Activity and Achievement Report

October 2021 to December 2022



International Science Council

The global voice for science

Activity and achievement report

October 2021 to December 2024

January 2025



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About the International Science Council

The International Science Council (ISC) works at the global level to catalyse change by convening scientific expertise, advice and influence on issues of major importance to both science and society.

The ISC is an international non-governmental organization with a unique global membership that brings together 250 international scientific unions and associations, national and regional scientific organizations including science academies, research councils, regional scientific organizations, international federations and societies, and academies of young scientists and associations.

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- Australian Academy of Science (AAS)
- China Association for Science and Technology (CAST)
- Colombian Academy of Exact, Physical and Natural Sciences
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- Government of Australia
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- Integrated Research on Disaster Risk (IRDR) International Centre of Excellence in Taipei
- National Science Foundation (NSF), USA
- New Zealand Government, Ministry of Business, Innovation and Employment
- Richard Lounsbery Foundation
- Royal Society Te Apārangi
- Sasakawa Peace Foundation
- Swedish International Development Cooperation Agency (Sida)
- United Nations Development Programme (UNDP)
- United Nations Environment Programme (UNEP)
- University of Bergen, Norway

The ISC vision, mission and domains of impact

The vision of the Council is of science as a global public good.

The mission of the Council is to be the global voice for science.

The Council seeks to provide a powerful and credible global voice that is respected in both the public and policy domains and within the scientific community. It will use that voice to:

- i. Speak for the value of all science and the need for evidence-informed understanding and decision-making at all levels, from local to global;
- ii. Stimulate and support international, interdisciplinary collaboration, particularly among Members of the Council, on scientific research and scholarship on issues of global concern;
- iii. Articulate scientific knowledge on issues of global concern in the public and policy domains;
- iv. Promote and assist science diplomacy, particularly where it advances the common good and addresses global challenges;
- v. Promote the continued and equal advancement of scientific rigour, creativity and relevance in all parts of the world;
- vi. Assist the scientific community and relevant stakeholders in their respective roles in the conduct of science and in the face of the evolution of science systems;
- vii. Defend and promote the free and responsible practice of science.

Key reference documents

- High-Level Strategy (2018)
- Activity and Achievement Report 2018–2021 (2021)
- <u>2022–2024 Action Plan (2021)</u>
- 2021 Annual Report (2022)
- 2022 Annual Report (2023)
- 2023 Annual Report (2024)

Abbreviations

| AAS | Australian Academy of Science |
|--------|---|
| AI | Artificial Intelligence |
| ALLEA | All-European Academies |
| AP | Asia and the Pacific |
| APEC | Asia-Pacific Economic Cooperation |
| APECS | Association of Polar Early-Career Scientists |
| BWC | Biological Weapons Convention |
| CAS | Chinese Academy of Sciences |
| CAST | China Association for Science and Technology |
| CDIF | Cross-Domain Interoperability Framework |
| CERN | European Organization for Nuclear Research |
| CFCR | Committee for Finance, Compliance and Risk |
| CFRS | Committee for Freedom and Responsibility in Science |
| CLACSO | Latin American Council of Social Sciences |
| CNRS | French National Centre for Scientific Research |
| CODATA | Committee on Data of the International Science Council |
| CODES | Coalition for Digital Environmental Sustainability |
| COE | Committee for Outreach and Engagement |
| СОР | Conference of the Parties |
| COP16 | 16th Conference of the Parties to the Convention on Biological Diversity |
| COP29 | 29th Conference of the Parties to the UN Framework Convention on Climate Change |
| COSPAR | Committee on Space Research |
| CSP | Committee for Science and Planning |
| DRR | Disaster Risk Reduction |
| ECOSOC | United Nations Economic and Social Council |
| EMCR | Early- and Mid-Career Researcher |
| FAIR | Findable, Accessible, Interoperable and Reusable |
| FAO | Food and Agriculture Organization |
| | |

| GEO-7 | Global Environment Outlook |
|---------|--|
| GKD | Global Knowledge Dialogue |
| GKD-AP | Global Knowledge Dialogue in Asia and the Pacific |
| GKD-LAC | Global Knowledge Dialogue in Latin America and the Caribbean |
| GRIP | Global Research Programme on Inequality |
| GSDR | Global Sustainable Development Report |
| GYA | Global Young Academy |
| HIP | Hazard Information Profile |
| HLPF | High-Level Political Forum |
| ΙΑΡ | InterAcademy Partnership |
| IAU | International Astronomical Union |
| ICoE | International Centre of Excellence |
| ICSU | International Council for Science |
| IIASA | International Institute for Applied Systems Analysis |
| ΙΜυ | International Mathematical Union |
| INC | Intergovernmental Negotiating Committee |
| INGSA | International Network for Governmental Science Advice |
| IOC | Intergovernmental Oceanographic Commission |
| IPBES | Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services |
| IPCC | International Panel on Climate Change |
| IRDR | Integrated Research on Disaster Risk |
| ISC | International Science Council |
| ISSC | International Social Science Council |
| IUE | Institute of Urban Environment |
| IUPAC | International Union of Pure and Applied Chemistry |
| IUPAP | International Union of Pure and Applied Physics |
| IUPESM | International Union for Physical and Engineering Sciences in Medicine |
| LAC | Latin America and the Caribbean |
| LIRA | Leading Integrated Research in Africa |
| LMICs | Low- and Middle-income Countries |
| MG | Major Group |
| NACOSTI | National Commission for Science, Technology and Innovation, Kenya |
| NSF | US National Science Foundation |
| OECD | Organisation for Economic Co-operation and Development |
| OWSD | Organization for Women in Science for the Developing World |
| RFP | Regional Focal Point |
| RFP-LAC | ISC Regional Focal Point for Latin America and the Caribbean |
| SAB | Scientific Advisory Board |

| SAR | Scholars at Risk |
|-----------|---|
| SCAR | Scientific Committee on Antarctic Research |
| SCGES | Standing Committee on Gender Equality in Science |
| SCOR | Scientific Committee on Oceanic Research |
| SCOSTEP | Scientific Committee on Solar-terrestrial Physics |
| SDG | Sustainable Development Goal |
| SHS | Social and Human Sciences |
| Sida | Swedish International Development Cooperation Agency |
| SIDS | Small Island Developing States |
| SIDS4 | 4th International Conference on Small Island Developing States |
| STC | Scientific and Technological Community |
| STC MG | Scientific and Technological Community Major Group |
| STI | Science, Technology and Innovation |
| STI Forum | Multi-stakeholder Forum on Science, Technology and Innovation |
| STM | International Association of Scientific, Technical and Medical Publishers |
| T2S | Transformations to Sustainability |
| TWAS | The World Academy of Science |
| TYAN | TWAS Young Affiliates Network |
| UAE | United Arab Emirates |
| UHWB | Urban Health and Wellbeing Programme |
| UIS | International Union of Speleology |
| UK | United Kingdom |
| UN | United Nations |
| UN DESA | United Nations Department of Economic and Social Affairs |
| UNDP | United Nations Development Programme |
| UNDRR | United Nations Office for Disaster Risk Reduction |
| UNEA | UN Environmental Assembly |
| UNEP | United Nations Environment Programme |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNGA | United Nations General Assembly |
| UNOC | United Nations Ocean Conference |
| UNODA | United Nations Office for Disarmament Affairs |
| US NAS | US National Academy of Sciences |
| WAU | World Anthropological Union |
| WCRP | World Climate Research Programme |
| WDS | World Data System |
| WFEO | World Federation of Engineering Organizations |
| WHO | World Health Organization |
| WMO | World Meteorological Organization |

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MESSAGE FROM THE PRESIDENT AND CEO

As the world emerged from the COVID-19 pandemic, it was clear that science had played a key role in responding to a global crisis. Yet we can and should learn multiple lessons from the COVID-19 pandemic. The first most relevant lesson is possibly that policy-makers had ignored the warnings from science on the unsustainable relationship between intensive human activities related to animals and health (think, for example, of the SARS event in the early 2000s) and also on the importance of maintaining clear barriers between human activities and settlements and wild biodiversity (transgressions of which were the presumed causes of COVID-19). Another significant lesson was that science too was suffering from a crisis in trust across institutions, fuelled by a digital information space which is supposedly democratic, but which in reality is controlled by powerful algorithms.

Even in the early stages of the 2021–2024 cycle, and equipped with a new Action Plan, we had to face new, unexpected challenges. Our priorities and strategies had to evolve in line with major developments in science and society: deepening geopolitical tensions, outbreaks of armed conflict, rising inequality and an acceleration in digital technologies, to name some. This report demonstrates how the International Science Council (ISC) adapted to these new challenges.

The pandemic had underscored the need for more effective science–policy interfaces, and the ISC took up these new opportunities to promote the use of science to address urgent and emerging global issues. At the General Assembly in 2021, the membership had resolved, among other things, that the ISC should position itself as a trusted advisor to international policy organizations, fostering strategic alliances that enhance our ability to advocate for the central role of science in tackling existential challenges. Through partnerships with organizations like the United Nations (UN), the Organisation for Economic Co-operation and Development (OECD) and the European Union (EU), the ISC has contributed valuable insights into frameworks for future-oriented topics such as sustainable development and technology governance. The orientations in 2022–2024 included a strengthened mandate in relation to freedom and responsibility in science; reinvigorating the coordination of the science agenda on issues of global importance and the role of the ISC Affiliated Bodies therein; engaging with actors in the science landscape other than scientists and funders, including publishers and universities; and widening the funding base by cultivating relationships with philanthropic and charitable donors.

Navigating these new waters has required adaptability, determination, continuous dialogue with existing and new partners and a new 'value proposition' for the ISC, reflecting a broadening of the ISC membership and new and closer interfaces with policy.

Among the most significant outward developments for the ISC in this period were the establishment of two Regional Focal Points (RFPs), the creation of the ISC Fellowship, the launch of the Centre for Science Futures, the appointment of an ISC liaison in New York to strengthen multilateral engagement, the revision of the ISC Statutes and Rules of Procedure to enhance governance structures and widen membership opportunities, the opening of membership to academies and associations of young scientists worldwide and the creation of a charitable foundation to support fundraising efforts. A significant contribution was the facilitation of the creation of the Pacific Academy of Sciences in 2024.

The Governing Board's and the Secretariat's commitment to engaging with and serving the ISC's Members in this new phase in its history has been clear. Through many virtual meetings but also through the in-person Global Knowledge Dialogue (GKD) series and the Mid-term Meeting in Paris in May 2023, we have kept in close touch with our Members and their concerns, regionally and worldwide. We have offered many opportunities to our Members to connect with and learn from each other, across scientific, regional and disciplinary lines, and to participate in international scientific and science–policy forums.

The Secretariat demonstrated commitment and resourcefulness, delivering on the ISC's strategic objectives during a period which included major staff changes and reorganization. Heide Hackmann stepped down as ISC Chief Executive Officer (CEO) in February 2022. Her leadership had been instrumental in establishing the ISC and in its early success, and her legacy endures. Mathieu Denis, who played an equally critical role in the merger of the International Social Science Council and International Council for Science (ICSU), acted as CEO until the end of 2022 and went on to become the Head of the Centre for Science Futures, before stepping down in mid-2024 for new opportunities.

The three-year Activity and Achievement Report covers the ISC's five science priorities as presented in the 2022–2024 Action Plan, but also shows that the Secretariat has responded to emerging challenges. Although presented succinctly, the list of activities and results is long. From the report emerges a picture of how the ISC has been engaging and learning from its Members, giving them visibility, influencing science, informing policy and growing as an organization; and, ultimately, providing a forum for organizations of active scientists, but also for other science organizations operating in the science ecosystem, to convene, exchange and shape the future of science and its responses to the multiple crises and opportunities that the world faces today.

Many challenges lie ahead. As we look towards the next planning period, we are resolute in our mission to elevate science's role in building a sustainable future. The ISC remains committed to empowering its Members and the global scientific community, fostering impactful partnerships and ensuring that science continues to serve the collective aspirations of humanity.



President



Salvatore Aricò, Chief Executive Officer

GOVERNANCE

It is evident that an organization as complex as the ISC needs to have continuity in its governance. With a skilled and dedicated complement of 15 continuing and new members, the second ISC Governing Board took office in October 2021 as the COVID pandemic was receding. We had the responsibility of re-orienting the ISC after a period of great disruption to the world at large and setting its new strategic direction in line with its vision and mission. It has been a privilege to work with this Board, and a great achievement of their term that the ISC Statutes and Rules of Procedure have been revised to ensure continuity in the future.

The Governing Board of the ISC has the responsibility to provide scientific and strategic leadership, uphold the Council's principles and values, oversee the pursuit of the Council's vision and mission, and secure the financial and operational robustness of the Council. In all these domains it benefits greatly from the work and advice of the Standing Committees and numerous ad hoc Working Groups and task forces who give generously of their time and knowledge to serve our collective mission. The fruits of their efforts can be seen throughout this report.

—— Peter Gluckman, President

1.1 Governing Board

By the end of its term in January 2025, the current 15-member Governing Board, elected in October 2021, will have met more than 16 times, including three times in person, while the officers (since February 2024 called the Executive Committee) will have met separately nearly as often. Two of the in-person meetings, in 2022 and 2023, took place in Paris, while in 2024 the Board was honoured to be invited to Kenya, and hosted by our three Members there, National Commission for Science, Technology and Innovation, Kenya (NACOSTI), the Kenyan Academy of Sciences and the African Academy of Sciences.

The Governing Board had a number of unique challenges and highlights in this period. The COVID pandemic had lingered, meaning that the 2021 General Assembly could not be held in person in Oman, nor could the Muscat GKD, as it was originally conceived, be held in person in 2022. The GKD was very successfully re-envisioned as a series of regional meetings, starting in Africa in 2022, then moving on to Asia-Pacific in 2023 and Latin America and the Caribbean in 2024. It is only fitting that we can complete the first cycle of the GKDs with a major event in Oman in 2024, just prior to the ISC General Assembly.

Heide Hackmann stepped down as CEO in February 2022, launching a transition period with Mathieu Denis as acting CEO and an eight-month search process for the new CEO, which culminated in the appointment of Salvatore Aricò as CEO in January 2023.

In 2022, the Governing Board established the ISC Fellowship with 66 inaugural Fellows, including past and present members of the Governing Board. At the end of 2024 the Fellowship has some 200 Fellows (see also <u>Section 2.5</u>).

This Governing Board took some major decisions in relation to strategic directions of the organization. Pursuing the resolution of the 2021 General Assembly to develop the ISC's role in the multilateral system, the Board decided to establish a presence in New York as of 2022. The Centre for Science Futures was established as the ISC think tank on the evolution of science systems in mid-2023, to improve our understanding of emerging trends in science and science systems, and to provide options and tools for action.

In a major step for fundraising potential, the ISC Foundation (UK) was established in 2023 to facilitate major donations to the ISC, becoming operational in late 2024.

The Board mandated and launched a major revision of the Statutes and Rules of Procedure in 2023, which was accomplished, through an intensive consultative process, in February 2024. The Working Group on Constitutional Revision and the Members are thanked for their commitment to this important and complex task. The main changes introduced by this revision concerned governance and membership. The changes aimed to ensure commitment, diversity and continuity in governance, and to open up membership categories.

With that accomplished, the Governing Board mandated the revision of the ISC dues structure, an equally delicate and complex task. A dedicated Dues Revision Working Group, established in late 2024 under the aegis of the Committee for Finance, Compliance and Risk (CFCR), will take this work forward, with the aim of having a new dues structure approved by the membership for application in 2026.

The last major task for the current Governing Board was to develop the Strategic Plan for the next period. The Board agreed that the Council needed a document that sat between the still applicable High-Level Strategy set in 2018 and the detailed Action Plan of the 2022–2024 period. The draft Strategic Plan that will be presented for adoption at the General Assembly in January 2025 has drawn on numerous consultations with Members in 2023 and 2024.

→ About the Governing Board

1.2 General Assembly

The General Assembly is the highest authority of the Council, consisting of representatives of all Members as defined in <u>ISC Statute 9</u>. In the period 2022–2024, the General Assembly convened seven extraordinary electronic sessions, voting on the following matters.

| June 2022 | Approval of the 2021 annual audited accounts |
|---------------|--|
| May 2023 | Modification of the ISC Statutes and Rules of Procedure to define the role of the ISC CEO as an observer to the Governing Board, rather than a (non-voting) member |
| June 2023 | Approval of the 2022 annual audited accounts |
| February 2024 | Adoption of revised ISC Statutes and Rules of Procedure and of a proposal for a transition to staggered Governing Board terms of office |
| May 2024 | Approval of the proposed composition of the ISC Nominations and Elections Committee (2024–2028) |
| June 2024 | Approval of the 2023 annual audited accounts |
| December 2024 | Coverning Board elections |

December 2024 Governing Board elections

Each vote of the Members requires a considerable effort, from the Secretariat and the Members, including the individuals who serve as tellers, and Members are thanked for participating so actively in the democratic life of the organization, with a consistently high turn-out for critical votes. It should be noted that as of March 2024 Category 3 Members have a vote in the General Assembly.

It was with great enthusiasm that the Members convened for a meeting without voting business in Paris in May 2023, the first in-person meeting since the inaugural General Assembly in July 2018; and with equal enthusiasm that we look forward to the third ISC General Assembly, generously hosted by our Member the Ministry for Higher Education, Research and Innovation of Oman in Muscat in January 2025.

1.3 Standing Committees

The members of the 2019–2022 Standing Committees stood down in mid-2022 and the Committees were subsequently renewed with nominations from the Members. Their composition can be seen in <u>Appendix A</u> and their work is detailed in the relevant sections of this report.

- Committee for Finance, Compliance and Risk (CFCR)
- Committee for Freedom and Responsibility in Science (CFRS)
- Committee for Outreach and Engagement (COE)
- Committee for Science Planning (CSP)

In the revision of the Statutes and Rules of Procedure over the course of 2023, only the CFRS and the CFCR were retained as statutory committees, with all other advisory bodies being formed and dissolved at the discretion of the Governing Board in response to evolving needs. The CSP and the COE will be dissolved at the time of the General Assembly 2025, and the Vice-Presidents will shape a call for the members of appropriate new advisory bodies. Members of all the serving committees are warmly thanked for their commitment and contributions.

1.4 Advisory bodies and Working Groups

In 2022–2024 the following statutory or ad hoc committees and Working Groups advised the Governing Board on governance, membership and scientific matters. The composition of the committees can be seen in <u>Appendix A</u>.

Consultative Group on Science Education (from July 2023)

The Science Education Consultative Group was established in response to long-standing requests from Members for ISC action in this critical domain. The group, chaired by Vice-President for Science and Society, Motoko Kotani, and co-chaired by Governing Board member Mei-Hung Chiu, was constituted in July 2023 and produced a report for the Governing Board in October 2024. Its recommendations and potential actions will be discussed at the General Assembly in January 2025.

Dues Revision Working Group from (September 2024)

The Dues Revision Working Group was established following the revision of the ISC Statutes and Rules of Procedure in March 2024 to develop a unified, fair and sustainable dues structure for ISC Members.

General Assembly 2025 Programme Committee (January 2024 – January 2025)

A subset of Governing Board members formed a Programme Committee to advise the Secretariat on the scientific agenda of the General Assembly and to interface with counterparts from the host country, Oman.

Nominations and Elections Committee (May 2024 - May 2028)

The eleven-person Nominations and Elections Committee is a new statutory body introduced with the revised Statutes and Rules of Procedure in March 2024. It is overseeing the first Governing Board elections with the new, staggered terms of office.

Small Island Developing States (SIDS) Liaison Committee (from 2023)

After a hiatus since March 2021, the SIDS Liaison Committee was reconvened in late 2023 in preparation for several key multilateral events including the 4th International Conference on Small Island Developing States, the High-Level Political Forum (HLPF) and the United Nations Ocean Conference in 2025. In 2024, the Committee met twice, writing the 'From Shores to Horizons' Declaration for SIDS4. See also Section 6.3.9.

Working Group on Constitutional Revision (December 2022 - March 2024)

The Working Group on Constitutional Revision was established to deal with significant issues regarding governance and membership. The Working Group was formed in December 2022, met several times, consulted intensively with the Members, including at the Mid-term Membership Meeting in May 2023, and concluded its work with the adoption of the revised Statutes and Rules of Procedure by a vote of the membership in February 2024.

Working Group on Inequalities (from 2024)

The Working Group on action in the area of inequality was established to report on the current research landscape relating to poverty and inequality, including global experts and initiatives. The objective was to provide a recommendation to the Governing Board on needs and opportunities for an ISC Affiliated Body or other international coordinating initiative in this domain, building on the work of the Global Research Programme on Inequality (GRIP). The Working Group was formed in July 2024 and will deliver its work by the end of 2024.

