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Research Report

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Strategic Cooperation on AI

Core Functions

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About This Report

As artificial intelligence (AI) advances and as its global impacts deepen, strategic cooperation among states and other actors becomes increasingly important. This report examines what functions such cooperation could serve and how those functions are currently implemented in other domains. It identifies three objectives that strategic cooperation on AI could advance (improving understanding of AI capabilities and risks, promoting reliable AI development while managing proliferation, and preparing to mitigate and respond to harms) and four core functions likely to be relevant across a range of possible futures (research, standard-setting, monitoring, and verification).

To ground this analysis, the report examines how 17 existing international organizations implement these functions, drawing out patterns and implementation insights. The functions identified are not tied to any particular institutional form; they can be implemented through formal international organizations, multilateral or bilateral arrangements, ad hoc coalitions, or public-private mechanisms.

This report is intended for policymakers, AI researchers, and other stakeholders working to advance effective strategic cooperation on AI.

Center on AI, Security, and Technology

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Summary

Issue

Artificial intelligence (AI) technologies are rapidly advancing and have the potential to significantly affect how states and other actors acquire, maintain, and use power. These technologies may offer significant benefits, such as accelerating scientific and technological progress, but may also pose challenges that individual states cannot address alone.

The choices that actors in the AI realm—states, firms, groups, individuals—make will have implications for other actors around the world. The dynamics among various stakeholders and the inherent uncertainty present a set of puzzles for policymakers. How do they promote AI innovation, harness and share AI's benefits, and secure national interests while also managing associated risks?

In this report, we examine how actors might promote beneficial AI development and mitigate risk through strategic cooperation—the arrangements, rules, norms, and processes through which states and other transnational actors coordinate their behavior to advance shared interests. By investigating how existing international organizations perform relevant tasks, we identify key functions that strategic cooperation on AI could serve. The functions we identify are not tied to any particular institutional form; they can be implemented through formal international organizations, multilateral or bilateral arrangements, ad hoc coalitions, or hybrid public-private mechanisms. Our goal is to clarify what cooperative activities might advance shared interests, not to prescribe how they should be institutionalized.

Approach

We reviewed relevant literature on international and domestic AI policy, responsible AI lab and development practices, reliability standards, testing and evaluation, and international competition. We also reviewed relevant scholarship on international relations and publicly available information pertaining to international organizations. Finally, we sought input from RAND and external subject-matter experts with knowledge of AI's technical underpinnings, national security strategy and planning, international relations, and AI policy.

Key Findings

Barriers to Governance

Four potential barriers to strategic cooperation on AI are misaligned incentives, deep uncertainty, competition between states for power and influence, and the inability to make credible commitments to a cooperative effort.

Objectives

Three overlapping categories of AI policy objectives might be pursued through strategic cooperation:

- improving understanding of AI capabilities, implications, and risks
- promoting the development and use of reliable AI and managing the proliferation of highly capable AI
- mitigating and responding to AI-related harms.

Core Governance Functions

Four key functions are likely to be necessary components of effective strategic cooperation on AI: research, standard-setting, monitoring, and verification. Additional supporting functions, such as norm-building, convening stakeholders, information-sharing, forecasting, and agenda-setting, are important enablers of the core functions.

Implementation Insights

We examined how 17 existing international organizations implement these core functions, identifying patterns in how functions are combined and adapted to different contexts. Three insights emerge:

- Functions are rarely performed in isolation; effective cooperation typically involves deliberate combinations of functions tailored to specific objectives.
- The same function can be implemented in substantially different ways, depending on context, the intrusiveness that parties will accept, and technical feasibility.
- Even well-designed functions face implementation challenges; to bridge the gap between function design and effective implementation, organizations have developed mechanisms ranging from capacity-building to reputational pressure.

These examples are not templates to be copied directly for AI cooperation but offer a foundation for thinking about how strategic cooperation on AI might be structured and what pitfalls to anticipate.

Implications

It is important to initiate policy discussions and planning now, despite uncertainties around the trajectory of the technology. This report is intended to inform these discussions. Rather than recommending specific institutional blueprints, we identify a set of adaptable core functions for strategic cooperation on AI and illustrate how these functions are already carried out across diverse domains. This provides a foundation for designing cooperative arrangements that can evolve alongside AI, remain resilient under uncertainty, and help ensure that the development and deployment of AI are reliable, secure, and beneficial.

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CHAPTER 1

Introduction

Applications of artificial intelligence (AI) technologies are likely to change how sovereign states and other entities acquire, maintain, and use power. Recognizing AI's potentially transformative benefits, which span virtually every domain and sector, both commercial and state actors are seeking to accelerate their progress on AI and to leverage AI across military, economic, and other fronts.[1]

Alongside AI's broad, transformative potential, future AI technologies may also introduce significant challenges and risks.[2] These may include the following:

- **Misuse.** AI could be misused by bad actors seeking to conduct a large-scale biological attack;[3] launch debilitating cyberattacks; or manipulate, surveil, control, or oppress human beings on a broad scale.
- **Loss of control.** An advanced AI that does not reliably behave as intended could pursue goals that pose security concerns.[4]
- **Displacement.** AI could automate wide swaths of the economy, leading to widespread unemployment and instability.
- **Concentration of power.** Control of advanced AI could become concentrated in a small number of actors (states, firms, individuals), which could lead to an unchecked concentration of geopolitical, economic, social, and political power.

In this report, we use the term *frontier AI* to refer to highly advanced foundation models with capabilities that could have wide-ranging potential impacts, including both opportunities and risks.[5]

These potential impacts are global; individual states cannot ensure positive outcomes simply by making good choices in shaping their domestic AI pursuits. And the choices individual actors—states, firms, groups, individuals—make will have implications for allies, partners, competitors, and other actors around the world. These dynamics and their inherent uncertainty present a set of puzzles for policymakers. How do they promote AI innovation, harness and share AI's benefits, and secure national interests while also addressing associated challenges and risks?

States have a range of strategic choices for addressing these questions, including deciding which objectives to pursue and how to pursue them.[6] **In this report, we examine how state and nonstate actors might address frontier AI-related challenges and promote beneficial outcomes through strategic cooperation—**

[1] Matheny, "Challenges to U.S. National Security and Competitiveness Posed by AI."

[2] Critch and Russell, "TASRA."

[3] Amodei, "Oversight of A.I."

[4] Center for AI Safety, "Statement on AI Risk"; Bengio, "How Rogue AIs May Arise."

[5] Anderljung et al., "Frontier AI Regulation: Managing Emerging Risks to Public Safety."

[6] For example, states are considering whether to deliberately promote growth and development of AI-relevant industries and sectors, such as chip design and fabrication; promote AI reliability and prevent harm; protect civil rights and liberties; mitigate economic disruption; prevent rivals from developing, acquiring, or using AI; and share AI's benefits. To advance these

the arrangements, rules, norms, and processes through which states and other transnational actors coordinate their behavior to advance shared interests.[7] Within strategic cooperation, we focus on international institutions as a source of insight because they provide tested examples of how cooperative functions can be implemented to address complex global challenges.

State actors have unique capabilities that make them pivotal in promoting the benefits and addressing the risks of frontier AI. These capabilities include legislative and regulatory power; access to established international institutions and diplomatic channels; and control or influence over the significant resources and critical infrastructure on which AI development and deployment depend. States can leverage these tools as incentives (carrots) and coercive mechanisms (sticks) to promote the beneficial development and use of AI. State actors, however, are not the only ones who matter for AI policy. Multinational technology firms are driving frontier AI research and development, and much technical and policy work is underway within civil society groups and academic institutions. These entities can provide essential expertise and perspectives that complement state-led efforts, making their inclusion in international efforts vital for comprehensive and effective cooperation.

Both state actors and nonstate actors play an important role in building a foundation for AI policy at the local, intrastate, and interstate levels. We focus on international cooperation as a complement to domestic law, regulation, and policymaking because AI development and its impacts transcend national borders, requiring coordinated global action to address transnational issues and prevent regulatory arbitrage in which developers shift to laxer jurisdictions.[8] Moreover, international cooperation may be useful for managing competitive dynamics between countries.

Objective

In this report, we aim to inform AI policy discussions by examining and drawing inferences from how established international institutions perform key cooperative functions. The objective is to provide policymakers, AI policy researchers, and other stakeholders with a deeper understanding of the important functions that strategic cooperation could serve to promote beneficial outcomes and how such functions are implemented in other domains. Specifically, we sought to understand the following:

- What primary barriers exist to meaningful international coordination on AI policy, and how can they be overcome?
- What key objectives in AI policy could international coordination achieve?
- What cooperative functions within an international effort could promote identified objectives?
- How do existing international organizations implement these functions?[9]

objectives, states are considering a range of domestic legal, regulatory, and policy approaches and options for international cooperation, such as establishing international norms and standards for AI reliability or constraints on particular uses.

[7] Throughout this report, we use *strategic cooperation*, *international cooperation*, *international coordination*, and *collaboration* interchangeably to refer to joint efforts among governments to advance shared AI policy objectives.

[8] Compare efforts to coordinate on a global minimum corporate tax rate—in the absence of coordination, firms may seek to avoid onerous regulations by relocating or shifting their profits to friendlier jurisdictions, which places a limit on the tax rate a state can unilaterally impose. Coordination at least promises to solve the problem by preventing states from undercutting one another to attract more firms. See World Economic Forum, "What Does the OECD Global Minimum Tax Mean for Global Cooperation?"

[9] States can coordinate their behavior through bilateral and multilateral agreements outside formal international organizations, and the functions that we identify could be built into agreements of that sort. We focused our research on international

This analysis complements existing policy literature, which has proposed functions, structures, and institutional models for frontier AI policy.[10] Many recent proposals have explored whether a particular institution might be translated for AI, examining such concepts as establishing AI equivalents of the International Atomic Energy Agency (IAEA) or the European Organization for Nuclear Research (CERN).[11] Others, however, have suggested that it will not be possible to translate a single institutional construct from another domain to AI, or to guide AI development through a single institution because

> [t]he challenges that AI presents are too multifaceted, the relevant actors too varied, and the geopolitical situation too complicated for any one global body to tackle by itself. Instead, many expect the emergence of overlapping institutions designed to advance and govern specific uses and impacts of AI.[12]

It may be too soon to ask whether a particular institutional construct offers an apt analogy for international cooperation on AI because of the deep uncertainties surrounding these technologies and their future trajectories. We do not yet fully understand the capabilities of existing AI models and how they can be used and misused.[13] As AI continues to advance rapidly, it is difficult to forecast the nature, pace, and limits of future developments. Although it is possible to extrapolate from recent scaling trends, no one can say with certainty whether and when specific advanced capabilities will be achieved, such as automated scientific research. It is not yet clear how future technologies may be leveraged for economic, scientific, and national security advantage; whether the first actor to do so will have a permanent first-mover advantage; or whether various hypothesized risks will manifest.[14]

Given these uncertainties, it may be premature to prescribe specific arrangements for AI cooperation in detail. There is, nonetheless, critical work to be done to explore options and lay the foundations of strategic cooperation. In this report, we aim to contribute to this thinking by identifying four critical cooperative functions that are likely to be relevant in a range of possible futures. To offer insights into how these functions are currently implemented and combined, we examine how 17 existing international organizations perform these functions across various domains, highlighting the nuances and variations in execution. This analysis explores the diverse objectives each function serves and illustrates how different combinations of these functions manifest in existing institutions.[15]

The functions we identify are not tied to any particular institutional form. They can be implemented through formal international organizations, bilateral arrangements, multilateral coalitions, or hybrid public-

organizations in part because there is so much more publicly available data pertaining to them than to bilateral and multilateral agreements.

[10] Maas and Villalobos, "International AI Institutions"; Trager et al., "International Governance of Civilian AI."

[11] On proposing an IAEA for AI, see Altman, Brockman, and Sutskever, "Governance of Superintelligence." On proposing a CERN for AI, see Sastry et al., "Computing Power and the Governance of Artificial Intelligence"; Brundage, "My Recent Lecture at Berkeley and a Vision for a 'CERN for AI'"; and Sargent et al., *Assessing the Value of a CERN-Like Multinational Research Organization for AI*.

[12] Klein and Patrick, "Envisioning a Global Regime Complex to Govern Artificial Intelligence."

[13] Anthropic claims straightforwardly that "it is not currently possible to truly upper-bound the capabilities of generative models" (Anthropic, "Anthropic's Responsible Scaling Policy"). Current AI evaluation methods "make it exceedingly difficult to build . . . an understanding [of model capabilities]" (Burnell et al., "Rethink Reporting of Evaluation Results in AI").

[14] We return to these issues in Chapter 2.

[15] Suggesting that research is needed to analyze compatibility between different institutional functions, see Maas and Villalobos, "International AI Institutions."

private mechanisms. Our goal is to clarify *what* cooperative activities might advance shared interests, not to prescribe *how* they should be institutionalized.[16]

Approach

To conduct this analysis, members of our team with expertise in qualitative research methodologies, including legal and policy research; national security strategy, policy, and plans; AI policy; U.S. interagency policymaking processes; and technology competition reviewed relevant literature, including the growing literature on international and domestic AI policy, responsible AI lab and development practices, reliability standards, testing and evaluation, and international competition. We supplemented this literature with relevant scholarship on international relations and publicly available information on international organizations. Using a snowball approach, we reviewed reference lists from materials obtained through the initial literature review and identified additional sources that did not appear in our original search.

Finally, we sought input from five RAND and external subject-matter experts with knowledge of AI's technical underpinnings, national security strategy and planning, international relations, and AI policy. We had unstructured, open-ended discussions with these subject-matter experts to seek relevant insights to inform our approach and analysis, including input from colleagues with relevant expertise to determine whether any critical sources were missing. These discussions provided useful foundational context on AI technology and policy.

Limitations

The report focuses specifically on strategic international cooperation to advance shared interests and mitigate potential risks of frontier AI, a subset of the broader landscape of challenges and opportunities posed by AI described earlier. **We evaluated a broad set of institutions, challenges, and core functions and prioritized those that are relevant across a wide range of potential futures. We offer more explanation of our prioritization in the relevant sections.** We sought to examine real-world examples from a variety of domains but do not specify whether or how these examples could be adapted to the context of AI. Our research focuses on cooperation between states and does not explore the important role of other stakeholders, such as private-sector corporations and civil society organizations.

There are several methodological limitations. We relied principally on literature review and expert engagement but did not conduct interviews or collect additional nonpublic data relating to the organizations surveyed.

Organization of This Report

The remainder of this report consists of five chapters:

- Chapter 2 examines the policymaking context and identifies four barriers to strategic international cooperation on AI, including the many deep uncertainties that will be important drivers of whether and what kind of AI policy may be feasible and sensible.

[16] Maas and Villalobos, "International AI Institutions."

- Drawing on the literature, we identify potential AI policy objectives that may require international coordination in Chapter 3.
- Chapter 4 addresses functions that could be relevant for international AI cooperation in a range of potential futures.
- Chapter 5 presents a deeper dive into a subset of functions that are relevant for cooperation on frontier AI—which we refer to as *core* functions—to understand how existing international organizations implement these functions.
- Chapter 6 presents our conclusions.

The appendix provides additional information on specific organizations that perform one or more core functions.

CHAPTER 2

Barriers to Strategic Cooperation on AI

International cooperation will be crucial for addressing some of the most significant risks that advanced AI may pose. Given the potentially transformative civilian and military applications of these technologies, however, cooperation and coordination among states and other actors will not be easy. This chapter draws from the nascent literature on AI policy to examine barriers to meaningful international coordination on AI, including the deep uncertainties relating to AI technologies and their implications.

The Policymaking Context

Before delving into specific barriers, it is essential to understand the broader context in which international cooperation on AI must operate.

The principle of state sovereignty means that participation in a new international cooperative framework is voluntary.[1] The existing international order is founded on the principle of state sovereignty, which affirms each state's right to govern within its borders without undue external interference.[2] Consequently, there is no supranational actor or law that can force a state to behave a certain way: International cooperation works only when states voluntarily choose to participate, and the decision to participate is revocable.[3]

Moreover, although no overarching international law forces states into specific associations, it is common for states to use economic and diplomatic leverage to encourage and incentivize the participation and compliance of others. Therefore, designers of an international organization must consider the extent to which its proposed powers and structure will affect prospective members' willingness to join, the organization's ability to make decisions and take action, and members' willingness to promote and comply with the organization's norms and requirements.

Meaningful international coordination on AI hinges on states' willingness to voluntarily engage in actions that may limit their autonomy. These actions could include sharing sensitive information about AI capabilities and research, limiting development of potentially harmful AI technologies, restricting deployment of and access to advanced AI systems, and adhering to collectively established standards and protocols.

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[1] The only exceptions to this voluntary international framework are customary rules of international law called *jus cogens*. These customary norms are mandatory and supersede any treaties or other law without being subject to state ratification. Jus cogens norms include the prohibition of egregious actions, such as crimes against humanity, genocide, slavery, and human trafficking (Cornell Law School, Legal Information Institute, "Jus Cogens"). Customary law, along with other obligations of international law (including humanitarian law, trade law, treaties, and regulations for members of international organizations, such as the United Nations [UN]), may place some constraints on actors who wish to remain active and respected members of the global community.

[2] Singh, *The Tripartite Realist War.*

[3] Theoretical perspectives on state participation in international organizations diverge: Some argue that states participate to shape and constrain other actors; others view international organizations as a tool for fostering predictability and mutual responsibility among states (Singh, *The Tripartite Realist War*).

Barriers

Given the context just described, we identified four potential barriers to strategic international cooperation on AI: misaligned incentives, deep uncertainty, competition between states for power and influence, and the inability to make credible commitments to an international cooperative effort.

Central Barrier to Strategic International Cooperation: Misaligned Incentives

The central barrier to such coordination is the misalignment of states' perceived incentives. Although global cooperation on AI policy could lead to better outcomes for all, individual states may be tempted to prioritize strategic or economic advantages. This creates a collective action problem, in which national interests diverge from the global optimum. The situation may be described as a *tragedy of the commons*, in which many actors pursue near-term gains—such as by aggressively deploying increasingly advanced AI systems in sensitive contexts—in ways that ultimately degrade reliability, mutual trust, or shared benefits for everyone.[4]

States may perceive advanced AI capabilities as crucial for their own national security and economic competitiveness and, thus, might conclude that the prospective benefits of AI development outweigh long-term risks.[5] This incentive misalignment can lead to suboptimal global outcomes in which AI development and deployment take precedence over appropriate mitigation of risks. For example, a state might refuse to share information about potential AI risks or techniques for enhancing reliability to maintain a strategic advantage. Or a state might engage in a race to the bottom, underinvesting in AI reliability and security to prioritize rapid AI deployment to gain economic or military advantages.

Secondary Barriers: Root Causes of Misaligned Incentives

To address the challenge of misaligned incentives, we must understand its root causes, which point to three other barriers.

Deep Uncertainty

One significant caveat for this report, and for much of the work in the AI policy space, is that the current and future trajectory of AI and its implications across domains and for the geopolitical balance of power are deeply uncertain. We do not yet fully understand the capabilities of existing AI models and how they can be used and misused. As AI continues to advance rapidly, it is difficult to forecast the nature, pace, and limits of future developments; their benefits; and their associated risks with any confidence. We do not yet know how to effectively align advanced AI systems with user instructions or intended objectives.[6]

Decisionmaking in the context of deep uncertainty is challenging. And there are many layers to the uncertainties surrounding AI.

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[4] For classic literature on tragedy of the commons, see Hardin, "The Tragedy of the Commons." For policy solutions for the tragedy of the commons, see Ostrom, "Coping with Tragedies of the Commons." For tragedy of the commons and AI, see LaCroix and Mohseni, "The Tragedy of the AI Commons."

[5] Ho et al., "International Institutions for Advanced AI," p. 2: "[T]he significant geopolitical benefits of rapid AI development decreases [sic] the likelihood of adequate AI governance without international cooperation."

[6] When announcing its now-disbanded superalignment team, OpenAI put it bluntly: "Currently, we don't have a solution for steering or controlling a potentially superintelligent AI, and preventing it from going rogue" (Leike and Sutskever, "Introducing Superalignment").

Uncertainty About AI Capabilities, Its Implications, and Associated Risks

As we will discuss further in Chapter 3, we do not fully understand the capabilities of existing AI models, the future trajectory of AI models, how quickly AI capabilities will advance, or how far they will extend. We do not know how AI will affect the economy, scientific and technological innovation, and social structures. We do not yet understand how AI systems will be used in national security–relevant applications or how these systems will affect the balance of power between states. We do not know if or when hypothesized risks may manifest.

On one end of the spectrum, some AI experts argue for the possibility of serious risks, such as the malicious use of AI to cause harm through such actions as bioterrorism or surveillance.[7] On the other end of the spectrum, skeptics argue that current rates of capability gains from AI scaling are unlikely to continue and that little evidence suggests that open foundation models are more dangerous than closed models.[8]

Without a shared understanding of the technology, its military and commercial value, and the associated risks, states may disagree on the necessity and appropriate scope of cooperative measures. Uncertainty about the trajectory of AI development also complicates efforts to devise durable international frameworks because technological surprises could quickly render agreements obsolete.

Uncertainty About Technical Solutions to Reliability and Security Problems

Even if the risks AI poses could be accurately assessed, we do not yet know whether it is possible to effectively control advanced AI systems to follow user instructions and intended objectives. Once an AI model has been trained, it consists of digital files that can, in principle, be copied and distributed much like other large data files.[9] This makes tracking and controlling the proliferation of potentially harmful AI systems extremely difficult. Moreover, there is often a low barrier between an AI system designed for beneficial use and one that can be directed toward harmful ends. Well-intentioned technical safeguards can be quickly stripped away.[10]

Competition Between States for Power and Influence

Sovereignty, national interest, and uncertainty about geopolitical and economic implications also contribute to misaligned incentives.

Power Dynamics

The impact of AI on national power dynamics is highly uncertain. It is unclear whether there will be significant first-mover advantages from AI development that could disrupt international relations. If states or corporations believe that a first-mover advantage exists (irrespective of whether it actually manifests), they may be incentivized to prioritize being first to develop and deploy advanced systems without assurance of their reliability or security.[11] The dual-use nature of AI further complicates international cooperative efforts: The same underlying AI technologies can often be applied to both civilian and military ends. This dual-use dilemma means that states must weigh security concerns against economic and social priorities in formulating their approaches to AI, which can lead to vastly divergent national policies.

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[7] Hendrycks, Mazeika, and Woodside, "An Overview of Catastrophic AI Risks."

[8] Narayanan and Kapoor, "AI Scaling Myths"; Bommasani et al., "Considerations for Governing Open Foundation Models."

[9] Sastry et al., "Computing Power and the Governance of Artificial Intelligence."

[10] Zhan et al., "Removing RLHF Protections in GPT-4 via Fine-Tuning." Reinforcement learning from human feedback (RLHF) protections can be removed with a very small amount of posttraining.

[11] Hendrycks et al., "Unsolved Problems in ML Safety."

Economic Implications of AI

The economic implications of AI are also murky, with debate about the technology's potential to drive growth, automate jobs, and reshape global trade and investment flows.[12] Some economists have suggested that future AI could drive explosive economic growth.[13] Some AI experts believe that AI may be able to perform, more or less, all economically valuable tasks at least as well as a human within decades, if not years.[14] Countries and companies are, therefore, racing to develop and deploy AI to capture these benefits. Any delay in development caused by regulation could be incredibly costly. States with more-advanced domestic AI industries may seek to shape international policy to shore up competitive advantages. In the face of substantial uncertainty about the economic and geopolitical stakes of AI technologies, states have powerful incentives to prioritize their national interests over international commitments and may be tempted to renege on commitments if the states perceive a strategic advantage in doing so.

Lack of Shared Priorities, Values, and Ethics on AI

The international community's ability to cooperate on AI is further hampered by a lack of shared priorities, values, and ethics surrounding the technology. Across different cultures and political contexts and within their own borders, states have competing views on which objectives to promote and how to advance particular objectives. Liberal democracies may prioritize individual privacy, human rights, and democratic principles in approaching AI policy; authoritarian states may seek to leverage the technology to support regime objectives, including its use for surveillance and social control. Bridging such divides will be difficult.

Inability to Make Credible Commitments to International Cooperation

AI development is more difficult to monitor than some other technologies that have clear physical signatures, such as radiation emissions. Much of the cutting-edge AI development occurring around the world is taking place in private laboratories and digital environments shielded from outside scrutiny. Today, large-scale AI training runs require large numbers of specialized chips, consume significant amounts of energy, and mostly occur in clusters rather than being distributed across multiple locations. Although large data centers can potentially be identified and monitored using geospatial intelligence, it is difficult to distinguish between data centers used for AI and those used for other purposes.[15] Significant advancements can occur without visible external signs; once developed, AI models can be copied and distributed digitally. Although computational power (*compute*) offers promising avenues for monitoring and verification of compliance with voluntary commitments or international standards,[16] compute-based approaches will require technical development, industry cooperation, and international coordination and have not yet been implemented.[17]

Without effective and durable monitoring and verification mechanisms, states may not be willing to commit to a cooperative effort or be able to *credibly* commit because they may not be able to demonstrate

[12] For a discussion on how AI automation may accelerate economic growth, see Erdil and Besiroglu, "Explosive Growth from AI Automation."

[13] Trammell and Korinek, "Economic Growth Under Transformative AI"; Briggs and Kodnani, "The Potentially Large Effects of Artificial Intelligence on Economic Growth."

[14] A survey of AI experts gave 2047 as the median estimate of the first year in which there will be a 50 percent chance of human-level AI. Significantly earlier estimates are not uncommon. See Grace et al., "Thousands of AI Authors on the Future of AI."

