sources and training methods.
- By translating complex research into accessible formats, identifying ways to reach diverse audiences, and supporting dissemination of results into many languages more easily, the use of AI can make science more accessible to different audiences. However, tailored AI applications trained on localised data can ensure that their outputs better reflect specific regional or cultural contexts.
- There is a need for policies that address the ethical, environmental, and societal implications of AI in science communication. Collaborative efforts between communicators, policy makers, researchers, research organisations, and AI developers should be expanded to ensure that AI is integrated into communication responsibly and effectively.

ANNEX 4

Recommendations on Enhancing Trust in Science

The December 2025 'Trust in Science' conference, organised by the French National Research Agency (ANR) and Science Europe, emphasised that trust in science is essential for society, policy making, and research systems, yet is increasingly fragile. Technological change, health crises (such as COVID-19), political polarisation, and global information flows have altered how the public perceives science. Based on the discussions, the following recommendations were developed, and aim to strengthen this trust in a changing informational and political environment.

Reinforce integrity and transparency across the research ecosystem

Establish and uphold clear, consistent, and rigorous standards for scientific integrity across all stages of the research process. This includes responsible conduct, robust conflict-of-interest management, transparent validation of results, sound publishing practices, accountable funding procedures, and responsible use of emerging technologies. Visible commitment to ethical standards, openness, and accountability, are essential to maintaining public confidence in science.

Promote scientific literacy and understanding of the research process

Invest in education and communication initiatives that improve understanding of the scientific process – including methods, peer review, uncertainty, and the evolving nature of knowledge. A stronger grasp of how scientific operates enables citizens to better assess evidence, engage critically with information, and resist misinformation.

Embed trust-building into research policy, governance and funding frameworks

Integrate public engagement, participation, and communication as core components of research and innovation systems. This includes embedding these dimensions in funding programmes, institutional strategies, and evaluation criteria at national and international levels. Trust in science should not be treated as a by-product, but as a strategic objective of research policy.

Support and protect researchers in the public sphere

Provide researchers with the training, guidance, institutional recognition, and legal safeguards necessary to engage effectively and safely in public debate. Public engagement activities should be valued in career progression and research organisations should actively support researchers in navigating complex information environments, including topics such as misinformation and public scrutiny.

Foster collaboration and co-production in a complex information environment

Promote co-ordinated action among research institutions, funding organisations, policy makers, media, civil society, and citizens. Collaborative approaches are essential to addressing misinformation, strengthening credibility, and developing shared, socially robust solutions to complex challenges.

Clarify roles and responsibilities in science communication

Ensure clearly distinctions between scientific expertise, journalism, institutional communication, and political decision making. Promote transparent, contextualised reporting of scientific findings, including uncertainties and limitations, while fully respecting media independence.

Safeguard the independence of science in public policy making

Protect academic freedom and ensure scientific evidence is used in public decision making in a transparent, accountable, and responsible manner. Strengthen institutional mechanisms that enable science to inform policy while preserving researchers' independence and integrity.

Strengthen democratic participation and citizen engagement

Engage citizens from the earliest stages of defining research priorities, shaping funding programmes, and developing regulatory frameworks. Inclusive and participatory approaches enable meaningful dialogue between science and society, enhance democratic legitimacy, strengthen long-term trust, and foster more transparent and accountable decision making.



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Science Europe is the association of major research funding and research performing organisations in Europe.

Our vision is for the European Research Area to have the optimal conditions to support robust education and research & innovation systems.

We define long-term perspectives for European research and champion best-practice approaches that enable high-quality research for knowledge advancement and the needs of society.

We are uniquely placed to lead advancements to the European Research Area and inform global developments through participation in research initiatives where science is a strong and trusted component of sustainable economic, environmental, and societal development.

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