MEMBERSHIP, OUTREACH AND ENGAGEMENT

I am deeply grateful for the trust placed in me by ISC Members as their Vice-President of Outreach and Engagement, especially during a period when science itself faces significant challenges. Whether during the pandemic, when science was thrust into the global spotlight, or in response to the rapid advancements in artificial intelligence (AI) that pose both opportunities and risks, the need for trustworthy science has never been more critical to ensure fair and equitable outcomes. The ISC's outreach and engagement strategies are essential in mobilizing our communities to support strong scientific ecosystems and the surrounding sectors – such as health, media and education – that foster trust in science.

Throughout my tenure as Vice-President, I have been fortunate to work with an enthusiastic Committee for Outreach and Engagement (COE). Meeting twice a year, the COE has been instrumental in shaping the membership application process, and in representing the ISC at key events, such as General Assemblies and global policy forums like the HLPF and the Summit of the Future. Among its priorities, the COE discussed the complex rules related to membership of multiple organizations in one country, a problem that will need further deliberation by the incoming Vice-President for Membership. COE members have also supported initial meetings with prospective members and reviewed ISC policies and the revised Statutes and Rules of Procedure.

I extend my heartfelt thanks to the COE for their dedication and wish all ISC Members a successful General Assembly in Oman, 2025.

—— Salim Abdool Karim, Vice-President for Outreach and Engagement

2.1 Membership engagement

Members are the heart and soul of the ISC. During the reporting period, ISC Members, like the Secretariat, were coming out of pandemic conditions, switching meetings from online to hybrid and finally back to in person. The ISC membership team continued to support Members through regular mailouts, one-to-one meetings and promoting Members' events and activities through newsletters, the website and social media.

Critical tasks led by the membership team include servicing existing Members, convening regular quarterly meetings with the President and other monthly knowledge-sharing sessions, and promoting calls for scientific expertise, as well as prospecting for potential new Members. The ISC Membership Liaison Officer acts as the focal point for all ISC Members and continued to ensure consistent and regular exchange between the ISC Secretariat, the ISC governance structures and the ISC membership.

The weekly newsletter, which exclusively targets representatives of ISC Member organizations, continued to be the main means of regular membership communication, containing crucial updates regarding ISC activities, projects and partnerships, as well as information on current opportunities for engagement, General Assemblies and voting processes.

Upon request by ISC Members, an ISC WhatsApp group was launched to provide an additional channel of communication. The group was later transformed into a <u>WhatsApp</u> <u>community</u>, which had 200 participants in November 2024 and actively fosters Member–Member engagement. The various groups within the community provide spaces for region- and topic-related conversations and a platform to share opportunities and events.

The membership section of the ISC website was expanded to feature and highlight news items and blogs from ISC Members and to provide a hub for all membership-related updates. The ISC <u>Membership Notice Board</u> in particular continued to feature ISC events for Members and opportunities for engagement.

The ISC continued to create unique opportunities for the membership and networks of ISC Member organizations to contribute scientific expertise, for example by co-authoring policy briefs and serving on expert panels or in ISC delegations, and, where needed, helping to build their capacity. In particular, ISC Members strongly benefited from the ISC's increased cooperation with the multilateral system, through which the Council was able to relay numerous calls for experts from UN-led initiatives and special accreditations to UN meetings, opening exclusive nomination and engagement tracks to its membership. Examples include calls to advise on the seventh edition of the UN Environment Programme (UNEP) flagship assessment, GEO-7; for an expert group dedicated to developing a policy brief for the UN 2023 Water Conference; and for an expert group on plastic pollution to inform the ongoing negotiations around an international plastic pollution treaty. Such opportunities to participate in high-level international Working Groups and expert panels were published regularly on the ISC Membership Noticeboard and communicated via the weekly Member newsletter and the ISC WhatsApp community.

- → <u>Membership portal</u>
- → Noticeboard (Members are encouraged to bookmark this page and visit regularly)
- → <u>Meetings and resources</u>

2.2 Strengthening the membership base

The ISC membership team continued its energetic efforts to re-engage inactive Members and to onboard new Members. Thirty-two membership applications were approved during the 2022–2024 period (see <u>Appendix B</u>), including:

- four former Category 3 Members that moved to Category 1
- six Members from Africa
- one Member from Europe
- two Members from Latin America and the Caribbean
- one medical academy
- one international interdisciplinary Member
- 16 academies and one association of young scientists.

In addition, some 50 inactive Members have been re-engaged.

Regrettably, nine Members left the ISC in the reporting period. Some of the reasons for a non-renewal of membership include Members moving to an umbrella organization which maintains the ISC membership, or lack of resources or capacity of the organization to engage.

The revision of the Statutes and Rules of Procedure in 2024 opened membership opportunities. Category 3 Members became voting Members, and a new Category 4 was created for observer organizations which endorse the ISC's mission, vision and values, but which do not meet the criteria for membership in other categories.

2.3 Global Knowledge Dialogue series and Mid-term Membership Meeting

With the pandemic forcing the cancellation of the planned Gobal Knowledge Dialogue (GKD) in early 2022, the concept was re-imagined as not just a major event but rather a series of regional events to bring Members together after years of pandemic-enforced distance. Three GKDs and a Mid-term Membership Meeting were convened between December 2022 and April 2024.

The in-person events in this series brought the scientific community together to think collectively and creatively about the role and contribution of science in solving some of the most pressing issues of our time, drawing on ISC Members around the world to future-proof and strengthen the global voice of and for science. All GKDs had side-event workshops or panels on topics such as freedom and responsibility in science, early-and mid-career researchers (EMCRs) and AI, and they all benefited from a partnership with the Frontiers Planet Prize to encourage ISC Members to participate in the prize competition. Some of the events had expo booths or film events in partnership with the Organization for Women in Science for the Developing World (OWSD) to promote women in science.

The GKD series showcased the importance of regional scientific collaboration and input in addressing global challenges. These gatherings highlighted the value of integrating diverse knowledge systems, including indigenous and local expertise, into mainstream scientific discourse.

Members benefited from strengthened in-person networking, increased opportunities for collaboration and enhanced representation in discussions that shape regional and global science agendas. These dialogues empowered ISC Members, many of which received ISC bursaries to attend, to take an active role in promoting science-led solutions and reinforced their collective influence in advocating for science-driven policies and initiatives. The ISC membership also benefited from the partnership with OWSD, ensuring emerging women leaders in science were engaged in the meetings.

Dialogue for Africa, 7 December 2022, Cape Town, South Africa

The GKD series was launched with a <u>regional dialogue for Africa</u> linked to the 2022 World Science Forum. More than 120 Member representatives from 40 countries attended this dialogue, which addressed key issues in governance, capacity strengthening, funding, African knowledge systems, African identity, education and the specific role of social sciences.

Dialogue for Asia and the Pacific, 6 October 2023, Kuala Lumpur, Malaysia

The <u>GKD Asia-Pacific</u> was hosted by the ISC, together with its <u>RFP for Asia and the Pacific</u>, through the Australian Academy of Science (AAS) and the <u>Academy of Sciences Malaysia</u> during the 2023 International Greentech and Eco Products Exhibition and Conference. More than 140 Member representatives from 30 countries attended the dialogue, which renewed and strengthened scientific collaboration in the region. The meeting focused on how to progress the role of science in achieving the Sustainable Development Goals (SDGs) in Asia and the Pacific and informed future programmes and activities of the ISC RFP for Asia and the Pacific.

Mid-term Membership Meeting, 10-12 May 2023, Paris, France

The <u>Mid-term Meeting of ISC Members in Paris</u> was the first occasion for all ISC Members to meet in person since the founding General Assembly in 2018 and focused on strengthening Member relationships. Over three days, 300 delegates from almost 100 countries discussed the evolution of science in a global context and how the climate crisis, heightened nationalism and geopolitical realignments, outbreaks of armed aggression, economic instability and the continued aftermath of the pandemic are determining the current positioning of the ISC and possible future roles in science diplomacy. Internal matters around the ISC workplan for global policy processes, constitutional revision, regional presence and membership were also discussed.

Dialogue for Latin America and the Caribbean, 9–11 April 2024, Santiago, Chile

The <u>Global Knowledge Dialogue for Latin America and the Caribbean</u> was hosted by the ISC, together with the <u>ISC Regional Focal Point for Latin America and the Caribbean</u> and its Liaison Committee, the Colombian Academy of Exact, Physical and Natural Sciences, and the Chilean Academy of Sciences, with support from the Latin American Open Data Initiative (ILDA). More than 160 delegates from 30 countries were represented at this event, which brought together the leading lights of the regional scientific community, diplomats and policy influencers, with a special focus on enhancing the region's scientific and diplomatic engagements.

→ About the GKDs

Key news items

- Global Knowledge Dialogue held in South Africa a grand success
- <u>The Global Knowledge Dialogue for Asia and the Pacific rallies ISC Members around</u>
 <u>planetary health</u>
- Mid-term meeting of Members: Capitalizing on Synergies in Science
- <u>Strengthening the voice of science: reflections from the Global Knowledge Dialogue in</u>
 <u>Santiago, Chile</u>

2.4 Early- and mid-career researchers

The ISC recognizes that Young Academies and EMCRs are confronted with many challenges when navigating and evolving within complex science systems. These challenges include funding, access to resources and support and the need to build collaborative relationships within the scientific community.

To address these challenges, the ISC has made a commitment to foster an ecosystem of collaboration, resource sharing and partnership by engaging with young scientists at national, regional and global levels. As part of this commitment, the ISC launched a membership campaign in 2022 which offered free membership to all eligible young scientist organizations.

Seventeen new Members consequently joined the ISC in 2023. These new Members represent Young Academies and associations from all around the world, including Asia, Africa, Europe, North America, South America and Australia.

In 2023 the ISC initiated the first Early- and Mid-Career Researchers (EMCR) Forum dedicated to organizing events and regional initiatives supporting EMCRs.

In October 2024, the ISC, with the financial support of the China Association for Science and Technology (CAST), launched the transformative project Empowering and Elevating the Voice of Early- and Mid-Career Researchers in International Science and Global Policy Processes. This initiative, set to run for two years, is designed to amplify the voices of EMCRs from across the globe – especially those in low- and middle-income countries (LMICs) – helping them shape the future of international science and play a significant role in solving the world's most pressing challenges.

Key activities of the project include science leadership training modules, a podcast exploring the future skills young scientists will need, and residencies at leading Chinese and international research institutions. EMCRs will also have opportunities to participate in major global scientific events such as the ISC's General Assembly in Oman.

Main outputs

- 17 new Young Academies and Associations joined as Category 3 Members in 2023.
- Forum: An active community of around 600 young scientists are part of the ISC's global network of EMCRs.
- Sessions at the Mid-term Meeting and GKDs with large attendance.
- Newsletter: A dedicated newsletter was launched in 2022, with currently 1,233 subscribers.

Partners

- China Association for Science and Technology (CAST)
- Global Young Academy (GYA)
- International Institute for Applied Systems Analysis (IIASA)
- Marie Curie Alumni Association (MCAA)
- Young Academies Scientific Advice Mechanism to the European Commission (YASAS)

Key news items

- Invitation to Young Academies and Associations to join the ISC as Members
- Fostering tomorrow's science: the ISC's engagements with Early- and Mid-Career Researchers in 2023 – International Science Council
- New ISC-CAST initiative to empower Early- and Mid-Career Researchers worldwide

2.5 The ISC Fellowship

The creation of the ISC Fellowship was announced in June 2022 with the appointment of 66 Foundation Fellows, being individuals recognized for their outstanding contributions to promoting science as a global public good, including all members of past and present ISC Governing Boards.

In December 2022, the ISC awarded a further 57 Fellowships, as well as three Honorary Fellowships for the inaugural and outgoing ISC Patrons, Vint Cerf, Mary Robinson and Ismail Serageldin. Another 100 Fellows were appointed in December 2023.

The Fellowship is an honour awarded to those who champion science in society and policy-making.

Through their scientific leadership and work to promote science in the public domain, the Fellows support the ISC's mission to act as the global voice for science.

The Fellows are led by the 13-member <u>Foundation Council</u>. Chaired by Terrence Forrester, with the support of Vice-President for Science and Society, Motoko Kotani, as Deputy Chair, the Council steers the Fellowship for an initial period of three years.

Fellows form a significant body of experts disposed to help the ISC in various ways, including by acting as expert contributors, advisors and reviewers. The Fellowship increases the ISC's direct access to individual scientists and experts and has already proven a valuable resource.

Main outputs

- Letter in *Nature*: <u>ISC Fellows letter to the scientific community on the occasion of the</u> <u>2024 Summit of the Future</u>.
- Position paper for the 2023 HLPF, <u>Rescuing and Integrating the Global Agenda:</u> <u>Harnessing Science and Technology More Effectively</u>, which was presented in plenary by ISC Fellows.
- Frontiers Policy Labs: Special issue <u>Making sense of science in the 21st century</u>, featuring an <u>editorial</u> co-written by Salvatore Aricò and commentaries from the broader ISC community.

→ About the ISC Fellowship



2.6 ISC Patrons

Patrons help the Council with advice, name recognition and credibility within and beyond the scientific world. In 2022 the ISC's three inaugural patrons, Vinton Cerf, Mary Robinson and Ismail Serageldin, were made Honorary Fellows.

Irina Bokova, former Director-General of the United Nations Educational, Scientific and Cultural Organization (UNESCO), became the ISC's new Patron in 2022, taking up many duties, including as Co-Chair of the ISC's Global Commission on Science Missions for Sustainability, speaking at the ISC's Mid-term Meeting of Members in 2023 and chairing the newly formed Nominations and Elections Committee. Ms Bokova also assisted the ISC by raising its profile during many intergovernmental events and processes, including the EuroScience Open Forum (ESOF) and the HLPF.

Key news items

- Bulgarian politician and diplomat Irina Bokova becomes Patron of the ISC
- Preventing crisis: science diplomacy and track two organizations
- <u>Closing remarks by Irina Bokova, ISC Patron, at the Mid-term Meeting of Members</u>
- → About ISC Patrons

2.7 Awards: Stein Rokkan Prize and The Frontiers Planet Prize

The ISC celebrates and supports scientific excellence through a small number of prestigious awards and partnerships. These initiatives recognize groundbreaking research, innovative solutions and significant contributions to science and society. In the 2022–2024 period, the ISC awarded the Stein Rokkan Prize for Comparative Social Science Research, which highlights impactful work in social sciences, and partnered with the Frontiers Planet Prize to champion sustainability science.

These awards not only spotlight individual achievements but also emphasize the importance of inclusive and collaborative efforts in advancing science for the public good.

Stein Rokkan Prize for Comparative Social Science Research

The annual prize, presented by the ISC, the University of Bergen and the European Consortium for Political Research (ECPR), celebrates the legacy of Stein Rokkan, a true pioneer in comparative social science research, acknowledging a submission deemed a substantial and original contribution in the field. Where possible, the ISC has engaged the prize winners in its conferences, such as the GKDs.

Key news items

- 2022: <u>Theoretically ambitious, methodologically rigorous, and empirically rich –</u> <u>Vineeta Yadav wins the 2022 Stein Rokkan Prize</u>, with her study on 'Religious Parties and the Politics of Civil Liberties'
- 2023: <u>Elisabeth Anderson wins the 2023 Stein Rokkan Prize</u> with her study, 'Agents of Reform: Child Labor and the Origins of the Welfare State'
- 2024: <u>Anu Bradford wins the 2024 Stein Rokkan Prize with her 'path-breaking' book</u> Digital Empires: The Global Battle to Regulate
- → About the Stein Rokkan Prize

Frontiers Planet Prize

Since 2022 the ISC supports the Frontiers Planet Prize to recognize and reward exceptional scientists working in sustainability science. Launched by the Frontiers Research Foundation on Earth Day 2022, the prize aims to mobilize nations and the global community of scientists conducting research on earth system science. Three prizes worth a total of USD \$3.2 million are awarded annually to sustainability scientists who propose innovative globally scalable solutions which protect and restore planetary health. The ISC works as a partner widening the visibility of the prize, to ensure all relevant Members of the ISC can participate. The ISC also facilitates nominations from institutions in regions and countries which do not yet have a National Representative Body.

Key news items

- The Frontiers Planet Prize announces 2024 International Champions
- The Frontiers Planet Prize unveils its champions 2023
- → About the Frontiers Planet Prize

2.8 Communications highlights

The ISC has achieved substantial growth in visibility, reflected in increased appearances in Google search results. This improvement stems from a continually evolving website, regular web development to maintain cutting-edge technology (highlighted by a complete website relaunch in 2024) and a consistent flow of high-quality content. Together, these efforts enhance visibility, elevate search rankings and expand the website's reach to a broader audience.

- Last period¹: on average, 6 million impressions per year
- Current period²: on average, 43.7 million impressions per year

As a result of these advancements, the ISC website has seen a remarkable increase in pageviews to <u>council.science</u>, reflecting heightened engagement and interest from users.

- Last period: 1.27 million pageviews
- Current period: 5.8 million³ pageviews

High-quality content

This significant rise in visibility and engagement aligns with the ISC's ongoing commitment to high-quality content production. Over the years, the ISC has continued to steadily produce timely and relevant resources to meet the needs of its audiences. On average, 180+ posts (blogs, news, long stories, press releases) and 20+ publications are produced every year.

Multilingual accessibility

The ISC's commitment to multilingual accessibility has greatly expanded its reach and engagement. With the number of available languages growing from 30 to 140, translated content has experienced a dramatic increase in web traffic, now totalling 38 million requests⁴ as of 4 November 2024. This growth reflects the ISC's strategic efforts to expand reach to a broader audience.

Growing readership of ISC newsletters

The ISC newsletters have become an increasingly valuable channel for connecting with a growing and engaged audience. Through carefully curated content and consistent distribution, the ISC has seen continuous growth in its subscriber base, reflecting strong interest in its updates, insights and publications. This expanding readership demonstrates the impact of the team's efforts to deliver relevant information directly to our audience, fostering a loyal community that values staying informed on ISC activities and initiatives. On average, in total, the ISC sends 50 <u>newsletters</u> per year.

Newsletters

- ISC Monthly
- UN Science at the United Nations
- Open Science Round-Up

¹ Last report date range: July 2018 to June 2021.

² Current reporting period: 1 July 2021 to 31 October 2024.

³ Adjusted to compensate for approximately one month of data lost during the transition period after the website relaunch in 2024.

⁴ Excluding 2.7 million that can likely be attributed to bot activity.

- Early- and Mid-Career Researchers (EMCR)
- Science for Disaster Risk Reduction
- Centre for Science Futures
- ISC Job Alerts
- Regional updates: Latin America and the Caribbean
- Regional updates: Asia-Pacific

Accelerated growth

- Last period: 2.1K new subscribers per year on average
- This period: 3.9K new subscribers per year on average

ISC SciComm Network

In May 2021, the ISC set up the <u>ISC Science Communications Network</u>, which brings together communications colleagues from across the ISC community and external science communications experts. Today, it has over 320 members, including a targeted subgroup for Asia and the Pacific.

The ISC has organized four workshops to help build communication capacity among the membership.

2.9 Sponsorship and endorsement

The ISC is frequently asked to sponsor or endorse activities initiated by its Members or other bodies, and it often does so, for activities that fit with its vision, mission, values, strategy and objectives. The Governing Board agreed on an <u>ISC Sponsorship and</u> <u>Endorsement policy</u> to guide prospective applicants, and also on a <u>Due Diligence policy</u> to guide its decisions on engaging with private-sector bodies. A list of activities sponsored or endorsed by the ISC in the reporting period is found in <u>Appendix D</u>.

A list of current agreements and memoranda of understanding with partners is available in <u>Appendix G</u>.

REGIONAL PRESENCE

3.1 Introduction

In order to deepen the Council's engagement with its Members and with the scientific community across the world the ISC has established Regional Focal Point (RFPs). These are crucial to ensuring that the ISC is representative of scientific communities across the world and of the concerns of different regions. The staff of the RFPs are employed by their host organization but work closely with the ISC Secretariat in Paris to ensure alignment and coordination.

Two RFPs have already been established, and others are under consideration.

- The RFP for LAC is hosted by the <u>Academia Colombiana de Ciencias Exactas, Fisicas y</u> <u>Naturales</u> and was launched in 2021.
- The RFP for Asia and the Pacific region is hosted by the <u>AAS</u> and was launched in 2022.
- Scoping for a potential presence in Africa <u>started</u> in 2022 in partnership with Future Africa.
- The Council is in discussions with Oman on a possible ISC presence in the Middle East and North Africa (MENA) region.

3.2 Regional Focal Point for Latin America and the Caribbean

The RFP-LAC was the first regional structure of the ISC. The RFP-LAC, based at the Colombian Academy of Exact, Physical and Natural Sciences, convenes the scientific community in LAC and acts as a hub for ISC Members and activities in the region. The RFP works closely with civil society, governments, international organizations and the private sector to identify regional needs and opportunities.