[15] Sastry et al., "Computing Power and the Governance of Artificial Intelligence."

[16] For an explanation of how hardware-enabled mechanisms could provide a basis for policy, see Sastry et al., "Computing Power and the Governance of Artificial Intelligence."

[17] Baker et al., "Verifying International Agreements on AI."

their compliance with agreed-on norms or standards.[18] This may undermine trust, potentially leading to a breakdown in cooperation or a reluctance to enter into meaningful agreements in the first place.

Current State Cooperation

Despite these barriers, some state cooperation and coordination relating to AI has already occurred or is progressing. The AI summits hosted in Bletchley Park (November 2023), Seoul (May 2024), and Paris (February 2025) have convened international governments, AI companies, civil society groups, and researchers. The European Union cooperated to adopt the AI Act in 2024, which provides a comprehensive legal framework on AI and has led to further cooperation in developing the code of practice.[19] In April 2024, the United States and the United Kingdom signed a memorandum of understanding to work together on developing tests for advanced AI models.[20] This was followed in November 2024 by a convening of the International Network of AI Safety Institutes, which includes Australia, Canada, the European Union, France, Japan, Kenya, the Republic of Korea, Singapore, the United Kingdom, and the United States.[21] Cooperation outside traditional partnerships has also occurred; in May 2024, the United States and China held closed-door talks in Geneva to discuss the risks AI poses.[22] These instances of international collaboration suggest that, although barriers to cooperation pose significant challenges, many states have an interest in cooperation and collaboration.

Conclusion

The barriers to international cooperation on AI are formidable, rooted in the complex interplay of deep uncertainty, state sovereignty and competition between states, and states' inability to make credible commitments to an international cooperative effort. States may have difficulty agreeing on appropriate policies and may be tempted to prioritize short-term national interests over long-term global benefits.

Given the range of challenges and risks that some AI experts deem plausible in the near future, however, the stakes are high. Unrestrained competition—that is, a world in which private-sector AI labs, states, and others race toward advanced AI—may present substantial risk because these actors each have powerful incentives to discount shortcomings in reliability and security and underinvest in research and measures to address those issues to instead prioritize rapid progress on frontier AI.

Even in a policymaking context characterized by deep uncertainties on many of the characteristics of AI that will be relevant for designing robust international cooperation, meaningful steps can still be taken to mitigate potential risks and shape a mutually beneficial trajectory for AI development. In the next chapter, we explore three key objectives concerning AI development that international coordination could advance.

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[18] Jervis mentions this point in "Cooperation Under the Security Dilemma," p. 168: "Unless each person thinks that the others will cooperate, he himself will not. And why might he fear that any other person would [not cooperate]? The other might not understand the situation, or might not be able to control his impulses . . . or might fear that some other member of the group is unreliable." See also Coe and Vaynman, who argue that "the main impediment to arms control is the need for monitoring that renders a state's arming transparent enough to assure its compliance but not so much as to threaten its security" (Coe and Vaynman, "Why Arms Control Is So Rare," p. 342).

[19] Farrell and Shamir, "An Introduction to Codes of Practice for the AI Act."

[20] U.S. Department of Commerce, "U.S. and UK Announce Partnership on Science of AI Safety."

[21] U.S. Department of Commerce, "U.S. Department of Commerce & U.S. Department of State Launch the International Network of AI Safety Institutes at Inaugural Convening in San Francisco."

[22] Keaten, "Top US and Chinese Officials Begin Talks on AI in Geneva."

CHAPTER 3

Key Objectives of Strategic Cooperation on AI

In this chapter, we begin to examine how, in spite of identified barriers, states and other actors can continue to move forward to promote strategic cooperation on AI. This chapter draws from the growing body of literature on AI policy and expert insights to identify three overlapping categories of objectives that international coordination on AI could advance:

- improving understanding of AI capabilities, their implications, and associated risks
- promoting the development and use of reliable AI and managing the proliferation of highly capable AI
- mitigating and responding to AI-related harms.

In the following sections, we will examine each of these principal objectives. This analysis will lay the groundwork for discussing potential cooperative functions to pursue these pressing objectives.

Improving Understanding of AI Capabilities, Their Implications, and Potential Associated Risks

To reduce the risks advanced AI systems may pose, policymakers and other stakeholders need a **comprehensive and shared understanding** of the systems' capabilities and associated challenges. These shared understandings can serve as

- **A foundation for effective policy responses:** Strategic cooperation requires agreement on what capabilities exist and what risks they pose—without this baseline, states may adopt inconsistent or contradictory approaches.
- **A trust-building prerequisite:** States are unlikely to commit to potentially costly or restrictive coordination measures without a common understanding of the risks that justify such measures.

A wide range of information is potentially relevant for building this shared foundation, including information on the capabilities of current frontier models, the inputs and technical infrastructure required for frontier development, the entities with access to these inputs, the organizations developing new systems, and the trajectories of future technological progress. Yet, collecting and sharing this information faces several obstacles:

- **Information withholding:** Both companies and governments may withhold information to preserve technological advantages. Private developers often guard research closely,[1] and reporting requirements

[1] Compare OpenAI's staged release of GPT-2, culminating with a full release of the model weights (Solaiman et al., "Release Strategies and the Social Impacts of Language Models"), with its more restricted release of GPT-4 (OpenAI, "OpenAI's Comment to the NTIA on Open Model Weights").

vary across jurisdictions.[2] Governments may classify or otherwise restrict AI-related information. This means that information relating to capabilities and risks may not be collected at all or may not be shared.
- **Rapid obsolescence:** AI capabilities advance so quickly that assessments can become outdated rapidly, and sudden advancements can render previous capability and risk assessments irrelevant. Many AI systems, especially large neural networks, exhibit behaviors not fully understood even by their creators. Even with full access to a model's parameters, it may be difficult to predict how it could be used by malicious actors or whether it is capable of spontaneous, undesired actions, such as deceiving users.[3]
- **Emergent properties:** Frontier AI systems often develop emergent properties—capabilities or behaviors that were not explicitly programmed or anticipated.[4] This may result in rapid capability jumps, unanticipated benefits, or risks.[5]
- **Lack of shared benchmarks:** Finally, there is no universally accepted methodology to measure or compare AI systems' capabilities or risks. This makes cross-border assessments challenging.

International coordination can help address some of these challenges. First, relevant information is dispersed globally, across public and private actors. Collaboration broadens access to data needed for robust capability and risk assessments. Second, coordination can reduce information asymmetries by establishing shared benchmarks, reporting practices, or technical evaluation protocols. Even modest efforts at joint information-sharing and standard-setting can lay the foundation for more-ambitious cooperative measures over time.

Promoting the Development and Use of Reliable AI and Managing the Proliferation of Highly Capable AI

To promote the development and use of reliable AI systems, policymakers and other stakeholders must, first, understand what to do—how to develop reliable AI—and then incentivize relevant actors to act accordingly. International coordination is relevant to both objectives.

Developing and Using Reliable AI

Laboratories employ a range of means to develop reliable AI, including testing, evaluation, and RLHF.[6] RLHF can reduce the likelihood of undesirable outputs, but these safeguards are vulnerable. Actors with access

[2] See, e.g., Executive Order 14110, "Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence," and Department for Science, Innovation and Technology, "Frontier AI Safety Commitments, AI Seoul Summit 2024."

[3] Anthropic has noted that "it is not currently possible to truly upper-bound the capabilities of generative models" (Anthropic, "Anthropic's Responsible Scaling Policy"). Researchers at then–ARC Evals (now METR) attach a similar caveat to the evaluations they conducted on GPT-4 and Claude; their evaluations "measure the capabilities of the specific agents we created from the models" (Kinniment et al., "Evaluating Language-Model Agents on Realistic Autonomous Tasks," p. 2), but the same models could be used to create more powerful agents, e.g., through better fine-tuning. So the evaluations "do not upper-bound the risk from a particular model" (Kinniment et al., "Evaluating Language-Model Agents on Realistic Autonomous Tasks," p. 2).

[4] Woodside, "Emergent Abilities in Large Language Models."

[5] Google DeepMind, "Frontier Safety Framework," p. 5, notes that the risks posed by an autonomous model would be "difficult-to-predict."

[6] Department for Science, Innovation and Technology and the AI Safety Institute, "International Scientific Report on the Safety of Advanced AI," pp. 34–40.

to model weights can often circumvent RLHF-learned constraints, either by fine-tuning them away or by manipulating the model's processing at runtime to suppress computations that would ordinarily lead the model to refuse a request for harmful content.[7] Other approaches, such as interpretability, aim to make large models less of a black box,[8] but the science is nascent.[9] Anthropic puts it bluntly: "So far, no one knows how to train very powerful AI systems to be robustly helpful, honest, and harmless."[10]

Even if we had the technical means to develop reliable AI, competition between firms and between states can lead to a race in which reliability is deprioritized in favor of rapid advancement. When investment in reliability comes at the expense of capability advances (slowing it, for example, by siphoning off computing resources for reliability-related research), competitors have an incentive to discount AI reliability to keep pace with each other.

In the absence of coordination or other interventions, unreliable, untrustworthy, or risky AI is likely to be overproduced, and reliable AI is likely to be underproduced. Research into reliable design and implementation of safeguards, for example, could benefit people around the world, potentially reducing the chance that AI systems would cause harm. But that increase in reliability is nonexcludable (reliability research could benefit a wide range of people, not just those who pay for it) and nonrivalrous (one person's being made better off by advances in reliability does not prevent other people from also being made better off). That means that developers and users do not fully internalize the benefits of reliability, do not directly pay a cost for imposing risk on others, and do not incur a benefit from reducing risk to others. The disconnect between those who bear the costs of reliability measures and those who benefit from them means that, without intervention of some kind, we should expect less than the socially optimal amount of reliable development and use of AI. Coordination can shift these incentives, making it easier and more beneficial for individual actors to invest in reliable AI development and use and leveling the playing field so that all must do so.

Managing the Proliferation of Highly Capable AI

The other side of promoting reliable AI development and use is managing the proliferation of potentially harmful AI. Training advanced AI is resource-intensive, which limits the number of actors who can develop the systems. Once a model is developed, however, it can be shared and proliferated easily. Indeed, this is one of the features of so-called open models.[11] Although broad public access to models can be beneficial by enabling others to build on and adapt previous work and allowing companies that could not otherwise train a model to benefit and contribute, widespread **proliferation of advanced models that enable harmful capabilities could pose significant risk**.[12] Managing proliferation requires international coordination on access controls and responsible release practices. Without aligned standards, one jurisdiction's permissive rules or one firm's disclosure could undermine global efforts to contain risks.

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[7] On fine tuning, see, for example, Zhan et al., "Removing RLHF Protections in GPT-4 via Fine-Tuning." On manipulation, see, for example, Zou et al., "Representation Engineering."

[8] For a survey of some techniques, see Bereska and Gavves, "Mechanistic Interpretability for AI Safety."

[9] Department for Science, Innovation and Technology, "International Scientific Report on the Safety of Advanced AI," pp. 34–40.

[10] Anthropic, "Core Views on AI Safety: When, Why, What, and How." According to Bateman et al., "model evaluation remains in its infancy" (Bateman et al., "Beyond Open vs. Closed," p. 6).

[11] Bateman et al., "Beyond Open vs. Closed."

[12] Bateman et al., "Beyond Open vs. Closed"; National Telecommunications and Information Administration, *Dual-Use Foundation Models with Widely Available Model Weights Report*.

Mitigating and Responding to Harms

After adverse events occur, stakeholders must mitigate resulting harms and respond to their aftermath. For example, **companies developing AI could build in technical safeguards, such as a kill switch** to shut down their system in case of an incident or protocols to isolate specific systems.[13] **Mitigation may also take a more defensive form, aiming to improve the resilience of people and systems that could be targeted by AI misuse.** For example, improving various elements of a pandemic response (such as faster vaccine development and distribution) might mitigate harms from AI-facilitated biological attacks.

Another way of addressing harms caused or facilitated by AI systems is to respond to them after they occur. In addition to postevent response measures, preparatory action might be taken before an incident to improve the speed and extent of recovery after an incident. For example, stakeholders could establish response plans and coordination and communication mechanisms. These plans could designate stakeholders' responsibilities in advance of response. Postincident response might involve assessing and repairing damage from a particular event and broader change to systems to better prevent or mitigate harms in the future. For example, the response to the 1986 Challenger disaster involved, on the microlevel, cleanup and recovery of debris and, on the macrolevel, an assessment of the physical and institutional causes of the disaster.[14]

The International AI Safety Report, produced following commitments at the Bletchley Park AI Safety Summit, suggests that several mitigation efforts from biological and nuclear safety processes may be appropriate for AI, including audits, inspections, standardized documentation, redundant defense mechanisms, control-banding, long-term impact assessments, and forecasting. The report also offers more-technical mitigation solutions, such as system reliability engineering, developing assurance cases, and implementing defense-in-depth controls.[15]

While many mitigation measures can be implemented domestically, timely and effective mitigation and response may require international coordination because many of the most serious harms from advanced AI may cross borders. Coordination can help in several ways:

- **Transnational nature of risks:** The impacts of malicious use of AI—such as cyberattacks, disinformation campaigns, and AI-enabled biothreats—can spread rapidly across borders. Without coordination, no single state can effectively contain or respond to these harms.
- **Shared vulnerabilities and spillover effects:** An incident in one jurisdiction may generate consequences for others, such as financial instability, cascading cyber failures, and biological risks. Coordinated mitigation reduces the risk of leaving gaps that expose the wider international system.
- **Pooling resources and capabilities:** Effective response may require specialized expertise, costly countermeasures, or scarce resources (e.g., rapid vaccine development, stockpiled countermeasures, or emergency technical teams). Cross-border coordination enables states to share burdens, expand access, and strengthen global resilience.
- **Harmonizing protocols and authorities:** Differing national standards for technical safeguards (e.g., kill switches or system isolation protocols) or legal authorities could lead to delays or confusion in the midst of an incident. International coordination can clarify in advance who acts, when, and with what authority, ensuring faster and more-consistent responses.

[13] Dalrymple et al., "Towards Guaranteed Safe AI."

[14] Presidential Commission on the Space Shuttle Challenger Incident, "Report to the President."

[15] AI Action Summit, *International AI Safety Report*, pp. 165–168.

Taken together, these functions suggest that **international cooperation for AI mitigation and response will be essential complements to national measures**.

Conclusion

This chapter identified three overlapping categories of AI policy objectives that might be addressed through international cooperation:

- improving understanding of AI capabilities, their implications, and associated risks
- promoting the development and use of reliable AI and managing the proliferation of highly capable AI
- mitigating and responding to AI-related harms.

In the next chapter, we identify cooperative functions through which one or more of these objectives could be advanced.

CHAPTER 4

Core Functions for Strategic Cooperation on AI

To understand how strategic cooperation might address potential benefits and challenges associated with AI, we examined key functions that established international organizations perform. Our goal was to identify a focused list of cooperative functions that can advance the objectives identified in Chapter 3 and that are likely to be relevant in a range of potential futures.

Developing a List of Key Cooperative Functions Performed by International Organizations

We first sought to create a menu of options: a nonexhaustive list of the functions that international organizations perform today. To build this list, we reviewed publicly available materials relating to 43 diverse international organizations and systematically cataloged the actions the organizations undertake to identify a list of 26 distinct functions that international organizations perform, together with examples of organizations that perform each function (in many cases, organizations perform more than one function; not all functions are listed). These functions are listed in Table 4.1.

Identifying Core Functions for Strategic Cooperation on AI

To focus our analysis and narrow this list of functions, we sought to identify cooperative functions that advance AI policy objectives identified in Chapter 3 and are likely to be relevant in a range of potential futures. Although many of the 26 functions might be relevant for strategic cooperation on AI, we focused on four core functions that we deem especially relevant for the objectives identified in Chapter 3. We assessed these functions—research, standard-setting, monitoring, and verification—to be core functions because they are relevant across a wide range of potential futures and are likely to be part of any international cooperation on AI:

- Research is foundational to understanding the technology, forecasting its future development trajectories, understanding potential risks, and developing technical and policy measures to promote the benefits and address the risks of AI and, thus, underpins most other functions on our list.
- Standard-setting is critical to any cooperative effort that wishes to standardize rules, guidelines, or actions among actors (irrespective of the content of the standards).
- Monitoring equips actors with information about the actions of other actors and helps resolve uncertainty, which is important across all potential futures.
- Verification is essential for any cooperative effort that seeks to induce compliance with norms, laws, or standards, thus serving as a core function for any efforts focused on preventing or mitigating potentially harmful uses of AI.

TABLE 4.1

Survey of Functions of International Organizations

Function	Description or Example of Function	Illustrative Examples
Convene members or stakeholders	Gather to share updates, exchange knowledge, and discuss topics of common interest	• World Trade Organization (WTO) • Intergovernmental Panel on Climate Change (IPCC)
Share information or facilitate information-sharing	For example, disseminate information or regular updates to members	• Organisation for Economic Co-operation and Development (OECD) • International Criminal Police Organization (INTERPOL)
Provide access to resources	For example, provide access to infrastructure, materials, equipment, or capabilities	• CERN
Build norms	Provide a forum for discussion and debate to shape agreement on global issues; exert pressure to shape state actions	• Group of Seven (G7)/Group of Twenty (G20) • OECD
Set the agenda for policy formulation and global dialogue	Bring certain issues attention and priority	• G7/G20 • UN Climate Change Conference
Monitor	Gather information and monitor developments	• UN World Food Programme • International Union for Conservation of Nature • International Monetary Fund (IMF)
Forecast	Analyze data and trends to forecast developments and risks	• World Health Organization (WHO) • IMF • International Energy Association
Support research	For example, provide funding or facilitate exchange of technical expertise	• International Council for the Exploration of the Sea • CERN • WHO
Conduct international joint research and development	Measure, track, and forecast progress in a given field; build scientific consensus	• CERN • IPCC
Build capacity	Provide training or technical assistance to member states	• International Energy Agency • OECD
Set standards	Develop, disseminate, and enforce standards or regulations to govern activities that cross national borders	• International Organization for Standardization (ISO) • IAEA
Deliver services or aid	For example, deliver vaccines or food to local communities	• Gavi, the Vaccine Alliance • UN World Food Programme
Receive incident reports	For example, receive a complaint of human rights abuses	• Organisation for the Prohibition of Chemical Weapons (OPCW) • UN High Commissioner for Human Rights
Respond to an incident	For example, mobilize personnel on the ground in response to an incident	• Food and Agriculture Organization • WHO • OPCW
Implement reporting requirements	For example, have member states report on activities and matters of interest	• OPCW • WTO
Register activities, products, or entities	Create a registry of activities, products, or entities in a centralized clearinghouse	• International Maritime Organization

Table 4.1—Continued

Function	Description or Example of Function	Illustrative Examples
Certify activities, products, or entities	Establish and award certifications for activities, products, or entities that meet certain standards and requirements	• Internet Corporation for Assigned Names and Numbers
License activities, products, or entities	Grant permission to engage in an activity	• International Whaling Commission
Investigate incidents	Deploy personnel to ascertain facts on the ground	• OPCW • WHO
Provide verification	Inspect, audit, or verify member states' compliance with requirements and standards	• International Civil Aviation Organization • International Whaling Commission • IAEA
Resolve disputes	Hear arguments, analyze evidence, and issue judgments	• International Centre for Settlement of Investment Disputes • WTO
Blacklist	Name and shame entities to encourage compliance	• Financial Action Task Force (FATF)
Impose penalties for noncompliance	Impose penalties on members that violate agreed-on norms or standards	• FATF
Provide operational support	For example, support the operations of law enforcement regimes in member states	• INTERPOL • World Customs Organization
Ban or prohibit	Ban or prohibit member states from undertaking a certain activity	• OPCW
Provide quality control and assessment services	Assess product quality and programs	• ASTM International

NOTE: The G7 consists of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States (along with the European Union as a unenumerated member). The G20 consists of Argentina, Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, the United Kingdom, and the United States.

Table 4.2 maps these four core functions to the objectives identified in Chapter 3, describing the ways in which the core functions may promote each objective.

The following sections briefly explain how each of the core functions is relevant to addressing opportunities and challenges associated with AI. The functions are explored in much greater depth in Chapter 5. We briefly discuss additional supporting functions at the end of this chapter.

Conducting or Supporting Research

Research can help stakeholders understand AI capabilities and associated risks; understand how to develop reliable AI; and understand how to prevent, mitigate, and respond to harm.[1] Among other things, research is needed to understand potential risks associated with AI, which are difficult to understand and forecast because of the rapid development, system complexity, and emergent properties of AI.[2] Such work may be

[1] The National Institute of Standards and Technology (NIST) argues that "[a] reliable, reproducible science of AI safety is urgently needed to accurately evaluate the capabilities and risks of models and systems and assess the effectiveness of mitigations and safeguards" (NIST, "U.S. Artificial Intelligence Safety Institute").

[2] Bengio et al., "Managing Extreme AI Risks amid Rapid Progress"; Klein and Patrick, "Envisioning a Global Regime Complex to Govern Artificial Intelligence"; Department for Science, Innovation and Technology, "International Scientific Report on the Safety of Advanced AI."

TABLE 4.2

Mapping Core Cooperative Functions to AI Policy Objectives

Key Objectives	Research	Standard-Setting	Monitoring	Verification
Improve understanding of AI capabilities, their implications, and associated risks	Conduct or support research on AI development trends and trajectories, implications, and associated benefits and risks	Establish standards for assessing AI capabilities and potential impacts Standardize risk assessment methodologies for emerging AI technologies	Monitor developments in and deployment of advanced AI[a]	Verify compliance with related standards
Promote the development and use of reliable AI and Manage the proliferation of highly capable AI	Conduct or support research on AI reliability, including developing evaluation methods, conducting evaluation, control, robustness, and assurance (including interpretability)[b]	Set standards for AI reliability[c] Set standards for evaluation Set standards for information security, cybersecurity, operational security, and physical security measures at AI laboratories and data centers[d]	Monitor, track, and register key inputs—resources, materials, or stocks, such as computer hardware, chips, energy (domestic or international)[e] Monitor key activities, such as training runs Monitor AI-relevant workforce and talent[f]	Verify claims about AI inputs, activities, capabilities, and reliability measures Periodically inspect data centers and hardware Inspect and/or audit AI models and/or data centers (domestic and/or international)[g] Verify claims about AI development, deployment, and use[h]
Mitigate and respond to harms	Develop an indicators-and-warnings framework for AI incidents[i] Conduct and support research to develop thresholds for action, such as warning indicators Identify emergency authorities to respond to dangerous and fast-moving AI incidents; fill identified gaps in authorities[j] Conduct and support research to develop technical and human containment options and countermeasures	Standardize indicators and warnings and thresholds for action Set standards for mitigation and response capabilities and protocols	Monitor potentially disruptive AI developments as part of an early warning system	Verify compliance with related standards

[a] Harris, Harris, and Beall, "Defense in Depth," Line of Effort 1; Whittlestone and Clark, "Why and How Governments Should Monitor AI Development"; DPA reporting requirements in Executive Order 14110, "Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence"; Bengio et al., "Managing Extreme AI Risks amid Rapid Progress," pp. 842–845.

[b] Harris, Harris, and Beall, "Defense in Depth."

[c] Harris, Harris, and Beall, "Defense in Depth"; Anderljung et al., "Frontier AI Regulationy"; Bengio et al., "Managing Extreme AI Risks amid Rapid Progress."

[d] Harris, Harris, and Beall, "Defense in Depth," Line of Effort 4; Bengio et al., "Managing Extreme AI Risks amid Rapid Progress.".

[e] Heim et al., "Computing Power and the Governance of AI"; Shavit, "What Does It Take to Catch a Chinchilla?"; Scharre, "Future-Proofing Frontier AI Regulation"; Maas and Villalobos, "International AI Institutions."

[f] For AI talent related to the U.S. government, see Raff, "Growing and Retaining AI Talent for the United States Government."

[g] Harris, Harris, and Beall, "Defense in Depth," Line of Effort 4.

[h] Mittelsteadt, "Artificial Intelligence."

[i] Harris, Harris, and Beall, "Defense in Depth," Line of Effort 2.

[j] Harris, Harris, and Beall, "Defense in Depth"; Schuett et al., "Towards Best Practices in AGI Safety and Governance"; Miotti and Wasil, "Taking Control: Policies to Address Extinction Risks from Advanced AI." According to Harris, Harris, and Beall ("Defense in Depth," Line of Effort 4), "AGI [artificial general intelligence] labs should have and practice implementing an emergency response plan. This might include switching off systems, overriding their outputs, or restricting access."

critical to establishing scientific consensus on AI, which some have identified as a first step toward mitigating risk.[3]

Promoting the development of reliable AI and preventing its misuse will also require technical research. Even if risks were fully identified, and all parties involved were committed to reducing the risks, the existing technical means for doing so are far from perfect. Further research is necessary to improve techniques for designing more-reliable and more-secure AI systems, such as RLHF and general cybersecurity, and techniques for assessing the reliability and security of already-designed systems, such as the tests for the potential for misuse or vulnerability to trojan attacks.[4] Existing techniques are limited. For instance, RLHF does not always achieve the desired results and is vulnerable to being fine-tuned away after the fact; existing model evaluations can detect only a limited range of model capabilities and often test only outputs rather than the underlying processing. AI reliability requires additional research on evaluation methods, control (to ensure that models behave in accordance with users' values and intentions), and interpretability (so humans understand and can explain how an AI model arrives at its outputs), among other things.

