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Foundations of Scientific Consensus for International Cooperation

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Key recommendations:

- Scientific consensus mechanisms must maintain independence and avoid prescriptive policymaking while ensuring their outputs are directly applicable to decision contexts.
- They must expand their epistemic base by incorporating social science, local knowledge and private sector insights in ways that preserve integrity and avoid conflicts of interest.
- They must also develop new methods for managing unprecedented volumes and varieties of scientific evidence, recognizing that knowledge now circulates across academic, industrial and community settings.

Introduction

Expert consensus has become a critical component of international cooperation related to new technologies and scientific advances. In 2025, the United Nations announced the members of a new mechanism for reaching consensus on the development of Artificial Intelligence (AI), the Independent International Scientific Panel on AI. This Panel has been tasked with producing an annual report on the risks, opportunities and impacts of AI technologies. Its objective is to provide the basis for international cooperation on AI.

The AI Panel has often been compared to the Intergovernmental Panel on Climate Change (IPCC), the international community's main vehicle for climate change consensus. Over the last few decades, there have been many such scientific consensus mechanisms, with varying structures and levels of formality, addressing a range of issues, including nuclear energy, conservation, biodiversity and climate change.

The intellectual foundation for these mechanisms can be traced to academic works, most notably in Thomas Kuhn's *Structure of Scientific Revolutions*, which argues that scientific and technological innovations can only take root once scientists agree on what the new science is, and how it can be used. Without this, opportunities stemming from important inventions or discoveries cannot be utilized effectively.

This question is critical for a technology such as AI, which, in the best of cases, promises a complete reconfiguration of society, with gains possible in almost all sectors. With this opportunity also comes important risks, however, ranging from human rights violations to the reduction of jobs and environmental degradation.

Several other areas in science and technology also present both notable risks and significant opportunities. Some of these include synthetic biology, which may revolutionize the medical field; quantum computing, which may completely change our current information and communications technology architecture; and outer space technologies, which significantly expand the reach of human governance.

We are in an age of accelerating advances in numerous domains in science and technology. The practice of creating fora for achieving global scientific consensus may help countries navigate the risks and opportunities that new science and technologies present, but only if they are well structured and fit for purpose.

This policy brief explores the history of scientific consensus mechanisms in multilateralism, examining nuances, strengths and pitfalls, helping to better inform the work of future science and technology panels. The most common mechanism (though not the only type) found in the current multilateral system is known as the science-policy interface. These are institutions specifically designed for synthesizing bodies of scientific evidence for use in policymaking. However, while they support policymaking, they are not policy prescriptive. Their role is to make sense of scientific consensus and support its translation to policy.

Notably, we argue that: (1) effective scientific consensus mechanisms must balance institutional permanence with adaptive capacity; (2) the separation of assessment from regulatory functions preserves scientific credibility while enabling policy uptake; and (3) emerging technologies like AI require accelerated reporting cycles and hybrid expertise models that traditional panels have not fully developed.

Theoretical foundations for global scientific consensus

Scientific consensus mechanisms emerged in the late 1950s and 1960s, drawing on economics, sociology and management to formalize how scientific knowledge informs public decision-making.[1] Their theoretical grounding owes much to Kuhn's 1964 introduction of scientific paradigms as shared frameworks of theories, methods and assumptions that guide inquiry. Kuhn argued that most scientific work unfolds within a dominant paradigm until accumulated anomalies produce a crisis that allows revolutionary shifts toward new discoveries. This model revealed that scientific knowledge develops through phases of consensus-building, contestation and eventual paradigm replacement, each with implications for how policy relies on evolving evidence.[2]

The connection between consensus and innovation became a core rationale for science-policy interfaces. Achieving consensus not only clarifies the state of knowledge but also provides a stable foundation for policymaking. The United Nations Educational, Scientific and Cultural Organization (UNESCO) institutionalized this thinking by urging States to adopt explicit science policies, linking scientific planning to national development and modernization strategies.[3] At the same time, institutional structures have often rewarded certainty and discouraged open communication of risks, slowing the translation of emerging insights into policy.[4] The historical trajectory of evolutionary theory, for example, initially contested across scientific and social domains but ultimately unified by converging evidence from genetics, fossils, anatomy and molecular biology, illustrates how consensus develops and why sustained, multidimensional evidence is essential for policy-relevant science.