The RFP has a Director, a dedicated, full-time Science Officer, administrative support from the host institution and an 11-member Liaison Committee (see <u>Appendix H</u>).

The ISC greatly regretted the passing of Dr Enrique Forero Gonzalez, first Director and Chair of the Regional Focal Point for Latin America and the Caribbean in September 2023.

Highlights

- Collaboration with the Centre for Science Futures on the report: <u>Preparing National</u> <u>Research Ecosystems for AI: Strategies and Progress in 2024 (ISC, 2024)</u>, which featured a series of country case studies, including from Brazil, Chile, Mexico and Uruguay.
- Collaboration with ILDA (<u>Iniciativa Latinoamericana por los Datos Abiertos</u>) for the workshop held during the GKD in Santiago, Chile, in April 2024.
- Promoting the establishment of Young Academies in the LAC region. Connecting young scientific associations to the Focal Point for EMCR at the ISC, promoting participation in the recently launched ISC Early- and Mid-Career Researchers (EMCR) Forum and in opportunities communicated in the dedicated Newsletter. The ISC RFP-LAC supported the organization of the ISC Early- and Mid-Career Researchers (EMCR) Forum: Latin America and the Caribbean held during the GKD-LAC in Santiago de Chile, in April 2024.
- Invitations to represent the ISC at regional scientific events.
- Development of a regional database of experts which can be consulted for ISC needs.
- Contribution to the report <u>Looking Beyond Research Co-production: Exploring the</u> <u>Challenges of Evidence Use</u> (Institute of Development Studies, 2023).
- Supported the Caribbean Academy of Sciences 23rd Biennial Conference (2023).
- Supported one of a series of workshops organized by UNEP in collaboration with the ISC as part of the global foresight exercise: <u>Regional Foresight Workshop – Latin</u> <u>America and the Caribbean</u>.
- Participated in a roundtable on the futures of development with the UN Development Programme (UNDP), which will serve as input for the UNDP Global Signals Report 2024 in consultation with ISC.
- Recommended women scientists in SDGs and sustainability to the 2027 Global Sustainable Development Report, through the ISC science policy unit.
- Invited by the Latin America and the Caribbean Office of UNEP to be part of REIN (Regional Environmental Information Network), which was established in 2022 following a decision of the forum of ministers of environment of LAC.
- Participated in the Meeting of the GYA-IAP-ISC Stakeholder Engagement in Rethinking Research Assessment bringing the LAC regional perspective.
- Co-organized a LAC regional webinar to present the Towards IPOS (International Panel for Ocean Sustainability) initiative, to introduce the panel to the regional scientific community dedicated to research about oceans.
- Formal collaborator of the TWAS Young Affiliates Network (TYAN) and its 3rd TYAN Hands-on School, as part of the TEACH-4-SD initiative, which focuses on equipping students from developing countries with practical skills essential for sustainable development research. One edition was scheduled to take place in Santiago, Chile, from 11 to 15 December 2024.
- Invited to moderate several sessions at The Landscape Study and Benchmarking Workshop for the APEC Open Science Alliance held in Lima, Peru, and organized by the Malaysian Academy of Science.

- Scoping a joint effort with ParlAmericas (an institution that promotes parliamentary diplomacy in the inter-American system) to promote interaction between scientists and parliamentarians.
- Developing a regional document with the Academies of Science of the LAC region, which advocates increased investment in the scientific systems of our countries and support for research in basic sciences.
- In coordination with the Ibero-American Young Academies and their members, working on planning leadership mentoring sessions for the young scientific community of the LAC region in collaboration with New Voices, TYAN, the GYA and other Young Academies in the region.
- Appointed member of the ISC-INGSA (International Network for Governmental Science Advice) advisory group for science advice.

Involvement in Working Groups

- Steering Committee of the Latin America and the Caribbean Chapter of INGSA
- Regional Scientific and Advisory Group within the Regional Office for the Americas and the Caribbean of the UN Office for Disaster Risk Reduction (UNDRR)
- OWSD Colombian chapter
- REIN from UNEP LAC
- Fourth meeting of the Conference on Science, Innovation and Information and Communication Technologies of the UN Economic Commission for Latin America and the Caribbean (ECLAC) (Colombia was appointed chair of the conference until 2026)
- LARAC (Latin American Research Advisory Council), Springer Nature
- Global Alliance for Circular Bioeconomy established during COP16 in Cali, Colombia
- → About the RFP for Latin America and the Caribbean

3.3 Regional Focal Point for Asia and the Pacific

Based at the Australian Academy of Science (AAS), the Regional Focal Point for Asia and the Pacific (RFP-AP) convenes the scientific community in Asia and the Pacific and acts as a hub for ISC Members and activities in the region. The RFP-AP began operations in 2023, and is working to ensure that regional needs and priorities are adequately represented in the ISC's global agenda, that regional voices are actively engaged in the governance and management of the ISC's work and that the region benefits from the results of that work.

Through the generous support of the Government of Australia and the AAS, the RFP benefits from a team of five: a Director, a Communications Manager and three project/programme officers. It also has an international Advisory Committee (see <u>Appendix H</u>).



Highlights

Supporting the establishment of a Pacific Academy of Sciences

Recognizing the need to assist science and scholarship in the Pacific and to support new academies of sciences in underserved regions, the ISC and the RFP attracted support and initial funding from Sasakawa Peace Foundation and Richard Lounsbery Foundation to launch the process through a regional consultation with Pacific Islands scholars, funders and decision-makers. Following the success of the inaugural events in October 2023, the ISC and the RFP have continued to facilitate the process.

- October 2023: The inaugural <u>ISC Meeting of Pacific Scholars</u> brings over 60 scientists to Apia, Samoa.
- December 2023: As the first crucial step, the Establishment Committee is formed.
- February 2024: In Auckland, New Zealand, the Establishment Committee and advisors make progress on resolving foundational issues around the academy's legal status, location, membership and constitution.
- May 2024: A delegation from the Pacific region is sponsored to attend the <u>4th International Conference on Small Island Developing States</u> (SIDS4).
- August 2024: Call for nominations for Foundation Fellows.
- October 2024: The <u>launch of the Academy</u> is an official side-event at the <u>Commonwealth Heads of Government Meeting in Samoa</u>.

Asia Science Mission

The RFP-AP is working with <u>Future Earth Asia</u> to develop a Meta-Network Hub Asia that will address the critical challenge of optimizing the utilization of existing local resources for achieving the SDGs in Asia by harnessing the power of local science communities embedded within universities, colleges and civil society organizations.

- July 2024: The Meta-Network Hub for SDGs in Asia is shortlisted for the <u>International</u> <u>Science Council Pilot Science Missions for Sustainability</u>.
- 19 September 2024: First of three inception workshops to officially commence codesign of the Meta-Network Hub Asia with consortium partners from across Asia (including Australia and Future Earth Asia).
- 21–23 October 2024: Second co-design workshop of the Meta-Network Hub Asia with consortium partners from across Asia held at <u>Research Institute for Humanity and</u> <u>Nature</u>.
- November 2024: Third co-design workshop of the Meta-Network Hub Asia with consortium partners from across Asia.

Asia-Pacific Academic Mentoring Program

The RFP-AP is facilitating a mentoring programme to connect EMCRs with senior science mentors to guide young scientists from low-income nations within the region to become future leaders in academia. The mentoring programme commenced in September 2024 and will run for one year.

- Successfully launched the programme in September 2024, with ten Pacific EMCRs as mentees and ten mentors
- Mentees are from Fiji, Papua New Guinea, Vanuatu, Samoa and New Caledonia
- Mentors are from Australia and New Zealand (two mentors are also ISC Fellows)
- In total there were 48 mentee applicants and 42 mentor applicants

INGSA-Asia Science Advice Workshops

The RFP-AP has partnered with INGSA-Asia to strengthen the institutional science advice capability in Asia through training opportunities, stronger engagement with policy-makers, building regional and inter-regional networks and strengthening the regional science advice ecosystem.

- 23 proposals for the INGSA-Asia grassroots workshops
- August 2024: Call for applications for the INGSA-Asia grassroots workshops
- November 2024: Successful applicants notified
- Ongoing 2024–25: INGSA-Asia grassroots workshops facilitated across countries in Asia

ISC-UNEP Foresight Report

The RFP facilitated collaboration between the AAS and the ISC on a joint ISC–UNEP project. The AAS partners contributed notably to the literature review and interview of experts. The project's outcomes were published in <u>Navigating New Horizons – A Global</u> <u>Foresight Report on Planetary Health and Human Wellbeing</u> (UNEP, 2024).

Media and communications training

The RFP-AP is delivering a <u>programme of online workshops</u> for its members throughout 2024–2026 to build capability in science communication and understanding of the media landscape and to improve digital storytelling and use of social media platforms for scholars in the region. Several workshops have already been held in 2024, with registrations over 600 to receive the recordings and attendance of more than 100.

- May 2024: Storytelling in Science: Science Communication and the Media online workshop
- July 2024: Social media content briefing sessions with the RFP-AP communications network
- September 2024: Social media training module 1 <u>Navigating the social media</u> <u>landscape as a scientist in 2024</u>
- October 2024: Social media training module 2 <u>Developing a social media strategy for</u> <u>scientists</u>
- November 2024: Social media training module 3 <u>Content creation for scientific</u> research

New Zealand Science Media Centre collaboration

- July 2024: A talanoa (sharing of ideas) session with journalists and media academics at the Pacific Media Conference 2024.
- October 2024: A session focusing specifically on training science journalists in Apia, Samoa, during the Commonwealth Heads of Government Meeting (CHOGM) in October 2024.
- Printed and online resource guide for workshop participants, which can be shared.
- Pacific Academy of Sciences member institutions gain access to the Science Media Exchange newsfeed and platform (<u>Scimex.org</u>). Benefits to ISC member institutions include:
 - access to Science Media Exchange portal to publicize new research publications and expertise, providing direct visibility to regional and global media
 - free advice and training sessions for media communications teams at member institutions
 - access to online resources and training modules.

Communications and outreach

The RFP benefits from dedicated communications capacity and has a busy communications plan. The team works with ISC Members to increase visibility of events and outputs.

The RFP has identified a point of contact for communications in each country, with 57 Members in the communications network and 46 Members in the Asia-Pacific WhatsApp group.

The RFP has held three Members' meetings in 2024, with excellent participation rates from Members and participation of government and multilateral policy organizations as well as media organizations.

The RFP newsletter has 2,513 subscribers.

→ About the RFP for Asia and the Pacific

3.4 Scoping in Africa

Towards the end of 2022, the ISC entrusted Future Africa, a pan-African organization based in South Africa, to conduct a two-year pan-African scoping and development process aimed at identifying the need for and possible functions and form of an ISC

institutional presence on the African continent. Future Africa was tasked with convening a consortium of African partners to lead this scoping work. The agreement was signed in January 2023 and an eleven-person steering committee was established, chaired by Daya Reddy (see <u>Appendix F</u>).



World Science Forum 2022 Science of Social Justice The project conducted a stakeholder mapping from June 2023 to November 2024 to provide an overview of the state of African science, focusing on the stakeholders, their activities and networks. Two consultative workshops were held in 2023, and finally Future Africa conducted a survey of the 41 ISC member organizations in Africa from November 2023 to July 2024. The conclusions of the scoping exercise will be presented to the Governing Board and discussed at the 2025 General Assembly. CONVENING SCIENCE AND ENABLING INTERNATIONAL SCIENCE COLLABORATION

In a world of increasing complexity and uncertainty, the importance of science for humanity is greater than ever. As a universal language and as a logic-base for evidence-informed decision-making, science has been, and will continue to serve as, a reliable compass for a sustainable, inclusive future, but only if the practice of science is fair, accessible and aligned with the idea of science as a global public good. To respond to the trust placed in science by society, it is crucial that fundamental science continues to evolve in a healthy way, opening up new horizons of knowledge for humanity.

It has been my great pleasure to serve as Vice-President for Science and Society to help the Council fulfil its mission, engaging in activities based on the Action Plan adopted by the General Assembly in 2022 in cooperation with the ISC Members and various related organizations.

The Committee for Science Planning (CSP) has supported the projects under the Action Plan, and various science initiatives and programmes co-sponsored by the ISC, such as the Affiliated Bodies. The CSP is pleased to welcome the Affiliated Bodies as Category 4 Members of the ISC in recognition of their important contributions over the years.

I would like to express sincere gratitude to all those who have supported the ISC's science activities over the past three years, to enable it to fulfil its vision and mission.

—— Motoko Kotani, Vice-President for Science and Society

4.1 Introduction

The Council's 2022–2024 Action Plan, produced in the wake of a global pandemic, recognized the role of science in responding to global challenges, how the value of science could be amplified through innovation and how science systems themselves will need to adjust to a changing world.

The ISC has responded to the shocks of a rapidly changing environment by establishing the Centre for Science Futures as a think tank to explore new fields, technologies and methodologies that have the potential to impact on science and science systems. However, the Council also invests in long-term support of structures for international scientific collaboration on issues of global relevance. This ensures a solid basis from which to address complex challenges, and for providing scientific input into policy and decision-making processes.

The CSP has supported and guided these initiatives over the three-year period by providing strategic scientific advice and horizon scanning exercises and fulfilling the governance mandates to ISC's Affiliated Bodies. The accelerating pace of technological change, and compounding of crises facing humanity, mean that the CSP (which comprises a broad spectrum of the ISC membership) has acted as a compass for guiding the scientific trajectory of the ISC.

4.2 International scientific coordination

Over the reporting period, the ISC has co-sponsored 15 Affiliated Bodies together with other international organizations and UN agencies. These include international research programmes, scientific committees, expert networks, observing systems and data bodies. The Affiliated Bodies advance international, interdisciplinary and transdisciplinary science in areas such as: global sustainability, climate change, inequality, disaster risk reduction, urban health and wellbeing, land, atmospheric, oceanic and space research, data science and science advice. Following the revision of the Statutes and Rules of Procedure adopted in 2024 the Affiliated Bodies are also Category 4 Members of the ISC.

The Affiliated Bodies contribute directly to the delivery of the Council's strategic objectives through:

- facilitating and coordinating international research collaboration on issues of global concern
- mobilizing, sustaining and providing access to global scientific communities and communities of practice
- generating or providing access to data and observations in various scientific fields
- · building capacity and training the next generation of scientists
- linking the broader ISC membership
- developing principles, policies and methodologies that set the standards in various fields and contribute to the evolution of the science system itself
- producing data, knowledge and/or expertise that underpin global policy processes.

The Council's responsibilities to each Affiliated Body differ depending on the agreement with co-sponsors. In general, the Council provides:

- access to Member organizations (across the breadth of social and natural sciences) and their expertise
- participation of scientists from the Global South
- credibility, relevance and legitimacy of the bodies through co-sponsorship, governance and review processes
- access to UN processes
- the possibility of fostering collaboration across the Affiliated Bodies
- increased visibility through the ISC network and communication mechanisms.

The 15 Affiliated Bodies co-sponsored in the 2022–2024 period are as follows.

Research programmes

- Future Earth
- Integrated Research on Disaster Risk (IRDR)
- Global Research Programme on Inequality (GRIP)
- Urban Health and Wellbeing (UHWB)
- World Climate Research Programme (WCRP)

Scientific committees

- Committee on Space Research (COSPAR)
- Scientific Committee on Antarctic Research (SCAR)
- Scientific Committee on Oceanic Research (SCOR)
- Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)
- Frequencies for Radio Astronomy and Space Science (IUCAF)

Data bodies

- Committee on Data (CODATA)
- World Data System (WDS)

Observing systems

- Global Climate Observing System (GCOS)
- Global Ocean Observing System (GOOS)

Networks

• International Network for Governmental Science Advice (INGSA)

4.3 The Centre for Science Futures

Changing Practices in Science and Science Systems was one of the five priority areas for the ISC in 2022–2024, and its centrality to everything the ISC does was cemented with the establishment of the ISC Centre for Science Futures. Launched at the ISC Midterm Membership Meeting in Paris in May 2023 with its founding partner, Sciences Po, the mandate of the Centre is to help ISC Members and the broader scientific community anticipate and adapt to the emerging trends that will shape the global scientific landscape.

With an expert Advisory Council and a team of Research Associates, the Centre explores emerging trends, conducts foresight studies and shares insights that help the science

community stay resilient and relevant in the face of global challenges. Through this work, the Centre aims to make science more responsive to the world's needs, building bridges that will support impactful research and policy well into the future.

Some of the outputs of the Centre result from projects originally under Priority Area 4, Changing Practices in Science and Science Systems, and are reported on below. The new work of the Centre is presented here.

Key outputs of the Centre are listed below, and discussed in more detail elsewhere in this report.

- Looking at the Future of Transdisciplinary Research (April 2023)
- The Future of Research Evaluation: A Synthesis of Current Debates and Developments (May 2023)
- The Contextualization Deficit: Reframing Trust in Science for Multilateral Policy (November 2023)
- Protecting Science in Times of Crisis (February 2024)
- Preparing National Research Ecosystems for AI: Strategies and progress in 2024 (2024)

4.3.1 Al for Science

The Centre for Science Futures launched the AI for Science project in October 2023 to examine AI's impact on global science and research, focusing on diverse national research landscapes. Addressing policy-makers, research institutions, universities and consultants, the project provides a framework to support AI adoption, spotlighting challenges and offering insights from case studies, especially for small and medium-sized nations. Developed with expert consultations and regional workshops in Asia and the Pacific and in Latin America, the project's objectives are to (1) establish a knowledge baseline on AI's effects on science, (2) support AI integration roadmaps, (3) build global networks for AI adaptation and (4) stimulate science–policy discussions on AI's societal impact.

Experts from or nominated by Members played an active role in the project, with notable contributions from the Academy of Sciences Malaysia, the Academy of Science in Mongolia, the AAS, the Colombian Academy of Exact, Physical and Natural Sciences and the Ministry of Higher Education, Research and Innovation (MOHERI) of Oman.

Main outcomes

The project centres on ensuring AI serves the public good, backed by policies that encourage its responsible and positive use. Through case studies and regional insights, the project has uncovered advanced AI readiness in some unexpected regions, while also drawing attention to how the digital divide impacts AI development, and how to address these gaps to fully leverage AI's potential.

The ISC's expertise in AI for science gained recognition through inclusion in two European Commission events focused on AI's role in scientific advancement. UNESCO invited the ISC to present in a plenary session on AI and Open Science, highlighting the Council's insights on integrating AI into research frameworks to enhance global scientific collaboration and accessibility.

The ISC has forged new partnerships, notably with the Latin American Initiative for Open Data (ILDA) in partnership for the workshop held at the GKD-LAC in Santiago, Chile, and in the media landscape, with *Nature* and *University World News*, enhancing the visibility and impact of its work on science systems futures.

Main outputs

- Preparing National Research Ecosystems for AI: Strategies and Progress in 2024, a working paper offering a comprehensive analysis of the integration of AI in science and research across various countries, aimed at science leaders, policy-makers, AI professionals and academics.
- <u>Critical Issues for the Uptake of Al in Science</u>, a result of a review of over 300 publications on the integration of Al in national research ecosystems.
- Two workshops, one in <u>Kuala Lumpur, Malaysia</u> at the GKD-AP and one in <u>Santiago</u>, <u>Chile</u>, at the GKD-LAC.

Partners

- International Development Research Centre (IDRC) of Canada
- Academy of Sciences in Malaysia (ASM)
- Australian Academy of Science (AAS)
- Colombian Academy of Exact, Physical and Natural Sciences (ACCEFYN)
- Ministry of Higher Education, Research and Innovation (MOHERI)
- Latin American Initiative for Open Data (ILDA)

→ About AI for science

Key news items

- <u>The ISC's Centre for Science Futures secures a million-dollar grant to explore the</u> impacts of AI on science in the Global South
- Report highlights strategies to accelerate AI in research
- Shared concerns and aspirations around AI in Latin America and the Caribbean

4.3.2 Science fiction and the future of science

In 2023, in partnership with *Nature's Working Scientist* podcast, the Centre for Science Futures explored the role of science fiction in anticipating future developments in science and technology. The podcast included six episodes with a diverse group of science fiction authors, including Chen Quifan, Fernanda Trías, Vandana Singh, Karen Lord and Kim Stanley Robinson.

Hosted by Paul Shrivastava, Professor of Management and Organizations at Penn State University, the podcast delved into the creative processes of these authors, uncovering what inspires them to envision realistic future scenarios. They examined how science fiction shapes the perspectives of scientists and policy-makers, offering insights into the interplay between science and society.

The podcast encouraged scientists to consider imaginative, unconventional approaches to contemporary scientific challenges, showed how speculative fiction can illuminate complex issues such as climate change, food security and ethics in technology, and promoted the integration of long-term foresight in policy development and the alignment of policy with societal values and future needs.