Harm prevention requires research as well, although international cooperation may or may not be a suitable context for that research. Even if risks are identified, knowledge may be lacking on how to prevent or mitigate them. For example, although many people are concerned about the risks of AI-generated content being mistaken for human-generated content,[5] tools for preventing that confusion are not readily available. Further technical research into watermarking methods may help prevent such harms.[6] Other avenues for research related to harm mitigation include developing warning indicators, identifying thresholds for action, delineating authorities for emergency response to AI misuse incidents, and developing technical and human AI containment measures and countermeasures.

Standard-Setting

Standard-setting may also be important across many cooperative efforts on AI.[7] For example, standards may improve understanding of AI risk by fostering a common vocabulary and establishing a framework for assessing AI capabilities, impacts, and risk. Standards may be an important means of establishing reliability and security requirements, including best practices for software and hardware.[8] On the software side, standards might lay out best practices for datasets, posttraining measures, and model evaluations. On the hardware side, standards could potentially contribute to monitoring and harm mitigation (e.g., shutoff switches and access controls). Standards may also facilitate response to AI-related harms: Policymakers may achieve a more coordinated and efficient response by standardizing indicators, warnings, and thresholds for action.

[3] For an overview of proposals related to scientific consensus-building, see Maas and Villalobos, "International AI Institutions."

[4] Trojan attacks involve setting up triggers within a model's training data, such that the attacker can manipulate the model's posttraining behavior by inserting the trigger. For some discussion and a method of identifying such vulnerabilities, see, e.g., Hussein, Janakiraman, and AbdAlmageed, "Trojan Model Detection Using Activation Optimization."

[5] One area of concern involves using AI to clone a person's voice. See, for instance, Pistone and Knowles, "AI Phone Scam Mimicking Your Voice Can Now Be Used to Scam Family, Friends, Experts Warn."

[6] For an example of a watermarking method for large language model outputs, see Kirchenbauer et al., "A Watermark for Large Language Models."

[7] Harris, Harris, and Beall, "Defense in Depth," Line of Effort 3; Ho et al., "International Institutions for Advanced AI."

[8] Whittlestone and Clark, "Why and How Governments Should Monitor AI Development."

Monitoring

Monitoring key inputs, actors, and developments provides information about the current state of play, including what state-of-the-art models are capable of, who has access to them, and who is training new models, all of which are crucial for properly identifying risks.[9] As Whittlestone and Clark noted, synthesizing monitoring data can "improve governments' ability to understand this technology and its impacts while also helping to create tools to support early intervention."[10] For example, compute is a physical component with a well-defined supply chain, which in principle could be tracked.[11] The large amount of compute needed to train advanced AI models generally must be hosted in data centers, which are large and noticeable and use a significant amount of energy, thus increasing the potential for monitoring. Knowing who has access to compute and, potentially, how they are using it would help shed light on other, less easily trackable factors contributing to risks.

Moreover, monitoring could promote the development of reliable and secure AI by reducing uncertainty about the progress of other actors and alleviating the dynamics that emerge from actors racing to develop the most-advanced AI systems. When actors do not know their position relative to others in terms of capabilities, reliability, and security, risky action might appear necessary to stay in the lead or to obtain a lead. By contrast, if, through monitoring, all parties had full information about one another's capabilities, actors who were ahead on capabilities would know they could afford to devote some resources to reliability and security, and actors who were behind would know they could not obtain an advantage by underinvesting in those areas.[12] Monitoring key inputs may not only help identify risks but also prevent and mitigate them. This function could involve the establishment of warning systems, so that, for example, if compute goes somewhere unexpected, other actors could take preventative measures. Monitoring could also help identify and disseminate information about incidents as they happen, improving actors' ability to respond.

Verification

Verification ensures adherence to established standards and norms, playing a key role in maintaining credible commitments and ensuring compliance.[13] Verification plays a similar information-gathering and -disseminating role as monitoring and, therefore, solves similar problems. However, although monitoring is primarily aimed at tracking information that would be meaningful even in the absence of international cooperation (e.g., compute flows), verification contributes to understanding by tracking compliance with standards and commitments. For example, Baker suggests that "it would be helpful (though not sufficient) to be able to verify the quantity, location, and integrity of all cutting-edge, AI-specialized chips" to verify international agreements.[14] Other potential efforts, such as export controls or limiting hardware for certain actors, would rely on verification to ensure compliance.[15]

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[9] Whittlestone and Clark, "Why and How Governments Should Monitor AI Development."

[10] Whittlestone and Clark, "Why and How Governments Should Monitor AI Development."

[11] The benefits of compute as a target for governance are laid out in detail in Sastry et al., "Computing Power and the Governance of Artificial Intelligence."

[12] See the discussion of knowledge-sharing to prevent technology races in Stafford and Trager, *The IAEA Solution*. Also note that the relationship between uncertainty and arms races may not be the same in all cases. Under the conditions of the model of the phenomenon discussed in Armstrong, Bostrom, and Shulman, "Racing to the Precipice," pp. 201–206, information, rather than uncertainty, would catalyze an arms race.

[13] Maas and Villalobos, "International AI Institutions."

[14] Baker, "Nuclear Arms Control Verification and Lessons for AI Treaties," p. 37.

[15] For a detailed discussion on hardware restrictions, see Scharre, "Future-Proofing Frontier AI Regulation."

Verification provides an accurate foundation for research, forecasts, and other assessments of AI capabilities and risks. Standards and commitments promote reliability and security only if actors appropriately follow the rules; verification efforts provide the foundation for more-accurate forecasting by ensuring that the standards are working as intended. Furthermore, verification efforts aid in mitigating unwanted behavior by enabling actors to respond to defection and norm violation; actors cannot punish defection if they do not know that it is taking place. Thus, **verification serves as a deterrent to breaking cooperative commitments**. Actors who know that their claims about AI inputs, activities, and capabilities will be verified by a third party, such as through audits of AI models or data centers, are more likely to follow the rules.

Supporting Functions for Strategic Cooperation on AI

Many other functions from the full list of 26 may also be relevant for strategic cooperation on AI. Table 4.3 highlights five supporting functions that we assess are likely to be relevant.

These supporting functions were selected because they provide a foundation for the core activities. These functions facilitate the core functions and, therefore, are likely to occur concurrently with the core functions.

Conclusion

Each of the core functions that we deem particularly important for strategic cooperation on AI—conducting or supporting research, standard-setting, monitoring, and verification—is carried out differently across international organizations. Those considering how to design collaborative efforts on AI might benefit from understanding *how* these functions can be performed and combined with other cooperative functions. Toward this end, Chapter 5 describes how various international organizations perform each of the core functions we have described and closes with discussion of how the five supporting functions shown in Table 4.3 would support the core functions.

TABLE 4.3

Five Supporting Functions Relevant to Strategic Cooperation on AI

Function	Benefits
Building norms	• Supports core functions by encouraging widespread adoption of standards, compliance with verification efforts, and participation in collaborative research[a] • Facilitates the establishment of accepted behaviors and exerts pressure to ensure adherence by backing standards • Bolsters compliance with verification efforts by positioning noncompliance as defection from accepted norms
Convening stakeholders	• Facilitates sharing of updates, exchange of knowledge, and discussion of topics of common interest to support norm- and consensus-building[a] • Fosters collaboration and establishes common understanding of AI opportunities and issues[b] • Can help build trust among actors, which is foundational for the development of monitoring and verification efforts
Sharing information among stakeholders	• Is relevant to all core functions • Supports norm-building, standard-setting, research, monitoring, and verification[c] • Could support research by giving researchers access to helpful data (e.g., about the efficacy of security measures or usage statistics) • Could encourage members to make information that helps shape an appropriate policy response widely available
Forecasting	• Predicts developments in AI capabilities and risks, guiding research priorities, standards, and monitoring efforts • Ensures that cooperative efforts remain relevant and effective in addressing emerging risks and shaping proactive responses to potential challenges[d] • Might predict timeline of likely developments in AI capabilities or reliability measures • Could help shape the focus of international cooperation by indicating which research projects are worth supporting or which standards are worth developing
Setting the agenda for policy discussions	• Focuses stakeholders' attention on particular opportunities and challenges and supports all the other identified governance functions • Dictates which research projects are prioritized and which standards are developed first

[a] Ho et al., "International Institutions for Advanced AI."

[b] Whittlestone and Clark, "Why and How Governments Should Monitor AI Development."

[c] Brundage et al., "Toward Trustworthy AI Development."

[d] Maas and Villalobos, "International AI Institutions."

CHAPTER 5

Executing Core Functions for Strategic Cooperation on AI

We sought to understand how existing international organizations perform the four core functions identified in Chapter 4. In this chapter, we build on 17 profiles of international organizations to help stakeholders as they consider how strategic cooperation on AI might work and the purposes it might serve.

Developing Organizational Profiles

We begin by examining a range of existing international organizations, including both intergovernmental organizations and nonstate organizations, to identify exemplar organizations that perform one or more of the core functions we identified as relevant for strategic cooperation on AI. We focused on organizations that met four criteria, which we assessed to be potentially useful for cooperative efforts on AI:

- **multilateral:** intergovernmental organizations or public-private arrangements that include three or more parties (excluding bilateral or domestic arrangements)
- **technical focus:** organizations that deal with issues or subject matter with a substantial technical or technological component, such as finance, climate, and nuclear arms or other classes of weapons
- **political salience:** organizations that address issues of substantial geopolitical significance or are the focus of more-intense international competition (excluding those for which politics appear less salient)
- **effectiveness:** organizations that are broadly perceived to be effective in carrying out their mandate.

These four criteria align closely with the needs of prospective international cooperation on AI. AI's benefits and risks will cross borders, requiring multilateral engagement. AI's technical nature demands organizations with strong technical expertise. The geopolitical stakes of AI ensure that political salience is essential. Finally, effectiveness is a prerequisite for legitimacy and impact.

We conducted a nonexhaustive search and identified several dozen organizations that met these criteria and that performed one or more of the functions we identified as important for international cooperation on AI. We identified 17 of these organizations for further study, seeking variance in terms of the functions that the organizations perform (note that three of the organizations—the OPCW, WHO, and IAEA—appear in multiple categories). These organizations are listed in Table 5.1.

Organizational profiles for each of these organizations appear in Appendix A. Each profile explains the organization's

- mission and focus
- specific mandate
- formalization and authorities
- functions and how the organization performs each function

TABLE 5.1
Organizations Profiled, by Core Function

Function	Organization Name
Conducting or supporting research	• IPCC • CERN • Institute of Electrical and Electronics Engineers (IEEE) • European AI Alliance • OECD
Standard-setting	• ISO • IAEA • ASTM International • WHO • FATF
Monitoring	• OPCW • World Meteorological Organization (WMO) • WHO • Interagency Expert Group (IAEG) on Sustainable Development Goals (SDGs) Indicators • International Seabed Authority (ISA)
Verification	• IAEA • OPCW • World Bank • IMF • Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)

- governance structure and resources (funding, headquarters location, leadership decisionmaking, policy decisionmaking, staff)
- membership (members; types of members; and relationships with the private sector, civil society, and nonmembers).

Drawing on these examples, in this chapter, we explain how existing international organizations execute the identified core functions. We are not suggesting that these organizational constructs or approaches are perfect models for international cooperation on AI. Rather, we hope that the AI policy community may benefit by understanding how these functions are carried out and combined in existing institutions in other domains.

Core Functions for Strategic Cooperation on AI

Conducting or Supporting Research

Research—the collection, analysis, and interpretation of information—is sometimes the primary function of an international organization. In other cases, research is one of many functions that the organization performs in support of its primary mission.

Some organizations, such as CERN, conduct research internally and produce research as their primary output. CERN is home to the Large Hadron Collider (LHC) and other particle accelerators and detectors, which CERN's physicists and engineers use to engage in cutting-edge research about particle physics.[1] For other organizations, research is one of many outputs. Conducting research is a key activity for the OECD, but

[1] CERN, "Fundamental Research."

that research also helps inform the creation of international standards and development of policy solutions.[2] OPCW, which does not conduct research itself, nonetheless supports research activities through training, workshops, and information exchanges between experts. These activities are all directed toward OPCW's ultimate purpose of developing and applying "chemistry for peaceful purposes" and are secondary to the mandate to implement the Chemical Weapons Convention through monitoring and verification.[3]

International organizations often conduct or support research in conjunction with other functions. We discuss some of the additional functions in the following subsections.

Conduct Research Internally

Some organizations develop the capacity to conduct research using internal staffing and resources. CERN uses its own expert workforce of 1,238 engineers and applied scientists and 82 research physicists to conduct cutting-edge experiments in particle physics, leveraging funding from industrial partners and member states. These experiments are often conducted in collaboration with either visiting fellows or external academic partners.[4] The OECD focuses largely on the collection and analysis of economic data, then promulgates the data in both analyzed and raw form for the use of other organizations. The OECD's research teams work closely with other international organizations and domestic government agencies to gather data.[5] OECD research is published in a vast array of reports, working papers, and other publications.[6]

Support the Conduct of Research Through Facilities or Funding

Some international organizations support external partner organizations or individuals in research by providing resources, such as facilities, funding, and access to data. How organizations provide this support varies substantially. The IEEE, for example, operates a large number of direct-funding mechanisms, ranging from research grants to travel or publication subsidies,[7] and provides funding for emerging ideas.[8] The OECD provides academics general access to the data that its secretariat gathers.[9] CERN provides access to its facilities, including the LHC, to visiting fellows and external researchers through its new Open Science Policy and is committed to the public release of data, results, software, and hardware designs.[10] The IPCC supports research by facilitating the coordination of both volunteer and externally funded researchers to pursue common themes or challenges and ultimately set the agenda for future research.[11]

Build Capacity

Many international organizations that conduct or support research offer training and educational opportunities that are geared toward building the capacity of the scientific community and/or developing the next generation of experts and researchers. Examples include fellowships for promising scientists from developing

[2] OECD, "The OECD: Better Policies for Better Lives."

[3] OPCW, "Preventing the Re-Emergence of Chemical Weapons"; OPCW, "Our Work."

[4] CERN, *Annual Report 2022*.

[5] OECD, "OECD Data Collection Programme"; OECD, "Science, Technology and Patents."

[6] OECD, "Science, Technology and Patents."

[7] IEEE Computational Intelligence Society, "Graduate Student Research Grants."

[8] IEEE Computational Intelligence Society, "Graduate Student Research Grants."

[9] OECD, "OECD Data Explorer."

[10] CERN, "CERN Open Science Policy."

[11] IPCC, "About the IPCC."

countries;[12] summer programs for talented high school students; schools for experienced professionals;[13] and secondment opportunities for academics, scientists, and professionals.[14]

Convene Academic Researchers and Disseminate the Current State of the Art

International organizations disseminate research, either conducted internally or by external experts, to the wider academic community, practitioners, or the general public. The IEEE publishes technical and policy research in more than 200 journals—almost one-third of global technical research output. Additionally, each of the IEEE's 39 technical societies and working groups hosts regular conferences and expert meetings that link experts to policymakers.[15] OPCW leverages regular workshops and training sessions to disseminate the latest research and policy guidance.[16] The IPCC regularly holds dedicated outreach meetings and workshops for policymakers, bureaucrats, and academics at the domestic and regional levels. These events both inform the work of the IPCC's expert groups and socialize their recommendations.[17]

Ultimately, these activities form the core of international organizations' work conducting and supporting research. These functions are necessary to produce high-quality and effective research but are not sufficient. Indeed, many factors internal and external to the organization can affect the quality, both actual and perceived, and usefulness of the research. For example, the political context surrounding climate change has a dramatic impact on how IPCC reports are received.

Standard-Setting

Standards describe a set of best practices or behaviors, often with technical specificity.[18] **Experts develop standards to serve as "a formula that describes the best way of doing something."**[19] Standards may address procedural actions, such as describing a standard operating procedure, or substantive matters, such as best practices for food safety. Unlike laws, standards are voluntary and nonbinding (unless they are incorporated into laws or regulations).

In international cooperation, standards serve several functions. **First, standards facilitate cooperation among actors by creating common systems of language and behavior.** States cannot effectively engage in the globalized international system without standardization; for example, standards produce shipping containers with consistent dimensions, which facilitates transport across jurisdictions. **Second, standards contribute to norm development and the establishment of accepted behavior.** Given their voluntary nature, standards must "seek to convince rather than to coerce."[20] When they succeed, therefore, standards play an important role in shaping accepted norms. **Third, standards provide a basis for making judgments about an actor's compliance with collective behavioral norms.** Even though standards are voluntary, noncompliance may produce negative consequences;[21] disregarding standards may send unfavorable signals about

[12] OPCW, "Achieving Universality."

[13] CERN, "Inspire and Educate."

[14] OPCW, "Achieving Universality."

[15] IEEE, "Societies."

[16] OPCW, "Achieving Universality."

[17] Pathak et al., "Communicating Climate Change Findings from IPCC Reports."

[18] Büthe and Mattli, "International Standards and Standard-Setting Bodies."

[19] ISO, "Standards."

[20] Kerwer, "Rules That Many Use," p. 611.

[21] Brunsson, Rasche, and Seidl, "The Dynamics of Standardization," pp. 613–632.

credibility or cooperation. **Fourth, using technical expertise in developing standards promotes research-driven policy efforts.**

International organizations may develop standards either as a primary output or as part of a larger normative enforcement regime. Some organizations, such as ISO and ASTM International, produce standards as their primary outputs. ISO developed 1,465 standards across technical sectors, such as information technology, mechanical engineering, transportation, and health, in 2023.[22] ASTM developed 170 new standards and revised 1,711 standards in 2022.[23] For other organizations, standards serve as intermediary outputs in service of a larger normative enforcement effort. For the FATF, standards are part of a larger effort that uses research, standards, monitoring, and assessment to reduce money laundering and terrorist financing.[24] Similarly, IAEA's nuclear safety standards function as part of a larger verification and inspection regime to ensure state compliance with nuclear commitments.[25]

International organizations often couple standard-setting with other functions. We survey some of these functions here, focusing on activities directly related to the development and implementation of standards, thus excluding indirectly related activities, such as norm-building:

- **Develop the standards research and technical expertise to underpin the development of high-quality standards.** Some organizations, such as ISO, ASTM, IAEA, and WHO, bring together experts to develop standards. Every organization formalizes standards differently, but the use of consensus-based standards ensures expert confidence in standards.
- **Publish standards.** Once the experts have reached a consensus and once the governing body has approved the standards, the standards must be communicated to a wider audience. Publication may occur regularly or be ad hoc. IAEA produces three sets of safety standard publications for members: the Safety Fundamentals, the Safety Requirements, and the Safety Guides.[26] Some organizations are prolific publishers: ASTM has published over 12,900 standards, and ISO has published more than 25,000 standards.[27]
- **Assist with standard implementation.** The existence of standards matters only to the extent that actors implement them. Therefore, organizations may engage in activities to facilitate the adoption and implementation of standards. Some organizations, such as ISO and ASTM, may provide training, educational materials, or technical assistance for implementing standards. Other organizations, such as the FATF, create guidance and best practices for implementation.
- **Contribute to codifying standards in law.** Although the standards these organizations develop are voluntary and nonbinding, some standards may become binding if incorporated into law. According to the Standards Incorporated by Reference Database, more than 27,000 standards have been "cited or incorporated by reference into the U.S. Code of Federal Regulations."[28] For example, the Environmen-

[22] ISO, "ISO in Figures."

[23] ASTM International, *Beyond Boundaries*.

[24] FATF, "What We Do."

[25] IAEA, "The IAEA Mission Statement."

[26] IAEA, "Safety Standards."

[27] ASTM International, "What Is ASTM?"; ISO, "About ISO."

[28] NIST, "Standards Incorporated by Reference (SIBR) Database."

tal Protection Agency incorporated ASTM standard D4814-21c, which describes fuel requirements for vehicles with spark-ignition engines.[29]

- **Verify, certify, and enforce the implementation of standards.** After publishing standards, some international organizations also verify the implementation of standards. Organizations may certify actors as compliant with standards, such as ASTM's certifications for safety products, cannabis laboratory facilities, and aerospace professionals. Conversely, the FATF engages in peer reviews and publicly shames actors who fail to comply with finance standards by publishing a blacklist and a graylist of countries "with weak measures to combat money laundering and terrorist financing."[30]
- **Assess and revise standards.** Research is critical not just to the development of standards but also to their assessment. Once a standard has been adopted, the organization may wish to research the effectiveness of the standard and may revise the standard as necessary. ISO standards undergo a systematic review every five years to determine whether they require updates.[31]

Ultimately, these activities help organizations achieve the end goal of facilitating adoption. Although creating standards is an important activity, having more standards does not necessarily equate with ensuring that more actors are adhering to the standards. IAEA succinctly summarizes this issue, noting that "the IAEA safety standards are not legally binding on Member States but may be adopted by them, at their own discretion, for use in national regulations in respect of their own activities."[32] Thus, the implementation of effective standards concerning AI depends on norm-building and diffusion, not just on development. Even with this limitation, standards can be an effective tool for addressing AI challenges related to coordination problems and misaligned incentives.

Monitoring

Monitoring is "the process of systematically tracking activities of and actions by institutions, organizations or governmental bodies."[33] International organizations may monitor member states for a variety of reasons, including to track progress on activities; gather data for administrative purposes; and track information that would be useful for understanding compliance with norms, standards, laws, and directives, among others.

The style and practice of monitoring may differ among organizations. McCubbins and Schwartz's typology of congressional oversight provides a useful framework for considering how organizations may use different styles of monitoring. ***Police-patrol oversight*** **refers to active, centralized oversight that constantly surveils external indicators and signals for potential violations.**[34] In terms of monitoring by international organizations, this could resemble the CTBTO's International Monitoring System (IMS), which continuously monitors for seismic activity, sound waves, and radioactive particles that would suggest illegal nuclear explosions.[35] Conversely, ***fire alarm oversight*** **refers to less centralized, less active, and less direct over-**

[29] Environmental Protection Agency, "Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards"; Code of Federal Regulations, Title 40, Protection of Environment; Chapter I, Environmental Protection Agency; Subchapter U, Air Pollution Controls; Part 1037, Control of Emissions from New Heavy-Duty Motor Vehicles.

[30] FATF, "Black and Grey Lists."

[31] ISO, "ISO 9001 Gets Quality Check."

[32] IAEA, "Nuclear Safety and Security."

[33] "Monitoring," in Buhl, *Ripple in Still Water.*

[34] McCubbins and Schwartz, "Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms."

[35] Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (PC-CTBTO), "The International Monitoring System."

sight, in which the overseer "places fire-alarm boxes on street corners, builds neighborhood fire houses, and sometimes dispatches its own hook-and-ladder in response to an alarm."[36] In this model, the international organization develops a system that allows citizens or groups to report developments of concern, such as the reporting mechanisms put in place by the UN High Commissioner for Human Rights that allow victims of human rights abuses to submit a complaint for help.[37] These two models of monitoring need not be exclusive; for example, IAEA continuously gathers monitoring data from state reports, inspections, and other sources, such as satellite imagery, and also monitors reports from third parties about the accuracy of state declarations.[38]

Additionally, organizations carry out monitoring functions in different ways and with different prioritizations. **In some cases, monitoring is at the core of the international organization's mission.** For example, WHO and OPCW exist, respectively, to monitor health developments and chemical weapons.[39] **In other cases, organizations monitor to maintain the effectiveness of their other functions, particularly those related to compliance.** For example, IAEA relies on monitoring to gather information for its core mission of verifying nuclear materials.

Monitoring efforts often offer little value when conducted in a vacuum. Although collecting information about member states' actions is important, most monitoring efforts are undertaken to help understand, influence, and direct state behavior. Therefore, international organizations often pair monitoring with other functions, such as verification, to guide state behavior. **The following subsections survey functions that are often carried out in conjunction with monitoring.**

Verifying

Data gathered through monitoring efforts usually has a purpose, such as identifying and penalizing states that violate their obligations. As we will discuss in detail in the next section, verification efforts are intended to determine compliance with laws, treaties, standards, or norms. Data collected from monitoring activities underpin the verification process and provide the foundation for verification activities. For example, the monitoring data OPCW gathers via reports and inspections are used to verify whether states are adhering to the Chemical Weapons Convention.[40]

Imposing Penalties for Noncompliance

Imposing penalties for noncompliance often occurs together with monitoring and verification efforts. Monitoring the actions of states and verifying whether they comply with their obligations are important functions but lack enforcement capabilities. Organizations may decide to impose penalties for noncompliance as determined by monitoring and verification efforts. For example, the FATF monitors the strength of states' anti–money laundering and terrorist financing regimes and penalizes states with weak regimes by assigning them to its blacklist or graylist, which both shames the violator and encourages other countries to limit their economic activity with the violator.[41]

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[36] McCubbins and Schwartz, "Congressional Oversight Overlooked: Police Patrols Versus Fire Alarms," p. 166.

[37] UN, Office of the High Commissioner for Human Rights, "Reporting Violations."

[38] IAEA, "Information Collection and Evaluation."

[39] See, for example, WHO, "Global Influenza Surveillance and Response System (GISRS)," or its monitoring of the coronavirus disease 2019 (COVID-19) pandemic: WHO, "WHO COVID-19 Dashboard."

[40] OPCW, "Eliminating Chemical Weapons."

[41] FATF, "Black and Grey Lists."

Sharing Information

Although monitoring merely involves collecting information, it is usually important for organizations to share the data themselves or to communicate the relevance of the data. Organizations often release monitoring data to the public or to stakeholders for analysis. For example, the CTBTO shares IMS data, including data on tsunamis, radioactive material, and climate change.[42]

Forecasting

Monitoring data and activities allows organizations to better understand the issue at hand and the actions each actor takes and to forecast future developments. For example, WHO engages in disease monitoring and public health research efforts and also maintains an understanding of key environmental and health policy decisions member states make. Through these functions, WHO can flag risks of emergent pathogens and advise state public health agencies on training and capability investments.