Contemporary examples reinforce how perceived scientific consensus influences public acceptance of evidence. Similar dynamics emerged with genetically modified organisms (GMOs): despite intense political and public controversy in the 1990s and 2000s, decades of studies across toxicology, epidemiology and agricultural science converged on the idea – endorsed by bodies such as the World Health Organization (WHO) and National Academies – that approved GMOs posed

1 B. R. Martin, "The evolution of science policy and innovation studies", *Research Policy*, vol. 41 No. 7 (2012): 1219-1239. Available at https://doi.org/10.1016/j.respol.2012.03.012.

2 T. S. Kuhn, "History of science", in *Philosophy, science, and history* (Routledge, 2014). Available at https://doi.org/10.4324/9780203802458-9.

3 M. Finnemore, "International organizations as teachers of norms: The United Nations Educational, Scientific, and Cultural Organization and science policy", *International Organization*, vol. 47 No. 4 (1993), pp. 565–597. Available at https://doi.org/10.1017/S0020818300028101.

4 G. A. Bradshaw and J. G. Borchers, "Uncertainty as information: Narrowing the science-policy gap", *Conservation Ecology*, vol. 4 No. 1 (2000). Available at https://www.jstor.org/stable/26271749.

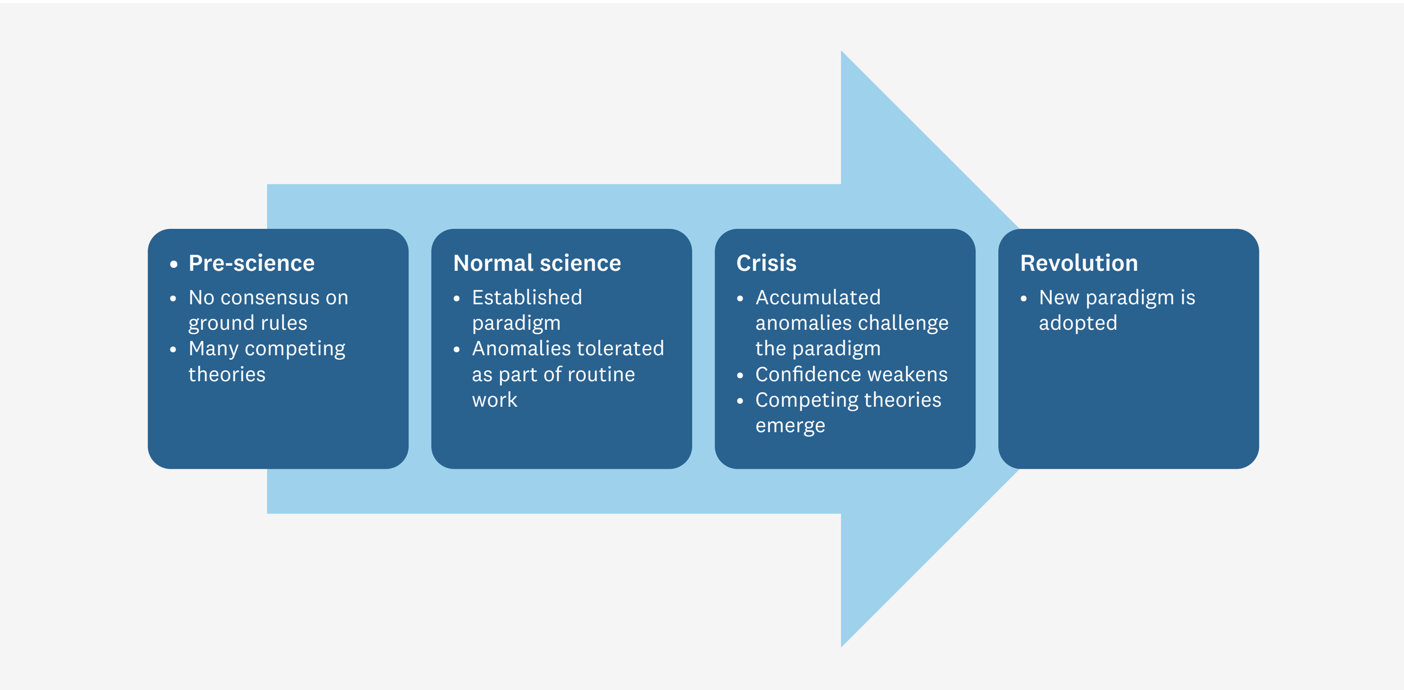
no greater health risk than conventional crops. Global debates often now centre on ethics, economics and governance, rather than safety.[5]