Main outcomes

The collaboration with *Nature's Working Scientist* podcast increased ISC's visibility within the science and literary communities, garnering 17,800 listeners on the podcast, creating connections with influential science fiction writers and thinkers. This initiative underscored ISC's commitment to exploring the intersections of science and society, positioning it as a leader in innovative approaches to science policy and public engagement.

For ISC Members, the podcast series provided an engaging platform to explore new perspectives on the future of science. By inviting Members to participate in these thought-provoking discussions, the series fostered a shared vision and sense of purpose within the ISC community.

Main outputs

- Six podcast episodes with Nature's Working Scientist
- Six full-length episodes on ISC Presents

Partners

- Nature journal
- Arthur C. Clarke Center for Human Imagination
- → About the podcast series

Key news items

- <u>New science fiction podcast launched</u>
- Extended versions of the science fiction podcast episodes

4.3.3 Science systems futures

In 2024, the Centre <u>received a grant</u> from the IDRC to investigate the impact of AI and emerging technologies on science, technology and innovation organizations in the Global South. The three-year project will run until mid-2027.

Through this grant, and in collaboration with its Member organizations in the Global South, the ISC will:

- Expand the number of country cases studies explored through the 'AI for Science' project.
- Extend the ISC's work on *Science Organizations in a Digital Age* to a second phase, which seeks to build on these lessons and create support mechanisms tailored specifically to science organizations in LMICs. As part of this, ten ISC Members will engage in a four-month digital journey in 2025, guided by experts and supported by a community of peer change-makers. Their experiences will inform the recommendations and the support mechanisms the ISC will produce for the wider community.
- Explore the interface between publicly-funded and private-sector science in the context of emerging technologies, also with a focus on building participation and networks in the Global South.

4.4 Global sustainability

4.4.1 Science Missions for Sustainability and the Global Forum of Funders

The Science Missions for Sustainability initiative, which has been running since 2020, is pioneering an ambitious, mission-driven approach to address complex sustainability challenges. The new model for science proposed in the <u>Unleashing Science report</u> (ISC, 2021) and detailed in the <u>Flipping the Science Model report</u> (ISC, 2023) will be operationalized in pilot missions. This will be a unique learning opportunity to fine-tune and demonstrate the benefits of transdisciplinary mission-oriented science. By fostering deep collaboration between scientists, policy-makers, funders and communities, the initiative seeks to make scientific knowledge actionable, impactful and integrated into societal solutions.

Main outcomes

The Science Missions initiative is aligned with the UN Decade of Science for Sustainable Development, involving high-profile figures on the Global Commission and Oversight and Selection Committees. Through the call for pilot missions, the ISC expanded its engagement in fostering effective science–policy interfaces and reinforced its role as a central convenor for interdisciplinary scientific communities and global networks in sustainability research.

ISC Members and Affiliated Bodies played an active role in co-designing proposals for pilot missions. Members contributed through representation on the Selection and Oversight Committees and collaborated with regional academies, gaining visibility and fostering partnerships with global institutions across science, policy and funding sectors. These efforts further embedded ISC Members in the global sustainability dialogue, enhancing their impact and collaboration with key stakeholders.

The 250 proposals received in response to an open call for pilot missions show the high level of interest and readiness within the science community to undertake ambitious work that can respond to the big questions of our time. At the time of writing in late 2024, the 23 shortlisted pilot projects are being reviewed with the intention to match donors with consortia. The first set of pilot missions will be announced at the General Assembly in 2025 in Muscat, Oman.

Main outputs

- <u>Global Commission</u> co-chaired by Irina Bokova, former Bulgarian Foreign Minister and Director-General of UNESCO, and Helen Clark, former Prime Minister of New Zealand and previous administrator of the UNDP.
- <u>Oversight and Selection Committees</u> chaired by Macharia Kamau, Ambassador and Special Envoy, with the UNESCO leadership, and Matthias Kaiser, Professor Emeritus, University of Bergen respectively.
- Report: <u>A Synthesis of Research Gaps (2021)</u>.
- Report: <u>Flipping the Science Model: A Roadmap to Science Missions for Sustainability</u> (2023).

- Report: <u>A Model for Implementing Mission Science for Sustainability (2023)</u>.
- Report: Looking at the Future of Transdisciplinary Research (2023).
- Global Webinar on UN TV: Launch event at the UN High-Level Political Forum, 2023.
- Declaration: The importance of mission-led science and transdisciplinary science was recognized in the OECD <u>Declaration on Transformative Science, Technology and</u> <u>Innovation Policies for a Sustainable and Inclusive Future</u>.
- High engagement: <u>More than 250 consortia</u> across the globe submitted applications to be part of the Science Missions for Sustainability programme.

Partners

- The Swedish International Development Cooperation Agency (Sida) provided seed funding in 2022 and the US National Science Foundation (NSF) supports the work of the Global Commission since 2023 through its support for ISC's sustainability science activities.
- → About Science Missions for Sustainability

Key news items

- <u>The ISC's Science Missions for Sustainability: a roadmap for delivering the UN Pact for</u>
 <u>the Future</u>
- <u>Big mission science and large infrastructure projects take a systems-based approach.</u> <u>Can we do the same for sustainability science?</u>
- <u>New Technical Advisory Group to support the Global Commission on Science Missions</u>
 <u>for Sustainability</u>

4.4.2 The Transformations to Sustainability programme

The Transformations to Sustainability (T2S) programme (2014–2022) addressed the social dimensions of climate change and sustainability. The programme was pioneering in giving social scientists a platform to design and lead integrated, international science for sustainability, in interdisciplinary and transdisciplinary formations. In 2023–2024 the programme was wrapping up and producing synthesis products, which were supported by the NSF grant for sustainability activities. The T2S programme had two overlapping phases. In the first (T2S 1), which ran from 2014 to mid-2019, the ISC managed a research funding programme financed almost entirely by Sida. In the second (T2S 2), from mid-2018 to the end of 2022, the ISC, still with funding from Sida, was one of several funders of a multilateral funding programme which generated 11.5 million EUR for social science research for sustainability.

Main outcomes

The T2S programme established social scientists as leaders in sustainability research, driving forward transdisciplinary methods that incorporate the knowledge of non-academic stakeholders and have a social framing of sustainability problems. It generated more than 400 publications and three cross-project special issues, as well as many non-academic products. A major learning study in 2024 highlighted the transformative potential of transdisciplinary approaches and the importance of funding for Global South leadership in advancing international sustainability science.

T2S projects had demonstrable influence on policy in many sectors at local, national and even international levels. The three reports produced in 2024 provide recommendations

on structural and institutional adjustments necessary to support transformative research, emphasizing the need for policies that enable and sustain transdisciplinary and inclusive research approaches, especially in Global South contexts.

The ISC's leadership of the T2S programme reinforced its role in promoting innovative, integrated and inclusive approaches. The legacy of the T2S programme endures as the community continues to produce numerous spin-off projects and initiatives.

Main outputs

- Report: <u>Transformative Labour: The Hidden (and Not-So-Hidden) Work of</u> <u>Transformations to Sustainability. Integrative Insights from Three Transformative</u> <u>Knowledge Networks (2024)</u>.
- Report: <u>Social Transformations to Sustainability through a Critical Lens: Integrative</u> <u>Insights from Twelve Research Projects Funded under the Transformations to</u> <u>Sustainability Research Programme (2024)</u>.
- Report: <u>Programme Design for Transformations to Sustainability Research: A</u> <u>Comparative Analysis of the Design of Two Research Programmes on Transformations</u> <u>to Sustainability (2024)</u>.
- Special issue of Current Opinion in Environmental Sustainability (ongoing).
- Video series celebrating the T2S projects (2023):
 - <u>Understanding transformations to sustainability (summary film)</u>
 - <u>The transformative potential of localized land-registration in conflict-affected areas</u>
 - <u>The potential of intellectual property regimes to accelerate sustainability transitions</u>
 - <u>Collectively imagining the future a key to governance for social transformations</u>
 - <u>Convivial conservation: a transformative, whole-Earth approach to environmental</u> <u>conservation</u>
 - Local initiatives resisting powerful forces of change in the Amazon
 - Transforming a destructive industry into a sustainable economic and human activity.
- Final Evaluation Report (2023).

Partners

- Belmont Forum
- NORFACE Network
- Swedish International Development Cooperation Agency (Sida)
- → About Transformations to Sustainability
- → <u>Transformations to Sustainability website</u>

Key news items

- What we learned about social transformations to sustainability from a decade of transdisciplinary research
- Pivot and Leap: the urgent need to integrate research, policy and practice for transformations to sustainability
- Agents of change: spotlight on place-based sustainability initiatives in the Amazon
- The transformative potential of managed retreat in the face of rising sea levels

4.4.3 Leading Integrated Research in Africa for Agenda 2030

The Leading Integrated Research in Africa (LIRA) programme was launched in January 2016 immediately after the adoption of the 2030 Agenda. LIRA focused on building the capacity of the next generation of African scientists to rethink urban futures on the continent in collaboration with local authorities, communities, government and industry. The programme supported <u>28 collaborative research projects</u> in 22 African countries: Angola, Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Malawi, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Togo, Uganda, Zambia and Zimbabwe.

The programme made strides in fostering transdisciplinary research to address urban sustainability challenges across African cities. Over six years, it built a community of early-career African researchers who collaborated with local communities, policy-makers and diverse stakeholders to tackle SDG-

related issues at a local level. The programme generated extensive knowledge, including over 70 academic articles and policy briefs, practical tools and impactful media outputs, while also building strong partnerships that bridged science and society. The success of LIRA has led to plans for a new Africa-led phase to further support sustainable urban development through this powerful, context-specific approach.

Research finished in 2021. During this reporting period the LIRA programme was synthesizing learning and producing final reports.

Main outcomes

LIRA 2030 generated new, context-specific knowledge on sustainable urban development in African cities, publishing over 70 academic articles and creating critical policy-relevant insights into urban processes. The programme's transdisciplinary approach integrated scientific research with community-based action, producing valuable data on issues such as water security, informal housing and air quality that directly address local and global sustainability challenges.

LIRA 2030 enabled collaborations that influenced policies on sustainable urbanization, health and environment across multiple African nations. The programme's outputs included over 20 policy briefs, which helped bridge science–policy divides, enabling evidence-based policy-making in cities across Africa, including key contributions to airquality legislation in Kenya.

The ISC reinforced its role as a leading facilitator of sustainability science by driving the first large-scale African-led research programme aimed at achieving the SDGs. The programme exemplified the ISC's commitment to equitable science leadership, with strong partnerships across African institutions and a shift in knowledge production from the Global North to Africa.

LIRA 2030 fostered deeper engagement for ISC Members by supporting capacity-building and leadership opportunities for early-career African researchers, establishing a resilient network of scientists and stakeholders in sustainability research. The programme's collaborative model strengthened ties among regional academies, local authorities and community organizations, enhancing Members' influence in the global sustainability agenda.

Main outputs

- Report: LIRA 2030 Africa: Learning from Practicing Transdisciplinary Research for Sustainable Development in African Cities (2023).
- Report: LIRA 2030 Africa: Key Achievements and Learnings (2023).
- Report: Final Evaluation Report: LIRA 2030 Africa (2023).

Partners

- Network of African Science Academies (NASAC)
- Swedish International Development Cooperation Agency (Sida)
- → About LIRA 2030

4.4.4 Human development, inequality and social cohesion (ISC–UNDP Partnership)

The ISC and the United Nations Development Programme (UNDP) partnered on the project <u>Rethinking Human Development</u> from 2020 to 2023 aiming at a critical review and rearticulation of the human development paradigm. This partnership brought the insights of the global scientific community to the vital discussion on human development to feed fresh perspectives and advances from various disciplines into this ongoing dialogue. Phase I of the project in 2020 focused on bringing varied insights to the conceptual understanding of human development. Building on this success, Phase II of the project in 2022–23 involved a similar consultation on metrics to measure human development and how to move toward experimental indices to reflect present and emerging dimensions of human development.

For this second phase, insights were gathered from experts representing a range of backgrounds into the options for enhancing multidimensional wellbeing measurement with regard to measuring human development. The targeted list included individual experts from the field that have been active in the debates surrounding the Human Development Index, experts from organizations that have been working on multidimensional wellbeing indices, representatives of disciplinary associations and scientific programmes that work on related subjects (such as poverty, inequality, participatory research, data issues, sustainability, transdisciplinary science) policy advisors and development practitioners. This was done through an online questionnaire and in-depth interviews.

The outcomes of these consultations were summarized in a working paper and discussed in an online workshop on 16 March 2023. This consultative workshop included an ISC expert group and the UNDP Human Development Report Office (HDRO) to ascertain strategic and clearly defined options to feed into the UNDP HDRO's efforts to fashion a reinvigorated Human Development Index and/or complementary measures. As a follow-up to this work, a thematic workshop on Addressing Affective Polarization and Protecting Social Cohesion in the Face of Rapid Technological Change was hosted at the ISC Headquarters and organized in partnership with the UNDP and Koi Tū: the Centre for Informed Futures in November 2023. The workshop included 15 interdisciplinary scientists working at the science–policy interface The primary goal of the workshop was to review where we are in our collective thinking and whether there is active research and analysis to draw on to answer currently relevant questions such as 'How do we define social cohesion, social resilience and affective polarization?', 'How are these evolving in different contexts?', 'What are driving these?' and 'What ideas do we have for interventions to mitigate affective polarization and promote social cohesion?'

This workshop and the work preceding it highlighted the need for a collaborative research programme on inequality, a key theme of development. An ISC Governing Board Working Group was therefore formed to report on the current research landscape relating to poverty and inequality, including the global experts and initiatives, and provide a recommendation to the Governing Board on needs and opportunities for an ISC Affiliated Body or other international coordinating initiative in this domain. The outcomes of the Working Group's deliberations will be presented at the end of 2024.

Main outcomes

The ISC has demonstrated the value of drawing on its diverse and global network of experts to weigh in on and enrich key concepts and debates in sustainable development through this partnership. The substantive contributions resulting from the consultative processes under various streams of the partnership with the UNDP have been highly appreciated. As a result, ISC was invited to contribute to the UNDP's work on the Future of Development and organized expert roundtables to provide feedback into the first and second UNDP Signals Spotlight reports in 2023 and 2024. The ISC network is also feeding into the UNDP's foundational Landscape Paper, which will describe the global landscape of development over the next four years and beyond.

The work carried out under this partnership has also provided a basis for development of the Council's upcoming work in the area of inequality.

Main outputs

- Online expert workshop and background paper on Rethinking Human Development Measurement (2023).
- Workshop on Addressing Affective Polarization and Protecting Social Cohesion in the Face of Rapid Technological Change with a targeted group of experts to review research in this area and propose a high-level outline of a research and analysis road map (2023).
- Consultative expert roundtables for the UNDP's Signal Spotlight reports in 2023 and 2024.

Partners

• UNDP

4.5 Converging science and technology in a digital era

4.5.1 Coalition for Digital Environmental Sustainability

Founded in 2021, the <u>Coalition for Digital Environmental Sustainability</u> (CODES) is a global, multi-stakeholder coalition mandated by the UN Secretary-General to foster a sustainability-driven digital transformation. In close collaboration with the UN Office of the Secretary-General's Envoy on Technology, CODES is a member-based alliance that provides key resources and opportunities for global contributors to set priorities, take concerted action and develop their capacities for an inclusive, sustainability-driven digital transformation.

Supported by founding co-champions such as the ISC, UNEP, UNDP, Future Earth, the German Environmental Agency and Kenya's Ministry of Environment and Forests, CODES serves as a global hub for policy-makers, academics, technology companies and NGOs working at the intersection of environment and digitalization. CODES has grown into a community of over 2,000 stakeholders working together towards a vision and set of priorities and priority initiatives.

Through co-developed resources like the CODES Action Plan and the <u>Global Digital</u> <u>Compact</u>, and active participation in global discussions – from <u>Stockholm +50</u> to the <u>Summit of the Future</u> – CODES advances the agenda for sustainable digital transformation. Now in a collective action phase, CODES is mobilizing global support for nine impact initiatives, aiming to align stakeholders, reduce digitalization's environmental footprint and drive innovation in digital tools to meet the SDGs.

Main outcomes

As a global agenda-setter CODES has aimed to bring digital environmental sustainability to relevant global policy discourses, mostly via CODES-initiated and organized highlevel side events, often with CODES co-champions as speakers. This has led to ISC presence and visibility in high-level forums of global sustainability, environment and digital discourses, such as the <u>SDG Digital Day</u>, SDG Summit, UN Environment Assembly 5 and 6, UN Framework Convention on Climate Change (UNFCCC) COP28, Internet Governance Forum (IGF) 2022, the <u>High-level Debate of the UN General Assembly on Greening Digital Cooperation and Connectivity</u> 2021 among others.

In the global policy process, CODES aims to strengthen digital environmental sustainability along all three Shifts in the Global Digital Compact. CODES was engaged from the beginning of the Global Digital Compact process and had a regular speaker in almost all stakeholder consultations as a group, with two <u>written submissions</u> to the Global Digital Compact and further submissions to side processes like the <u>AI Advisory Body</u>. There is explicit mention of CODES as an exemplary initiative in the <u>UNSG Policy Brief</u> proposing the development of a Global Digital Compact. CODES messaging on digital sustainability, co-developed in consultation with the CODES membership, is well reflected within the final version of the <u>Global Digital Compact</u>.

CODES hosts a rich ecosystem of knowledge and networks that is advancing digital sustainability globally. As digital sustainability becomes a priority for UN Member States,

who have now signed on to the Global Digital Compact, they can leverage the resources and expertise at hand to inform and support new partnerships and collaborations to steer digital technologies towards sustainability.

The nine priority initiatives under CODES defined in the action plan are now underway with consortia of organizations working on a range of themes from data for environmental assessments to Digital Public Infrastructure.

Main outputs

- Action plan: Action Plan for Sustainability in the Digital Age (2022).
- CODES Messaging in the Global Digital Compact.
- Website: codes.global.
- Event: A series of <u>stakeholder roundtable consultations</u> between 2020 and 2022 to develop, finalize and socialize the CODES Action Plan.
- Launch of the CODES Action Plan at Stockholm +50 in June 2022.
- <u>Digital Environmental Sustainability and AI for the Global Digital Compact</u> at the UN Summit of the Future 2024.
- Event: <u>Recap of CODES' Engagements during the UN High-Level Week in New York</u> <u>City</u> 2023.

Partners

- Future Earth
- German Environmental Agency
- Sustainability in a Digital Age
- International Telecommunication Union (ITU)
- Ministry of Environment and Forests, Kenya
- UNDP
- UNEP
- → <u>About CODES</u>

4.5.2 WorldFAIR+: making data work for cross-domain grand challenges

Building on a pilot activity funded by the ISC, the EC-funded <u>WorldFAIR project</u>, which ran from 2022 to 2024, was led by the ISC Affiliated Body CODATA. It advanced the FAIR (Findable, Accessible, Interoperable and Reusable) principles across diverse research domains to improve data interoperability and foster cross-domain research on global challenges. Through eleven <u>case studies</u> spanning disciplines like chemistry, nanosafety, population and urban health, disaster risk reduction and agricultural biodiversity, WorldFAIR has developed the <u>Cross-Domain Interoperability Framework (CDIF)</u> and issued policy recommendations calling for a step-change in data stewardship.

Main outcomes

WorldFAIR deepened interdisciplinary research by creating frameworks for more effective data sharing, enabling faster progress on complex global challenges. The project's policy recommendations and CDIF have informed global standards on FAIR data, strengthening the foundation for evidence-based policy on sustainable development. WorldFAIR enhances the ISC's role, through CODATA, in leading international data-sharing initiatives, demonstrating the Council's capacity to support complex, multi-stakeholder projects with broad scientific impact.

ISC Members benefit from participation in pioneering research on data standards, contributing to global initiatives and building expertise in FAIR data practices.

Building on the achievements of WorldFAIR, the follow-up <u>WorldFAIR+ initiative</u> will expand FAIR data practices through a collaborative federation of projects, each focused on practical, domain-specific FAIR data solutions. With CODATA at the helm and support from the ISC and funders including the European Commission and Wellcome, WorldFAIR+ will drive initiatives like the FAIR Data and Emergencies project, focusing on earthquake and cascading hazards response data, and climate adaptation projects covering urban heat, coastal management and building resilience against the manifold effects of heat and drought on soils. WorldFAIR+ promises to deepen cross-domain data interoperability, further enabling scientists, policy-makers and communities to tackle complex challenges such as climate change and public health risks with actionable data insights.