Verification

Verification aims to determine the accuracy of parties' claims or their compliance with laws, treaties, standards, or norms. Although similar tools might be used for monitoring and for verification, the point of each activity differs. Monitoring gathers information and technical data that could be important even in the absence of cooperation (e.g., about technological trends or policy developments). **Verification is the process of using monitoring data to determine whether parties' claims are accurate or whether they are complying with their obligations.** Verification may also be more intrusive than monitoring, although it need not always be. Compare, for instance, what it would take to verify that an AI model was designed in accordance with promulgated standards with what it would take to monitor whether a model was trained at all.

The core component of verification is to determine whether information suggests that parties' claims are accurate or that they are in compliance with their obligations. In some instances, this verification may be relatively objective. For example, IAEA verifies the amount of nuclear materials that a state reports by conducting field inspections, ensuring that the amount that the state has reported is accurate.[43] In other cases, determining accuracy or compliance, even with data collected from monitoring efforts, is subjective and difficult. Although counting the amount of nuclear material a state possesses may be relatively objective (assuming it is not hiding any materials), verifying that the nuclear material is being used for peaceful purposes is more difficult.

Verification plays a critical role in international cooperation. **Transparent assessment of parties' claims or behavior can help facilitate collective action within state governments** (e.g., regulatory coordination), **among parties** (e.g., enforcement of agreements), **and among partners and implementing organizations** (e.g., civil society organizations that implement World Bank projects and financial institutions coordinating through the IMF). Furthermore, shared access to verification results enables coordination in ways that state-based information sources, such as intelligence services, cannot.

Verification establishes a minimum level of information parity enabling actors to coordinate using common information and prevents information asymmetries related to the subject of verification. Some examples include arms-control verification regimes (e.g., IAEA, CTBTO, and OPCW) and economic coordination regimes (e.g., the IMF and World Bank).

Verification can also allow self-assessment by providing external expertise and support to members seeking to audit or improve their capacities to meet standards. For example, IAEA's Regulatory Infrastruc-

[42] PC-CTBTO, "For Researchers and Experts."

[43] IAEA, "Planning, Conducting and Evaluating Safeguards Activities."

ture for Radiation Safety and Nuclear Security assesses radiation safety in countries and identifies gaps in their regulatory infrastructures to meet IAEA safety standards.[44]

Organizations may undertake a range of additional functions in conjunction with verification. Some of these actions include the following:[45]

- **Negotiate agreements on verification parameters.** Members of an organization must agree on the parameters for verification before verification efforts may begin. Examples include IAEA safeguards agreements and CTBTO agreements for IMS station operations.[46]
- **Develop methods and techniques to assess compliance with standards.** Using available data to determine compliance may not always be straightforward; improved methods of analyzing information may need to be developed to better determine whether a norm or standard has been violated. For example, CTBTO prepares operational manuals and equipment to perform on-site inspections.[47] It also develops scientific and technical methods for analyzing data from international sources.[48]
- **Allocate verification resources across responsibilities.** The resources available for verification are finite, so organizations must determine how to properly allocate them. Constant verification efforts may provide assurances that claims are valid or actors are meeting their obligations but are resource intensive. For example, in arms control verification,

  > [t]he designers of any verification system must attempt to balance the military and political consequences of possibly missing some important events against the difficulties of trying to pick the real events out of the noisy background of false ones, as well as the political consequences of possibly responding to false alarms as if they were real.[49]

  IAEA acknowledges that, "[g]iven resource limitations and the need to minimize disruption to facility operations, statistical sampling is often used in nuclear material verification. Items are selected at random and verified by a number of measurement methods."[50]
- **Build capacity of parties to cooperate in the verification process.** Verification can be resource and knowledge intensive. International organizations may assist states that lack the capacity to implement these verification measures on their own. IAEA, for example, provides various kinds of assistance to states to aid in their implementation of safeguards, such as training courses, and guidance on such topics as implementing nuclear security knowledge-management systems.[51]
- **Gather and organize information about member activities.** This activity, which has substantial overlap with the monitoring concept, provides the foundation for assessing compliance with norms, standards, or laws. This aspect of verification varies in frequency and intrusiveness, depending on the organization and the type of information of interest. Almost all international organizations gather information in some form, for example, through periodic inspections or audits of members. This information may be

[44] IAEA, "Advisory Mission on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS)."

[45] This list of verification methods is by no means comprehensive.

[46] IAEA, "Safeguards Agreements"; PC-CTBTO, "Facility Agreements."

[47] PC-CTBTO, "On-Site Inspection Procedures and Methodology."

[48] PC-CTBTO, "Radionuclide Data Processing and Analysis."

[49] Krass, *Verification: How Much Is Enough?* p. 9.

[50] IAEA, "International Safeguards in the Design of Enrichment Plants," p. 6.

[51] IAEA, "Assistance for States"; IAEA, "Nuclear Knowledge Management."

collected through unobtrusive means, such as CTBTO's IMS, which consists of stations and laboratories that constantly search for signs of a nuclear test. Conversely, information-gathering may include on-site inspections to verify compliance with requirements and standards. For example, OPCW's verification division plans and oversees inspections of military and chemical industry facilities to support its mission of achieving chemical disarmament and preventing the reemergence of chemical weapons.[52]

- **Certify or enforce compliance with rules, laws, standards, and norms.** Following the publication of standards, some international organizations also certify actors as compliant with standards or blacklist actors that fail to comply with standards (a loose enforcement mechanism).
- **Release the results of verification procedures.** Once it has conducted a verification, an organization may present results to its leadership and members, the party being assessed, or to the public. The level of information released differs depending on the target and content. IAEA disseminates its annual safeguards implementation reports to its members but publishes only a portion of them online for public use. CTBTO shares data from monitoring stations with member states, including both raw and analyzed data.[53]

Supporting Functions for Strategic Cooperation on AI

In this section, we provide a brief overview of five supporting functions that enable the core functions.

Building Norms

Building norms could involve both facilitating the process of deciding what the norms ought to be (say, by structuring the process for arriving at standards or by providing a forum for stakeholders to deliberate about other norms) and exerting pressure to encourage adherence to established norms. For example, IAEA helped construct norms around nuclear safety culture both by convening international conventions on topics of nuclear safety governance and by pressuring states to improve their nuclear safety cultures through such services as the Independent Safety Culture Assessments and the Safety Culture Continuous Improvement Process.[54] Although it is difficult to punish states that do not observe norms, international organizations that govern particularly sensitive issues have many procedural mechanisms through which they can affect the international reputations of said states, thus using reputational concerns as a vehicle to sustain norms. For example, in response to Syrian forces' use of poison gas in the Syrian civil war, OPCW stripped Syria of its voting rights, thereby reinforcing Syria's diplomatic isolation.[55]

Convening Members or Stakeholders

Members or stakeholders might be convened to ensure that they are aware of research output. For example, one of the primary activities of the IPCC is hosting plenary sessions at least once a year that convene officials and experts from relevant government bodies and research institutions.[56] Doing so allows the IPCC to establish a baseline understanding of effects of climate change on its members. An organization might also bring

[52] OPCW, "Verification."

[53] PC-CTBTO, "Overview of the Verification Regime."

[54] See IAEA, "Safety and Security Culture"; IAEA, "Nuclear Safety Conventions."

[55] Deutsch, "Syria Loses Chemical Weapons Watchdog Voting Rights After Poison Gas Findings."

[56] IPCC, "IPCC Sessions."

together external experts or policymakers to deliberate on possible standards.[57] For example, the OECD convenes technical bodies to develop standards and consults with the public and other stakeholders during the standard-setting process.[58]

Facilitating Information-Sharing

An international organization might also take steps to facilitate members sharing their own data. For example, WHO facilitates the sharing of data related to disease detection, monitoring, and response through its data-collection network. By improving the accessibility of the data, WHO helps member states adopt consistent practices for disease management.[59]

Supporting Forecasting

International organizations support forecasting—analyzing data and trends to anticipate developments and risks—by providing members with resources, data, or analysis. In some cases, the organization itself produces forecasts; the World Meteorological Organization (WMO) develops and shares weather forecasting products with its members.[60] In other cases, the organization provides tools for members to develop their own forecasts, such as WHO's Essential Supplies Forecasting Tool, which enables governments and partners to estimate supply requirements during health emergencies.[61]

Setting the Agenda for Policy Formulation

International organizations often steer the agenda for policy-setting and global discussion of issues toward important topics. For example, the IEEE aims to inform public policy that relates to technological innovation by fostering communication between different groups of technical experts and by publishing research and experimentation results for a wider international audience.[62] Similarly, the IPPC publishes assessment reports meant to disseminate baseline technical and socioeconomic knowledge related to climate change and its impacts, risks, and potential solutions, thereby providing policymakers in member states a menu of options for mitigating the consequences of climate change.[63]

Conclusion

This chapter examined how 17 international organizations execute the core functions identified in Chapter 4—research, standard-setting, monitoring, and verification—along with supporting functions that enable them.

[57] See, for example, ISO's self-description of its process: "Through our members (the national standards bodies in 171 different countries) we bring together experts from all over the world to develop International Standards" (ISO, "What We Do").

[58] See "What Is an OECD Standard?" at OECD, "OECD Legal Instruments."

[59] WHO, "WHO Family of International Classification Network."

[60] WMO, "Model."

[61] WHO, "Essential Supplies Forecasting Tool (ESFT)."

[62] IEEE, "Strategic Plan: 2020–2025"; IEEE, "IEEE at a Glance."

[63] IPCC, homepage.

Several patterns emerge from this analysis. First, organizations rarely perform these functions in isolation. Research informs standard-setting; monitoring provides the data for verification; and norm-building creates the conditions under which standards gain traction. Effective cooperation typically involves deliberate combinations of functions tailored to specific objectives.

Second, the same function can be implemented in substantially different ways, depending on context. Verification, for example, ranges from continuous remote monitoring (as with CTBTO's seismic detection network) to periodic on-site inspections (as with IAEA safeguards) to peer review and public disclosure (as with the FATF's graylisting). The appropriate approach depends on what is being verified, the intrusiveness that parties will accept, and the technical feasibility of detection.

Third, even well-designed functions face implementation challenges. Standards matter only if actors adopt them. Monitoring is useful only if the data inform decisions. Verification deters noncompliance only if there are consequences for defection. The organizations we examined have developed a range of mechanisms—from capacity-building to reputational pressure—to bridge the gap between function design and effective implementation.

These examples are not templates to be copied directly for AI cooperation. The technical characteristics of AI, the structure of the AI industry, and the geopolitical dynamics surrounding AI development differ from nuclear materials, chemical weapons, and international finance. Nonetheless, the accumulated experience of these organizations offers a foundation for thinking about how strategic cooperation on AI might be structured and what pitfalls to anticipate.

CHAPTER 6

Conclusion

Strategic cooperation on AI is no longer hypothetical. The Bletchley, Seoul, and Paris summits have convened governments and AI developers; AI Safety Institutes are operating in multiple countries; and both voluntary commitments and regulatory frameworks are emerging. The question is no longer whether strategic cooperation will occur but whether it will be well-designed—grounded in clear objectives, implemented through effective functions, and structured to remain useful as AI capabilities and risks evolve.

This report offers a framework for thinking through that design challenge. Rather than proposing a specific institutional model, we identified four core functions—research, standard-setting, monitoring, and verification—that are likely to be relevant across a wide range of futures and that can advance key objectives: improving understanding of AI capabilities and risks, promoting reliable AI development while managing proliferation, and preparing to mitigate and respond to harms.

By examining how 17 existing international organizations implement these functions, we sought to surface practical insights about execution. How do organizations balance intrusiveness and cooperation in verification? How do they translate standards into actual adoption? How do they structure research to inform policy without being captured by political pressures? The answers vary across domains, but the patterns are instructive.

Three insights emerged from this analysis:

- **Functions can be combined in different ways to serve different objectives.** There is no single institutional template for AI cooperation. These functions can be performed through formal international organizations, bilateral agreements, ad hoc coalitions, or public-private arrangements—the appropriate structure will depend on the objectives, the parties involved, and the political context. Organizations addressing similar challenges have adopted different combinations of functions, depending on their mandates, memberships, and the nature of the problems they face. Policymakers designing AI cooperation should consider which functions are most critical for their specific objectives and how those functions interact.
- **Verification is foundational but underdeveloped for AI.** Many proposed AI governance frameworks assume the ability to verify claims about capabilities, safeguards, or compliance—yet the technical and institutional infrastructure for AI verification remains nascent. Investing in verification capacity, including both technical methods and agreements on verification parameters, may be a prerequisite for more-ambitious cooperation.
- **Institutional development takes time; groundwork should begin before it is urgently needed.** The organizations we examined developed their functions over years or decades. Convening stakeholders, establishing common ground, and building trust generally precede effective operational cooperation. If AI capabilities advance rapidly, governance capacity built only in response to crises may arrive too late.

This report does not resolve the question of which institutional arrangements are best suited for AI. That determination will depend on how AI capabilities develop, which risks materialize, and how geopolitical

dynamics evolve. Our goal is more modest: to provide a structured way of thinking about the functions that strategic cooperation could perform and to ground that thinking in real-world examples of how such functions are implemented.

We hope this framework proves useful to policymakers, researchers, and practitioners working to ensure that strategic cooperation on AI is not only pursued but pursued well.

APPENDIX

Organizational Profiles

TABLE A.1
ASTM International Functions Overview

Function	How the Organization Performs the Function
Set standards	"More than 30,000 people from 155+ countries create and update standards through ASTM International, one of the world's most respected standards development organizations."
Share information or facilitate information-sharing	"Compass provides access to the most up-to-date standards and research, along with productivity tools for sharing, version comparison, and annotating."
Provide quality control and assessment services	"Through Proficiency Testing Programs and the Cement and Concrete Reference Laboratory, ASTM International offers laboratories worldwide independent quality control and assessment services."
Certify activities, products, or entities	"Through the Safety Equipment Institute and its partnerships with third-party laboratories, companies can certify that products meet specifications and standards, including, but not limited to, ASTM International standards."
Build capacity	"With content from the experts who develop ASTM International standards, more than 300+ on demand and 50+ live courses help employees understand and adhere to those same standards."

SOURCE: ASTM International, *Helping Our World Work Better*, pp. 4, 6, 7.

TABLE A.2
ASTM International Organizational Profile

	Organizational Activities
Mission and focus	"Committed to serving global societal needs, ASTM International positively impacts public health and safety, consumer confidence, and overall quality of life. We integrate consensus standards—developed with our international membership of volunteer technical experts—and innovative services to improve lives."[a]
Specific mandate and missions	Five strategic objectives • "Leadership: Promote focus on public health and safety, expand leadership position in the standards community, and broaden the international use of ASTM products and services. • Global Technical Expertise: Attract and retain technical experts from around the world by creating an intellectually and professionally rewarding collaborative environment that meets participant needs and expectations. • Standards and Technical Content Development: Always be relevant and continuously enhance the technical quality of standards and related content by providing a best-in-class, scalable development infrastructure. • Services Provider: Understand global societal needs and service stakeholders through the integration of innovative products and services. • Organizational Vitality: Provide an organizational culture of service and innovation with the appropriate resources to achieve ASTM's mission—positioned to respond to the changing environment."[b]

Table A.2—Continued

	Organizational Activities
Formalization and authorities	"The American Society for Testing and Materials was formed in 1898, founded by Charles B. Dudley, Ph.D., a chemist with the Pennsylvania Railroad. In 2001, we changed our name to ASTM International."[c]
Activities overview	"Over 12,000 ASTM standards are published each year and can be found in the 80+-volume Annual Book of ASTM Standards or on this website. We also generate and disseminate technical information through our Digital Library, enterprise solutions, training courses, proficiency testing, certification and declaration and Standardization News magazine."[d]
Infrastructure, Governance, and Structure	
Funding	Net assets at end of 2022: US$415,757,000
Funding source(s)	Donations, publication sales (75 percent), laboratory services (15 percent), advanced manufacturing (8 percent), membership fees, investment returns, symposium, contributions[e]
Location of headquarters	West Conshohocken, Pennsylvania
How is leadership decided?	"The direction of the affairs of the Society shall be vested in, and be the responsibility of, a Board of Directors consisting of 25 persons: a Board Chair, two Vice Chairs, 18 directors, the last two living Past Chairs, the Chair of the Finance and Audit Committee, and the President (ex-officio without vote). The Chair, the Vice Chairs and the Directors shall be elected by the members and shall serve for the terms to which they have been elected or until their successors are elected or a vacancy has occurred."[f]
Staffed by	Unknown
Governance	An elected board of directors
Decisionmaking process	"The Board of Directors is empowered to promulgate procedures for the development and adoption of voluntary consensus standards in accordance with the following principles: 7.1.1 Timely and adequate notice of a proposed standard undertaking to all persons known to the Society to be likely to be materially affected by it. 7.1.2 Opportunity for all affected interests to participate in the deliberations, discussions and decisions concerned both with procedural and substantive matters affecting the proposed standard. 7.1.3 Maintenance of adequate records of discussions, decisions and technical data accumulated in standards development. 7.1.4 Timely publication and distribution of minutes of meetings of main and subcommittees. 7.1.5 Adequate notice of proposed actions. 7.1.6 Distribution of letter ballots to those eligible to vote. 7.1.7 Timely and full reports on results of balloting. 7.1.8 Careful attention to minority opinions throughout the process. 7.1.9 Maintenance of records of drafts of a proposed standard, proposed amendments, action on amendments, and final promulgation of the standard."[g]
Membership	
Membership	30,000 members from 155 countries[a,h]
Type of membership	Individuals and organizations[a]
Private-sector and civil-society role	"The high quality of ASTM International standards is driven by the expertise and judgment of members who represent industry, governments, academia, trade groups, small and medium size enterprises, consumers, and others."[a]
How are nonmembers included in or subjected to this organization?	"Today, over 12,000 ASTM standards are used around the world to improve product quality, enhance health and safety, strengthen market access and trade, and build consumer confidence."[c]

Table A.2—Continued

	Organizational Activities

[a] ASTM International, *Helping Our World Work Better.*
[b] ASTM International, "Governance."
[c] ASTM International, "Detailed Overview."
[d] ASTM International, "What Is ASTM?"
[e] ASTM International, *Beyond Boundaries*, p. 35.
[f] ASTM International, "ASTM Bylaws," p. 2.
[g] ASTM International, "ASTM Bylaws," p. 4.
[h] ASTM International, "Membership & Participation Overview."

TABLE A.3

European Organization for Nuclear Research Functions Overview

Function	How the Organization Performs the Function
Conduct international joint research and development	"CERN bridges nationalities and brings different cultures together to work towards a common goal, with the spirit of openness and peaceful collaboration."[a]
Provide access to resources	"CERN's mission is to perform world-class research in fundamental particle physics. The Laboratory provides a unique range of particle accelerator facilities to enable a diverse and compelling scientific programme."[b]
Support research	"Beyond CERN's flagship accelerator, the LHC, the Laboratory has a rich and diverse scientific programme. From the study of antimatter at the antiproton decelerator, to nuclear physics at CERN's longest-running experimental facility, ISOLDE [Isotope mass Separator On-Line]."[b]
Build capacity	"CERN offers a unique environment for learning and training—a rich and stimulating melting pot of people and ideas including exceptional opportunities."[c]
Share information or facilitate information-sharing	"Thematic forums bring together experts from CERN and Member States to exchange information and develop coherent strategies."[d]

[a] CERN, "Bring Nations Together."
[b] CERN, "Fundamental Research."
[c] CERN, "Inspire and Educate."
[d] CERN, "Our Member States."

TABLE A.4

European Organization for Nuclear Research Organizational Profile

	Organizational Activities
Mission and focus	"Our mission is to: • perform world-class research in fundamental physics. • provide a unique range of particle accelerator facilities that enable research at the forefront of human knowledge, in an environmentally responsible and sustainable way. • unite people from all over the world to push the frontiers of science and technology, for the benefit of all. • train new generations of physicists, engineers and technicians, and engage all citizens in research and in the values of science."[a]
Specific mandate and missions	"The CERN Management's vision for the coming years is guided by the above considerations and implemented through three main high-level objectives: • deliver world-class scientific results and knowledge; • increase the return to the Member and Associate Member States in several areas, including procurement, human resources, collaborations on advanced technologies, partnership with industry, and educational opportunities; • strengthen CERN's impact on society"[b]

Table A.4—Continued

	Organizational Activities
Formalization and authorities	At an intergovernmental meeting of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris in December 1951, the first resolution concerning the establishment of CERN was adopted. Two months later, the provisional council was created. In June 1953, the final draft of the CERN Convention was agreed on and signed by 12 new member states.[c]
Activities overview	Conducting research • CERN conducts cutting-edge research in physics. • "Beyond CERN's flagship accelerator, the LHC, the Laboratory has a rich and diverse scientific programme. From the study of antimatter at the antiproton decelerator, to nuclear physics at CERN's longest-running experimental facility, ISOLDE. Experiments at other accelerators and facilities both on-site and off are an equally important part of the Laboratory's activities. Supporting all the experiments is a very strong theory programme, which carries out cutting-edge research in theoretical particle physics."[d] Building capacity • Trains young scientists and engineers; educates high school students and educators through a large variety of programs, fellowships, and scholarships.[e] Sharing information Fosters information-sharing between experts and with member states to help them develop strategic development.[f]
Infrastructure, Governance, and Structure	
Funding	Total 2023 budget: 1.387 million Swiss francs[g]
Funding source(s)	Primarily through member state contributions (1.198 million Swiss francs) but also through associate state contributions, European Union contributions, personnel paid from third-party accounts, knowledge transfer, and other revenue[g]
Location of headquarters	Geneva, Switzerland[h]
How is leadership decided?	"The CERN Council is the highest authority of the Organization and has responsibility for all-important decisions. It controls CERN's activities in scientific, technical and administrative matters. It approves programmes of activity, adopts the budgets and reviews expenditure. The Council is assisted by the Scientific Policy Committee and the Finance Committee. The Director-General, appointed by the Council, manages the CERN Laboratory. The Director-General is assisted by a directorate and runs the Laboratory through a structure of departments."[i]
Staffed by	"CERN's staff members, numbering around 2500, take part in the design, construction and operation of the research infrastructure. They also contribute to the preparation and operation of the experiments, as well as to the analysis of the data gathered for a vast community of users."[j]
Governance	Director-General: "Appointed by Council, usually for five years, the Director-General manages CERN. A directorate assists the Director-General, who proposes its members to Council. The Director-General reports directly to the Council, and can also propose any adjustment deemed necessary to meet the evolving needs of the research programme"[i]
Decisionmaking process	"CERN is run by 23 Member States, each of which has two official delegates to the CERN Council. One represents his or her government's administration; the other represents national scientific interests. Each Member State has a single vote and most decisions require a simple majority, although in practice the Council aims for a consensus as close as possible to unanimity."[i]
Membership	
Membership	23 member states[f]
Type of membership	European nations[f]

Table A.4—Continued

	Organizational Activities
Private-sector and civil-society role	"The scientific advancements of CERN push the frontiers of technology, which has a positive impact on society globally. The transfer of CERN technologies and expertise to society is an integral part of these activities, providing novel solutions in many fields."[j] "In its quest to understand the Universe, CERN is continuously developing cutting-edge technologies. These technologies are taken into wider society with the help of our industrial and institutional partners. They have applications spanning the environment, aerospace, healthcare, and quantum and digital technologies. Such collaboration takes many forms: the procurement of equipment and services, involvement in EU [European Union] projects and transfer of CERN's knowledge to companies and research institutes. This chapter highlights some examples of how CERN's technology and knowhow were paired with the expertise of our partners in 2022 to develop technology for society."[k]
How are nonmembers included in or subjected to this organization?	"Cyprus, Estonia and Slovenia are Associate Member States in the pre-stage to Membership. Croatia, India, Latvia, Lithuania, Pakistan, Türkiye and Ukraine are Associate Member States."[f] "Japan and the United States of America hold Observer status with respect to the LHC, while the United States of America also holds Observer status with respect to the HL-LHC [High-Luminosity LHC]. The international organisations European Union and UNESCO currently have Observer status at CERN. The Observer status of the Russian Federation is suspended in accordance with the CERN Council Resolution of 8 March 2022. The Observer status of JINR [Joint Institute for Nuclear Research] is suspended in accordance with the CERN Council Resolution of 25 March 2022."[f] A large number of nonmember states have international cooperation agreements. "CERN also has scientific contacts with Bahrain, Costa Rica, Cuba, Ghana, Honduras, Hong Kong, Indonesia, Ireland, Kuwait, Luxembourg, Oman, Madagascar, Malaysia, Mauritius, Mozambique, Rwanda, Singapore, Sudan, Taiwan, Tanzania, Uzbekistan and Zambia."[f]

[a] CERN, "Our Mission."

[b] CERN, *CERN's Main Objectives for the Period 2021–2025*.

[c] CERN, "Where Did It All Begin?"

[d] CERN, "Fundamental Research."

[e] CERN, "Inspire and Educate."

[f] CERN, "Our Member States."

[g] CERN, *Final Budget of the Sixty-Ninth Financial Year 2023*.

[h] CERN, "About CERN."

[i] CERN, "Our Governance."

[j] CERN, "Contribute to Society."

[k] CERN, *Annual Report 2022*.