Across domains, consensus is the endpoint of rigorous evidence evaluation involving replication, convergence of multiple methods and cross-disciplinary integration. What are now foundational scientific claims – blood circulation, planetary motion and climate modelling – were once deeply uncertain. This is because scientific frameworks shape what questions are asked and which methods count as valid, so when paradigms shift, the policy regimes built on prior knowledge may quickly become outdated. Recognizing uncertainty as an inherent, generative feature of scientific progress is therefore essential. Science-policy interfaces exist to mediate these shifts, translating evolving consensus into guidance for decision makers while highlighting where uncertainty warrants precaution, further research or adaptive policy design.

According to Kuhn, science goes through four phases: (1) pre-science – no consensus on ground rules, many competing theories; (2) normal science – paradigm established, scientists work within it solving puzzles, anomalies are tolerated as part of routine work; (3) crisis – accumulated anomalies challenge the paradigm, confidence in the current framework weakens, competing theories emerge; (4) revolution – a new paradigm is adopted, it is often incommensurable with the old (i.e. the new and old frameworks have different standards and methods).[6]

Today's scientific and technological questions often involve AI, but, as we will see in this paper, many more areas of innovation are emerging. The field of AI has been very publicly controversial. Many questions have emerged: What are the potential risks for humanity? How can it be used for public good? And, in what direction is it ultimately evolving? Several risk-based policy frameworks have already emerged – the European Union's AI Act, for example, which requires pre-deployment certification of all high-risk uses of AI,[7] and the National Institute of Standards and Technology's AI Risk Management Framework,[8] which has similarly categorized AI in terms of risk to the individual, company or group, and society.

Figure 1: The four phases of science



5 E. Arnet, *Strength in numbers? The meaning of scientific consensus* (Bloomington, SciU – Indiana University, 2019). Available at https://blogs.iu.edu/sciu/2019/11/16/strength-in-numbers/.
6 Saul McLeod, "Thomas Kuhn: Paradigm shift", Simply Psychology, 31 July 2023. Available at https://www.simplypsychology.org/kuhn-paradigm.html.
7 According to the European Union AI Act, applications of AI are categorized according to risk-level. Forbidden uses of AI include AI for manipulation, and social scoring, among others. High-risk uses of AI must go through several steps to ensure safety before deployment. These applications include AI for education, employment and law enforcement, among others.
8 National Institute of Standards and Technology, *AI Risk Management Framework* (2025). Accessible at: https://www.nist.gov/itl/ai-risk-management-framework.

However, these policies are often subject to change, and new ones are emerging globally. The question of what AI really is and what impact it can have is one that does not yet have scientific consensus, making policymaking challenging and unstable. Without a solid foundation, attempts to make AI benefit the public are subject to being torn down and rebuilt.

Science-policy interfaces in global governance

Within the United Nations, early scientific consensus mechanisms took shape through specialized agencies like UNESCO and WHO in the late 1940s, culminating in the 1955 establishment of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) to synthesize expert assessments on nuclear risks for global policy guidance. This influential mechanism provided a foundational template for structuring international expert advisory bodies to tackle complex global challenges, drawing on prior models of evidence-based collaboration.

Over the subsequent decades, this approach has been adapted, refined and extended across diverse domains, from climate change to biodiversity loss, ocean health and emerging technologies. Together, these cases illustrate how scientific bodies have served as practical mechanisms for generating, structuring and legitimizing consensus in multilateral processes.