Main outputs

- <u>Case studies</u> representing a wide range of sciences, communities and challenges highlighted the importance of effective data sharing in tackling global problems. The case studies included Chemistry, Nanomaterials, Geochemistry, Social Surveys, Population health, Urban Health, Biodiversity, Agricultural biodiversity, Ocean science, Disaster Risk Reduction and Cultural heritage sciences.
- Standardization tools: FAIR Implementation Profiles (FIPs) for each case study.
- Framework: <u>Cross-Domain Interoperability Framework</u> (CDIF), which supports machine-actionable data sharing across scientific domains.
- Workshop: The WorldFAIR Project's cross-domain interoperability framework (2023).
- Report: WorldFAIR Training Package: FAIR Chemistry Cookbook (2024).
- Report: Disaster Risk Reduction Case Study report (2023).
- Policy Brief: WorldFAIR Project First policy brief (2023).
- Webinar series: The WorldFAIR webinar series (2024).

Partners

- European Commission
- Data Science Without Borders
- International Union for Pure and Applied Chemistry
- UNDRR
- World Meteorological Organization (WMO)
- International Center of Excellence (ICoE) Taipei

About WorldFAIR

Key news items

- WorldFAIR: global cooperation on FAIR data policy and practice Kick-Off Meeting introduces major new initiative to advance implementation of the FAIR data principles
- From siloed data to shared knowledge: how WorldFAIR is shaping the future of research
- WorldFAIR: continuing to transform data to tackle complex challenges in a follow-up project

4.5.3 Science organizations in the digital age

Recognizing the transformational impact of digital technologies and the urgent need to adapt, the ISC embarked on a digital journey in 2022–2023 to better understand how science organizations can stay relevant in the digital age, navigate the constantly evolving landscape and take advantage of emerging technologies. Through a series of interviews, surveys, workshops and discussions, the Secretariat collected learning from across the ISC membership and consolidated them in a set of practical guidelines, published as a discussion paper in 2024.

There were 44 Member responses to the survey, with several engaging in post-survey in-depth interviews. Those participating in in-depth interviews included the Royal Society (UK), GYA, International Union of Pure and Applied Chemistry (IUPAC), World Anthropological Union (WAU), OWSD, the Nigerian Academy of Science and SCOR.

Phase II of the project seeks to build on these lessons and create support mechanisms tailored specifically to science organizations in LMICs.

As part of this, ten ISC Members will engage in a four-month digital journey in 2025, guided by experts and supported by a community of peer change-makers. Their experiences will inform the recommendations and the support mechanisms the ISC will produce for the wider community.

Phase II is funded through a grant from the Canadian IDRC to the ISC's Centre for Science Futures.

Main outcomes

The first phase of the project has created a valuable understanding of the digital landscape across the global scientific community, highlighting a range of insights and challenges faced by ISC Members.

Phase II will build on this knowledge, captured and synthesized in a discussion paper, to provide tailored support for science organizations in LMICs. By applying these insights, Phase II aims to equip these organizations with the expertise and peer connections essential for effective digital adaptation, while also developing foundational resources to guide other science organizations considering digital transformation.

Main outputs

- Discussion paper: <u>Science organizations in the digital age (2024)</u>, synthesizing the findings from the survey and sharing case studies from detailed interviews of ISC Members.
- Knowledge-sharing session: <u>Converging Science and Technology in a Digital Era An</u> <u>Overview of ISC Data-related Activities</u>.
- Knowledge-sharing session: <u>Practical Deep-Dive on ChatGPT</u>.
- Survey of Members.
- → About Science organizations in the digital age

Evaluating Rapidly Developing Technologies Including AI, Large Language Models and Beyond

In April 2024, as the global community gathered for the <u>OECD Ministerial-level meeting on</u> <u>Science and Technology Policy</u>, the ISC launched A *Guide for Policy-makers: Evaluating Rapidly Developing Technologies Including AI, Large Language Models and Beyond*. This essential resource provides policy-makers with a structured framework to navigate the complex landscape of emerging technologies, bridging high-level principles with actionable guidance. The guide presents a validated taxonomy of issues, supporting the creation of national AI strategies that address not only immediate risks but also longterm societal, environmental and geopolitical impacts. The framework is adaptable for horizon scanning, risk assessment and ethical considerations, helping align technological advancement with societal values and regulatory requirements. As ISC President Peter Gluckman and other leaders emphasized at the meeting, this guide equips decisionmakers to approach innovation responsibly, fostering collaboration across governments, industry and civil society to shape a sustainable, value-driven future in technology.

Report: <u>A Guide for Policy-makers: Evaluating Rapidly Developing Technologies Including</u> <u>AI, Large Language Models and Beyond (2024)</u>

Key news item: <u>Unlocking the future</u>

4.6 Science in policy and public discourse

4.6.1 Public value of science

The Public Value of Science project, begun in 2020, promoted awareness of science as a global public good, focusing on policy-makers and the public. It addressed challenges to public trust in science in a polarized information landscape, where misinformation can drive harmful decision-making and science denialism. The project encompasses three key areas: Understanding Scientific Engagement, which examined how perceptions of science shape policy; Enabling Scientific Engagement, aimed at strengthening the role of scientific evidence in decision-making; and Extending Scientific Engagement, involving projects like Unlocking Science and Global Science TV (completed 2021) to communicate science's value broadly. An expert panel provided strategic guidance to deepen the project's impact, and the project's final report was launched under the Centre for Science Futures.

Main outcomes

The Public Value of Science project significantly bolstered science's position as a global public good, encouraging scientists, as well as journalists, to communicate the broader societal relevance of scientific evidence in policy-making. Through initiatives like Unlocking Science, scientists gained practical tools to convey complex ideas effectively to a wide audience. The project also introduced the Contextualization Deficit model, emphasizing the need to address diverse perspectives and socio-economic contexts to build trust in science, thereby ensuring that scientific engagement resonates with different communities.

The project promoted evidence-based policy-making by linking scientific insights with policy needs, especially in countering misinformation and fostering public trust. The

Contextualization Deficit framework provided policy-makers with a nuanced approach to scientific communication, enabling them to better align policy initiatives with public expectations.

The ISC's role was strengthened as an advocate for science in the public sphere, showcasing its commitment to fostering trust in evidence-based decision-making. Through partnerships with media platforms like BBC StoryWorks on Unlocking Science, the ISC highlighted Members' research in addressing societal challenges. These initiatives can be leveraged for future partnerships, reinforcing its position as a leader in promoting science's value globally.

Through the ISC's efforts, Members were positioned to contribute their insights to international discussions, inviting policy-makers and the various publics to invite Members to contribute their insights in broader public and policy dialogues on global challenges.

The Public Value of Science Project was completed in mid-2024, but the ISC will continue to explore the issue of Trust in Science in a new project. A workshop, <u>Rebuilding Trust in</u> <u>Science: Challenges and Responsibilities in a Polarized World</u>, was held in Ispra, Italy, in September 2024, and the ISC is exploring a future partnership with the World Intellectual Property Organization (WIPO). The ISC also contributed to the <u>statement</u> on Trust in Science by the UN Secretary-General's Scientific Advisory Board (SAB) (see section 6.3.5).

Main outputs

- Interactive website: The final stories on <u>Unlocking Science</u> were launched on the interactive website in 2022. Overall the campaign included seven stories from the ISC (six from ISC Members and one from the ISC on COVID outcomes).
- Award: In 2023 the Unlocking Science campaign was awarded the best in the Video Series category at the prestigious <u>Digital Communications Awards</u> (DCA).
- Podcast: The podcast <u>How do we talk about science and trust?</u> was launched on the Council's podcast channel as a result of Unlocking Science.
- Report: <u>The Contextualization Deficit: Reframing Trust in Science for Multilateral Policy</u> (2023) led by the Centre for Science Futures and in partnership with the UNESCO Unitwin Chair in Science Communication for the Public Good and the Australian National University.
- Webinar: The Council acted as an official partner to the Science Journalism Forum (SJF) in October 2023, hosting a session to discuss trust in science and the role of science journalism, <u>Reframing Trust in Science: What Are the Lessons for Science</u> <u>Journalism?</u> in an age of mis- and disinformation.
- Webinar: Berlin Science Week, <u>Unlocking Science: Prioritizing Institutional Responses</u> to the Distrust in Science.
- Webinar series: The objective of the <u>Talk Back Better</u> series was to use a mix of discursive analysis and practical tips to help research organizations explore the capacities that would serve them best when communicating in the current global context.
- High-level roundtable: The ISC joined UNESCO on the <u>World Science Day for Peace</u> and <u>Development</u> as part of its high-level roundtable on <u>Building Trust in Science</u>. <u>See</u> the recording.
- Workshop: Twenty journalists from Asia and the Pacific took part in <u>a two-day training</u> <u>course</u> on disaster and risk reporting at the World News Congress in Taipei.

Partners

- Australian Academy of Science (AAS)
- Australian National University
- BBC StoryWorks
- Global Development Network
- IRDR International Centre of Excellence Taipei
- Regional Focal Point for Asia and the Pacific
- Science Journalism Forum
- Science Media Centre, New Zealand
- UNESCO
- UNESCO Unitwin Chair in Science Communication for the Public Good
- Wikimedia Foundation

Member Partners (Unlocking Science)

- Academy of the Social Sciences in Australia
- Global Young Academy (GYA)
- International Astronomical Union (IAU) and the Office for Astronomy for Development
- International Union for Physical and Engineering Sciences in Medicine (IUPESM)
- Organization for Women in Science for the Developing World (OWSD)

Key news items

- The contextualization deficit: reframing trust in science for multilateral policy
- Preparing for crisis X: can newsrooms and the scientific community overcome sceptical publics?
- Reframing trust in science for multilateral policy
- → <u>About Public Value of Science</u>
- → About Unlocking Science (for UK visitors, please go to the mirror version)

4.6.2 COVID-19 and implications for national and global policy

The COVID-19 Scenarios Project, initiated by the ISC in February 2021, aimed to offer evidence-based scenarios and insights to navigate the pandemic's long-term trajectory towards a fair and effective resolution. Led by an interdisciplinary oversight group with observers from the World Health Organization (WHO) and the UNDRR, the project provided global policy-makers and public health authorities with the *Unprecedented & Unfinished* report, released in May 2022. This report presented plausible scenarios and strategic guidance for addressing both immediate and long-term impacts of the pandemic, advocating a systems-based approach to enhance preparedness and resilience for future global health crises. A second edition was released in 2023 to update the report for policy-makers due to the ever-changing scenarios the pandemic presented.

Main outcomes

The COVID-19 Scenarios Project produced a comprehensive analysis of potential pandemic outcomes, integrating perspectives from multiple scientific disciplines. It expanded the discussion on pandemic management beyond public health to include social, economic and governance considerations, emphasizing the need for a systems approach.

The Unprecedented & Unfinished reports offered guidance to policy-makers, aiming to help them navigate the pandemic's long-term impacts. The scenario-based approach

aimed to allow governments to plan for future crises, with a focus on building resilient health systems and ensuring vaccine equity.

The project reinforced the ISC's leadership in providing interdisciplinary science advice on complex global crises, and led to the signing of a <u>Memorandum of Understanding</u> with WHO in October 2022. The COVID-19 Scenarios Project demonstrated the ISC's capacity to convene global expertise and provide practical insights able to inform national and international policy-making.

ISC Members were actively engaged through regional workshops and consultations, ensuring that the project reflected diverse perspectives and regional challenges. The input from ISC Members was instrumental in shaping the final reports and recommendations.

Main outputs

- First edition of the report: Launched on 17 May 2022 in Geneva via UN TV to a global audience, <u>Unprecedented & Unfinished: COVID-19 and Implications for National and Global Policy</u> outlined plausible scenarios for the pandemic and offered policy-makers tools for managing the pandemic's long-term effects. The report, which had included regional meetings to gather input from ISC Members and stakeholders, emphasized the need for global cooperation and systems thinking to address both the immediate and future challenges posed by the pandemic.
- High-level meeting: Immediately following the launch, an ISC delegation held a spontaneous meeting with WHO Director-General Tedros Adhanom Ghebreyesus, who had been monitoring the live launch. It was from this interaction that a Memorandum of Understanding would follow between the two organizations.
- Webinar series: The <u>COVID-19 and the Social Sciences</u> webinar series, hosted by Craig Calhoun and in partnership with five ISC Members, explored the impact of the social sciences on the pandemic and the impact of the pandemic on the social sciences, covering Economics, Psychology, Sociology, Political Science, Anthropology and Statistics.
- Webinar: The <u>Rolling the Dice or Planning Ahead with Confidence?</u> webinar was presented at the 2022 edition of the ESOF. Speakers from the project's Oversight Panel discussed realistic, pessimistic and optimistic scenarios for the pandemic's future.
- Unlocking Science: Released in late 2021, <u>The 'Clocks' COVID-19 Set Ticking</u> explored the key themes from the COVID-19 Scenarios Project, highlighting the long-term societal impacts of the pandemic.
- Second edition of the report: Released twelve months later, the second edition
 of <u>Unprecedented & Unfinished</u> updated the scenarios based on the evolving
 global situation. It highlighted the ongoing societal impacts of the pandemic and
 recommended actions for better preparedness for future crises, such as pandemics
 and climate-related disasters.

Partners

- World Health Organization (WHO)
- UN Office for Disaster Risk Reduction (UNDRR)
- International Political Science Association
- International Sociological Association
- International Statistical Union
- International Union of Psychological Science
- World Anthropological Union (WAU)

Key news items

- <u>COVID-19 likely to worsen inequalities for at least five years without renewed global</u> cooperation, warns International Science Council
- Covid-19 is fueling a pandemic of violence against women and girls
- → About COVID-19 and implications for national and global policy

4.6.3 The Ethnografilm festival

The ISC is a long-standing partner of the Ethnografilm festival, and helps to support its organization in Paris every year. The festival celebrates the art of non-fiction film-making and the field of video ethnography as a way of understanding the social world. It gives equal attention to all genres of academic and documentary film-making, and many of the films are filmed by active researchers and students.

Key news items

- 2022: Profoundly entertaining: Ethnografilm festival returns to Paris
- 2023: <u>Scientific communication: join the Ethnografilm festival for a filmmaking</u>
 <u>experience in Paris</u>
- 2024: Lights, camera, science: Ethnografilm Festival kicks off in Paris

4.7 Changing practices in science and science systems

4.7.1 Future of scientific publishing

The ISC has been leading an effort since 2020 to reform the scientific publishing system to support the vision of science as a global public good – accessible to all and beneficial to everyone, everywhere. To achieve this, publishing must meet two essential responsibilities: fostering global inclusivity to ensure diverse perspectives are heard, and enabling the free, rapid and open circulation of ideas, evidence and data.

The current publishing system falls short of these ideals, prompting ISC Members at the 2021 General Assembly to endorse eight guiding principles for reform. These principles emphasize open access for authors and readers, concurrent publication of data and maintaining governance of scientific information dissemination within the scientific community.

Aimed at ISC Members and key stakeholders in the science ecosystem, including funders, universities, researchers and publishers, the project seeks to build a coalition to drive transformative change in line with the ISC's principles, making scientific publishing more inclusive, efficient and accessible for all.

Main outcomes

Through this project, the ISC has provided a platform for discussion for the scientific community on a complex topic. The eight principles on scientific publishing adopted by the ISC membership provide a solid foundation for building partnerships on shared goals.

The Council has now established itself as a global convenor and a voice to improve scientific publishing in a debate fractured by varied disciplinary and regional priorities.

ISC Members have been engaged right from adopting the eight principles to participating in the steering group, workshops and roundtables. For example, in 2022, the ISC launched a series of online knowledge-sharing events for ISC Members and Affiliated Bodies on open science and scientific publishing.

The ISC publications in this area provide a resource for the campaign for the reform of scientific publishing, where there is a need for a global voice representing the science community. The shaping of this emerging paradigm of open science, including in publishing, has largely been achieved through decades of work by the national academies, international scientific unions and associations, and related bodies that are represented in the membership of the ISC, with support from national and regional funders in recent years. ISC continues to argue for the science community to be represented in the evolving governance of open science and publication.

Main outputs

- Principles: In 2021 Members of the ISC committed to work towards reform of the publishing system and adopted <u>eight fundamental principles</u> to guide it.
- Knowledge-sharing: In 2022, the ISC launched a series of online knowledge-sharing events for ISC Members and Affiliated Bodies on open science and scientific publishing (<u>The transition to Open Access in scholarly publishing: the landscape for</u> <u>society publishers</u>; <u>The UNESCO Open Science Recommendation</u>).
- Reports: In 2023, the ISC released *The Key Principles for Scientific Publishing*, complemented by a second paper *The Case for Reform of Scientific Publishing*, which evaluates the extent to which the principles are attained and identifies opportunities for reform. Both papers were open to feedback from the ISC membership.
- <u>The Normalization of Preprints.</u> This ISC Occasional Paper, released in conjunction with the campaign to normalize preprints in 2022, addresses the history of the preprint and its advantages and potential disadvantages, and concludes with some recommendations for how the growing acceptance of preprint posting should be handled within academia, and the changes in cultural norms that this entails.
- Strengthening Research Integrity: The Role and Responsibilities of Publishing. This
 paper, published in 2021 and designed to spur discussion, suggests that focusing on
 two modest reforms while pursuing a more significant reform of scientific publishing
 would be beneficial.
- Network building: The Council has been deeply involved in international and regional networks through supporting various interlinked efforts. ISC's normalizing preprints campaign engaged with regional discussions in Asia, and the MENA region participated in the setting up of the APEC Open Science Alliance.
- The monthly ISC Open Science Round-up has also built an engaged community that shares regular updates.
- → About The Future of Scientific Publishing

4.7.2 Evaluating science as a global public good

Over the course of 2022 to 2024 the ISC, in partnership with the GYA and the InterAcademy Partnership, addressed the critical need for reform in research evaluation systems. An international Scoping Group surveyed practices and issues in all major regions of the world. The resulting joint report *The Future of Research Evaluation* (May 2023) reviews research evaluation systems and cultures and discusses case studies from around the world. The goal of the report was to contribute to the ongoing debates and open questions on the future of research evaluation. Recommendations support a shift away from narrow metrics, fostering policies that recognize science's role in sustainable development and its value to society, especially through frameworks sensitive to regional needs and research environments.

Following this report, the partners in the initiative launched a follow-up survey of ISC, InterAcademy Partnership (IAP) and GYA members. The survey report highlights that the ISC and partner organizations can support researcher evaluation reform by championing underrepresented voices, helping to put reform on the agenda, backing initiatives that have reached a tipping point, safeguarding researcher mobility within the global system and encouraging the exchange of ideas and learning.

Main outcomes

The two reports provide a good basis to develop strategies for change by summarizing the current debates and efforts. This work will be continued intertwined with the work on the future of scientific publishing, given the existing feedback loops between publication and researcher assessment.

Main outputs

- Report: ISC's Centre for Science Futures published a comprehensive report,
- <u>The Future of Research Evaluation: A Synthesis of Current Debates and Developments</u> (2023).
- Report: Reflecting the practices and aspirations of science organizations, this report lays the groundwork for future actions. <u>Snapshots of Reform: Researcher Evaluation</u> <u>within Science Organizations</u> (2024).
- Webinars: Members from all organizations were invited to discuss the reports' findings in a series of <u>webinars</u>.

Partners

- Global Young Academy (GYA)
- InterAcademy Partnership (IAP)
- → About Evaluating science as a global public good

FREEDOM AND RESPONSIBILITY IN SCIENCE

Serving as Chair of the Committee for Freedom and Responsibility in Science (CFRS) since 2022, I have been privileged to be a part of the important impact that our Committee has made. While scientific freedoms continue to decline worldwide, particularly due to the deeply worrying increase of conflicts and social inequalities, climate change and the enduring impacts of the COVID-19 pandemic, the CFRS has worked hard to raise awareness of these issues and mobilize the scientific community to support threatened scientists and science systems.

The CFRS has been instrumental in mobilizing assistance for displaced and at-risk scientists from Afghanistan, Ukraine, Sudan and Palestine through the Science in Time of Crisis project, and has led outreach workshops and published articles and podcasts which have raised awareness of the importance of the free and responsible practice of science. The CFRS has also, in my view, embodied the mission of the ISC of being a leading voice for science by truly advancing challenging normative frameworks which form the intersection between science and human rights, namely by updating the Principles of Freedom and Responsibility in Science (which are enshrined in the ISC's Statutes) and, most recently, by publishing the ISC's interpretation of 'the right to participate in and benefit from science'.

It was an honour to chair such a dedicated, passionate and deeply knowledgeable committee, and I look forward to following the CFRS as it continues to grow in influence and guide the scientific community through the challenges ahead.

— Anne Husebekk, Vice-President for Freedom and Responsibility in Science

5.1 Introduction

The ISC's work on freedom and responsibility in science incorporates the work of the CFRS as well as a portfolio of projects and events concerned with the free and responsible practice of science.

The CFRS works at the intersection of science and human rights to protect and uphold the <u>ISC's Principles of Freedom and Responsibility in Science</u>, which lay out the freedoms that scientists should enjoy and the responsibilities they bear when engaging in scientific practice, and which the ISC holds as fundamental to scientific advancement and for human and environmental wellbeing.