TABLE A.5

Comprehensive Nuclear-Test-Ban Treaty Organization Functions Overview

Function	How the Organization Performs the Function
Monitoring	The IMS "spans the globe with more than 300 facilities using four state-of-the-art technologies to detect any sign of a possible nuclear test." The four technologies are: "IMS seismic stations monitor shockwaves through the ground; its hydroacoustic stations detect sound waves in the oceans; infrasound stations listen for ultra-low-frequency sound waves inaudible to the human ear; and radionuclide stations monitor the atmosphere for radioactive particles and gases from a nuclear explosion." In addition, "16 radionuclide laboratories help to identify radioactive substances."[a]
Share information or facilitate information-sharing	The International Data Centre (IDC) "collects and analyses data to share with Member States." Based at the Vienna headquarters, "the IDC receives data 24/7 from the global IMS network of monitoring stations and distributes it to Member States in both raw and analyzed form."[a]
Verification	"After entry into force, any Member State will be able to request an on-site inspection if IMS data indicate a suspected breach of the Treaty. An international team of inspectors can then be dispatched to collect further facts to verify whether a nuclear test has taken place."[a]

Table A.5—Continued

Function	How the Organization Performs the Function
Convene members or stakeholders	The CTBTO also holds a biennial, multidisciplinary CTBT [Comprehensive Nuclear Test Ban Treaty] Science and Technology Conference (SnT) "covering all aspects of the CTBT verification regime, designed to further enhance the strong relationship between the scientific and technological community, policymakers and the" CTBTO.[b]
Support research	"Researchers can access selected IMS data to better understand the natural world, including the Earth's core, marine life, climate change and meteor blasts. Data from the hydroacoustic network have been used to improve weather prediction, to throw light on the break-up of ice shelves and the creation of icebergs, and to analyse the migration patterns of whale populations. In 2021, research based on CTBT data led to the identification of a new colony of pygmy blue whales, which have eluded discovery for decades despite their massive size."[c]
Build capacity	"States may benefit from training activities organized regularly by the CTBTO, in which participants acquire necessary skills for the implementation of the Treaty at the national level. These include training courses and workshops for analysts and staff of NDCs, for IMS station operators and for potential on-site inspectors, as well as expert meetings to explore technical advances in tools and methodology."[d]

[a] PC-CTBTO, "The Organization."

[b] PC-CTBTO, "CTBT SnT2021."

[c] PC-CTBTO, "Civil and Scientific Applications."

[d] PC-CTBTO, "Membership Benefits."

TABLE A.6

Comprehensive Nuclear-Test-Ban Treaty Organization Organizational Profile

	Organizational Activities
Mission and focus	"Known formally as the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, the CTBTO exists to prepare for the Treaty's entry into force. It has two main tasks: Promoting universal recognition of the Treaty; and Building up the CTBT verification regime to ensure no nuclear explosion can go undetected."[a]
Specific mandate and missions	The CTBT prohibits all nuclear explosions, whether they are conducted for military or nonmilitary purposes, no matter how high or low their yield. To monitor compliance, the CTBT's unique verification regime is designed to detect any nuclear explosion conducted anywhere—underground, under water, or in the atmosphere. The regime consists of three main components: the "International Monitoring System (IMS), the International Data Centre (IDC), and On-Site Inspections." The CTBTO also facilitates the consultation and clarification process and confidence-building measures articulated in the Treaty.[b]
Formalization and authorities	"Article II of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) provides for the establishment of an organization to achieve the aims of the Treaty, ensure its implementation and serve as a forum for its members."[c] "The Comprehensive Nuclear-Test-Ban Treaty (CTBT) bans all nuclear explosions, whether for military or peaceful purposes. It comprises a preamble, 17 articles, two annexes and a Protocol with two annexes." "Another important text is the Resolution adopted by the States Signatories on 19 November 1996 establishing the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)."[d]
Activities overview	"According to the Annex of the resolution establishing the Commission, its main purpose is to carry out the necessary preparations for the effective implementation of the CTBT and to prepare for the first session of the Conference of States Parties to the Treaty, which will take place when the CTBT has entered into force.

Table A.6—Continued

	Organizational Activities
	"The other major duty of the Commission is to establish a global verification regime to monitor compliance with the comprehensive ban on nuclear testing, which must be operational when the Treaty enters into force. This huge task involves the build-up of 321 monitoring stations and 16 radionuclide laboratories around the globe, often in extremely remote and challenging locations, to form the International Monitoring System (IMS). It also includes the provisional operation of an International Data Centre (IDC) and the preparation of an on-site inspection capability to be available after entry into force in case of a suspected nuclear test."[c]
Infrastructure, Governance, and Structure	
Funding	Total 2022 budget: US$125,920,000[e]
Funding source(s)	The PC-CTBTO comprises all states signatories to the treaty and includes Working Group A, which "deals with budgetary and administrative matters," including the annual budget: "Some 80% of its budget [is] allocated to verification-related activities . . . . States Signatories provide the Preparatory Commission with the necessary financial support. The Budget of the Preparatory Commission is derived through assessed and voluntary contributions." The UN General Assembly's Scale of Assessments is used to determine assessments.[c]
Location of headquarters	Vienna, Austria
How is leadership decided?	The PC-CTBTO elects a chairman to one-year terms by secret ballot; CTBT Rules of Procedure prescribe that the position rotate among the six global geographical regions. The commission also elects six vice chairmen, "elected upon the recommendation of each geographical region," to one-year terms. See Rules 8 and 32.[f] The commission appoints an executive secretary to lead the Provisional Technical Secretariat, which oversees the IMS, IDC, OSI [on-site inspection], and other supporting functions of the commission. If the appointment cannot be done by consensus among multiple "leading candidates," the appointment is decided by secret ballot in which the appointment is considered granted to the candidate receiving a "two thirds majority of the members present and voting." See Rules 11 and 27.[f]
Staffed by	"Its provisional secretariat has nearly 300 multi-disciplinary professional and support staff from around 90 Member States."[e]
Governance	"Article II of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) provides for the establishment of an organization to achieve the aims of the Treaty, ensure its implementation and serve as a forum for its members. Since the activities are very extensive and must be fully operational when the Treaty enters into force, the States signing the Treaty decided that it was necessary to establish an interim organization: a Preparatory Commission. This Commission, based in Vienna, Austria, would lay the groundwork required and build up the global verification regime to monitor compliance with the Treaty . . . . On signing the CTBT, a State automatically becomes a member of the Preparatory Commission. The Commission consists of two main organs: a plenary body composed of all the States Signatories (also known as the Preparatory Commission) and the Provisional Technical Secretariat (PTS), which assists the Commission in carrying out its activities."[c]
Decisionmaking process	"The Commission consists of two main organs: A plenary body composed of all States Signatories (Member States), which is also referred to as the Preparatory Commission. This is assisted by three groups: a working group on administrative and financial issues (Working Group A), another on verification-related issues (Working Group B) and an advisory group," and the PTS comprises three technical divisions corresponding to the IMS, IDC, and OSI functions, as well as a Legal and External Relations Division, a Division of Administration, and Human Resources Services.[e] The plenary body operates according to the Preparatory Commission's Rules of Procedure.[f] Decisions are made by consensus or, when consensus is not possible, by voting procedures the rules describe. The plenary body meets twice a year. In addition, the treaty provides for a "Conference on Facilitating Entry into Force of the CTBT," or the "Article XIV Conference," held every other year to promote entry into force.[g]

Table A.6—Continued

	Organizational Activities
Membership	
Membership: total and link to list	187 states signatories to the CTBT (i.e., PC-CTBTO members)[h]
Type of membership	Full membership is limited to CTBT states signatories. Entities in the following three categories may acquire observer status (which grants the right to attend commission meetings but not to participate in decisionmaking processes): nonsignatory states that are to have IMS facilities on their territories, UN representatives or UN General Assembly invitees, and any UN specialized agency representative invited by the Preparatory Commission. See Rule 5.[f]
Private-sector and civil-society role	Researchers and experts • "CTBTO offers many engagement opportunities for scientific researchers and experts, providing access to data, training, products and workshops. Whether a professor at a university, a station operator, or an analyst at a National Data Centre, there are ways to engage with us and contribute to the mission." These include a virtual data exploitation center for researchers; a secure web portal for authorized users from states signatories; a capacity-building and training link; and a knowledge and training portal.[i] Civil society • The CTBT convenes a group of eminent persons to advise on innovation and policy, a CTBTO youth group to involve students and young professionals interested in global peace and security, a CTBT young professionals network of young scientists and technical professionals, and other academic and civil society engagement events.[j] Private sector • The CTBT invites procurement solicitations from global vendors for technical support to the IMS, IDC, and OSI functions.[k]
How are nonmembers included in or subjected to this organization?	Because the treaty has not entered into force, states are not legally bound to the provisions of the treaty. States signatories who are not legal members to the treaty, however, have made political commitments to participate in the Preparatory Commission and its activities. Beyond its verification functions, the CTBTO facilitates cooperation, research, and information-sharing in a variety of civil and scientific applications, such as tsunami warning (particularly from its hydroacoustic data), nuclear emergency response (including its radionuclide monitoring systems), civil aviation through volcano eruptions or other events (including through its seismic and infrasound stations), and scientific research (from geology and marine life to climate change and meteor blasts).[l]

[a] PC-CTBTO, "Ending Nuclear Tests."

[b] PC-CTBTO, "Overview of the Verification Regime."

[c] PC-CTBTO, "The Preparatory Commission."

[d] PC-CTBTO, "Text of the Treaty."

[e] PC-CTBTO, "The Organization."

[f] PC-CTBTO, Provisional Technical Secretariat, *Rules of Procedure of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization*, pp. 4–6, 13, 15.

[g] PC-CTBTO, "Article XIV Conferences."

[h] PC-CTBTO, "Status of Signature and Ratification."

[i] PC-CTBTO, "For Researchers and Experts."

[j] PC-CTBTO, "Civil Society."

[k] PC-CTBTO, "Procurement."

[l] PC-CTBTO, "Civil and Scientific Applications."

TABLE A.7

European AI Alliance Functions Overview

Function	How the Organization Performs the Function
Convene members and stakeholders	"The members of the European AI Alliance meet with experts, stakeholders and international actors in the field of AI, in regular events. Since the launch of the forum, such events brought together an average 500 (in person) to 1000 (virtual) participants on a yearly basis."[a]
Share information or facilitate information-sharing	Shares information at regular events, public consultations, and online forum exchanges.[a]
Set standards	"Initially created to steer the work of the High-Level Expert Group on Artificial Intelligence (AI HLEG)," which created ethics guidelines for responsible AI.[a]
Support research	Supports research by convening members and facilitating information-sharing and through its work in support of the policy documents created by AI HLEG.[b]
Set the agenda for policy formulation and global dialogue	Such documents as the Ethics Guidelines for Trustworthy AI and the European Commission's AI Act were shaped in the discussions generated by the AI Alliance.[a]

[a] European Commission, "The European AI Alliance."

[b] European Commission, "High-Level Expert Group on Artificial Intelligence."

TABLE A.8

European AI Alliance Organizational Profile

	Organizational Activities
Mission and focus	"Initially created to steer the work of the High-Level Expert Group on Artificial Intelligence (AI HLEG)." Now, works to "promote Trustworthy AI by sharing best practices among the members and by helping developers of AI and other stakeholders to apply key requirements."[a]
Specific mandate and missions	Convene experts, share best practices, and help guide the field.[a]
Formalization and authorities	"The AI Alliance was initially created to steer the work of the High-Level Expert Group on Artificial Intelligence (AI HLEG)."[a]
Activities overview	Although it does not have direct technical capabilities, its impact lies in the following areas: • *Policy dialogue:* The AI Alliance facilitates open discussions among experts, policymakers, and the public. It provides a space for sharing insights, concerns, and best practices related to AI. • *Ethical frameworks:* Through its collaboration with the High-Level Expert Group on AI (AI HLEG), the AI Alliance contributed to the development of Ethics Guidelines for AI. These guidelines emphasize trustworthy AI, fairness, transparency, and accountability. • *Influence on regulations:* The AI Alliance's input influenced the European Commission's proposals for AI regulations. It played a role in shaping the Regulation on AI and the Revised Coordinated Plan on AI. • *Community-building:* By organizing events and assemblies, the AI Alliance fosters connections among stakeholders. It provides a platform for sharing knowledge, building networks, and advancing AI excellence.[a]
Infrastructure, Governance, and Structure	
Funding	Unknown
Funding source(s)	Unknown
Location of headquarters	The European AI Alliance, as a forum facilitated by the European Commission, does not have a dedicated physical headquarters in the traditional sense. It operates primarily as an online platform hosted by the European Commission.[b]
How is leadership decided?	The Steering Group is the AI HLEG.[c]
Staffed by	No information found

Table A.8—Continued

	Organizational Activities
Governance	The AI Alliance is guided by the AI HLEG, a distinguished assembly of 52 experts selected by the European Commission.[c]
Decisionmaking process	Technically, the European AI Alliance is a multistakeholder forum for broad and open discussions about all aspects of AI development and its impact on different aspect of the society.
Membership	
Membership	Events are typically attended by European Union member states and other countries. The European AI Alliance is hosted on the European Union's Futurium platform and is freely accessible to all.[b]
Type of membership	Open to all individuals.[b]
Private-sector and civil-society role	The private-sector and civil-society stakeholders are welcomed to participate in the discussions and join the forum.[b]
How are nonmembers included in or subjected to this organization?	By registering through the online portal[b]

[a] European Commission, "The European AI Alliance."

[b] European Commission, "European AI Alliance: About."

[c] European Commission, "AI HLEG—Steering Group of the European AI Alliance."

TABLE A.9

Financial Action Task Force Functions Overview

Function	How the Organization Performs the Function
Set standards	"[P]romotes global standards to mitigate the risks."[a]
Monitor	"FATF continuously monitors how criminals and terrorists raise, use and move funds."[a]
Provide quality control and assessment services	"[A]ssesses whether countries are taking effective action."[a]
Share information or facilitate information-sharing	"FATF regularly publishes reports that raise awareness about the latest money laundering, terrorist financing and proliferation financing techniques so that countries and private sector can take the necessary steps to mitigate these risks."[a]
Conduct international joint research and development	"[R]esearches how money is laundered and terrorism is funded."[a]
Impose penalties for noncompliance	"If the FATF deems the progress insufficient to address its strategic deficiencies, the FATF develops an action plan with the jurisdiction to address the remaining strategic deficiencies. For all countries under ICRG [International Co-operation Review Group] review, the FATF requires a high-level political commitment that the jurisdiction will implement the legal, regulatory, and operational reforms required by the action plan."[b]
Blacklist	"The FATF holds countries to account that do not comply with the FATF Standards. If a country repeatedly fails to implement FATF Standards then it can be named a Jurisdiction under Increased Monitoring or a High Risk Jurisdiction."[a]

[a] FATF, "What We Do."

[b] FATF, "High-Risk and Other Monitored Jurisdictions."

TABLE A.10

Financial Action Task Force Organizational Profile

	Organizational Activities
Mission and focus	"The Financial Action Task Force (FATF) leads global action to tackle money laundering, terrorist and proliferation financing."[a]
Specific mandate and missions	"The objective of the FATF is to protect the integrity of the financial system, and enhance its transparency, which contribute towards global security. The FATF conducts and publishes expert operational and strategic studies on risks, trends, and methods; develops and sets global policies, standards, best practice, and guidance; evaluates FATF member countries; and oversees in close cooperation with the FATF-style regional bodies (FSRBs) the evaluation of all countries on the implementation of the FATF standards."[b]
Formalization and authorities	Established in 1989 by the G7[c]
Activities overview	"The FATF was given responsibility to examine money laundering techniques and trends, review the action already taken at a national or international level, and to set out measures needed to combat money laundering. In 2001, the FATF expanded its mandate to also combat terrorist financing."[c]
Infrastructure, Governance, and Structure	
Funding	Total fiscal year (FY) 2022–2023 budget: €14,076,599[d]
Funding source(s)	"The budget of the FATF is funded by annual membership fees paid by FATF Members and the two member organisations (the Gulf Co-operation Council and the European Commission) as well as additional voluntary contributions provided by some Members for specific projects, which represents 38% of the FATF budget. The scale used to calculate the membership fees is based on the OECD's calculation method, which is a formula related to the size of the country's economy" (p. 51).[d]
Location of headquarters	Paris, France
How is leadership decided?	"The FATF President is a senior official appointed by the FATF Plenary from among its members. In April 2019, the revised Mandate extended the terms of the FATF Presidency to a two-year period."[b,e]
Staffed by	"The FATF Secretariat is a highly motivated, multicultural and dedicated team of professional support staff and experts from all over the world. It brings together individuals from 15 countries, with 10 languages, and many years' experience and expertise from law enforcement and intelligence agencies, financial intelligence units, policy advisors and the legal profession. The Secretariat supports the substantive work of the FATF membership and global network."[f]
Governance	The FATF president serves a two-year term. "The President convenes and chairs the meetings of the FATF Plenary and the Steering Group, and he/she oversees the FATF Secretariat."[b]
Decisionmaking process	"The Plenary is the decisionmaking body of the FATF. Its decisions are taken by consensus."[d]
Membership	
Membership	39 members[h,i]
Type of membership	States and organizations (European Commission, Gulf Co-operation Council)
Private-sector and civil-society role	"To help countries implement its Standards, the FATF also creates guidance and best practice papers on [a] range of issues. The FATF regularly revises them to reflect the experience gained by public authorities and [the] private sector over the years so that countries can benefit from this experience and effectively implement the FATF Recommendations in their own national context. This process can involve outreach to stakeholders or public consultations to ensure the usefulness of the final report."[g]
How are nonmembers included in or subjected to this organization?	"[M]ore than 200 countries and jurisdictions have committed to implement the FATF's Standards as part of a co-ordinated global response to preventing organised crime, corruption and terrorism."[i]

Table A.10—Continued

	Organizational Activities

[a] FATF, "What We Do."
[b] FATF, "Mandate."
[c] FATF, "History of the FATF."
[d] FATF, "Annual Report 2022–2023."
[e] FATF, "FATF President."
[f] FATF, "FATF Secretariat."
[g] FATF, "Who We Are."
[h] FATF, "FATF Members"; FATF, "FATF Recommendations."

TABLE A.11
International Atomic Energy Agency Functions Overview

Function	How the Organization Performs the Function
Support research	"Make provision" for materials, services, equipment, and facilities to fulfill research, development, and practical applications of atomic energy for peaceful purposes (including electric power production) "with due consideration for the needs of the under-developed areas of the world."[a]
Set standards	Establish or adopt safety standards "for protection of health and minimization of danger to life and property" in consultation with relevant UN organs and specialized agencies and to apply these standards to the agency's operations; to operations involving materials, services, equipment, facilities, and information under its control; and to operations under any arrangement by request of states parties or to those operations in a state at the request of that state.[a]
Share information or facilitate information-sharing	"[F]oster the exchange of scientific and technical information on peaceful uses of atomic energy."[a]
Verify	"Safeguards are a set of technical measures applied by the IAEA on nuclear material and activities, through which the Agency seeks to independently verify that nuclear facilities are not misused and nuclear material not diverted from peaceful uses. States accept these measures through the conclusion of safeguards agreements. IAEA safeguards are an essential component of the international security system. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is the centrepiece of global efforts to prevent the further spread of nuclear weapons. Under the Treaty's Article 3, each Non-Nuclear Weapon State is required to conclude a safeguards agreement with the IAEA."[b]
Build capacity	"The IAEA regularly prepares and conducts exercises and training courses to evaluate and improve its own and its Member States' response arrangements and capabilities with regard to nuclear and radiological emergencies."[c]

[a] IAEA, Statute (text), Article III, Functions, Section A.
[b] IAEA, "Basics of IAEA Safeguards."
[c] IAEA, "EPR Exercises and Training."

TABLE A.12
International Atomic Energy Agency Organizational Profile

	Organizational Activities
Mission and focus	Article II of the IAEA Statute describes the agency's objectives: "The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose."[a]

Table A.12—Continued

	Organizational Activities
Specific mandate and missions	IAEA's work falls into three broad categories: nuclear technology and applications, nuclear safety and security, and safeguards and verification. The first two functions support implementation of Article IV (on peaceful uses) of the NPT, and the third supports implementation of Article III (on safeguards) of the NPT.
Formalization and authorities	The Conference on the Statute of the IAEA held at UN headquarters approved the IAEA Statute in 1956. It came into force in 1957 and was amended in 1963, 1973, and 1989. It provides the formal authorities of the organization.[b] "The IAEA is neither the Secretariat of the NPT nor empowered to request States to adhere to it. It does, however, have formal responsibility in the context of implementing Article III of the Treaty. The IAEA's mandate, expertise, and experience also equip it well to assist in the implementation of other Articles," namely those in the treaty related to furthering peaceful uses, "especially in the territories of non-nuclear-weapons States."[c]
Activities overview	The activities of the agency are reflected in its five nonmanagement and nonadministrative departments: • The **Department of Technical Cooperation** "is responsible for formulating and delivering the IAEA's development mandate. The Agency's technical cooperation with Member States aims to promote tangible socioeconomic impacts, supporting the use of nuclear science and technology to address major sustainable development priorities at the national, regional and interregional levels."[d] • The **Department of Nuclear Energy** "fosters sustainable nuclear energy development by supporting existing and new nuclear programmes around the world. It provides technical support on the nuclear fuel cycle and the life cycle of nuclear facilities, and builds indigenous capability in energy planning, analysis, and nuclear information and knowledge management."[e] • The **Department of Nuclear Safety and Security** aims to enhance "the protection of people, society and the environment from the harmful effects of ionizing radiation . . . whether the cause is an unsafe act or a security breach."[f] • The **Department of Nuclear Sciences and Applications** "covers a broad range of socio-economic sectors, from health, food and agriculture to the environment, water resources and industry. It assists Member States meet their development needs through nuclear science, technology and innovation. It also works with laboratories, universities and research facilities worldwide through the IAEA Collaborating Centre scheme."[g] • The **Department of Safeguards** administers and implements IAEA Safeguards and "contributes to nuclear arms control and disarmament, by responding to requests for verification and other technical assistance."[h]
Infrastructure, Governance, and Structure	
Funding	Total 2023 budget (regular proposed): €422,500,000[i]
Funding source(s)	Technical Cooperation Programme funds are budgeted separately from the regular program; an extrabudgetary program fund serves as a third main source of funding.[j] The Board of Governors of the IAEA proposes a programme and budget for the agency, which the General Conference considers and approves each two years.[k]
Location of headquarters	Vienna, Austria; regional offices are located in Toronto, Canada, and Tokyo, Japan; liaison offices are located in New York, New York, and Geneva, Switzerland; and research laboratories are located in Seibersdorf, Austria, and in Monaco.[l]
Governance	"The General Conference consisting of representatives of the IAEA Member States meets in a regular annual session, usually in September, to consider and approve the IAEA's budget and to decide on other issues raised by the Board of Governors, the Director General and Member States."[m] The Board of Governors serves as a second policymaking body of IAEA, which "examines and makes recommendations to the General Conference on the IAEA's financial statements, programme and budget. It considers applications for membership, approves safeguards agreements and the publication of the IAEA's safety standards. It also appoints the Director General of the IAEA, with the approval of the General Conference." It meets five times per year and comprises 35 governors, each of whom is designated by each of the 35 states who are elected by the General Conference as members to the board.[n]

Table A.12—Continued

	Organizational Activities
How is leadership decided?	The leader of the IAEA Secretariat, the director-general, is selected by a vote conducted by the Board of Governors. Governors put forth candidates, the candidate list is circulated, and governors vote by secret ballot. A candidate must receive a two-thirds majority to be appointed director-general.[o]
Decisionmaking process	The Secretariat advises the director-general on safeguards evaluations, who submits a report on safeguards conclusions annually. The director-general can refer states to the General Conference for failure to meet safeguards standards.
Staffed by	IAEA has more than 2,500 staff from more than 100 countries with technical, scientific, and other backgrounds.[p]
Membership	
Membership	178 member states (as of September 19, 2023)[q]
Type of membership	Original signatories of the IAEA Statute are members, as are other states that have deposited instruments of acceptance, been recommended by the Board of Governors, and been approved by the General Conference.[r]
Private-sector and civil-society role	Safeguards are applied to states, but nuclear facility operators are important partners in safeguards implementation and inspection. IAEA partners with a broad range of civil-society, private-sector, and other types of state institutions: • IAEA designates International Centres based on Research Reactors (ICERRs) to help members gain timely access to relevant research reactor–based nuclear infrastructure to achieve their capacity-building and research and development objectives. ICERRs make research reactors and other facilities/resources available to IAEA member state organizations and institutions by bilateral agreement.[s] • Collaborating Centres, institutions designated by member states, partner with IAEA to help reach UN sustainable development goals.[t] • The Nuclear Saves program established an IAEA partnership with the Nuclear Energy Institute, United States; Urenco; Westinghouse Electric Company, United States; and the World Nuclear Association to facilitate technology transfer.[u]
How are nonmembers included in or subjected to this organization?	Members with IAEA safeguards agreements agree not to divert nuclear material, even if for peaceful purposes, for transfer to other states outside IAEA safeguards. Nonmember states, therefore, can only gain access to fissile nuclear material through domestic mining and processing or illicit methods.

[a] IAEA, Statute (text).

[b] IAEA, "Statute" (webpage).

[c] Priest, "IAEA Safeguards and the NPT," pp. 2, 9–13, quotation p. 2.

[d] IAEA, "Department of Technical Cooperation."

[e] IAEA, "Department of Nuclear Energy."

[f] IAEA, "Department of Nuclear Safety and Security."