Evolution of institutional models

UNSCEAR, established through General Assembly resolution 913(X), represented a novel approach to integrating scientific expertise into multilateral decision-making: a tightly focused body comprising representatives from 31 designated Member States, each nominating independent experts to provide authoritative, evidence-based assessments on ionizing radiation without regulatory powers. Its direct establishment by the General Assembly, stable funding through the United Nations regular budget and clear reporting lines to the body created a model that has maintained scientific authority for nearly seven decades, fundamentally shaping global radiation safety standards while deliberately separating assessment from enforcement to preserve neutrality. This separation of scientific evaluation from regulatory authority, allowing UNSCEAR to deliver impartial data on radiation sources for use by bodies like the International Atomic Energy Agency (IAEA), became a defining characteristic of subsequent mechanisms, ensuring trust amid geopolitical tensions.

The multilateral science-policy interface later began to proliferate in environmental governance, where their mandates were more substantively broad than UNSCEAR. The IPCC, established in 1988, built upon UNSCEAR's foundation while introducing a key structural feature: the line-by-line governmental approval of *Summaries for Policymakers*. This mechanism, while preserving scientific independence in the assessment process, ensures political buy-in from all 195 participating governments (the United Nations' 193 Member States plus 2 observers). The IPCC's three-tiered structure, combining government-nominated experts, rigorous peer review and consensus-based approval has proven effective, with its assessments forming the scientific foundation for the Paris Agreement and successive climate negotiations.

More recent mechanisms have experimented with greater flexibility and stakeholder inclusion. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), established in 2012, incorporates Indigenous and local knowledge systems alongside peer-reviewed science, a recognition that certain forms of expertise extend beyond traditional academic boundaries. Its 25-member Multidisciplinary Expert Panel, supported by broader expert networks mobilized for specific assessments, provides both depth and scalability.

Emerging from these models is a growing emphasis on equity in expert selection. While IPBES has led in integrating Indigenous knowledge, earlier bodies like UNSCEAR were dominated by Global North perspectives, with limited input from developing countries. Recent United Nations efforts, such as the 2023 General Assembly resolution strengthening the Science, Technology, and Innovation Forum or the 2025 terms of references and modalities for the establishment and functioning of the Independent International Scientific Panel on AI and the Global Dialogue on AI Governance, mandate broader geographic and gender diversity in advisory panels, ensuring consensus reflects global realities rather than elite viewpoints.

In addition to the IPCC and IPBES, there are a vast range of science-policy interfaces across issue areas, including desertification, organic pollutants and ozone. In 2025, the United Nations created the Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution, and there are active negotiations underway for the creation of the Independent Panel for Evidence for Action against Antimicrobial Resistance.[9]

Science-policy interfaces vary in form. For example, some are part of larger United Nations agencies or programmes, such as the United Nations Environment Programme (UNEP), which provide secretariat support. They also vary in the type, format and periodicity of their output. While the IPCC has multi-year assessment cycles, others such as UNEP's International Resource Panel produce global assessments and more focused

9 UNEP, "Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution (ISP-CWP)". Accessible at https://www.unep.org/isp-cwp (accessed 4 December 2025); Quadripartite Joint Secretariat on AMR, "Independent Panel for Evidence for Action against AMR (IPEA)". Accessible at https://www.qjsamr.org/independent-panel-for-evidence-for-action-against-amr (accessed 4 December 2025).

thematic reports on specific timelines, ranging from under a year to every four years.[10] Similarly, the relationship between scientists and policymakers can vary, with some arrangements being intergovernmental and others embedding experts more directly in intergovernmental structures, such as the United Nations Convention on Combating Desertification's Science-Policy Interface.[11] Lastly, membership and participation can vary. Some arrangements such as that of the Climate and Clean Air Coalition, are voluntary coalitions.[12] The IPCC is formally intergovernmental, with the above-mentioned line-by-line approval process. Others are structured under conventions such as the Stockholm Convention or the Montreal Protocol.[13]