The CFRS acts as a guardian of these principles and engages in a diverse work portfolio aimed at promoting and upholding them. The Committee maintains around 35 cases in which the free and responsible practice of science is threatened, ranging in focus from individual scientists to national-level events and broad trends. These cases are actively monitored and responded to. Responses aim to exert the ISC's influence, raise awareness and provide direct support where possible, and include published statements and positions on behalf of the ISC, blogs, advocacy campaigns and private letters. The target audience of CFRS activities is broad and typically includes members of the global scientific, higher education, human rights, diplomacy and policy communities, as well as heads of state. Additionally, the CFRS is involved in a number of ISC projects related to freedom and responsibility in science, such as the programme on Science in Time of Crisis, Science in Exile and on gender equality and discrimination in science.

The advocacy work of the CFRS has significantly contributed to raising awareness of current threats against the free and responsible practice of science among the global science community and policy-makers alike. The ISC and its partners have run prominent advocacy campaigns to offer guidance and thought leadership on numerous critical issues, including statements on national-level crises in Afghanistan, Iran, Nicaragua and Sudan, and on issues such as boycotts, campus protests and academy autonomy. The key outcome of this advocacy work has been a major boost to the international profile and standing of the Committee as a leader in this space, and a sustained increase in the Committee's published outputs and event invitations.

The Committee meets several times online and ideally once in person per year to review the CFRS portfolio, to discuss the uptake of new cases and to offer strategic and focused advice on activities, positions and statements where needed. The profile and standing of the CFRS has risen significantly over the last three-year period as the Committee has taken a leading role in speaking out on the continuing trend of escalating and evolving threats against the free and responsible practice of science worldwide.

The work of the CFRS is generously supported by the New Zealand Ministry of Business, Innovation and Employment, which funds the position of the CFRS Special Advisor, hosted at the Royal Society of New Zealand Te Apārangi.

5.2 Statements, positions and declarations

The following statements (CFRS) and positions (ISC Governing Board) were produced during the reporting period:

- ISC position on the role of universities in enabling responsible discussion and upholding rational debate in times of crisis (Jul 2024)
- ISC updated position on academic boycotts (Jul 2024)
- Open letter: Support for the integrity of Argentina's science system (Feb 2024)
- ISC statement on protecting science in times of crisis (Nov 2023)
- Joint statement with IAP: Statement on Protecting the Autonomy of National Academies
 <u>of Science</u> (Dec 2023)
- Statement on concerns over regressing scientific freedoms in Nicaragua (May 2023)
- Statement on concerns over escalation of extreme violence in Sudan (Apr 2023)
- <u>Science in Exile Declaration</u> (Jun 2022)
- <u>Statement against exclusion of women from higher education in Afghanistan</u> (Dec 2022)
- Statement on concerns for scientists in Iran (Mar 2022)
- International Science Council Statement on Ukraine (Feb 2022)

5.3 Contemporary perspectives on freedom and responsibility in science

The Principle of Freedom and Responsibility in Science, central to the ISC's mission and enshrined in its Statutes, advocates for scientists' rights to pursue knowledge freely while upholding ethical and responsible conduct. Recognizing evolving global contexts, the ISC has revisited this principle, highlighting scientists' responsibilities in providing policy advice, public communication and promoting science's value. This work has raised the CFRS's international profile, with increased publications and event engagements, including the notable ISC discussion paper, *A Contemporary Perspective on the Free and Responsible Practice of Science in the 21st Century*.

The ISC has fostered a global commitment to uphold scientific freedom and responsibility, emphasizing the role of scientists in ethical conduct, public communication and policy engagement. Through the CFRS's guidance and advocacy, scientists are better equipped to navigate contemporary challenges to free inquiry, ensuring responsible and impactful scientific practice globally.

The ISC's latest normative development has been the CFRS's interpretation of <u>the right</u> to participate in and benefit from science. This interpretation builds on Article 27 of the <u>Universal Declaration of Human Rights</u> (UDHR, 1948), and article 15 of the <u>International</u> <u>Covenant on Economic, Social and Cultural Rights</u> (ICESCR, 1966), providing a clear framework for understanding the right to science, emphasizing its application in research, policy and global access to scientific knowledge. It clarifies the obligations, opportunities and responsibilities in ensuring universal access to science, fostering global dialogue to shape a more inclusive and sustainable future.

The CFRS's work has aimed to influence policy by actively supporting the right to participate in and benefit from science, especially in contexts where academic freedom is under threat. Statements on crises in various countries and issues related to scientific freedom have reinforced the importance of science-informed policy and advocacy, leading to greater international awareness and policy engagement on these issues.

The ISC's reputation as a leader in defending scientific freedom has grown, with the CFRS gaining prominence through thought leadership, expanded publications and partnerships. Collaboration with organizations such as Scholars at Risk (SAR) and UNESCO have enhanced ISC's standing and reach within the global scientific and policy communities.

ISC Members have become more engaged with freedom and responsibility principles through CFRS-led workshops at major ISC events and regional dialogues. These engagements have allowed ISC Members to participate in conversations on science ethics, share best practices and advocate for science as a public good at local and global levels, strengthening the community's voice and unity on freedom and responsibility issues.

Main outputs

- Updating the core Principles of Freedom and Responsibility in Science International Science Council Statutes and Rules of Procedure (2024).
- An ISC interpretation of the right to participate in and benefit from science (2024).
- Pre-event workshops at the ISC's GKD series:
 - Africa (including the World Science Forum)
 - Asia and the Pacific
 - Latin America and the Caribbean.
- In partnership with *Nature*, the ISC released the <u>Freedom and Responsibility in Science</u> in the 21st century podcast series.

Partners

- CODATA
- InterAcademy Partnership (IAP)
- Scholars at Risk (SAR)
- The World Academy of Sciences (TWAS)
- UNESCO
- Nature-Springer

Blogs:

- Fighting disinformation with sunshine: promoting funding transparency in science 7/8/24
- Bridging the trust gap: scientific freedom and responsibility in Asia-Pacific 7/11/23
- Indigenous Environmental Defenders are critical for nature and for science, but face serious risk 9/8/23
- <u>Attacks on environmental scientists: implications for the free and responsible practice</u>
 <u>of science</u> 6/7/23
- UN International Day of Solidarity with Detained and Missing Staff Members CFRS and SAR call for release of Niloufar Bayani 25/3/23
- <u>Concern for science and research in Afghanistan following authorities' ban on women</u> <u>from higher education</u> 24/1/23
- <u>'No problem is too big' combating discrimination in geospatial science</u> 10/1/23
- <u>Concern over ongoing legal proceedings against the Greek economist and statistician</u> <u>Andreas Georgiou</u> 19/12/22
- <u>The state of HIV/AIDS research in Africa: an interview with Dr. Joyce Nyoni for World</u> <u>AIDS Day</u> 1/12/22
- <u>5 key takeaways from NASEM's webinar: 'Censorship and the Right to Information</u> <u>during the Pandemic'</u> 19/10/22

- Halt the execution of Dr. Ahmadreza Djalali 9/5/22
- ISC joins Scholars at Risk 5/4/22
- ISC report highlights how researchers combat new threats to key human rights 10/12/21
- Support Dr. Ahmadreza Djalali to protect scientific freedom and responsibility 2/12/21
- <u>A new social contract must include genuine participation and partnership of</u> Indigenous peoples in decision-making about research 9/8/21

Podcasts:

- Scientific Freedom and Responsibility in the 21st Century (6 episodes) (May 2023)
- Nature Working Scientist Science Diversified (6 episodes) (June 2021)

Educational resources:

 CFRS contribution to Massive Open Online Course by Global Campus of Human Rights: <u>Science as a Human Right</u> (October 2022)

5.4 Science in Times of Crisis

Science in Times of Crisis is an ISC-led initiative launched in 2020 and still ongoing, aimed at mobilizing ISC Members and partners to support scientists affected by crises worldwide. This project builds on the ISC's Science in Exile Initiative, which provided a support network for displaced, exiled and refugee scientists, in collaboration with TWAS and IAP. The Science in Exile project published a declaration and call to action, 'Supporting at-risk, displaced and refugee scientists'. The declaration outlined six key commitments to support and protect displaced scientists.

Responding to ongoing impacts of crises such as the COVID-19 pandemic, growing inequalities and geopolitical instability, the initiative has addressed urgent needs for scientists in Afghanistan, Sudan, Ukraine and the Palestinian Territories. The initiative aims to raise awareness within the global science community about the vulnerabilities faced by scientists and institutions in crisis, while advocating for the continuity of scientific research and knowledge production as a global public good.

Main outcomes

The project has advanced strategies for proactive crisis responses, highlighting the protection of scientists and science systems, and expanded access to knowledge resources for displaced scientists. It has influenced UN and EU bodies to strengthen the protection of scientists in crisis zones, shaping policy recommendations and programmes in collaboration with UNESCO, CODATA and the All-European Academies (ALLEA). Work in this area has solidified ISC's role in advocating for the safety of scientists, increasing global visibility and demand for ISC's expertise in science–policy discussions during times of crisis.

Main outputs

- Two conferences with ALLEA on the international science community's response to the Ukraine crisis, producing influential <u>reports</u> that contributed to recommendations for entities like the European Research Council and UNESCO.
- ISC working paper <u>Protecting Science in Times of Crisis: How do we Stop Being</u> <u>Reactive, and Become More Proactive</u>? (2024) which examines proactive strategies for safeguarding science in crises. It was accompanied by an infographic and a <u>video</u>. A major policy outcome related to the paper is the establishment of the UNESCO-CODATA Data Policy for Times of Crisis Facilitated by Open Science (DPTC).

- Awareness and advocacy: Issued statements supporting scientific freedom, including at UNESCO's Social and Human Sciences (SHS) Commission and during the UNESCO General Conference. See a list of statements below.
- Podcast series in partnership with Nature on the theme <u>Science in Times of Crisis</u> (2022) exploring how crises and geopolitical instability affect science and scientists.
- A declaration in partnership with IAP and TWAS <u>Supporting at-risk, displaced and</u> <u>refugee scientists: a call to action</u> (2022) outlined key commitments necessary for immediate and long-term protection of scholars and scientists at risk.
- Working with STM, Research4Life and Nature-Springer, the ISC arranged for displaced scientists in affected regions, including Palestine, Sudan and Ukraine, to have free access to online scientific journals and other resources.

Statements:

- <u>Statement against exclusion of women from higher education in Afghanistan</u> (Dec 2022)
- ISC Statement on protecting science in times of crisis (Mar 2024)

Declarations:

• <u>Science in Exile Declaration</u> (Jun 2022)

Support resources:

- <u>Supporting at-risk and displaced Sudanese scientists: offers of assistance, news and</u> resources (Aug 2024)
- <u>Supporting at-risk and displaced Palestinian scientists: offers of assistance, news and</u> <u>resources</u> (Jul 2024)
- <u>Ukraine: statements, offers of assistance and resources</u> (Feb 2023)
- Afghanistan: statements, offers of assistance and resources (Jan 2023)

Publications:

- <u>Working paper: Protecting Science in Times of Crisis: How do we Stop Being Reactive,</u> <u>and Become Proactive?</u> (collaboration with ISC Centre for Science Futures) (Feb 2024)
- <u>Conference report: One year of war in Ukraine exploring the impact on the science</u> <u>sector and supporting initiatives</u> (Aug 2923(
- <u>Conference report: Conference on the Ukraine Crisis responses from the European</u> <u>Higher Education and Research Sectors</u> (Aug 2022)

Blogs:

- Looting of the Sudan National Museum more is at stake than priceless ancient treasures (Sep 2024)
- The collapse of science: a scientist's personal account from Gaza (Aug 2024)
- Science at risk: a race against time to protect seeds and science in Sudan (Aug 2024)
- Science in ruins: Gaza's scientists call for global support (Jul 2024)
- Putting science on the agenda for post-crisis recovery (Mar 2024)
- Science in Times of Crisis: lessons from Fukushima and WWII (Feb 2024)
- Crisis-ready science: a framework for proactive and resilient sector (Feb 2024)
- Assessing the support offered to displaced Ukrainian scientists (Jan 2024)
- <u>Converging and interdependent crises are amplifying the impacts of one another with often devastating consequences</u> (Nov 2023)

- Sudan at risk of losing a generation of scientific talents (Oct 2023)
- Surviving war, sustaining science: how Ukrainian research carries on (Sep 2023)
- Safeguarding science in the wake of conflict (Sep 2022)
- ISC and partners release report on the Ukraine Crisis, highlighting seven key recommendations for the international community to better support science systems affected by conflict (Aug 2022)
- International science organizations unite in support of at-risk, displaced and refugee scientists (Apr 2022)
- Science in Exile: supporting displaced, refugee and at-risk scientists (Apr 2022)
- <u>Spotlight on Science in Exile</u> (Apr 2022)
- A call to ISC Members: how to assist displaced Ukrainian scholars (Apr 2022)
- <u>Ukrainian academics face exile, harassment and censorship in ongoing war</u> (Mar 2022)

Podcasts:

• Science in Times of Crisis (5 episodes) 1/12/22

Partners

- All-European Academies (ALLEA)
- Scholars at Risk (SAR)
- International Institute of Education Scholar Rescue Fund (SRF)
- UNESCO Social and Human Sciences (SHS) Division
- Research4Life
- Science for Ukraine (S4U)
- Kristiania University College (KUC)
- CODATA
- UNHCR
- US National Academy of Sciences (NAS)
- STM Academic Publishing Organization
- Nature-Springer
- → About Science in Exile
- → About Science in Times of Crisis

5.5 Gender equality in science: from awareness to transformation

This project, running since 2020, aims to improve gender equality in global science by encouraging the sharing and use of evidence for gender policies and programmes in scientific institutions and organizations at all levels, primarily within the ISC membership. The ISC is fortunate to partner with the <u>Standing Committee for Gender Equality in</u> <u>Science</u> (SCGES), born out of the project <u>A Global Approach to the Gender Gap in</u> <u>Mathematical, Computing, and Natural Sciences: How to Measure It, How to Reduce It?</u>, and encourages ISC Members to join this important initiative.

In partnership with Gender in science, innovation, technology and engineering (GenderInSITE) and IAP, the ISC conducted a survey of over 120 global science organizations, within its Members, to assess progress on gender equality, focusing on women's membership, participation and the adoption of gender equality policies. With the first report of its kind released in 2015 to act as a baseline, the new report, published in October 2021, revealed persistent underrepresentation of women and recommended forming a coalition to drive coordinated gender equality efforts.

In follow-up, the ISC organized meetings with major international science organizations – including IAP, TWAS, OWSD, WFEO and the Global Research Council – to identify further actions to advance gender equality in science.

In 2024, following a <u>pilot study</u> conducted in consultation with the SCGES, the ISC and its partners the IAP, SCGES and OWSD have launched the new phase of the five-yearly baseline on gender equality in scientific organizations. The project's aims will continue to address the persistent underrepresentation of women in scientific academies, medical academies, academies of engineering and international scientific unions. It will analyse the drivers of and barriers to women's participation through both quantitative and qualitative data collection, building on previous surveys and recommendations from 2015 and 2020.

The pilot led to the production of a <u>blog series</u>, published in October 2024, entitled *Women Scientists Around the World: Strategies for Gender Equality* produced in collaboration with the SCGES.

Main outputs

- Mid-term Meeting Parallel Session: <u>Inclusion and Participation of Women in Science</u> (2023).
- SCGES Webinar: Gender Equality and Beyond in the Polar Sciences (2023).
- Event: How to Evaluate and Reduce the Gender Gap in Science?
- Event: <u>Commission on the Status of Women 66th Session. Women Leading on</u> <u>Equitable and Inclusive Solutions to address the Climate Emergency.</u>
- Event: Addressing the Challenges faced by Women Scientists, UNESCO, 2023.
- Blog series: <u>Women Scientists around the World: Strategies for Gender Equality.</u>

Partners

- InterAcademy Partnership (IAP)
- Standing Committee for Gender Equality in Science (SCGES)
- Organization for Women in Science for the Developing World (OWSD)
- Gender InSite (2021)

Key news items

- <u>Achieving gender equality in Science, Technology and Engineering and Mathematics</u> (STEM) – when will we get there?
- → About gender equality in science: from awareness to transformation

6

GLOBAL SCIENCE POLICY

6.1 Introduction

The work of the ISC in global policy is guided by a <u>strategy</u> adopted by the ISC membership in 2021. The strategy identified the core strengths of the ISC for operation in the multilateral system, including its global membership, the breadth of expertise it convenes across the natural and social sciences and its capacity to act independently as a non-governmental organization. The strategy also identified key requirements for the organization to increase its impact at the global science–policy interface, including the need to build its profile and visibility, the need to engage the scientific community broadly, the importance of partners to achieve influence in complex multi-actor policy processes and the need to better enhance and leverage the capacity of the ISC membership to deliver scientific advice at multiple levels.

The ISC has made major progress on all 13 recommendations (see Figure 1) resulting in the Council being increasingly well positioned as an authoritative organization convening a wide breadth and depth of scientific expertise on issues of global concern and a trusted partner to deliver timely and relevant contributions. A major focus of the ISC's work over the last three years has been to build the demand for scientific inputs as the contribution that science can make on particular issues is not always understood or sought. The Global Policy Unit was created within the Secretariat in 2023 to strengthen the ISC's capacity to work in the science-policy interface. Building the demand for scientific advice and an understanding of how science can usefully assist in global decision-making has required making the ISC better known in the multilateral system, establishing a presence in New York to monitor debates and create windows of opportunity to contribute, to nurture existing relationships and to build new ones. The ISC has also focused on creating new pathways for science to provide inputs or strengthen existing mechanisms where they exist. Achievements include scientific advice and briefings to UN officials and diplomats on issues including sustainable development, open science, sea-level rise, human development, water governance, plastic pollution, biological weapons and more. Other major contributions include technical guidance to support the implementation of global agreements by governments and other stakeholders, and foresight exercises to proactively identify issues on the horizon that need global attention. Many of the ISC's Member organizations have put forward experts to represent the ISC at multilateral meetings and forums, and as part of Working Groups to contribute to written outputs for policy-makers.

Such foundational work is essential to support trusted and productive exchanges between scientists and actors working at the science–policy interface at national, regional and global levels. More remains to be done as effective scientific advice in decision-making requires sustained relationship building and regular, formal and informal exchanges to identify issues and modalities to bring science to the table, and to develop the capacity of the ISC as an organization, and of the scientific community more broadly, to deliver actionable knowledge. The ISC has built a robust foundation to stand on to strengthen scientific inputs in decision-making. The next steps are for the ISC to consolidate its engagement to support a more systematic inclusion of scientific evidence in global debates and diversify its engagement across a variety of forums within and beyond the multilateral system to enhance scientific inputs at different governance levels.