[g] IAEA, "Department of Nuclear Sciences and Applications."

[h] IAEA, "Department of Safeguards."

[i] IAEA, *The Agency's Budget Update for 2023*, rev.

[j] IAEA, "Budget."

[k] Vienna Center for Disarmament and Non-Proliferation, "Navigating the IAEA Budget Process."

[l] IAEA, "Working at the IAEA."

[m] IAEA, "General Conference."

[n] IAEA, "Board of Governors."

[o] IAEA, "Rules and Procedures of the Board of Governors."

[p] IAEA, "Working at the IAEA."

[q] IAEA, "List of Member States."

[r] IAEA, Statute (text), Article IV, Membership.

[s] IAEA, "International Centres Based on Research Reactors (ICERRs)."

[t] IAEA, "Collaborating Centres."

[u] IAEA, "'Nuclear Saves' Partnerships."

TABLE A.13

Interagency Expert Group on Sustainable Development Goals Indicators Functions Overview

Function	How the Organization Performs the Function
Monitor	"Regularly review methodological developments and issues related to the indicators and their metadata."[a]
Build capacity	"Regularly review capacity-building activities in statistical areas relevant to Sustainable Development Goal monitoring and make recommendations."[a]
Provide operational support	"Provide technical support for the implementation of the approved indicator and monitoring framework over the 15-year period towards 2030."[a]
Support research	"Review and support work by the Secretariat for the development of a Sustainable Development Goal data-user forum, tools for data-analysis and an open dashboard on the state of the Sustainable Development Goals."[a]
Convene members or stakeholders	"The working groups and task team are responsible for their own detailed work plans, methods of work, and communication and coordination mechanisms with other partners. Countries that are not members of the IAEG-SDGs, international organisations, civil society, academia and the private sector were invited to participate in these groups subject to criteria established by each working group and task team."[b]
Share information or facilitate information-sharing	Established a platform for the exchange of statistical data related to the SDGs across multiple organizations.[c]

[a] UN Economic and Social Council, *Terms of Reference for the Inter-Agency and Expert Group on Sustainable Development Goal Indicators*.

[b] UN DESA, Statistics Division, "IAEG-SDGs: Inter-Agency and Expert Group on SDG Indicators."

[c] UN DESA, Statistics Division, "IAEG-SDGs: Working Group on SDMX."

TABLE A.14

Interagency Expert Group on Sustainable Development Goals Indicators Organizational Profile

	Organizational Activities
Mission and focus	Implement and monitor progress of the SDGs
Specific mandate and missions	"The IAEG-SDGs was [sic] tasked to develop and implement the global indicator framework for the Goals and targets of the 2030 Agenda [for sustainable development]."[a]
Formalization and authorities	The group was established at the 46th session of the UN Statistical Commission in 2015. The global indicator framework was adopted by the UN General Assembly in 2017 in line with the resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development[a]
Activities overview	• The Working Group on Geospatial Information uses geospatial data to ensure sufficient breadth of global indicator framework.[b] • The Working Group on Statistical Data and Metadata Exchange facilitates development of a platform for data and metadata exchange related to SDG indicators.[c] • The Working Group on Measurement of Development Support focuses on refining measurement of development support by formulating research vectors.[d] • The Task Team on Sustainable Tourism convenes members to build consensus on sustainable tourism best practices.[e]
Infrastructure, Governance, and Structure	
Funding	No budget specifically allocated to organizations.
Funding source(s)	Supported by UN Department of Economic and Social Affairs (UN DESA) and member organizations; partner organizations provide funds for specific SDG projects.
Location of headquarters	No headquarters; members meet physically twice per year at various UN organization headquarters.
How is leadership decided?	The Statistics Division of UN DESA is the Secretariat; two cochairs are elected by members to serve two-year terms.[f]

Table A.14—Continued

	Organizational Activities
Staffed by	The chair of the Statistical Commission and 27 representatives of the national statistical office (only 26 current members listed) and observers from regional/international agencies.
Governance	Administered by the Statistics Division of UN DESA; cooperates with international and regional organization in formulation and implementation of SDG indicators[f]
Decisionmaking process	Appears to operate via consensus-based decisionmaking
Membership	
Membership: total and link to list	26 member states[g]
Type of membership	Multilateral and inclusive
Private-sector and civil-society role	Invites experts from academia, civil society, and the private sector to contribute to indicator creation and data compilation.[f]
How are nonmembers included in or subjected to this organization?	Nonmember countries may send representatives as observers.[f] The group cooperates with regional monitoring efforts of various organizations.

[a] UN DESA, Statistics Division, "IAEG-SDGs: Inter-Agency and Expert Group on SDG Indicators."

[b] UN DESA, Statistics Division, "Inter-Agency and Expert Group on the Sustainable Development Goal Indicators (IAEG-SDGS) Working Group on Geospatial Information."

[c] UN DESA, Statistics Division, "IAEG-SDGs: Working Group on SDMX."

[d] UN DESA, Statistics Division, "IAEG-SDGs: Working Group on Measurement of Development Support."

[e] UN DESA, Statistics Division, "IAEG-SDGs: Task Team on Sustainable Tourism."

[f] UN Economic and Social Council, *Terms of Reference for the Inter-Agency and Expert Group on Sustainable Development Goal Indicators*.

[g] UN DESA, Statistics Division, "IAEG-SDG: Membership."

TABLE A.15

Institute of Electrical and Electronics Engineers Functions Overview

Function	How the Organization Performs the Function
Forecast	"The IEEE Technology Roadmaps Committee (IRC) . . . is working to provide guidance and infrastructure to support technology roadmap activities across the IEEE."[a]
Build norms	"IEEE has 39 technical Societies that provide benefits to members within specialized fields of interest."[b] For example, "[t]hrough conferences, publications, and programs, and by bringing together computer science and engineering leaders . . . IEEE [Computer Society] empowers, shapes, and guides the future of not only its members, but the greater industry, enabling new opportunities to better serve our world."[c]
Set standards	"IEEE Standards Association (IEEE SA) bring[s] together a broad range of individuals and organizations from a wide range of technical and geographic points of origin to facilitate standards development and standards related collaboration."[d]
Monitor	"IEEE Conformity Assessment Program (ICAP) . . . is regarded as the industry-accepted method of demonstrating a product adheres and conforms to a standard. Conformity assessment can include testing, inspection, certificate issuance and registration."[e]
Share information or facilitate information-sharing	"IEEE Xplore is the flagship digital platform for discovery and access to scientific and technical content published by the IEEE (Institute of Electrical and Electronics Engineers) and its publishing partners. IEEE Xplore contains more than 6 million documents and other materials from some of the world's most cited publications in electrical engineering, computer science, and related sciences."[f]
Support research	"IEEE Collabratec is an integrated, online community where technology professionals can network, collaborate, and create in one central hub. IEEE Collabratec's suite of productivity tools is available to technology professionals around the world."[g]

Table A.15—Continued

Function	How the Organization Performs the Function
Convene members or stakeholders	"IEEE sponsors over 2,000 annual conferences and events worldwide, curating cutting-edge content for all of the technical fields of interest within IEEE."[h]

[a] IEEE, "IEEE Future Directions."

[b] IEEE, "Communities & Connection."

[c] IEEE, Computer Society, "About the IEEE Computer Society."

[d] IEEE, Standards Association, "About IEEE Standards Association."

[e] IEEE, Standards Association, "IEEE Conformity Assessment Program (ICAP)."

[f] IEEE, Xplore, "About IEEE *Xplore*."

[g] IEEE, "IEEE Collabratec® for Volunteers."

[h] IEEE, "Conferences and Events."

TABLE A.16

Institute of Electrical and Electronics Engineers Organizational Profile

	Organizational Activities
Mission and focus	"[T]o foster technological innovation and excellence for the benefit of humanity."[a]
Specific mandate and missions	2020–2025 goals • Drive global innovation through broad collaboration and the sharing of knowledge • Enhance public understanding of engineering and technology and pursue standards for their practical application • Be a trusted source of educational services and resources to support lifelong learning • Provide opportunities for career and professional development • Inspire a worldwide audience by building communities that advance technical interests, inform public policy, and expand knowledge for the benefit of humanity[b]
Formalization and authorities	Nongovernmental organization, originally founded in 1963 when the American IEEE and the Institute of Radio Engineers merged
Activities overview	• Hosts thousands of conferences and meetings each year across 39 technical societies and ten geographic regions • Publishes research and experimentation results across over 200 journals and technical documents • The IEEE Standards Association develops voluntary international technical standards (1,032 currently active). • Provides continuing education for members.[c] • Convenes technical experts globally • Publishes academic work • Runs technical working groups • Establishes technical standards, voluntary
Infrastructure, Governance, and Structure	
Funding	Total in 2022: US$542.2 million[d]
Funding source(s)	Membership: $57.9 million • Conferences: $190 million • Publications: $244 million • Standards: $46.9 million The rest is accounted for in donations, public imperatives, etc.
Location of headquarters	New York, New York

Table A.16—Continued

	Organizational Activities
How is leadership decided?	The overall leader is the president, who is elected each year on a rolling three-year term. The first year, they are the president-elect; the second year, they are president and chief executive officer; and the third year, they are past president.[e] There are two top-tier governing bodies: • The IEEE Assembly consists of the three presidents, the ten region delegates, and the ten division delegates. • The IEEE Board of Directors consists of the three presidents, the vice presidents and presidents of the six major boards, the secretary, the treasurer, the ten region directors, the ten division directors, and the directors emeritus. There are six major boards, each with an elected leader: • the Educational Activities Board • the IEEE-USA Board • the Member and Geographic Activities Board • the Publication Services and Products Board • the Standards Association Board • the Technical Activities Board.[e]
Staffed by	Recruits direct staff (seems to be approx. 1,000). Executive director is the chief operating officer. Management council led by executive director.[e]
Governance	Governance provided by the various boards and regional group leadership. Members agree to abide by set codes of ethics and conduct.
Decisionmaking process	This depends on the specific topic area and geographic region. The IEEE divides its members up by geographic region, although members then associate themselves with technical societies and councils (e.g., IEEE Biometrics Council). These then elect their own leaders (within the broader IEEE governance structure) and essentially run their own events. These are the key forum for facilitating and disseminating norms and research by members. The IEEE Standards Association has a more stringent approach with a six-step process.[f]
Membership	
Membership	Claims to have more than 450,000 members. This is a professional association, so there is no list.[g]
Type of membership	Professional or student membership. Also, members can join specific regional or topic areas.
Private-sector and civil-society role	Civil-society organization, separate from state institutions
How are nonmembers included in or subjected to this organization?	Voluntary standards. Authors can also publish in IEEE journals without being a member.

[a] IEEE, "Mission & Vision."

[b] IEEE, "Strategic Plan."

[c] IEEE, "At a Glance."

[d] IEEE, *2022 Annual Report*.

[e] IEEE, "Organization of IEEE."

[f] The process is outlined in IEEE, Standards Association, "Developing Standards."

[g] IEEE, "IEEE Membership."

TABLE A.17

International Monetary Fund Functions Overview

Function	How the Organization Performs the Function
Conducting international joint research and development	Publishes the World Economic Outlook, Global Financial Stability, and Fiscal Monitor reports and more.[a]
Monitor	"A core responsibility of the IMF is monitoring the economic and financial policies of member countries and providing them with policy advice, an activity known as surveillance. As part of this process, which also takes place at the global and regional levels, the IMF identifies potential risks and recommends appropriate policy adjustments to sustain economic growth and promote financial stability."[b]
Build capacity	"The IMF provides capacity development, which is technical assistance and training of government officials to help member countries strengthen economic institutions and statistics, as well as capacities in areas such as taxation and administration, expenditure management, monetary and exchange rate policies, financial system supervision and regulation, and legislative frameworks."[c]
Verify	"IMF monitoring typically involves annual visits to member countries. During these visits IMF staff have discussions with government and central bank officials about risks to domestic and global stability and policies and reforms to address those risks."[b]
Deliver services or aid	"Unlike development banks, the IMF does not lend for specific projects. Instead, the IMF provides financial support to countries hit by crises to create breathing room as they implement policies that restore economic stability and growth. It also provides precautionary financing to help prevent crises."[d]
Forecast	The IMF World Economic Outlook "presents IMF staff economists' analyses of global economic developments during the near and medium term."[e]
Convene members or stakeholders	The IMF holds annual meetings.[f]

[a] IMF, "Research at the IMF."
[b] IMF, "IMF Policy Advice."
[c] IMF, "What Is the IMF?"
[d] IMF, "IMF Lending."
[e] IMF, "World Economic Outlook."
[f] IMF, *IMF Annual Report 2023*.

TABLE A.18

International Monetary Fund Organizational Profile

	Organizational Activities
Mission and focus	"The IMF is a global organization that works to achieve sustainable growth and prosperity for all of its 190 member countries. It does so by supporting economic policies that promote financial stability and monetary cooperation, which are essential to increase productivity, job creation, and economic well-being."[a]
Specific mandate and missions	"The IMF fosters international financial stability by offering: • POLICY ADVICE: Monitoring economic and financial developments and advising countries. • FINANCIAL ASSISTANCE: Loans and other financial aid to member countries. • CAPACITY DEVELOPMENT: Technical assistance and training to help governments to implement sound economic policies."[a]
Formalization and authorities	Created by the Bretton Woods Conference after World War II[b]

Table A.18—Continued

	Organizational Activities
Activities overview	Research • The IMF has four flagship publications: the World Economic Outlook, Global Financial Stability, Fiscal Monitor, and External Sector reports, plus many other publications.[c] Monitoring • "The IMF's surveillance program provides continuous monitoring of member countries' economic and financial policies."[d] • "IMF monitoring typically involves annual visits to member countries. During these visits IMF staff have discussions with government and central bank officials about risks to domestic and global stability and policies and reforms to address those risks." • "These discussions focus on exchange rate, monetary, fiscal, and financial policies, as well as structural reforms. Discussions also extend to developments in other areas that are critical for economic and financial stability, such as climate change or digitalization. IMF staff typically meet with members of the legislature, representatives from business, labor unions, and civil society."[e] Evaluating • Staff conduct evaluations following monitoring trips, which are eventually presented to the member country.[f] Delivering services or aid to local communities • Provision of financial support. The IMF assists low-income countries with financial and other support. Building capacity • "Capacity building typically focuses on how low-income countries can boost domestic revenues, manage public finances and monetary policy, regulate their financial system, and develop statistical systems."[g] Convening members • "The Meetings are the only gathering of its kind in the world and a unique forum for discussion on economic policymaking."[g]
Infrastructure, Governance, and Structure	
Funding)	Total FY 2024 budget: US$1,411 million[h]
Funding source(s)	"IMF funds come from three sources: member quotas, multilateral and bilateral borrowing agreements." "Member quotas are the primary source of IMF funding. A member country's quota reflects its size and position in the world economy."[i]
Location of headquarters	Washington, D.C.[j]
How is leadership decided?	"The IMF's Managing Director is both Chairperson of the Executive Board and Head of IMF staff. He or she is appointed by the Executive Board for a renewable term of five years. The Executive Board may select a Managing Director by a majority of votes cast."[k]
Staffed by	"The IMF's global workforce of about 3,000 hails from over 160 countries."[a]
Governance	"The Executive Board (the Board) is responsible for conducting the day-to-day business of the IMF. It is composed of 24 Directors, who are elected by member countries or by groups of countries, and the Managing Director, who serves as its Chairman. The Board usually meets several times each week. It carries out its work largely on the basis of papers prepared by IMF management and staff."[l]
Decisionmaking process	"The Board of Governors, the highest decision-making body of the IMF, consists of one governor and one alternate governor for each member country. The governor is appointed by the member country and is usually the minister of finance or the governor of the central bank. All powers of the IMF are vested in the Board of Governors." Members' voting shares are determined by the quota they pay:[m] "Unlike the United Nations General Assembly, where each country has one vote, voting power and decision-making at the IMF reflect its member countries' relative economic position."[n]
Membership	
Membership	190 members[j, o]

Table A.18—Continued

	Organizational Activities
Type of membership	Nation-states willing to pay quota subscriptions and agree with code of conduct.[p]
Private-sector and civil-society role	The Civil Society Policy Forum "is a key event during the International Monetary Fund-World Bank Group Spring and Annual Meetings. This weeklong forum provides an open space for Civil Society Organizations (CSOs) to dialogue and exchange views with IMF and World Bank Group staff, their peers, government delegations, and other stakeholders on a wide range of shared development issues."[q]
How are nonmembers included in or subjected to this organization?	Cuba and North Korea are not members;[r] Liechtenstein has applied for membership.[s]

[a] IMF, "About the IMF."
[b] IMF, "The IMF in History."
[c] IMF, "Research at the IMF."
[d] IMF, "IMF Factsheets."
[e] IMF, "IMF Policy Advice."
[f] IMF, *IMF Annual Report 2023*.
[g] IMF, "Annual and Spring Meetings."
[h] IMF, "IMF Executive Board Approves FY2024–FY2026 Medium-Term Budget."
[i] IMF, "How the IMF Gets Its Money."
[j] IMF, "What Is the IMF?"
[k] IMF, "Selection Process for IMF Managing Director."
[l] IMF, "IMF Executive Directors and Voting Power."
[m] IMF, "IMF Members' Quotas and Voting Power, and IMF Board of Governors."
[n] IMF, "How Does the IMF Make Decisions?"
[o] IMF, "List of Members."
[p] IMF, "Obligations and Benefits of IMF Membership."
[q] IMF, "Civil Society and the IMF."
[r] IMF, "Groups and Aggregates Information."
[s] IMF, "Liechtenstein Applies for IMF Membership."

TABLE A.19

International Seabed Authority Functions Overview

Function	How the Organization Performs the Function
Build norms	"Voluntary Commitments . . . range from enhancing the role of women in marine scientific research to promoting emerging ocean economies for developing States, in close cooperation with participating countries, to benefit fully from the sustainable development of deep-seabed resources and increased participation in marine scientific research projects carried out in areas beyond national jurisdiction."[a]
Set standards	The ISA Legal and Technical Commission develops "Exploitation Regulations as well as Standards and Guidelines for the activities in the Area," which are submitted to the ISA Council for consideration.[b]
Monitor	As of May 2023, the ISA Secretariat "is accepting proposals for a consultancy to develop a monitoring and evaluation (M&E) framework, including indicators, for assessing impacts of capacity development activities implemented by the International Seabed Authority."[c]
Share information or facilitate information-sharing	"The ISA Deep Seabed and Ocean Database—or DeepData—has been designed to serve as a spatial, internet-based data management system. Its main function is to host all data related to deep-seabed activities, particularly those collected by the contractors during their exploration activities and other relevant environmental and resources-related data for the Area."[d]
Conduct international joint research and development	ISA conducts projects, such as "AREA2030, a new collective initiative implemented by ISA . . . to foster partnerships and collaboration for the high-resolution mapping of the international seabed area (the Area) by 2030."[e]

Table A.19—Continued

Function	How the Organization Performs the Function
Set the agenda for policy formulation and global dialogue	ISA sets the agenda for policy formulation and global dialogue by hosting annual sessions of the ISA Assembly and Council. For example, the Assembly's 2024 report "presents an overview of the progress achieved in ISA's ongoing efforts to ensure precautionary and responsible governance of the Area as a global common, based on principles of solidarity, equity, science and transparency."[f]
Support research	"ISA Partnership Fund is a multi-donor trust fund established on 3 August 2022 by the ISA Assembly during its 27th session (ISBA/27/A/10). The Fund aims to promote and encourage marine scientific research in the Area for the benefit of humankind and to contribute to dedicated capacity development programmes and activities aligned with the priority needs identified by developing States members of ISA."[g]

[a] ISA, "ISA Voluntary Commitments."

[b] ISA, "The Legal and Technical Commission."

[c] ISA, "Call for Proposals for a Consultancy to Develop a Monitoring and Evaluation (M&E) Framework."

[d] ISA, "DeepData Database."

[e] ISA, "AREA2030."

[f] ISA, "Secretary-General Annual Report 2024."

[g] ISA, "ISA Partnership Fund."

TABLE A.20

International Seabed Authority Organizational Profile

	Organizational Activities
Mission and focus	"ISA is the organization through which States Parties to UNCLOS [the UN Convention on the Law of the Sea] organize and control all mineral-resources-related activities in the Area for the benefit of humankind as a whole. In so doing, ISA has the mandate to ensure the effective protection of the marine environment from harmful effects that may arise from deep-seabed-related activities."[a]
Specific mandate and missions	ISA has a specific mandate under UNCLOS.
Formalization and authorities	"The International Seabed Authority (ISA) is an autonomous international organization established under the 1982 United Nations Convention on the Law of the Sea (UNCLOS) and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (1994 Agreement)."[a]
Activities overview	"ISA administers the common heritage of mankind, which includes the international seabed. This invaluable territory is considered the shared heritage of all people and is regulated by the ISA. Its responsibilities include managing the use of resources and safeguarding deep-sea habitats from the adverse impacts of mining."[b] ISA's responsibilities include • regulation development • environmental oversight • resource management • research coordination • contract management.
Infrastructure, Governance, and Structure	
Funding	Total 2022 revenue: US$11,097,576[c]
Funding source(s)	ISA is funded through "(a) assessed contributions made by States members of the Authority; (b) agreed contributions, as determined by the Authority, made by international organizations members of the Authority in accordance with annex IX to the Convention; (c) funds received by the Authority pursuant to annex III, article 13, paragraph 2, of the Convention and section 8 of the annex to the Agreement, in connection with activities in the Area; (d) funds transferred from the Enterprise in accordance with annex IV, article 10, of the Convention;

Table A.20—Continued

	Organizational Activities
	(e) voluntary contributions made by members or other entities; and (f) such other funds to which the Authority may become entitled or may receive, including income from investment."[d]
Location of headquarters	Kingston, Jamaica
How is leadership decided?	The Assembly is the supreme and political organ of ISA, consisting of 167 member states plus the European Union. It has the "power to establish general policies on any question or matter within ISA competence" and approves the budget and regulations recommended by the Council.[e] The secretariat is led by the Secretary-General and is composed of administrative and technical staff. The secretariat carries out the day-to-day operations of ISA.
Staffed by	ISA has a secretariat of 37 authorized posts. As of 2024, the enterprise is staffed by an interim director general but does not operate independently of the secretariat.[f]
Governance	The Assembly is the supreme and political organ of ISA, consisting of 167 member states plus the European Union. It has the power to establish general policies on any question or matter within ISA competence and approves the budget and regulations recommended by the Council. The Council has five groupings: • Group A consists of four major consumers: China, Italy, Japan, and the Russian Federation. • Group B consists of four major investors: Germany, Netherlands, India, and the Republic of Korea. • Group C consists of four major exporters: Australia, Canada, Chile, and South Africa. • Group D consists of six developing states and special interests: Bangladesh, Brazil, Fiji, Jamaica, Lesotho, and Uganda. • Group E consists of 19 equitable geographic representatives: Algeria, Argentina, Belgium, Cameroon, Costa Rica, Czech Republic, Ghana, Mauritius, Mexico, Morocco, Nauru, Nigeria, Norway, Poland, Sierra Leone, Singapore, Spain, Tonga, and Trinidad and Tobago.
Decisionmaking process	Along with the Secretary-General, two principal organs establish the policies and govern the work of the authority: the Assembly, in which all UNCLOS parties are represented, and a 36-member Council elected by the Assembly.[g]
Membership	
Membership	As of May 18, 2023, ISA had 170 members, including 169 member states and the European Union.[h]
Type of membership	States and state blocs
Private-sector and civil-society role	• "Important information on the negotiation process is kept under tight wraps and the engagement of representatives from civil society organisations such as non-governmental organisations (NGOs) is not adequately guaranteed."[b] • Following complaints, ISA drafted a stakeholder-inclusion strategy in 2021 and submitted it for public review.[i] Some civil societies have continued to criticize the framework and regulations of the organization.[b]
How are nonmembers included in or subjected to this organization?	Nonmember states can engage with ISA by attending its sessions as observers. They can participate in discussions but do not have the right to vote. This allows nonmember states to stay informed and contribute to the deliberations without being a part of the decisionmaking process.[j]

[a] ISA, "ISA Partnership Fund."

[b] Ocean Care, "International Seabed Authority (ISA)."

[c] ISA," International Seabed Authority Financial Statements for the Year Ended 31 December 2022."

[d] ISA, "Decision of the Assembly of the International Seabed Authority Concerning the Financial Regulations of the ISA," p. 7.

[e] ISA, "Organs of the International Seabed Authority."

[f] ISA, "The Secretariat."

[g] UNCLOS Part XI, The Area; Section 4, The Authority.

[h] ISA, "ISA Member States."

[i] ISA, "ISA Opens Draft Communications and Stakeholder Engagement Strategy for Public Consultation."

[j] UN, "Seabed Authority Studies Rules on Polymetallic Sulphides, Crusts at Ninth Session in Kingston."

TABLE A.21

International Panel on Climate Change Functions Overview

Function	How the Organization Performs the Function
Build norms	"Through its assessments, the IPCC determines the state of knowledge on climate change. It identifies where there is agreement in the scientific community on topics related to climate change, and where further research is needed."[a]
Convene members or stakeholders	"[T]he IPCC holds meetings of its government representatives, convening as plenary sessions of the Panel or IPCC Working Groups to approve, adopt and accept reports."[a]
Set the agenda for policy formulation and global dialogue	"Through its assessments, the IPCC identifies the strength of scientific agreement in different areas and indicates where further research is needed."[b]
Conduct international joint research and development	The IPCC, "consisting of the world's leading climate scientists, plays a unique role within climate science: providing policymakers with regular, comprehensive, and authoritative scientific assessments on climate science knowledge, building on the work of thousands of scientists worldwide. The IPCC has been instrumental in creating a broad, evidence-based consensus on the link between human activity and climate change, and its impacts, future risks, and options for adaptation and mitigation."[c]
Share information or facilitate information-sharing	"The IPCC prepares comprehensive Assessment Reports about the state of scientific, technical and socio-economic knowledge on climate change, its impacts and future risks, and options for reducing the rate at which climate change is taking place."[a]

[a] IPCC, homepage.