Table 1: Examples of science-policy panels

Name	Mandate	Year	No. of Experts	Structure	Trade-Offs
United Nations Scientific Committee on the Effects of Atomic Radiation.	Provide authoritative, independent scientific evaluations of ionizing radiation sources, exposures, and risks for global radiation safety, therefore informing governments and organizations worldwide while leaving policy, standards and economic considerations to other international bodies.	1955	31	• Established by United Nations General Assembly Resolution 913 (X) in 1955. • It is a subsidiary scientific body reporting directly to the General Assembly. • It is supported through the United Nations regular budget. • It evaluates sources, exposures and effects of ionizing radiation and provides scientific assessments to the General Assembly. • It only conducts scientific evaluation and does not set standards, enforce rules or address economic/benefit considerations. • It is used by regulatory bodies such as the IAEA to shape standards.	• In the absence of regulatory or policy setting authority, it relies on other bodies to act on its findings. • Its clear mandate does not allow it to address broader issues such as economic impacts, technological benefits or policy options. • Only 31 Member States can participate, which excludes full geographic participation and the influence of non-Member States in shaping assessments. • It has long-term stability and institutional legitimacy, but it can be slow to evolve or respond to emerging issues.

10 International Resource Panel (IRP), "International Resource Panel". Accessible at https://www.resourcepanel.org (accessed 4 December 2025).
11 United Nations Convention to Combat Desertification (UNCCD), "Science". Accessible at https://www.unccd.int/science/overview (accessed 4 December 2025).
12 Climate & Clean Air Coalition, "Scientific Advisory Panel". Accessible at https://www.ccacoalition.org/content/scientific-advisory-panel (accessed 4 December 2025).
13 Persistent Organic Pollutants Review Committee (POPRC), "Overview and Mandate". Accessible at https://www.pops.int/TheConvention/POPsReviewCommittee/OverviewandMandate/tabid/2806/Default.aspx (accessed 4 December 2025); UNEP, "Scientific Assessment Panel (SAP) – Ozone Secretariat". Accessible at https://ozone.unep.org/science/assessment/sap (accessed 4 December 2025).

Name	Mandate	Year	No. of Experts	Structure	Trade-Offs
Intergovernmental Panel on Climate Change.	Evaluate the scientific, technical and socioeconomic evidence needed to understand climate change, its consequences and potential strategies for adaptation and mitigation.	1988	14	• The IPCC emerged as part of a wave of science-policy interfaces with broader mandates. • It introduced the concept of line-by-line governmental approval. • It has a three-tiered institutional architecture based on government nominated experts, a rigorous peer review process and consensus-based approval process. • It involves 195 governments (193 Member States and 2 observers). • It is supported by United Nations agencies and voluntary contributions.	• The line-by-line approval in the *Summaries for Policymakers* slows the process and introduces political negotiation into scientific summaries. • Mixed funding creates dependency on voluntary donors, which may influence priorities or timelines. • Government involvement may shape what is emphasized or softened in *Summaries for Policymakers*. • It is less agile than smaller or more flexible bodies. • Consensus-based processes can be slow and politically contentious.
Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.	Provide credible, multi-knowledge-based assessments and tools that help policymakers support conservation, sustainable use of biodiversity and ecosystem services, human well-being, and sustainable development.	2012	25	• It explicitly incorporates Indigenous and local knowledge systems alongside peer-reviewed science. • It is governed by a 25-member Multidisciplinary Expert Panel and supported by broader expert networks mobilized for specific assessments. This creates a structure that is both deep and scalable. • It was established through an intergovernmental agreement and later received General Assembly recognition, strengthening its authority. • It operates through a trust fund.	• Its inclusive approach makes assessments more complex, requiring reconciliation of different knowledge systems. • There is a need for constant fundraising, which may influence priorities or create resource instability. • Coordination across dispersed networks can be challenging and resource-intensive. • It engages in politically sensitive issues (land rights, Indigenous knowledge, development pathways), making consensus harder. • Government involvement may shape priorities or constrain certain framings. • It requires deliberate processes that may slow expert selection or complicate consensus.

Structural innovations and trade-offs

These models reveal critical design tensions. Bodies established through General Assembly resolutions gain universal mandate, with all 193 United Nations Member States formally endorsing their creation, ensuring institutional permanence and often regular budget funding. UNSCEAR's seven decades demonstrate these advantages, though General Assembly processes can take years to address emerging issues.

Funding structures shape operational capacity. UNSCEAR's regular budget ensures stability but limits scale; the IPCC's mixed model (United Nations agencies plus voluntary contributions) enables larger operations but creates donor dependency; and IPBES's trust fund provides flexibility but requires constant fundraising, potentially influencing research priorities.