CONTINUE TO ENHANCE CAPACITY WITHIN THE SCIENTIFIC COMMUNITY

- 1. Map the competencies of the ISC
- 2. Invest in an ambitious capacity-building programme
- 3. Partner with other organizations to deliver scientific advice
- 4. Engage in existing intergovernmental scientific mechanisms

CONNECT THE NATIONAL, REGIONAL AND GLOBAL LEVELS OF GOVERNANCE

- 5. Strengthen connections of scientists with global processes.
- 6. Encourage the creation of a coalition of countries to champion science for decision-making

STRENGTHEN RELATIONSHIPS IN THE INTERGOVERN-MENTAL SYSTEM

- 7. Support the reestablishment of the UN Secretary General Scientific Advisory Board
- 8. See Permanent Observer status to the UN General Assembly
 9. Set up a saison function in New York
 10. Establish a group
 - of ISC Ambassadors

CHAMPION SCIENCE AS A GLOBAL PUBLIC GOOD

- 11. Strengthen the public understanding of science12. Develop regular engagement with scientific and mainstream media
 - 13. Support the recognition and raise the profile of transdisciplinary science

Figure 1: Recommendations of the Steering Group of the ISC Strategy in the Intergovernmental System (ISC, 2021)

| 20 | 21 RECOMMENDATION | PROGRESS TO 2024 |
|----|--|---|
| 1 | Map the competencies and expertise of the ISC membership, Secretariat and Affiliated Bodies | Regular bilateral exchanges between the ISC Secretariat and Members individually and collectively. |
| | | Extensive mapping of ISC science advisory capacities undertaken to support training of ISC Members and engagement in science–policy processes. |
| 2 | Invest in an ambitious capacity-building programme on communication and brokerage for ISC Members | Capacity-building implemented on an ongoing basis through engagement of Members in projects and/or meetings. |
| | | Training programme in partnership with INGSA foreseen for 2024–2025. |
| 3 | Partner with other organizations to perform the function of a trusted source of scientific advice | The ISC partners regularly with scientific organizations to deliver scientific advice. Examples include the initiative with IIASA on transformations within reach post-COVID, delivering an annual science day at the HLPF on the SDGs, and more. |
| 4 | Engage in existing intergovernmental scientific mechanisms | The ISC engages routinely in many established intergovernmental scientific mechanisms including IPCC, IPBES and Global Environmental Outlook by nominating experts from its membership. |
| 5 | Strengthen connections of scientists operating in their national context with global processes | Extensive engagement of scientists to participate in global processes (SDGs, water, STI policies, plastic pollution etc.) and international projects (foresight, COVID scenarios etc.) through calls for experts, curation of a roster of experts and fostering direct engagement between individual scientists and policy-makers or diplomats at the international level. |
| 6 | Encourage the creation of a coalition of countries to champion science for decision-making | The ISC inspired the creation of the Group of Friends on Science for Action in 2023 to strengthen evidence-informed decision-making and serves as its joint secretariat together with UNESCO. |
| 7 | Support the re- establishment of the Scientific Advisory Board (SAB) to the UN Secretary-General | The ISC has supported the re-establishment and early operationalization of the UN Secretary-General's SAB, and is providing ongoing advice and scientific inputs as a network organization supporting the SAB. |
| 8 | Seek Permanent Observer status to the UN General Assembly | The ISC has been raising its profile with individual Member States, has commissioned research on the extent of scientific advice in the UN General Assembly (UNGA) and is actively promoting a more systematic use of science in the work of UNGA. Seeking a Permanent Observer status is a potential long-term goal of the ISC. |

| 9 | Set up a liaison function in New York | An ISC liaison person was appointed in 2023 and has been developing the ISC's profile and relationships with the Permanent Missions and UN organizations in New York. This function is enabling building the demand for and consolidating the reputation of the ISC to mobilize scientific expertise proactively. |
|----|--|---|
| 10 | Establish a group of ISC Ambassadors | The ISC Patron, Fellows and Standing Committee members act as ambassadors, advisors and contributors to the realization of ISC's mission and vision. |
| 11 | Strengthen the public understanding of the scientific process | The ISC has set up a dedicated programme on the public value of science, has produced podcasts series and the Council has been working on the factors affecting trust in science. |
| 12 | Develop regular engagement with scientific and mainstream media | The ISC has partnered with various kinds of scientific and mainstream media to promote evidence-based policy- making. This includes letters and articles in scientific journals, including <i>Nature</i> , partnerships with <i>University</i> <i>World News</i> , <i>Higher Education Times</i> , <i>Science Business</i> and BBC StoryWorks. |
| 13 | Support the recognition and raise the profile of transdisciplinary science | The ISC engages across a wide array of disciplines and with policy actors to co-design knowledge and is supporting transformations in how science is organized and funded to support transdisciplinarity. The ISC has also delivered programmes to build capacity in transdisciplinary research (including T2S and LIRA). |

6.2 Strengthening science to support the SDGs

The ISC has been continuously pushing for a sound scientific basis and strong role of science in the implementation of the SDGs. As coordinator of the Scientific and Technological Community Major Group (STC MG) for the 2030 Agenda for Sustainable Development, the ISC actively mobilizes the latest scientific evidence and thinking from its membership and research networks, notably through engagement in key gatherings such as the HLPF and preparatory meetings such as the Economic and Social Council (ECOSOC) Partnership Forum and the STI Forum, to support the implementation of the SDG agenda.

6.2.1 STI Forum

The Multi-stakeholder Forum on Science, Technology and Innovation for the SDGs (STI Forum) meets once a year to discuss science, technology and innovation cooperation around the SDGs under review at the annual HLPF. The Forum results in a Co-Chairs' summary of discussions, which is submitted as an official contribution to the HLPF.

The ISC's contributions to the annual STI Forum include proactively submitting inputs for the development of the formal programme, providing speaker suggestions, delivering statements, facilitating scientists' participation and organizing events as part of the official programme.

For instance, at the 2022 STI Forum, the ISC organized a <u>Special session of the STI forum</u>: <u>lessons from national science-policy advice</u>, which discussed reflections on pandemicrelated science advice to governments and implications for the future of the science– policy interface. Connie Nshemereirwe, ISC Foundational Fellow and former Co-Chair of GYA, was invited by the UN organizers to speak in a <u>special event on Global research</u> cooperation, funding and partnerships.

At the 2023 STI Forum, the ISC co-convened a <u>plenary session</u> within the official programme of the STI Forum for the first time, supported by the UN ECOSOC President and the Permanent Missions of the UK and South Africa as Co-Chairs of the Forum. The event saw the active participation and intervention from the ECOSOC President, and several Permanent Representatives from Morocco, Namibia and the UK. The summary is available <u>on the ISC website</u>. The ISC was invited to speak at a <u>plenary session</u> on Strengthening Trust in Science and Technology, at which it was represented by ISC's President, Peter Gluckman. In addition, the ISC delivered a <u>statement</u> in a formal plenary session on Global Research Cooperation and Funding: Sharing Knowledge through New Partnerships.

For the 2024 STI Forum, the ISC was represented by the ISC Vice-President Motoko Kotani, also a member of the UN Secretary-General's <u>High-level Group to Champion</u> <u>Science, Technology, and Innovation for the Sustainable Development Goals</u>. The ISC also co-organized and partnered in several side events with a wide range of partners and organizations.

- <u>Better Leveraging Science, Technology, Innovation and Engineering</u> for accelerating progress on the SDGs, organized by the STC MG, co-led by the ISC and the World Federation of Engineering Organizations (WFEO).
- <u>Harnessing the STI Coalitions for Africa A Mechanism for Stronger Partnership to</u> <u>Achieve the SDGs</u>, organized by Future Africa in partnership with the UN Economic Commission for Africa (UNECA), UN Department of Economic and Social Affairs (UN DESA) and the Permanent Missions of South Africa, Ghana, Ethiopia, Cameroon and Morocco.
- Science in Times of Crisis: Protecting Scientific Resources and Using the UNESCO Open Science Framework for Sharing Data and Knowledge in Times of Crisis, organized by the UNESCO-CODATA Working Group on Data Policy for Times of Crisis Facilitated by Open Science (DPTC), UNESCO, WMO, Pan American Health Organization, UK Health Security Agency and the ISC.

Additionally, based on the ISC's nominations, representatives of scientists from ISC Members and networks such as the OWSD and the African Open Science Platform were invited by the UN organizers to speak in formal sessions of the STI Forum.

6.2.2 High-Level Political Forum

The HLPF is the annual intergovernmental forum at which countries review and report on progress towards the achievement of the SDGs. As coordinator of the STC MG, the ISC has a formal role in this Forum facilitating the inputs and participation of the scientific community into its preparatory process, deliberations and outcome document, for example through political declarations, the development of position papers, delivery of

statements and expert nominations. The annual position papers the ISC develops as per its mandate as STC MG co-lead are contributions to the formal deliberations, and the executive summaries are included in the official documentation of the meeting addressed to Permanent Missions and government officials.

At the <u>2022 HLPF</u>, the ISC convened expert contributions through a call for inputs and prepared a <u>position paper</u> on the theme of the HLPF 'Building back better from the coronavirus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development'. The paper includes inputs from the ISC membership and broader networks, including Future Earth, SCOR, the IUPESM and the Brazilian Academy of Sciences. The ISC has furthermore facilitated the participation of ISC experts at the event, and following ISC nominations one expert was invited to contribute to the <u>preparatory Expert Group meeting on SDG14</u> and to deliver a statement in the <u>HLPF</u> <u>official session on SDG14</u>.

Additionally in 2022, the ISC organized a <u>side event</u> focused on the SDG mid-term review and identifying lessons from the launch of the SDG implementation programme to date, which has seen the participation of President Carlos Alvarado Quesada of Costa Rica, among other prominent speakers from the scientific community. The event highlighted a number of barriers currently hindering implementation of the SDGs, as well as the actions required to create change.

For the <u>2023 HLPF</u>, the ISC was represented by a <u>high-level delegation</u> that addressed UN officials on the need to bridge actionable knowledge and policy to accelerate the SDGs, and met with the UN Secretary-General to discuss how science can better support multilateral cooperation. A special session was organized to launch the *Flipping the Science Model* report of the ISC Global Commission on mission-oriented science. The ISC co-organized <u>a Science Day</u> on the role of science in accelerating SDG implementation, in partnership with the UN DESA, the UNDP, the Sustainable Development Solutions Network (SDSN) and the Stockholm Environment Institute (SEI), and with high-level representation from the UN secretariat, the President of the General Assembly and Member States. Experts from ISC Members such as the GYA, the Institute for Global Environmental Strategies (IGES) and the Academy of Sciences of the Dominican Republic attended the event and were involved in facilitating roundtable discussions. The <u>outcome document</u> calls for strengthening the science–policy interface and creating a 'global transformation road map' to address interwoven crises.

Other engagements included the facilitation by the ISC CEO of a plenary discussion during the high-level segment of the HLPF on the *Global Sustainable Development Report 2023* (GSDR) for which the ISC led the <u>scientific review</u>, the publication of a <u>position paper</u> from the ISC Fellows on *Rescuing and Integrating the Global Agenda: Harnessing Science and Technology More Effectively*, the organization of a high-level event launching the *Flipping the Science Model* report of the ISC Global Commission on mission-oriented science, and the delivery of a statement by a member of the GYA at the official session on SDG 9 on industry, innovation and infrastructure. Additionally, following ISC nominations, one member of the Governing Board was selected as lead discussant in the HLPF plenary session on <u>Science, Technology and Innovation: Triggering Transformation and Sustaining a Science Driven Recovery</u>.

In 2023, the ISC led the <u>scientific review</u> of the 2023 GSDR at the invitation of the UN DESA. Following an open call to Members and partners, the ISC received nominations of more than 160 experts to review the first-order draft of the GSDR. The final version of the GSDR, which provides evidence-based guidance on the implementation of the 2030 Agenda for Sustainable Development, was published in September 2023 as the main instrument to inform the deliberations of the 2023 HLPF.

The ISC has equally facilitated the participation of scientists in regional workshops focused on the operationalization of the 2023 GSDR, and representatives from the Ivorian Science, Art and Culture Academy and the Cuban Academy of Sciences were selected to attend the workshops in their region.

The 2024 HLPF saw the organization of the <u>second edition of the Science Day</u> convened by the ISC together with the SEI, the SDSN, the UNDP and the UN DESA as for the previous edition. Representatives from four ISC Members, namely the University of Bergen, the International Association of Applied Psychology (IAAP), the Caribbean Academy of Sciences and the IUPESM, shared <u>insights</u> on innovative research and initiatives for advancing SDG implementation.

Additionally, the ISC organized a <u>high-level launch event</u> of the *Global Foresight* report together with UNEP. The ISC equally contributed to a <u>side event on</u> Measuring and Monitoring Community-level Emissions: Scalable Qualitative Solutions toward SDGs 1 and 13, organized by the University of Bergen, GRIP and the International Association of Universities IAU.

Aligned with the focus of the 2024 HLPF, the ISC launched a <u>position paper</u> highlighting key messages and case studies of 'science in action' bringing together contributions by ISC Members such as the Science Council of Japan, the International Society for Ecological Economics and the OWSD. The ISC has equally facilitated opportunities for delivering statements at official sessions, such as the <u>official session on science</u>, <u>technology and innovation</u> by a representative of IUPESM and the one on Small Island Developing States: Implementing the Outcomes of the Fourth SIDS Conference by a representative of the Caribbean Academy of Sciences.

6.2.3 ECOSOC Partnership Forum

The annual <u>ECOSOC Partnership Forum</u> serves as a key platform for engaging a wide range of actors in the work of ECOSOC and the HLPF. For the first time, the ISC participated in the Forum in its role as co-lead at the UN STC MG, co-designing and participating in the <u>SDG Action Segment on SDG2</u> on *Zero Hunger* together with the Food and Agriculture Organization of the UN (FAO) and the Major Group for Children and Youth. Among the objectives of the event were providing inputs to the review of SDG 2 for the Expert Group Meeting (EGM) and HLPF and building momentum for the Summit of the Future.

6.3 Strengthening science in intergovernmental policy-making

The ISC strives to embed scientific knowledge at the heart of international policy by fostering collaboration across a spectrum of global challenges, working closely with UN bodies. Key areas of impact during the three-year cycle included environmental foresight

with UNEP, climate science at COP through the UNFCCC, disaster risk reduction in partnership with the UNDRR, and sustainable development, especially for SIDS. Through this engagement, the ISC ensured that science directly informed initiatives such as biodiversity with IPBES, the Intergovernmental Negotiating Committee on a plastic treaty, and thematic issues such as water and oceans, positioning itself as a vital scientific advisor in global decision-making.

The following themes highlight the achievements of the Policy Unit working within the multilateral system.

6.3.1 Sourcing expertise and involving members in UN processes

As the ISC has grown its profile and relationships with actors in the multilateral system, it has become essential to strengthen and diversify the approaches of the ISC to identify relevant experts across a range of issues to meet a growing demand. The ISC regularly coordinates calls for expert nominations and inputs. Experts contribute to developing policy briefs, reviewing reports and as scientific advisors. The ISC has also piloted in 2024 a global roster of experts for timely engagement with UN and other intergovernmental processes.

As coordinator of the STC MG, the ISC serves as a formal convenor of the global scientific community in intergovernmental discussions on sustainable development, facilitating access to key meetings for dozens of scientists and experts from its network who would not typically participate in such forums. This support extends to ISC Members lacking accreditation for international meetings, including the HLPF, UN Water Conference, Ocean Conference, SIDS Conference, and ad hoc gatherings like the 2024 ECOSOC Special Meeting on <u>The Future of Work</u>.

With formal accreditation from UN entities such as UNEP, the UNFCCC and the Convention on Biological Diversity (CBD), the ISC enables Members to contribute actively to meetings like the UN Environment Assembly, UNFCCC research dialogues and COPs. Further, ISC's partnerships with the UNGA's Office of the President (OPGA), Member States and coalitions empower scientists to engage in diverse UN processes, addressing urgent topics like sea-level rise, El Niño, science–policy interfaces (via the Group of Friends on Science for Action) and AI (via the African Group).

Main outputs

- Established a roster of 700+ experts for rapid response to UN requests.
- Published calls for scientific inputs and case studies and nominations of experts for specific UN-led assessments (such as IPCC, IPBES, GEO-7).
- ISC Members participating in global policy processes through the ISC's unique convening power.

Partners

- UN entities, including ECOSOC
- ISC Affiliated Bodies and Member Organizations

Call to action

ISC Members are invited to join the roster, register for the dedicated Science and the <u>United Nations newsletter</u>, bookmark the ISC's <u>Open Calls and Opportunities</u> page and sign up for newsletters to keep abreast of the many calls and opportunities that the ISC convenes for experts in global policy and scientific processes.

Below are some of the successful nominations from the ISC in global policy processes:

| Process | Successful nominations |
|--|--|
| 2023 GSDR regional workshops | Ramón Pichs-Madruga, Cuban Academy of Sciences Monica Kerretts-Makau at Thunderbird School of Management @Arizona State University (Africa Centre of Excellence, Nairobi, Kenya) Bi Guimé Crépin PENE, ASCAD (Ivorian Science, Art and Culture Academy) Tonni Agustiono Kurniawan, Universiti Teknologi Malaysia |
| GEO-7 authors/ reviewers/ fellows | Tatendu Dalum, TYAN K N Ninan, Centre for Economics, Environment and Society (CEES) Georges Martial Ndzana, Faculty of Agronomy and Agricultural Sciences (FASA), The University of Dschang/International Union of Soil Sciences (IUSS) Stella Tsani, GYA |
| GEO-7 Multidisciplinary Expert Scientific Advisory Group (MESAG) | Yonglong Lu, Chinese Academy of Sciences (CAS) Mónica Moraes, Academia Nacional de Ciencias de Bolivia Ervin Balázs, Research Professor at the Centre for Agricultural Research of the Hungarian Academy of Sciences |
| IPBES Nexus assessment | Ronald Twongyirwe, Senior Lecturer at Mbarara University of Science and Technology Uganda (nominated from the ISC T2S programme) for the Nexus Assessment Alex Godoy (nominated by ISC Member the GYA) for the Nexus Assessment |
| IPBES 'Transformative Change' Assessment | Nick Roskruge, Professor at Massey University in New Zealand (nominated by ISC Member the Royal Society Te Apārangi of New Zealand) for the Transformative Change Assessment |
| 2022 UN Ocean Conference | Funded participants on ISC recommendation: Leopoldo Cavalieri Gerhardinger, Oceanographic Institute, University of São Paulo / Brazilian Future Ocean Panel Corrine Almeida, Atlantic Technical University, Cabo Verde Malik Lopes, Institute de Mar in Cabo Verde Kwame Adu Agyekum, University of Ghana's Regional Marine Center / Future Earth Ocean Knowledge-Action Network (KAN) Dr. Maritza Cárdenas, University of Guayaquil in Ecuador |

→ About the Roster

6.3.2 Plastic pollution treaty and Science–Policy Panel

Since 2022 the ISC is deeply engaged with Member States in negotiations for a legally binding treaty on plastic pollution following the resolution adopted by the UN Environmental Assembly (UNEA). An ISC expert group, with key actors from ISC Affiliated Bodies, was established to advise on science-based measures, aligning treaty goals with the latest

research. The ISC also contributed to ongoing discussions on a Science–Policy Panel (SPP) on chemicals, waste and pollution mandated by UNEA to build a strong science–policy interface for the management of chemicals, waste and pollution prevention.

This work promotes a strong role for science in the global plastic policy negotiations as well as a strong science–policy interface to inform treaty implementation. The ISC has become a trusted partner and a key science advisor to UNEP and Member States on the global issue of plastic pollution. ISC Members and Affiliated Bodies have been connected with policy dialogues and contributed to regional workshops on plastic management.

Main outputs

- ISC <u>expert group on plastic pollution</u> drawing experts from ISC membership and Affiliated Bodies.
- <u>Policy brief</u> on creating an effective science–policy interface for plastic pollution (2023).
- High-level commentary on the <u>Key Requirements for a Science-based International</u> <u>Legally Binding Instrument to End Plastic Pollution</u>.
- Co-organized thematic side events and science-policy roundtables at <u>INC-2, INC-3</u> and <u>INC-4</u>.
- Delivered statements at official negotiating meetings, such as INC-1, and INC-2.
- Established a roster of 80+ experts on plastic-related challenges.
- ISC experts have advised diplomats and policy-makers in the ongoing plastic pollution negotiations and contributed to policy-relevant publications and regional dialogues led by UN agencies, including through peer review.
- <u>ISC written contribution</u> to the second Open-ended Working Group on the Science– Policy Panel on waste, chemicals and pollution (2023).

Partners

- UN Environment Programme (UNEP)
- World Health Organization (WHO)
- UN Office for Disaster Risk Reduction (UNDRR)
- Monterey Bay Aquarium
- ISC Members and Affiliated Bodies including the Scientific Committee on Oceanic Research (SCOR), Scientific Committee on Antarctic Research (SCAR), Estonian Academy of Sciences, International Union of Pure and Applied Chemistry (IUPAC), National Research Council of the Philippines, Russian Academy of Sciences, Global Young Academy (GYA) and US National Academy of Sciences (US NAS)
- → About the Plastic Pollution Treaty and Science–Policy Panel

6.3.3 UN 2023 Water Conference

The UN 2023 Water Conference, co-hosted by Tajikistan and the Netherlands, tackled water sustainability challenges across SDGs, adopting the Water Action Agenda. The ISC provided science-backed solutions, participating in dialogues and hosting side events to showcase the scientific community's role in advancing SDG6 and related goals. This included a policy brief highlighting multiple water crises endangering broader SDGs due to water's central role across development and environmental goals. The brief advocated for science-driven, evidence-informed policy and anticipative research to address diverse water challenges and support actionable solutions for sustainable water management. The

ISC brought together 40 delegates nominated by Members, fostering strong ISC networks. An <u>ISC Talent Book</u> was provided to conference attendees, stakeholders and media organizations to highlight the depth and breadth of the convening power of the Council. The initiative established the ISC voice in the global water dialogue.

Main outputs

- UN 2023 Water Conference ISC Policy Brief.
- Delivered statements in key conference dialogues and panels, including <u>Water for</u> <u>Sustainable Development</u>, <u>Water for Cooperation</u> and a <u>Water Action Decade</u>.
- Co-organized side events, including with partners WFEO on the <u>Role of the Scientific</u> and <u>Technological Community</u> in accelerating progress and transformative actions on SDG6 and a special event on the <u>Economics of Water</u>. ISC Patron, Irina Bokova, also contributed to the report <u>Turning the Tide – A Call to Collective Action</u>. The ISC contributed to a UNESCO-convened high-level event discussing a <u>potential new</u> science–policy mechanism on water sustainability.