[b] IPCC, "About the IPCC."

[c] European Commission, "Intergovernmental Panel on Climate Change (IPCC)."

TABLE A.22

International Panel on Climate Change Organizational Profile

	Organizational Activities
Mission and focus	"To provide governments at all levels with scientific information that they can use to develop climate policies"[a]
Specific mandate and missions	"The IPCC prepares comprehensive Assessment Reports about the state of scientific, technical and socio-economic knowledge on climate change, its impacts and future risks, and options for reducing the rate at which climate change is taking place. It also produces Special Reports on topics agreed to by its member governments, as well as Methodology Reports."[b]
Formalization and authorities	"Established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988. Initial task outlined in UN General Assembly Resolution 43/53 of 6 December 1988."[c]
Activities overview	Research • "IPCC has 3 working groups and a task force. Working Group I deals with The Physical Science Basis of Climate Change, Working Group II with Climate Change Impacts, Adaptation and Vulnerability and Working Group III with Mitigation of Climate Change."[a] • "The IPCC establishes different Ad-hoc and Task Groups to address specific issues." Currently, these are the "Task Group on Data Support for Climate Change Assessments" and the "Ad-hoc Group on the size, structure and composition of the IPCC Bureau and any Task Force Bureau for the Seventh Assessment cycle."[d] Convening members and stakeholders • The "IPCC Panel meets in plenary session at least once a year." • "The IPCC Sessions are attended by hundreds of officials and experts from relevant ministries, agencies and research institutions from member countries and from Observer Organizations."[e] Sharing information • "To support the preparation of its reports, the IPCC organizes scoping meetings, lead author meetings, workshops and expert meetings. It also organizes various outreach events that communicate its findings, methodologies and explains the way the organization works."[f]

Table A.22—Continued

	Organizational Activities
Infrastructure, Governance, and Structure	
Funding	Proposed 2023 total (from a 2022 source): 8,248,818 Swiss francs[g]
Funding source(s)	• "Regular contributions from its parent organizations WMO and UNEP, and voluntary contributions from its member governments and the UNFCCC [UN Framework Convention on Climate Change]" • "The WMO also hosts the IPCC Secretariat, and the WMO and UNEP each fund the costs of a senior staff member in the Secretariat." • "The IPCC Trust Fund is administered under the Financial Regulations of the WMO. The Trust Fund supports IPCC activities, in particular the participation of developing country experts in the IPCC, the organization of meetings as well as publication and translation of IPCC reports." • "Governments provide further substantial in-kind support for activities of the IPCC, in particular by hosting Technical Support Units, supporting the participation of experts from their respective countries in IPCC activities, and by hosting meetings."[h]
Location of headquarters	Geneva, Switzerland
How is leadership decided?	**Executive Committee:** "The IPCC Chair, IPCC Vice-Chairs, and the Co-Chairs of the three Working Groups and the Task Force on National Greenhouse Gas Inventories form the Executive Committee (ExCom). It includes as advisory members the head of the IPCC Secretariat and the heads of the Technical Support Units of the Working Groups and TFI [Task Force on National Greenhouse Gas Inventories]. It meets regularly and its meetings are chaired by the IPCC Chair." **Bureau:** "The Panel elects a Bureau to provide guidance to the Panel on the scientific and technical aspects of its work, advise on related management and strategic issues, and take decisions on specific issues within its mandate. The Bureau is made of the IPCC Chair, IPCC Vice-Chairs, the Co-Chairs and Vice-Chairs of the three Working Groups and the Co-Chairs of the Task Force on National Greenhouse Gas Inventories. It currently has 34 members. None of them is paid by the IPCC. Members of the Bureau are elected by the Panel for the duration of an assessment cycle and must reflect a balanced geographic representation, with due consideration for scientific and technical requirements."[i]
Staffed by	• The "IPCC secretariat has 14 members of staff and four interns. The IPCC Chair, IPCC Vice-Chairs, and the Co-Chairs of the three Working Groups and the Task Force on National Greenhouse Gas Inventories form the Executive Committee." • "Each Working Group and the Task Force on National Greenhouse Gas Inventories is supported by a Technical Support Unit." • "IPCC reports are written by volunteer experts. Authors are selected on the basis of their expertise following a call to governments, Observer Organizations and the IPCC Bureau for nominations and the submission of detailed CVs [curricula vitae]. After the nomination deadline, the Bureau of the relevant IPCC Working Group or Task Force selects the experts for these roles, taking into account the range of scientific, technical and socio-economic views and backgrounds, as well as geographical and gender balance."[i]
Governance	The Executive Committee's "role is to strengthen and facilitate the timely and effective implementation of the IPCC work programme in accordance with the IPCC's Principles and Procedures, the decisions of the Panel, and the advice of the Bureau."[i]
Decisionmaking process	• "Representatives of IPCC member governments meet one or more times a year in Plenary Sessions of the Panel. They elect a Bureau of scientists for the duration of an assessment cycle. Governments and Observer Organizations nominate, and Bureau members select experts to prepare IPCC reports." • "Representatives of IPCC member governments meet in Plenary Sessions at least once a year. The Sessions are attended by hundreds of officials and experts from relevant ministries, agencies and research institutions from member countries and from Observer Organizations. The Panel works by consensus to decide on the organization's budget and work programme; the scope and outline of its reports; issues related to principles and procedures of the IPCC; and the structure and mandate of IPCC Working Groups and Task Forces. The Panel also approves and adopts IPCC reports and elects the IPCC Chair, other members of the IPCC Bureau and the Task Force Bureau."[i]

Table A.22—Continued

	Organizational Activities
Membership	
Membership	195 member states[j, k]
Type of membership	Multilateral, broad, and inclusive; consists of organizations of governments that are members of the UN or WMO.[a]
Private-sector and civil-society role	"Any non-profit body or agency qualified in matters covered by the IPCC, whether national or international, governmental or intergovernmental, may be admitted as an IPCC Observer Organization."[i]
How are nonmembers included in or subjected to this organization?	"Any non-profit body or agency qualified in matters covered by the IPCC, whether national or international, governmental or intergovernmental, may be admitted as an IPCC Observer Organization."[i]

[a] IPCC, "About the IPCC."
[b] IPCC, homepage.
[c] IPCC, "History of the IPCC."
[d] IPCC, "IPCC Ad-Hoc and Task Group."
[e] IPCC, "IPCC Sessions."
[f] IPCC, "Activities."
[g] IPCC, "IPCC Trust Fund Programme and Budget."
[h] IPCC, "Funding and Financial Procedures."
[i] IPCC, "Structure of the IPCC."
[j] IPCC, "IPCC Focal Points."
[k] IPCC, "List of IPCC Member Countries."

TABLE A.23

International Organization for Standardization Functions Overview

Function	How the Organization Performs the Function
Set standards	"Like a symphony, it takes a lot of people working together to develop a standard. ISO's role is similar to that of a conductor, while the orchestra is made up of independent technical experts nominated by our members."[a]
Conduct international joint research and development	"ISO's research activities aim to understand and communicate how standards support economic growth, social progress and environmental sustainability."[b]
Support research	ISO research grants[b]
Build capacity	"ISO invests in strengthening the skills of its members, both at the human and the organizational level, through extensive training and technical assistance programmes."[c]
Share information or facilitate information-sharing	"ISO has developed a series of teaching materials that are available for all ISO members to use."[d]

[a] ISO, "Developing Standards."
[b] ISO, "Research."
[c] ISO, "Capacity Building."
[d] ISO, "Education About Standards."

TABLE A.24

International Organization for Standardization Organizational Profile

	Organizational Activities
Mission and focus	"Through our members (the national standards bodies in 170 different countries) we bring together experts from all over the world to develop International Standards."[a]
Specific mandate and missions	"Depending on your member category, you have up to four statutory member rights. These are rights to: 1. Participate in developing ISO standards 2. Sell ISO standards and publications, and use copyright and the ISO name and logo 3. Participate in developing ISO policy 4. Participate in governing ISO."[b]
Formalization and authorities	ISO "is an independent, non-governmental international organization"[c] officially formed in 1947 as a result of a "conference of national standardizing organizations . . . [that] took place in London from 14 to 26 October, 1946."[d]
Activities overview	"Through our members (the national standards bodies in 170 different countries) we bring together experts from all over the world to develop International Standards. But beyond the task of guiding thousands of documents through drafting, review, voting and publication, we also offer a range of services that support our strategic goals. Among these we work to help raise public awareness of standards and standardization. . . . We promote the teaching of standardization, by participating directly in a joint master's program, helping our members to set up similar programs and by maintaining a database of materials related to standards in education at all levels. In addition to raising awareness, we also help our members through training, and act as a resource for standards-related research."[a]
Infrastructure, Governance, and Structure	
Funding	Total 2022 revenue: 43,388,000 Swiss francs[e]
Funding source(s)	"Our national members pay subscriptions that meet the operational costs of the Central Secretariat. The subscription paid by each member is in proportion to the country's gross national income and trade figures. Another source of revenue is the sale of standards."[f]
Location of headquarters	Geneva, Switzerland
How is leadership decided?	Presidency is elected by the General Assembly to two-year terms[b]
Staffed by	"Our Central Secretariat in Geneva, Switzerland, coordinates the system and runs day-to-day operations, overseen by the Secretary-General."[f]
Governance	• "The General Assembly is the overarching organ and ultimate authority of the organization."[f] • "The ISO Council is the core governance body of the organization and reports to the General Assembly. It meets three times a year and is made up of 20 member bodies, the ISO Officers and the Chairs of the Policy Development Committees."[f] • "The management of the technical work is taken care of by the Technical Management Board, which reports to Council."[f]
Decisionmaking process	"The annual ISO General Assembly is the highest governing body of ISO and it takes decisions usually based on Council recommendations."[b] See Figure A.1.
Membership	
Membership	170 members[g]
Type of membership	National Standards Bodies "ISO has one member per country. As the national representative of ISO, . . ." the national standards body is "the organization most representative of standardization in" that country and "can delegate membership rights and obligations to other organizations but . . . [remains] responsible to the other ISO members. Many ISO members are part of the government structure in their country or mandated by government. Others are private-sector organizations."[b]

Table A.24—Continued

	Organizational Activities
	Three types of members: • "Full members (or member bodies) influence ISO standards development and strategy by participating and voting in ISO technical and policy meetings. Full members sell and adopt ISO International Standards nationally. • Correspondent members observe the development of ISO standards and strategy by attending ISO technical and policy meetings as observers. Correspondent members that are national entities sell and adopt ISO International Standards nationally. Correspondent members in the territories that are not national entities sell ISO International Standards within their territory. • Subscriber members keep up to date on ISO's work but cannot participate in it. They do not sell or adopt ISO International Standards nationally."[a]
Private-sector and civil-society role	"ISO standards are developed by groups of experts from all over the world, that are part of larger groups called technical committees. . . . The technical committees are made up of experts from the relevant industry, but also from consumer associations, academia, NGOs [nongovernmental organisations] and government."[h]
How are nonmembers included in or subjected to this organization?	Nonmembers are subjected to standards developed by the body. According to ISO, "[i]f you are not a full and active member of ISO, you are letting others decide how standards are set and under what conditions your country participates in international trade."[b]

[a] ISO, "What We Do."
[b] ISO, "Membership Manual," p. 5.
[c] ISO, "About ISO."
[d] ISO, *Friendship Among Equals: Recollections from ISO's First Fifty Years*, p. 15.
[e] ISO, "2022 in Review."
[f] ISO, "Structure and Governance."
[g] ISO, "Members."
[h] ISO, "Developing Standards."

FIGURE A.1

International Organization for Standardization Decisionmaking Process

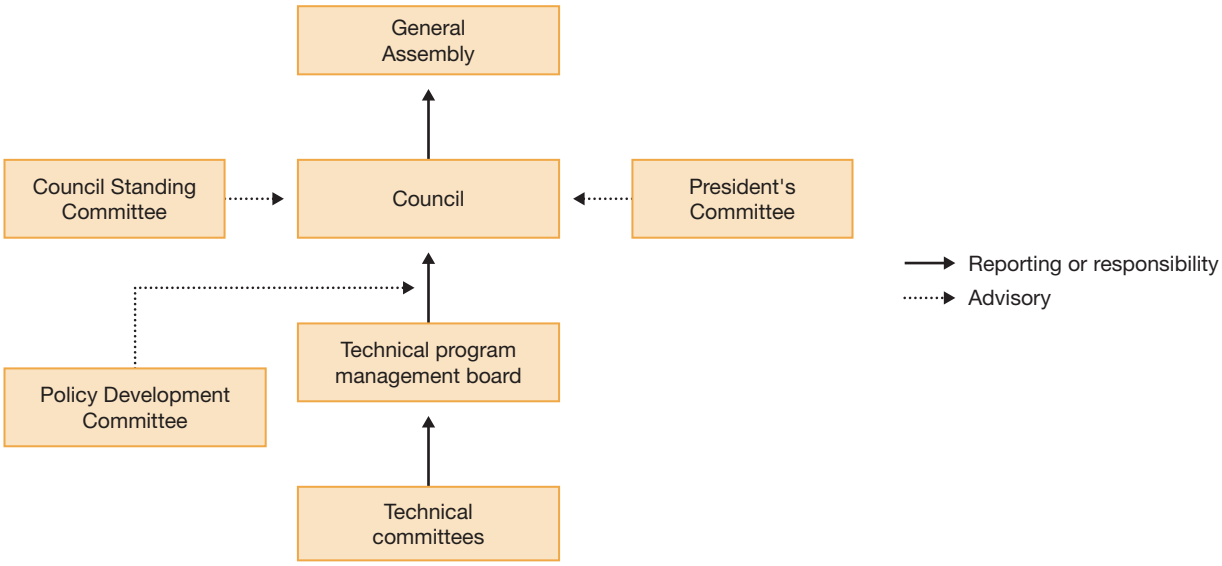

TABLE A.25

Organisation for Economic Co-operation and Development Functions Overview

Function	How the Organization Performs the Function
Conduct international joint research and development	"We collect and compare data, and conduct analysis to inform and steer economic, social and environmental policies."[a]
Set standards	"The OECD sets international standards and codes in collaboration with Member countries."[a]
Build norms	"We help to guide and inform the international policy debates in global fora. We contribute to virtually all of the G20 work strands with data, analytical reports, policy recommendations and standards, and we collaborate with the G7, Deauville Partnership, Asia Pacific Economic Cooperation . . . and African Union Commission, as well as many others. We provide leadership in key areas at the request of governments, such as on tax avoidance, the fight against corruption, and digital transformation which can only be tackled through cross-border approaches. We help to foster effective international co-operation that improves economic outcomes and everyday lives."[a]
Build capacity	"While some 4000 meetings and other events take place each year at the OECD, our experts are present where the debates are happening, working directly with governments and broader civil society in countries and through consultations."[a]
Share information or facilitate information-sharing	"Countries and partners discuss policy options and common rules for international co-operation through thematic committees, expert and working groups. A broad range of perspectives are included through consultations and in-country missions."[a]

[a] OECD, "How We Work."

TABLE A.26

Organisation for Economic Co-operation and Development Organizational Profile

	Organizational Activities
Mission and focus	The OECD "works to build better policies for better lives. Our goal is to shape policies that foster prosperity, equality, opportunity and well-being for all. We draw on 60 years of experience and insights to better prepare the world of tomorrow."[a]
Specific mandate and missions	"Together with governments, policy makers and citizens, we work on establishing evidence-based international standards and finding solutions to a range of social, economic and environmental challenges. From improving economic performance and creating jobs to fostering strong education and fighting international tax evasion, we provide a unique forum and knowledge hub for data and analysis, exchange of experiences, best-practice sharing, and advice on public policies and international standard-setting."[a]
Formalization and authorities	"The forerunner of the OECD was the Organisation for European Economic Co-operation (OEEC), which was formed to administer American and Canadian aid under the Marshall Plan for the reconstruction of Europe after World War II. The Convention transforming the OEEC into the OECD was signed at the Chateau de la Muette in Paris on 14 December 1960 and entered into force on 30 September 1961."[b]
Activities overview	Research • The OECD offers a large number of data sets and publications in diverse topic areas, including agriculture, education, and corporate governance. Among its unique products are the OECD "better life" index and the "social and institutions gender index."[c] • Another example of internal research output is the OECD Economic Outlook, which is prepared by the Economics Department and published twice a year. Such reports are produced by officials but draw on research and deliberations informed by specific committees and expert working groups (of which approximately 300 are active across various subject areas).[d] • The OECD provides general access to the data its secretariat gathers to academia. For example, the OECD data warehouse is publicly accessible online for free and is maintained by the OECD Statistics and Data Directorate.[e] • A number of OECD divisions offer research fellowships. For example, Agriculture offers the Co-operative Research Program, which has run since 2019.[f]

Table A.26—Continued

	Organizational Activities
	Standard-setting • "Within the OECD, the term 'standard' is used to encompass all OECD legal instruments and other sets of policy principles or guidelines developed within the OECD framework. An OECD standard sets out a collective agreement among the Members about what they shall do, should do, or intend to do. Many OECD standards have been embodied in substantive OECD legal instruments, while others have not. Examples of OECD standards that are not legal instruments include the BEPS [Base Erosion and Profit Shifting] Package and the development finance standards."[g] • "The OECD's international standards remain the backbone of efforts to foster responsible, effective and inclusive multilateralism. Even though the majority of OECD standards are not legally binding, political commitment to their implementation, coupled with the OECD's hallmark peer review mechanisms and other tools to support their dissemination and implementation, ensures their relevance and impact."[h] Information-sharing • "4 000 conferences and seminars take place each year at the OECD."[i] • "The OECD Forum, our largest annual public event, welcoming more than 3 500 participants each year, embodies our approach."[i]
Infrastructure, Governance, and Structure	
Funding	Total in 2025: €361.1 million
Funding source(s)	• Part I budget (contributions from all member countries): €235 million in 2025 • Part II budget (covers programmes that are of interest to a limited number of Members and are funded according to scales of contributions or other agreements among the participating countries): €126.1 million in 2025[i]
Location of headquarters	Paris, France[j]
How is leadership decided?	"A candidate for the position of Secretary-General shall be a national of an OECD Member country, and shall be nominated by an OECD Member. "Each candidate shall be given the opportunity to be interviewed by Permanent Representatives at a meeting of the HODs [heads of delegations] called by the Chair. Such interviews should allow the candidates to make a brief presentation, articulating their vision for the OECD in the future and how this could be achieved. These interviews shall be followed by question and answer sessions with the HODs. "Following the interviews, the Chair shall conduct confidential individual consultations with the Members, in order to narrow the field of candidates and ultimately identify the candidate around whom consensus can be built for appointment as the Secretary-General. The Chair shall proceed by successive stages of consultations, identifying, at each stage, the candidate or candidates with the least support of the Members. Straw polls may be used, as necessary. "At the outcome of each stage, the Chair shall report to the Members the identified candidates expected to withdraw. The number of stages of consultations and the number of candidates expected to withdraw at each stage should be determined by the Chair, according to the total number of candidates and other circumstances. "At the final stage of consultations, the Chair shall identify the candidate that has the most support to be proposed to the Council for appointment as Secretary-General. The conclusions of the Chair shall be formalised in a report addressed to the HODs."[k]
Staffed by	"The OECD Secretariat carries out the work of the OECD. It is led by the Secretary-General and composed of directorates and divisions that work with policy makers and shapers in each country, providing insights and expertise to help guide policy making based on evidence in close coordination with committees. Directorates report to the Secretary-General. The 3300 employees of the Secretariat include economists, lawyers, scientists, political analysts, sociologists, digital experts, statisticians and communication professionals. In addition to its Headquarters in Paris, France, the OECD also has centres in Berlin, Mexico, Tokyo and Washington D.C., which are part of the OECD's public affairs and communications team."[d]
Governance	The OECD Council is the organisation's overarching decisionmaking body. It is composed of ambassadors from Member countries and the European Commission and is chaired by the Secretary-General.[d]

Table A.26—Continued

	Organizational Activities
Decisionmaking process	"The OECD Council is the organization's overarching decision-making body. It is composed of ambassadors from Member countries and the European Commission and is chaired by the Secretary-General. It meets regularly to discuss key work of the Organization, share concerns and take decisions by consensus. Once a year, the OECD Council meets for the Ministerial Council Meeting, which brings together heads of government, economy, trade and foreign ministers from Member countries to monitor and set priorities for our work, discuss the global economic and trade context, and delve further into issues such as the budget or the accession process. "The OECD works through more than 300 committees, expert and working groups which cover almost all areas of policy making. Our committees propose solutions, assess data and policy successes, and review policy actions among Member countries. They cover the same issue areas as government ministries, such as education, finance, trade, environment, development, and liaise with country-level experts. Committee participants come from Member and partner countries, and represent state bodies, academia, business and civil society. Around 40 000 people take part in these meetings every year. Some discussions can evolve into negotiations in which all OECD countries define and follow common global rules."[d]
Membership	
Membership	38 countries[a]
Type of membership	Multilateral, involving countries from Europe, Asia, and North and South America[l]
Private-sector and civil-society role	"Since 1962, trade unions and businesses have had an institutional status at the OECD through Business at OECD (BIAC) and the Trade Union Advisory Committee (TUAC). The Secretary-General and the Council of the OECD have annual consultations with Business at OECD and TUAC, and the majority of OECD committees engage regularly as well. "The OECD also engages directly with civil society organisations (CSOs) and with umbrella organisations. "The OECD organises many events both at its headquarters in Paris and around the world—in person, online or a combination of both—held by OECD Directorates [to] inform the development or review of the Organisation's work. "CSOs are also part of consultative experts at the OECD, where they participate on an equal footing with other stakeholder groups. Examples include the European Environmental Bureau at committees and Working Parties of the Environment directorate and the DAC [Development Assistance Committee] CSO reference group at the Development Assistance Committee."[m]
How are nonmembers included in or subjected to this organization?	"The OECD Development Centre provides countries with policy advice that is independent, multi-disciplinary, rigorous and tailored to their needs. It brokers informal dialogue, building trust between governments and engaging with a variety of public, private and philanthropic actors. The Centre's Governing Board is open to both OECD and non-OECD countries from all regions and income groups."[l]

[a] OECD, "Who We Are."

[b] OECD, "60 Years."

[c] OECD, The OECD at 60.

[d] OECD, "Organisational Structure."

[e] OECD, "OECD Data Explorer."

[f] OECD, "Fellowships Awarded by the Co-operative Research Programme "

[g] OECD, "OECD Legal Instruments."

[h] OECD, "How We Work."

[i] OECD, "Member Countries' Budget Contributions."

[j] OECD, "The OECD Conference Center."

[k] OECD, "Selection of the Secretary-General of the OECD."

[l] OECD, "Our Global Reach."

[m] OECD, ""Civil Society and the OECD."

TABLE A.27

Organisation for the Prohibition of Chemical Weapons Functions Overview

Function	How the Organization Performs the Function
Build capacity	"The OPCW Technical Secretariat regularly holds training courses around the world for personnel involved with National Authorities; since 1997, thousands of participants have received support through OPCW meetings, workshops, training courses and seminars."[a]
Monitor	"Each State Party is required to submit chemical weapons related declarations to the OPCW no later than 30 days after the Convention enters into force for that State Party. Chemical weapons related declarations include information on chemical weapons, old and abandoned chemical weapons, chemicals weapons production facilities, chemical weapons research and development facilities or establishments, and riot control agents."[b]
Verify	"All destruction activities undertaken by Member States are required to occur under the watchful eye of the OPCW. . . . The Technical Secretariat employs a diverse group of chemical demilitarisation inspection experts who have unimpeded access to all parts of the chemical weapons storage facilities and chemical weapons destruction facilities."[b] OPCW conducts verification to prevent the reemergence of chemical weapons as well: "OPCW inspectors visit the facilities where these chemicals are produced, processed, or consumed to ensure that the declarations are complete and accurate."[c]
Certify activities, products, or entities	"The OPCW has its own accreditation scheme through which it can determine 'OPCW Designated' laboratories around the world. This means the laboratory is of a high standard in regard to its chemical analysis capabilities as proven through a series of proficiency tests organised by the OPCW."[d]
Respond to incidents	"There are different ways in which the OPCW can respond to the use or alleged use of chemical weapons, ranging from carrying out a formal investigation to providing emergency assistance."[e]
Implement reporting requirements	Reporting requirements for Schedule 1, 2, and 3 chemical weapons[f]
Investigate incidents	Can establish teams to investigate incidents, such as the Investigation and Identification Team to "identify the perpetrators of specific instances of chemical weapons use in the Syrian Arab Republic."[g]
Receive incident reports	"If a Member State considers that chemical weapons have been used against it, or it is threatened by actions prohibited by the Convention, it can request assistance from the OPCW."[e]

[a] OPCW, "Supporting National Implementation of the Convention."

[b] OPCW, "Eliminating Chemical Weapons."

[c] OPCW, "Preventing the Re-Emergence of Chemical Weapons."

[d] OPCW, "Promoting Chemistry for Peace."

[e] OPCW, "Responding to the Use of Chemical Weapons."