Alternative establishment routes offer different trade-offs. The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, created by United Nations agencies rather than the General Assembly, operates with 15–20 experts who rapidly convene on emerging threats like ocean plastics, but its recommendations must filter through multiple agencies, lacking UNSCEAR's direct General Assembly reporting line. The Technology Facilitation Mechanism represents a network approach, leveraging existing capacities without new institutions, enabling rapid knowledge sharing but lacking the IPCC's comprehensive assessment capacity.

These variations illustrate fundamental design tensions: formal United Nations establishment provides a universal mandate but slower response; interagency arrangements offer flexibility but diffuse authority; and network models enable broad participation but limited assessment depth. The most effective bodies blend approaches. The IPCC combines independent assessment with governmental approval of summaries, while IPBES gained authority through both intergovernmental agreement and subsequent General Assembly recognition.

Practical outcomes emerge from these structural choices: direct General Assembly mandates achieve higher uptake in negotiations through universal recognition; stable budget arrangements ensure continuity while voluntary funding enables scale; and critically, separating scientific assessment from regulatory authority consistently enhances credibility by insulating expert work from political pressures.

Demonstrated impacts

The practical impact of these mechanisms varies considerably based on their institutional design and political context. The IPCC's assessments have fundamentally transformed global climate governance, providing the evidentiary foundation that made the United Nations Framework Convention on Climate Change negotiations possible and continue to inform national climate strategies worldwide. Its co-receipt of the 2007 Nobel Peace Prize symbolized recognition of scientific consensus as essential to addressing existential threats.

IPBES, established in 2012, has shaped biodiversity governance. It has broadened the scope beyond traditional ecosystem services to incorporate material, cultural and relational values, reshaping how policymakers evaluate and mainstream biodiversity in sustainable development agendas.

The Regular Process for Global Ocean Assessment, created by United Nations General Assembly resolutions, produced the first comprehensive *World Ocean Assessment* in 2015, synthesizing global knowledge on marine environments, including biodiversity, human impacts and governance. These assessments have directly informed the priorities of the United Nations Decade of Ocean Science for Sustainable Development (2021–2030) and provided critical evidence in support of Sustainable Development Goal 14 targets, including marine conservation and sustainable fisheries. The Political Declaration of the 2025 United Nations Oceans Conference also committed to "support a strong science-policy interface to provide timely, credible and salient scientific and socioeconomic information to inform policies and actions" (A/CONF.230/2025/14).

Yet not all scientific consensus-building efforts reach universal endorsement. The International Assessment of Agricultural Knowledge, Science and Technology for Development (2005–2008) involved over 400 experts worldwide and produced reports advocating agroecology and criticizing industrial agriculture. Despite its rigour, the final assessment was rejected by several major countries, including the United States, Canada and Australia, reflecting the challenges posed by divergent economic interests and entrenched policy positions. This shows how scientific consensus mechanisms must not only address technical complexity but also navigate contentious social, economic and political landscapes.

Emerging adaptations

Recent initiatives reveal critical adaptations for fast-moving technologies. These represent practical innovations designed to maintain relevance amid rapidly changing technical landscapes. The United Nations International Scientific Panel on AI will employ annual reporting cycles rather than traditional 5–7 year assessments, recognizing that AI capabilities can fundamentally shift within months. These mechanisms must also integrate private sector expertise, where most AI innovation occurs, while managing conflicts of interest; a challenge that earlier panels addressing primarily academic or public sector science have not fully confronted.

The United Kingdom's *International Scientific Report on Advanced AI Safety* pioneered rapid consensus sprints, suggesting that modular, targeted evaluations may complement comprehensive reviews. This hybrid approach could allow the AI Panel to address both immediate safety concerns and longer-term societal implications without sacrificing either timeliness or depth.

The future of global scientific consensus and key recommendations

As technologies continue to develop at a rapid pace, the need for scientific consensus mechanisms will continue to increase. In this paper, we have shown that thoughtful consideration of the structure and composition of these mechanisms is critical to their success.