[f] OPCW, "Declaration Requirements for Scheduled Chemicals."

[g] OPCW, "Investigation and Identification Team (IIT)."

TABLE A.28

Organisation for the Prohibition of Chemical Weapons Organizational Profile

	Organizational Activities
Mission and focus	"[T]o implement the provisions of the Chemical Weapons Convention to achieve our vision of a world free of chemical weapons and the threat of their use, and in which chemistry is used for peace, progress, and prosperity"[a]
Specific mandate and missions	• "[D]estroying all existing chemical weapons under international verification by the OPCW; • [M]onitoring chemical industry to prevent new weapons from reemerging; • [Providing] assistance and protection to States Parties against chemical threats; and • [F]ostering international cooperation to strengthen implementation of the Convention and promote the peaceful use of chemistry."[b]

Table A.28—Continued

	Organizational Activities
Formalization and authorities	Authorized as part of the Chemical Weapons Convention.
Activities overview	OPCW works to prevent the reemergence of chemical weapons, support national implementation of the Convention, promote the peaceful use of chemistry, ensure preparedness, maintain readiness and verification capacity through formal inspections, and provide emergency assistance when needed.[c] This includes: • Eliminating chemical weapons: This occurs via OPCW's Declarations Branch for processing, evaluation, and validation. • Verifying destruction of chemical weapons: OPCW is present to observe all official destruction activities undertaken by Member States. • Staff: OPCW staff are typically chemical demilitarization inspection experts with unimpeded access to all parts of the chemical weapons storage facilities and chemical weapons destruction facilities. They are responsible for inventorying chemical weapon stockpiles and monitoring and verifying destruction operations, including the completion of such operations. • Facilitating the exchange of information and equipment • Preventing re-emergence of chemical weapons: The OPCW ensures that chemical declarations are complete and accurate. Specifically, they – Adopt a cooperative stance when possible; they do not adopt an investigative approach. – Any State Party can request the Secretariat to conduct an on-site challenge inspection anywhere in the territory (or under the jurisdiction or control) of any other member. – Members cannot refuse. – They are encouraged to resolve any noncompliance among the member states before making the request. – Such inspections can be launched at very short notice and can be directed at declared or undeclared facilities and locations. OPCW requires members to have their own national authorities for ensuring compliance. These range from a few staff for members without major chemical industries to separate government agencies with full staffs for those that do have major chemical industries. OPCW supports this by • making specific dual-use provisions for promoting peaceful chemical research, which involves – providing specific training and workshops to support capacity building and knowledge-sharing – providing expert support to build and maintain the technical capabilities of analytical chemistry laboratories globally – having its own accreditation scheme for "OPCW Designated" laboratories in individual states • building protective capacity against chemical weapons by providing information, advice, training, and equipment for member states to improve their protection and response capabilities.[d] • facilitating emergency response. States Parties may – contribute to the Voluntary Fund for Assistance, as these are funds to be used to provide assistance if a State Party is attacked or threatened with chemical weapons – enter into agreements with OPCW regarding the provision of assistance on demand – decide to declare the kind of assistance they might provide in response to an appeal by OPCW to support another State Party under attack with chemical weapons or under threat of attack. Many States Parties have made such offers of assistance.
Infrastructure, Governance, and Structure	
Funding	Total of roughly US$86.7 million[e]
Funding source(s)	• The regular budget fund derives primarily from assessed annual contributions from each member state (uses a variant of the UN formula); states also reimburse the cost of verification costs in their territory.[f] • The working capital fund is designed to meet short-term liquidity problems and is member-state funded based on the same formula.[g] • Contributions to the voluntary fund for assistance can be in-kind. States can also direct voluntary contributions to geographic or function-limited trusts.
Location of headquarters	The Hague, Netherlands

Table A.28—Continued

	Organizational Activities
How is leadership decided?	The Director General is appointed by the Conference of States Parties for a four-year term.[f]
Staffed by	Technical directorate is largely experts recruited from member countries. Specific divisions for inspection, monitoring and verification. About 60 percent are in the inspection and verification division.[h]
Governance	Oversight is through the Conference of States Parties (which is every member) and the Executive Council (41 states elected on rotating two-year terms).[f]
Decisionmaking process	Budgetary decisions require a two-thirds majority of present Conference of States Parties members.[f]
Membership	
Membership	193 member states[i]
Type of membership	Multilateral and inclusive
Private-sector and civil-society role	CWC Coalition established as a partner organization for organizing and promoting civil society role supporting the Conference of States Parties.[j]
How are nonmembers included in or subjected to this organization?	The only nonmembers are Egypt, Israel (signed but not ratified), North Korea and, South Sudan. Aside from monitoring open sources and imposing pressure via memberstates, the impact is more limited. Interestingly, it does partner with industry and has undertaken 4,566 industrial inspections since 1997.[e]

[a] OPCW, "Mission."

[b] United Nations Global Marketplace, "About OPCW."

[c] OPCW, "Our Work"; Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction.

[d] OPCW, "Capacity Building."

[e] OPCW, "OPCW by the Numbers."

[f] Kerr, Nikitin, and Blanchfield, "Organization for the Prohibition of Chemical Weapons (OPCW)."

[g] U.S. Government Accountability Office, *Chemical Weapons*.

[h] OPCW, "Technical Secretariat."

[i] OPCW, "Member States."

[j] Chemical Weapons Convention Coalition, "Civil Society at the CSP."

TABLE A.29

World Health Organization Functions Overview

Function	How the Organization Performs the Function
Forecast	"To stay on top of scientific and technological advancements and epidemiological trends, WHO must anticipate new trends, technologies, research, and discoveries in medical and public health."[a]
Set standards	WHO sets data-collection "reference classification" standards for "health data, clinical documentation, and statistical aggregation."[b] It also collaborates with the UN Food and Agriculture Organization to set international food standards via the Codex Alimentarius.[c]
Build norms	"WHO is the world's foremost public health agency. One of its key roles is bringing the best skills, science and evidence to inform practice through setting globally-applicable norms and standards."[d]
Monitor	WHO has published its World Health Statistics reports annually since 2005, as its "annual compilation of the state of the world's health through data recorded from its 194 Member States. Since 2016, the World health statistics series has focused on monitoring progress toward the Sustainable Development Goals (SDGs), and the 2019 edition contains the latest available data for the health-related SDG indicators."[e]

Table A.29—Continued

Function	How the Organization Performs the Function
Respond to incidents	WHO's Strategic Health Operations Centre (SHOC) "uses emergency management tools to support risk assessments and any required WHO response. Beyond response operations, SHOC is involved in identifying and tracking resources and appraising public health threats."[f]
Investigate incidents	"WHO's global surveillance system picks up public health threats 24 hours a day, 365 days a year. Once an event is verified, WHO assesses the level of risk and sounds the alarm to help protect populations from the consequences of outbreaks, disasters, conflict and other hazards."[g]
Support research	"WHO helps to provide global guidance for research priority setting. Our global, regional and country-level reach means we can help to clearly articulate the needs of the countries, and we are uniquely well-placed to broker multinational research efforts."[a]
Share information or facilitate information-sharing	"WHO currently works with 5 hosted partnerships, more than 100 collaborative arrangements and over 800 collaborating centres. These collaborations are the best way to extend the reach of our programmes, learn from the knowledge and expertise of those in the field and support the objectives of national health systems."[h]
Set the agenda for policy formulation and global dialogue	"With the needs of Member States at its core, the Science Division provides leadership to identify priorities for research, technological advancements, health systems and behavior-change interventions."[a]

[a] WHO, "Research for Health."

[b] WHO, "Classifications and Terminologies"; WHO, "Data."

[c] Food and Agriculture Organization of the United Nations and WHO, "Codex Alimentarius: International Food Standards."

[d] WHO, "Quality Assurance, Norms and Standards."

[e] WHO, "Understanding Global Health Through Data Collection."

[f] WHO, "Emergencies: Operations."

[g] WHO, "Rapidly Detecting and Responding to Health Emergencies."

[h] WHO, "How We Collaborate."

TABLE A.30

World Health Organization Organizational Profile

	Organizational Activities
Mission and focus	"Dedicated to the well-being of all people and guided by science, WHO leads and champions global efforts to give everyone, everywhere an equal chance to live a healthy life."[a]
Specific mandate and missions	Currently, the "Triple Billion Targets" are • "One billion more people benefit from universal health coverage" • "One billion more people are better protected from health emergencies" • "One billion more people enjoy better health and well-being."[b]
Formalization and authorities	The organization's constitution, the product of an international convention, came into force April 7, 1948.[c]
Activities overview	There are six "key programmatic areas": • universal health coverage • health emergencies program • access to medicines and health products • antimicrobial resistance • science • data analytics and impact.[d]
Infrastructure, Governance, and Structure	
Funding	Total two-year budget: US$6.72 billion[e]

Table A.30—Continued

	Organizational Activities
Funding source(s)	Member states provide funds as either assessed or voluntary contributions. Assessed contributions are annual amounts from each member state derived by applying a biannually reviewed formula to the state's gross domestic product. These account for less than 20 percent of total funds.[f] There are three types of voluntary contributions: Core voluntary contributions are unconditional donations to WHO; thematic and strategic engagement funds are voluntary but tied to specific types of activity, depending on the fund; and specified voluntary contributions are tied to specific projects, geographic areas, and time frames (and constitute 88 percent of all voluntary contributions).[g]
Location of headquarters	Geneva, Switzerland
How is leadership decided?	Member states elect the director-general for a five-year term (with no term limit); any member state can nominate a candidate. Member states also elect 34 executive board members for three-year terms. Board members must have technical qualifications in health. The six regional directors are elected, too, but reforms appear to be under discussion.[h]
Staffed by	The permanent staff consists largely of medical professionals and administrators recruited directly to work for the secretariat.[i]
Governance	Key governance functions occur through the World Health Assembly and the executive board. The World Health Assembly is the decisionmaking body for the organization, consists of delegations from each of the member states, and elects the leadership.[i]
Decisionmaking process	World Health Assembly delegations consult and vote on agenda items for setting WHO's priorities. Deliberations are ongoing, but the meetings themselves (where decisions are made) occur annually.[j] The executive board supports these deliberations, meeting in January and May to develop draft decisions and resolutions. The assembly has emergency authority to direct action by the secretariat (only used twice, for Ebola and COVID-19).[k]
Membership	
Membership	194 countries[l]
Type of membership	State-based, multilateral, broad and inclusive
Private-sector and civil-society role	Extensive, including nonaligned academic experts, health groups, government agencies, and celebrity envoys
How are nonmembers included in or subjected to this organization?	Essentially global membership, but global disease surveillance affects all states and parties. Collaboration with internal agencies and cooperative governments helps achieve the correct level of funding and access.

[a] WHO, "About WHO."
[b] WHO, "The Triple Billion Targets."
[c] WHO, "History of WHO."
[d] WHO, "Our Work."
[e] WHO, "Programme Budget."
[f] WHO, "Assessed Contributions."
[g] WHO, "How WHO Is Funded."
[h] Buse et al., "Reforming the WHO Regional Director Election."
[i] WHO, "World Health Organization Headquarters."
[j] WHO, "World Health Assembly."
[k] Patnaik, "The World Health Assembly."
[l] WHO, "Countries."

TABLE A.31

World Meteorological Organization Functions Overview

Function	How the Organization Performs the Function
Forecast	Tracks trends in and models hazardous weather events using local infrastructure to build resilience.[a]
Monitor	Monitors weather trends using the infrastructure of regional organizations and local governments placed around the globe.[b]
Convene members or stakeholders	Serves as a platform through which members states can share meteorological information and best practices regarding disaster prevention, provision of hydrological services, etc.[c]
Share information or facilitate information-sharing	Facilitates exchanges of data on weather events, greenhouse gases, etc.[d]
Support research	Exchange of meteorological data informs climate research of regional organizations and governments.[e]
Conduct international joint research and development	Organizes research programs staffed by technical experts that focus on trends in weather and climate.[e]

[a] WMO, "Model."

[b] WMO, "Observe and Monitor."

[c] WMO, "Exchange Data."

[d] WMO, "Inform."

[e] WMO, "Research."

TABLE A.32

World Meteorological Organization Organizational Profile

	Organizational Activities
Mission and focus	"WMO provides world leadership and expertise in international cooperation in the delivery and use of high-quality, authoritative weather, climate, hydrological and related environmental services by its Members, to improve the well-being of all."[a]
Specific mandate and missions	"By 2030, we see a world where all nations, especially the most vulnerable, are more resilient to the socioeconomic consequences of extreme weather, climate, water and other environmental events; and underpin their sustainable development through the best possible services, whether over land, at sea or in the air."[b]
Formalization and authorities	Established at the 1947 World Meteorological Convention to reform the International Meteorological Organization[b]
Activities overview	"WMO works to facilitate worldwide cooperation in the design and delivery of meteorological services, foster the rapid exchange of meteorological information, advance the standardization of meteorological data, build cooperation between meteorological and hydrological services, encourage research and training in meteorology, and expand the use of meteorology to benefit other sectors such as aviation, shipping, agriculture and water management."[b]
Infrastructure, Governance, and Structure	
Funding	Total 2024–2027: US$304 million[c]
Funding source(s)	Member state contributions, plus international organizations, foundations, and private-sector partners
Location of headquarters	Geneva, Switzerland
How is leadership decided?	Secretary-general is appointed by the World Meteorological Congress for a four-year term, with a maximum tenure of eight years.[d]

Table A.32—Continued

	Organizational Activities
Staffed by	• 315 people as of 2021[c] • The secretariat comprises executive management and administrative staff. • The executive council consists of the president, three vice presidents, six regional association presidents, and 27 directors of national meteorological services.[e] • The technical commissions consist of technical subject-matter experts.
Governance	• The organization is governed by the World Meteorological Congress, the executive council, regional associations, technical commissions, and the secretariat. • The World Meteorological Congress is the highest decisionmaking body. • The executive council implements decisions of the congress. • Six regional associations coordinate organization activities in their respective regions and make recommendations to the congress and executive council:[f] – Africa (Region I) – Asia (Region II) – South America (Region III) – North America, Central America, and the Caribbean (Region IV) – South-West Pacific (Region V) – Europe (Region VI). • The secretary-general heads the secretariat and oversees technical and administrative work.[d]
Decisionmaking process	Simple majority vote in congress.[d]
Membership	
Membership	193, including 187 member states and six territories[g]
Type of membership	Multilateral, inclusive
Private-sector and civil-society role	The WMO strategic plan 2024–2027 incorporates AI elements in collaboration with big tech to implement a global weather warning system.[h]
How are nonmembers included in or subjected to this organization?	Likely included in collaborations with other UN organizations

[a] WMO, "Our Mandate."
[b] "World Meteorological Convention."
[c] "World Meteorological Organization: Everything You Need to Know."
[d] WMO, "The Secretariat."
[e] WMO, "Executive Council."
[f] WMO, "Governance."
[g] WMO, "WMO Members."
[h] WMO, "Big Tech and Artificial Intelligence Can Support Early Warnings for All."

TABLE A.33
World Bank Group Functions Overview

Function	How the Organization Performs the Function
Share information or facilitate information-sharing	"The World Bank has published over 200,000 documents to increase understanding of development policies and programs. These reports, working papers, and documents, along with the primary data on which they are based, are available online at no cost."[a]
Build capacity	"The World Bank Group helps developing countries build smart infrastructure that supports inclusive and sustainable growth, expands markets, creates job opportunities, promotes competition, and contributes to a cleaner future. Infrastructure improves lives by connecting people to opportunity."[b]
Provide quality control and assessment services	"The Independent Evaluation Group (IEG) evaluates the development effectiveness of the World Bank Group. Our work provides evaluative evidence to help the World Bank Group deliver better services and results to its clients. We do so by generating lessons from past experience and accountability to shareholders and stakeholders at large."[c]

Table A.33—Continued

Function	How the Organization Performs the Function
Support research	"Since 1947, the World Bank has funded over 12,000 development projects, via traditional loans, interest-free credits, and grants."[a]
Conduct international joint research and development	"The Bank is also one of the world's largest research centers in development. It has specialized departments that use this knowledge to advise countries in areas like health, education, nutrition, finance, justice, law and the environment."[d] The bank publishes the World Bank Development Report, Commodity Markets Outlook, International Debt Report, Global Economic Prospects, and Women, Business and the Law, among others.[e]
Verify	The World Bank uses verification as a tool "to verify whether the implementation of Management's actions is in accordance with the Board-approved MAP [Management Action Plan]."[f]
Provide access to resources	"[T]he World Bank Institute offers training to government and other officials in the world through local research and teaching institutions."[d]

[a] World Bank, "What We Do."

[b] World Bank, "Infrastructure."

[c] Independent Evaluation Group, "About IEG."

[d] World Bank, "Getting to Know the World Bank Group."

[e] World Bank, "Research and Publications."

[f] World Bank, "Investigations and Verification."

TABLE A.34

World Bank Group Organizational Profile

	Organizational Activities
Mission and focus	"With 189 member countries, staff from more than 170 countries, and offices in over 130 locations, the World Bank Group is a unique global partnership: five institutions working for sustainable solutions that reduce poverty and build shared prosperity in developing countries."[a]
Specific mandate and missions	Original mandate: "rebuilding the economies of countries devastated by war and increasing the economic development of developing countries"[b] Current mandate or mission: "The mission of the World Bank Group centers on achieving two overarching goals in a sustainable way: End extreme poverty and Boost shared prosperity by fostering sustainable, resilient, and inclusive development."[a]
Formalization and authorities	Formed in July 1944 at Bretton Woods Conference by delegates from 44 countries[b]
Activities overview	"The World Bank supplies qualifying governments with low-interest loans, zero-interest credits, and grants, all to support the development of individual economies. Debt borrowings and cash infusions help with global education, healthcare, public administration, infrastructure, and private-sector development. The World Bank also shares information with various entities through policy advice, research and analysis, and technical assistance. It offers advice and training for both the public and private sectors."[c, d] World Bank loans help countries • supply safe drinking water • build schools and train teachers • increase agricultural productivity • manage forests and other natural resources • build and maintain roads, railways, and ports • extend telecommunications networks • generate and distribute energy • expand health care • modernize. The bank also tries to encourage investment and lending by countries, companies, and private investors. It also lends money to hire industry experts to help countries reshape their economies to make them more efficient and productive.

Table A.34—Continued

	Organizational Activities
	"Money is not the only type of support that the Bank provides. Often, it is the advice and experience the Bank's staff brings to a project or the environmental and social standards it applies that are also important."[e]
Infrastructure, Governance, and Structure	
Funding	Total FY 2023 commitments: US$128.341 billion Disbursements FY 2023: US$91.391 billion[f]
Funding source(s)	The World Bank consists of two institutions: • The International Bank for Reconstruction and Development (IBRD) "lends to governments of middle-income and creditworthy low-income countries." • The International Development Association (IDA) "provides financing on highly concessional terms to governments of the poorest countries."[g]
Location of headquarters	Washington, D.C.
How is leadership decided?	"The Board of Governors delegates most powers to 25 resident Executive Directors who comprise the Board of Directors for IBRD and IDA. The Executive Directors represent the World Bank's 189 member countries and are responsible for the conduct of the general operations of the Bank. The Executive Directors select a President, who serves as Chair of the Board."[h]
Staffed by	"At the end of fiscal 2023, the Bank had 13,122 full-time staff . . . in 141 locations representing 181 nationalities."[i]
Governance	"The organizations that make up the World Bank Group are owned by the governments of member nations, which have the ultimate decision-making power within the organizations on all matters, including policy, financial or membership issues. Member countries govern the World Bank Group through the Boards of Governors and the Boards of Executive Directors."[j]
Decisionmaking process	"The World Bank Group is run like a giant cooperative. Its members are shareholders, and it is operated for the benefit of those using its services. The number of shares a country has is based roughly on the size of its economy. The United States is the single largest shareholder, followed by Japan, China, Germany, France, and the United Kingdom. The remaining shares are divided among the other member countries. "A Board of Governors represents the World Bank Group's government shareholders. Generally, these people are the member countries' ministers of finance, central bank governors, or other senior officials. The governors are the ultimate policymakers. They meet once a year at the Annual Meetings of the World Bank Group and International Monetary Fund (IMF) that take place in October. "At the Annual Meetings, the governors of the World Bank Group and IMF review the organizations' operations and policies, discuss major development issues, and approve key documents like financial statements. They also set global priorities for the coming year (and near future) to speed up progress on reducing poverty and boosting shared prosperity. "Since the governors meet only once a year and are more focused on the overall strategic direction, they give specific duties to their Executive Directors, who work on-site at the World Bank Group. Every member country is represented by an Executive Director. The five largest shareholders each appoint an Executive Director, while another 19 Executive Directors represent the other member countries. Together, these 24 Executive Directors oversee the World Bank Group's regular, ongoing business, including approving loans and guarantees, new policies, the administrative budget, country assistance strategies, and borrowing and financial decisions."[k]
Membership	
Membership	189 countries[l, j]
Type of membership	"To become a member of the Bank, under the IBRD Articles of Agreement, a country must first join the International Monetary Fund (IMF). Membership in IDA, IFC [International Finance Corporation] and MIGA [Multilateral Investment Guarantee Agency] are conditional on membership in IBRD.

Table A.34—Continued

	Organizational Activities
	"In tandem with the IMF, and in consultation with other World Bank Group staff, the Corporate Secretariat Vice Presidency coordinates the process for new membership and maintains the information relating to the status of membership which includes the membership lists."[j]
Private-sector and civil-society role	"We engage with CSOs [civil society organizations] in multiple ways: • Advocacy: CSOs help generate public awareness and build momentum towards goals around shared priorities. • Consultation: CSOs provide input through consultations. • Knowledge Exchange: we proactively share information with CSOs via monthly newsletters, and seek CSOs' expertise via regular calls and roundtables with our senior leadership. • Policy: our policy dialogue with CSOs takes place frequently at both the country and global levels. In addition, twice a year, CSOs convene at the Spring and Annual Meetings to take part in the Civil Society Policy Forum (CSPF). • Operations: when there is operational collaboration, CSOs receive financial support to implement development projects or provide key services monitoring project outcomes, in line with our operating model."[m] "Companies and foundations most commonly partner with the World Bank through our trust funds—financing and collaboration arrangements that are established with contributions from one or more development partners. Through trust funds, we take on a specific development challenge or work to find a new way to approach a pressing problem. The trust fund structure brings World Bank senior management together with partners, who provide strategic advice and collaborate on knowledge-sharing. "Insights & Opportunities Briefings update partners on World Bank initiatives, serve as an opportunity for knowledge exchange and dialogue, and present ways for the business and philanthropic community to partner with the World Bank. Each Briefing focuses on a key development topic—such as climate change, food security, forcibly displaced persons, and human capital. Participants include senior World Bank staff, sustainability executives from the private sector, and representatives of philanthropies. "The World Bank Group holds high-level meetings twice a year—the Annual Meetings, which take place in the autumn, and the Spring Meetings. These are high-level events attended by heads of state and parliamentarians, along with leaders from civil society, the broader development community, businesses, and foundations. Partners participate in regional briefings, press conferences, and fora focused on international development, the global economy, and financial markets. Heads of companies and foundations attend to share insights and to help raise visibility and advocate for shared goals, priorities, and strategies."[n]
How are nonmembers included in or subjected to this organization?	The six nonmembers (North Korea, Andorra, Cuba, Monaco, Liechtenstein, Taiwan) are reported on by the World Bank but do not otherwise seem to be included in any way.[o]

[a] World Bank, "Who We Are."

[b] World Bank, "Explore History."

[c] Kenton, "What Is the World Bank, and What Does It Do?"

[d] World Bank, *World Bank Annual Report 2023*.

[e] World Bank, "Getting to Know the World Bank."

[f] World Bank, "Fiscal Year Data."

[g] World Bank, *World Bank Annual Report 2023*, p. 11.

[h] World Bank, *World Bank Annual Report 2023*, p. 89.

[i] World Bank, *World Bank Annual Report 2023*, p. 81.

[j] World Bank, "Member Countries."

[k] World Bank, "Getting to Know the World Bank Group."

[l] World Bank, "Organization."

[m] World Bank, "Civil Society Organizations."

[n] World Bank, "Foundation and Private Sector Partnerships."

[o] Gautam, "Which Six Countries Are Not Members of the World Bank and Why?"

Abbreviations

AI	artificial intelligence
ASTM	ASTM International (formerly the American Society for Testing and Materials)
CERN	European Organization for Nuclear Research [Conseil Européen pour la recherche nucléaire]
COVID-19	coronavirus disease 2019
CTBT	Comprehensive Nuclear-Test-Ban Treaty
CTBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
FATF	Financial Action Task Force
FY	fiscal year
G7	Group of Seven
G20	Group of Twenty
IAEA	International Atomic Energy Agency
IAEG	Interagency Expert Group
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDC	International Data Centre
IEEE	Institute of Electrical and Electronics Engineers
IMF	International Monetary Fund
IMS	International Monitoring System
INTERPOL	International Criminal Police Organization
IPCC	Intergovernmental Panel on Climate Change
ISA	International Seabed Authority
ISO	International Organization for Standardization
LHC	Large Hadron Collider
NIST	National Institute of Standards and Technology
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
OECD	Organisation for Economic Co-operation and Development
OPCW	Organisation for the Prohibition of Chemical Weapons
PC-CTBTO	Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization
RLHF	reinforcement learning from human feedback
SDG	Sustainable Development Goal
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UN DESA	United Nations Department of Economic and Social Affairs
UNEP	United Nations Environment Programme
WHO	World Health Organization

WMO	World Meteorological Organization
WTO	World Trade Organization

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