Today, there are three key questions to ask when considering the effectiveness of science-policy interfaces. First, how can interfaces be policy relevant without being prescriptive? The tension at the boundary between science and policy must be managed appropriately given that scientific knowledge is never neutral and the role of these mechanisms is not to provide policy recommendations. The choice to create an independent panel of experts for AI is therefore a good one; members are separate from the policymaking process but can still "diagnose" the world around them, without providing recommendations.

Second, how can science-policy interfaces integrate social scientific expertise? Integrating social scientific expertise is important for such platforms, from climate to public health. For the Independent International Panel on AI, engagement with social scientists will be important for understanding the societal effects of AI. There is growing research across social scientific disciplines on the effects of AI on our societies, languages, cultures and humanity. This research should not be ignored; it should be assessed on its own merits by experts in those fields so that it becomes digestible for those making decisions and can sit equally alongside other forms of knowledge.

Third, how do these interfaces manage the growing volume of scientific evidence to be assessed? Many science-policy interfaces are faced with the challenge of an increasingly large body of evidence and knowledge. This is especially the case for issues whose research fields span multiple disciplines. In the case of AI, it means ensuring experts from an appropriate range of fields are included and that they are effectively resourced to manage their workload. Similarly, the methodology for the knowledge synthesis of science-policy interfaces must take into consideration where knowledge and evidence are located. Knowledge is not only housed in peer-reviewed journals, but in communities and among everyday people. It is also found within the private sector, where it may be difficult to access.[14] Efforts must therefore be made to ensure a broad survey of existing evidence.

At the moment, several new panels may be considered, including those providing global consensus on quantum technologies, outer space science and technology, synthetic biology, neurotechnology and geoengineering. Quantum technologies, for instance, are at a critical juncture between early stages of development and a transformative leap. It can help facilitate breakthroughs across a variety of fields, including the discovery of drugs and the further development of AI, but it may also exacerbate the risks of AI, break encryption systems and increase technological divides. A scientific panel on quantum technologies could help inform policymakers about the impact of quantum technologies, while providing a platform for interdisciplinary coordination between scientists and policymakers.

Likewise, a scientific panel on science and technology in outer space could help address existing challenges such as data collection while advancing sustainable solutions for orbital debris and equitable resource use in space. A panel for synthetic biology could help clarify risks, benefits and oversight mechanisms, while fostering trust and transparency in a rapidly evolving domain; whilst a panel for neurotechnology could help promote ethical governance and inclusive oversight through the inclusion of multi-stakeholder perspectives and integration of human rights concerns. Similarly, a scientific panel on geoengineering could help address the issue of unresolved consensus by clarifying risks, governance gaps and ethical considerations while emphasizing research and transparency before large-scale deployment.[15]

The AI Panel will face numerous challenges, due largely to the unique and evolving nature of the technology itself. Furthermore, the work of experts will strongly inform future directions and opportunities for other scientific panels.

The accelerating pace of technological development has made the systematic organization, evaluation and communication of scientific knowledge a central requirement of global governance. As this paper has shown, scientific consensus mechanisms – whether long-standing bodies like UNSCEAR and the IPCC or emerging entities such as the Independent International Scientific Panel on AI – play a critical role in stabilizing policymaking in times of rapid change.

14 Jen Iris Allan and others, "Rethinking the Science-Policy Interface for Chemicals, Waste, and Pollution: Challenging Core Assumptions", *Global Environmental Change* vol. 92 (July 2025). Accessible at https://doi.org/10.1016/j.gloenvcha.2025.102995.

15 The Royal Society, "Geoengineering the climate: Science, governance and uncertainty". Accessible at https://royalsociety.org/news-resources/publications/2009/geoengineering-climate/.

If scientific consensus mechanisms are to remain credible and useful, they will need to embody three principles. First, they must maintain independence and avoid prescriptive policy-making while ensuring their outputs are directly applicable to decision contexts. Second, they must expand their epistemic base by incorporating social science, local knowledge and private-sector insights in ways that preserve integrity and avoid conflicts of interest. Third, they must develop new methods for managing unprecedented volumes and varieties of scientific evidence, recognizing that knowledge now circulates across academic, industrial and community settings.

The AI Panel's mandate reflects an important institutional innovation, one that will require continuous adaptation if it is to keep pace with the capabilities, risks and societal transformations that AI will generate.

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