Partners

- World Federation of Engineering Organizations (WFEO) (Co-lead) and its Committee on Water
- International Association for Hydro-Environment Engineering and Research (IAHR)
- International Water Management Institute (IWMI)
- Organisation for Economic Co-operation and Development (OECD)
- UNESCO
- → About the UN 2023 Water Conference

6.3.4 Hazards and risk

The ISC has been engaged for a long time in global processes to prevent and reduce risks, through its Affiliated Body the Integrated Research on Disaster Risk (IRDR), its partnership with the UNDRR and its engagement in the STC MG for Sendai.

The Global Platform for Disaster Risk Reduction (DRR) is a multi-stakeholder forum that reviews progress on the Sendai Framework's implementation. Held in May 2022 in Bali, Indonesia, it brought together governments, the UN and other stakeholders to share knowledge and recommend actions to accelerate DRR efforts. As the UN STC MG co-coordinator, the ISC prepared two key policy briefs for the Platform.

At the Sendai Framework's midpoint in 2023, the ISC coordinated a multidisciplinary expert group to author the scientific report for the Sendai Mid-term Review, focusing on integrating DRR with sustainability and climate goals and proposing a post-2030 resilience framework. The expert group engaged experts across climate, disaster risk, development and finance to provide a strategic assessment of progress and opportunities to embed risk reduction across sectors and scales. The report contributed to the <u>global stocktake</u> of progress on the implementation of the 2015–2030 Sendai Framework for Disaster Risk Reduction.

The ISC has also been working hand in hand with the UNDRR to convene multidisciplinary expertise on emerging issues to provide synthesis of current understandings and guidance including on <u>systemic risk</u> and <u>hazards with global escalation potential</u> to enhance resilience and preparedness.

The Review of Hazard Definitions and Classification project aims to update the UNDRR/ ISC Hazard Information Profiles (HIPs), initially released in July 2020 with a supplement in April 2021. Led jointly by the <u>UNDRR and the ISC and launched</u> in August 2023, this review integrates new scientific insights on specific hazards and multi-hazard contexts to maintain the HIPs' relevance and utility. Guided by a Steering Group of experts from UN agencies, academia, the private sector and international organizations, and supported by eight technical teams and a User Group, the updated HIPs will be unveiled at the 8th Global Platform for Disaster Risk Reduction in Geneva in June 2025.

Main outcomes

The ISC's work has influenced the integration of disaster risk in the UN's broader sustainability agendas, including in the Sendai Mid-term Review process, at the 2023 HLPF and the High-Level Dialogue on Financing for Development at the 78th session of the UN General Assembly, and connected Members and Affiliated Bodies with key policy forums, including in Latin America, enhancing the impact of scientific insights.

Main outputs

- <u>Report</u> for the Mid-term Review of the Sendai Framework for Disaster Risk Reduction (2023).
- <u>Op-ed</u> by the ISC Expert Group Co-Chair on leverage actions across biodiversity loss for risk reduction and resilience building (2023).
- <u>Op-ed</u> by an ISC Expert Group member on the need to increase investment in DRR to promote development co-benefits (2023).
- <u>Two policy briefs</u> for the Global Platform for Disaster Risk Reduction:
 - <u>Closing the Gap Between Science and Practice at Local Levels to Accelerate Disaster</u> <u>Risk Reduction (2022)</u>
 - <u>Using UNDRR/ISC Hazard Information Profiles to Manage Risk and Implement the</u> Sendai Framework for Disaster Risk Reduction (2022).
- Presentation by the RFP-LAC at the <u>Mid-term Review of the Sendai Framework and</u> <u>Progress on the Implementation of the Regional Action Plan, Uruguay 2023.</u>
- ISC-led workshops and consultations with global disaster risk experts.

Partners

- UN Office for Disaster Risk Reduction (UNDRR)
- UK Health Security Agency (UKHSA)
- Scientific and Technological Community Major Group (STC MG)
- Integrated Research on Disaster Risk (IRDR)
- International Centre of Excellence Taipei

6.3.5 UN Secretary-General's Scientific Advisory Board

The ISC has actively contributed to the re-establishment of the <u>UN Secretary-General's</u> <u>Scientific Advisory Board</u> (SAB), providing technical inputs and leveraging its global membership to support the board's operationalization. In 2023, the ISC was invited to become part of the SAB's global network of scientific institutions, also involving ISC Member organizations and Affiliated Bodies such as the GYA, TWAS, the OWSD and INGSA. The ISC has been contributing to the SAB work by providing advice on key issues of importance to science and society as well as on the need for and practice of scientific brokerage and horizon scanning in the multilateral system.

Main outputs

- Participation in SAB network meetings including the <u>Statement on Trust in Science</u> ahead of the Summit of the Future (2024).
- Input on horizon scanning and strategic science-policy priorities for the UN Secretary-General's Executive Office.

Key news items

<u>The United Nations Secretary-General's Scientific Advisory Board (SAB): mobilizing</u>
 <u>science for a sustainable future</u>

6.3.6 Group of Friends on Science for Action

The <u>Group of Friends on Science for Action</u>, co-chaired by the Permanent Representatives of Belgium, India and South Africa to the UN, was established in 2023 to advocate for the integration of actionable scientific knowledge into evidence-informed decision-making in the multilateral context. The ISC, along with UNESCO, serves as the Group's Secretariat. As an informal platform, the Group emphasizes that achieving the SDGs and addressing societal, technological and environmental changes requires open, interdisciplinary science at every stage of decision-making – from preparation to implementation. With a growing membership, the Group regularly convenes two to three experts to address key multilateral issues and has successfully advocated for science-informed decision-making to be included in the Pact for the Future adopted by UN Member States in September 2024.

Main outputs

- Hosted two official meetings focusing on science in multilateral action.
- Informal meetings with Permanent Missions to the UN and the UN SAB.
- Science-policy briefings with ISC-facilitated speakers, engaging representatives from over 40 UN Member States.

Partners

- UNESCO (joint Secretariat)
- Co-Chair countries: Belgium, India, South Africa

Key news items

- Launch of the Group of Friends
- Salvatore Aricò on science advice at the United Nations
- → About the Group of Friends

6.3.7 ISC-UNEP Strategic Foresight for the Environment

In response to increasing global uncertainties, the ISC and UNEP collaborated from January 2023 to December 2024 to embed science-based strategic foresight and horizon scanning into environmental governance and decision-making frameworks. The initiative aligns with the UN Secretary-General's <u>Our Common Agenda</u>, emphasizing the need for foresight practices across the UN system to better anticipate and address emerging environmental risks. The project engaged UN agencies, policy-makers and interdisciplinary experts in a series of global foresight exercises – encompassing expert panels, surveys and regional workshops – which led to the publication of the *Navigating New Horizons* report in July 2024 and a working paper on foresight tools in September

2024. These resources equip policy-makers with proactive insights and a comprehensive foresight framework to enhance evidence-based environmental policy and resilience.

Main outcomes

The project established a framework for anticipating global environmental shifts, empowering scientists and decision-makers to navigate complex future scenarios. The working paper, following a literature review of existing tools and methods for horizon scanning and foresight, promotes open discussion through a set of essays on key areas that remain frontiers in mainstream foresight.

The ISC and UNEP outputs shaped discussions at major forums like the UN Summit of the Future, and the initiative supports the UN's long-term environmental goals and anticipatory governance. The partnership has strengthened the ISC's role in global environmental governance, expanding its influence with UNEP and other UN agencies and fostering new opportunities for ISC Members to engage in forward-looking research and cross-sector collaboration. More than 1,000 contributors were engaged, uniting a diverse expert community from the ISC's Member network, emphasizing youth, indigenous knowledge and regional expertise, reinforcing ISC's role as a global platform for interdisciplinary, future-focused scientific engagement.

Main outputs

- <u>Navigating New Horizons</u> A global foresight report on planetary health and human wellbeing identifying key environmental shifts (2024).
- <u>A guide to anticipation: tools and methods of horizon scanning and foresight</u> A working paper on foresight tools, emphasizing scenario planning and indigenous knowledge (2024).
- <u>Regional workshops</u> held in Europe, Africa, Asia-Pacific, North America, Latin America and West Asia from October to December 2023.
- Surveys with global reach to validate foresight insights.

Partners

- UN Environment Programme (UNEP) (Lead)
- Australian Academy of Science (AAS) (Partner)

Key news items

- <u>The ISC and UNEP to cooperate on advancing the use of science in environmental</u> policy and decision-making
- <u>Cultivating a proactive approach to crises: first meeting of the UNEP/ISC foresight</u>
 <u>expert panel</u>
- Broadening horizons: local knowledge to strengthen foresight practices
- Launch of the working paper on tools and methods of foresight and future directions
 for foresight
- → About ISC-UNEP Strategic Foresight for the Environment

6.3.8 Summit of the Future (2024)

Culminating in September 2024 after many months of input, the <u>UN Summit of the Future</u> was a landmark event aimed at revitalizing multilateral cooperation to address critical global challenges and renew the UN's impact on people's lives. Bringing together world

leaders, the Summit reaffirmed the UN Charter, advanced multilateralism and culminated in the Pact for the Future, a framework for accelerating existing commitments and addressing new challenges. The ISC played an active role throughout the Summit and its preparations, supporting Member States with scientific insights to drive impactful, evidence-based outcomes for both people and the planet.

Through multiple policy submissions, the ISC ensured that science was recognized as essential to sustainable decision-making, with dedicated chapters in the Pact for the Future on science, technology and digital cooperation. These inclusions reflect the ISC's advocacy for science as a cross-cutting tool to guide sustainable development and resilience planning.

The Pact's focus on science acknowledges ISC's role in steering policy dialogues towards forward-looking, science-led solutions despite a complex geopolitical landscape.

The Summit bolstered ISC's standing as a trusted scientific partner in high-stakes policy settings, establishing it as a key advisor at the UN level. Eight ISC expert speakers were engaged at the Summit, ISC Fellows were mobilized to support messaging on behalf of the scientific community and five scientists from ISC Members were registered to participate in the <u>Summit Action Days</u>.

Main outputs

- <u>Submission to the Zero Draft of the Pact for the Future</u> summarizing key messages and calling for concrete actions reflecting the critical importance of science as a cross-cutting tool to enhance evidence-informed decision-making across the multilateral agenda.
- Submission to the Declaration on Future Generations, prepared jointly with the GYA.
- <u>Scientific and Technological Community Major Group statement</u> on the role of science and technology in a successful Summit, delivered at the informal multi-stakeholder consultations for the Summit of the Future in 2023.
- <u>Scientific and Technological Community Major Group statement</u> on final negotiations leading towards the Pact for the Future in 2024.
- <u>CODES Side Event</u> on Digital Environmental Sustainability and AI for the Global Digital Compact.
- Co-organized <u>four science-policy events</u> with over 25 partners, including the <u>UN</u> <u>Building Bridges through Science Diplomacy</u> event.
- <u>Statement</u> by ISC President, Sir Peter Gluckman.
- <u>Letter</u> from Terrence Forrester, Chair of the ISC Fellows, in *Nature* and reflections from ISC Fellows on the Summit (2024).

Partners

- UN Department of Global Communications
- UNESCO (Joint Secretariat of the Group of Friends)
- Global Young Academy (GYA)
- CODES

Key news items

- International Science Council Governing Board calls for science and scientists in Africa
 to be mobilized ahead of 2024 United Nations Summit of the Future
- <u>The ISC's Science Missions for Sustainability: a roadmap for delivering the UN Pact for</u>
 <u>the Future</u>
- → About the Summit of the Future

6.3.9 4th International Conference on Small Island Developing States (SIDS4)

The 4th International Conference on Small Island Developing States (SIDS4), held in Antigua and Barbuda in May 2024, addressed sustainable development for SIDS with the theme 'Charting the course towards resilient prosperity'. The ISC, in collaboration with its SIDS Liaison Committee and RFPs, mobilized the scientific community, emphasizing SIDS' role in global environmental governance and sustainable development. This resulted in the <u>Antigua and Barbuda Agenda</u> for SIDS, outlining a decade-long vision for resilience with international support. The conference also served as a preparatory platform for SIDS engagement at the upcoming UN Ocean Conference and the World Social Development Summit, both in 2025.

Main outputs

- Registered 40 SIDS scientists and experts across multiple ISC bodies.
- From Shores to Horizons: Empowering Science for the Future of Large Ocean States (2024), a declaration highlighting SIDS' scientific needs and capacities.
- Organized side-event <u>Amplifying Science in and from Small Island Developing States</u>, in partnership with universities and the UNDRR.
- Delivered <u>plenary statement</u> to Member States on digital opportunities for climate resilience in SIDS.
- Published a Talent Book enabling media engagement with ISC delegates.

Partners

- ISC SIDS Liaison Committee
- ISC Regional Focal Points for Asia-Pacific
- ISC Regional Focal Points for Latin America and the Caribbean
- Establishment Committee for the Pacific Academy of Sciences
- Caribbean Academy of Sciences (CAS)
- UN Office for Disaster Risk Reduction (UNDRR)
- → About SIDS4

6.3.10 Science–policy synergies for the Biological Weapons Convention

The ISC and the UN Office for Disarmament Affairs (UNODA), supported by a Geneva Science–Policy Interface (GSPI) grant for the period June 2024 to January 2025, are providing scientific advice to strengthen the Biological Weapons Convention (BWC). The ISC has appointed ten experts, following a call for nominations from Members, to advise diplomats on compliance, verification, cooperation, and science and technology as part of the <u>BWC Working Group</u>. This initiative, stemming from the recent BWC Review Conference, addresses the need to integrate scientific advancements into the Convention, particularly through scientific review and verification. By fostering collaboration between BWC delegates and scientific experts and creating tailored knowledge products, the project equips delegates to address evolving biological threats, enhancing global biosecurity amid rapid scientific and technological developments.

This work is highlighting science's role in biosecurity and biosafety and in identifying new risks related to the weaponization of biological agents and how to build a science–policy interface mechanism for the Convention that is fit for purpose. The ISC's engagement supports a future-ready BWC framework to mitigate biological threats.

This project is expanding the ISC's reach into disarmament and biosecurity discussions for the first time, highlighting the role that science can play in diplomacy.

Main outputs (expected)

- Series of policy briefs and videos for BWC delegates.
- Event (December 2024) to discuss biosecurity advancements.

Partners

- UN Office for Disarmament Affairs (UNODA)
- Geneva Science Policy Interface (GSPI)

Key news items

- ISC and the UN Office for Disarmament Affairs awarded joint grant to support the Biological Weapons Convention
- ISC Expert Group for the BWC

6.3.11 ISC-INGSA Science Advice Training Modules (Global)

The ISC and INGSA have partnered to develop various training modules to enhance science advice capacity among policy-makers. This initiative strengthens ISC Members' skills in evidence-informed policy-making, science diplomacy and navigating global science advice ecosystems.

The global project was launched in July 2024 with a needs assessment and mapping of current capacities and is guided by an advisory group established in October 2024. The first online modules and webinars are foreseen for early 2025, targeting ISC Members, science practitioners and policy-makers. The training modules and associated activities will equip ISC Members with the tools and knowledge to provide effective science advice, contributing to evidence-informed policy-making at national, regional and global levels. The initiative will enhance ISC Members' capacities to engage with policy processes and support decision-makers with robust scientific advice. The inclusion of real-world case studies and peer learning opportunities will provide practical insights into addressing complex policy challenges.

By partnering with INGSA, the ISC is strengthening its leadership in science-policy engagement, helping Members build skills that will support both national and international policy processes. The project also reinforces ISC's commitment to fostering science diplomacy and enhancing science-policy interfaces at different levels.

The needs assessment, mapping exercise and advisory group ensure that the training modules are tailored to the specific needs of ISC Members. The workshop for the ISC General Assembly in Oman in January 2025 will also provide an important forum for peer learning and exchanging insights on science advice in action.

Partners

International Network for Governmental Science Advice (INGSA)

Main outputs

- <u>Needs assessment survey</u> completed, highlighting capacity gaps.
- Advisory group formed to shape training content.
- Modules and webinars planned for 2025, including a workshop at the ISC General Assembly in Oman.

FINANCE, COMPLIANCE AND RISK

It was an honour to be elected Vice-President for Finance of the ISC in October 2021. The full scope of this very important portfolio was reflected in the change of the title of the position to Vice-President for Finance, Compliance and Risk in the revised Statutes adopted in March 2024.

The responsibility of the CFCR is large, as the ISC is still a relatively young organization and had to weather the COVID pandemic in 2020–2022 as well as a transition in management at the Secretariat in 2022. With the support of the Secretariat, the Committee has finalized several new policies and procedures to bring the organization into line with good practice internationally, has overseen the budgets and financial reports of the organization and, at the end of this first planning period, is launching a revision of the dues structure in the context of great geopolitical tensions and financial constraints among our membership. I thank the members of the CFCR for their dedication and attention to detail.

—— Sawako Shirahase, Vice-President for Finance, Compliance and Risk

7.1 Introduction

The CFCR studies the ISC annual budgets, accounts and audit reports, considers requests for dues relief and makes recommendations to the Governing Board. The Committee also oversees the development and application of organizational policies and procedures.

Detailed information on finances and the work of the CFCR is available in the Report of the Vice-President for Finance, Compliance and Risk to the General Assembly in January 2025.

7.2 Finances

The 2022–2024 ISC budget was developed in 2021 against the background of the COVID-19 pandemic, which had dramatically reduced expenditure on activities for

two consecutive years and led to a steep increase in general reserves. As a non-profit association, the ISC was advised to reduce its reserves. The 2022–2024 budget reflected this advice, presenting an ambitious activity and spending plan which would draw significantly on reserves.

Expenditure on all domains of activity began to pick up in 2022 with the return of in-person meetings. However, membership dues and returns on the ISC sustainable investment portfolio were lower than expected in 2022, largely as a result of the conflict in Ukraine.

In 2023, the ISC underwent significant strategic and operational changes. Key developments included establishing a UN liaison in New York, launching the Centre for Science Futures and creating a Unit for Global Science Policy. The Secretariat grew and evolved, in line with the new strategic priorities and programmatic goals of the organization. The RFP in Asia-Pacific was inaugurated, and a scoping project for an ISC presence in Africa was launched. An unplanned Mid-term Meeting of Members was organized in May 2023, in response to demand from the Members.

After the expansion in 2023, the budget for 2024 showed a need to consolidate. The risk of several Members not being able to pay their dues because of international conflict or structural financial problems was high. The Standing Committees and other advisory bodies conducted their work virtually and travel was contained. With these efforts, overall, the result at the end of the period is expected to be close to what was budgeted.

The general reserves will stand at around 275k EUR at the end of 2024 and the structural reserves of the ISC (1.5 million EUR) remain intact.

The independent annual audits of the 2021, 2022 and 2023 ISC financial statements were successfully concluded with no remarks by the auditor. The 2024 exercise will begin in January 2025.

| TABLE 1. Summary of ISC income and expenditure, 2021–2024 | | | | |
|---|-------------|-------------|---------------------|-------------------|
| | 2021 | 2022 | 2023 | 2024 |
| Dues | € 2,953,450 | € 2,754,936 | € 2,903,752 | € 2,973,564 |
| Other | € 166,137 | € 796,247 | € 654,363 | € 160,000 |
| External | € 2,711,906 | € 2,573,270 | € 2,755,796 | € 2,972,636 |
| Income | € 5,831,493 | € 6,124,453 | € 6,313,911 | € 6,106,200 |
| Governance | € 110,468 | € 234,084 | € 334,470 | € 217,794 |
| Regional structures | € 50,000 | € 87,067 | € 234,243 | € 227,172 |
| Activities | € 1,099,160 | € 1,170,569 | € 1,622,070 | € 1,207,889 |
| Communications | € 66,402 | € 182,182 | € 280,747 | € 135,278 |
| Personnel | € 2,306,668 | € 2,281,949 | € 3,035,919 | € 3,182,851 |
| Operations | € 345,567 | € 845,439 | € 466,711 | € 344,967 |
| Dedicated funds | € 1,801,020 | € 1,422,445 | € 1,518,310 | € 1,287,846 |
| Expenditure | € 5,779,285 | € 6,223,735 | € 7,492,469 | € 6,603,797 |
| Result | € 52,208 | -€ 99,282 | -€ 1,178,558 | −€ 497,597 |

*Data for 2024 are estimated at 19 November 2024

7.3 Grant income

The ISC has received grants from the following organizations during the period:

- The <u>University of Bergen</u>, which provides a prize fund for the <u>Stein Rokkan Prize</u>, awarded annually.
- The US NSF, which supports ISC work on sustainability for five years (2023–2028).
- The IDRC of Canada, which funds <u>a three-year project</u> exploring the impacts of AI and other emergent technologies on science systems in the Global South (2024–2027).
- <u>CAST</u>, which provides a grant to support the participation of <u>EMCRs</u> in ISC activities (2024–2026).
- The Frontiers Research Foundation, which funds the ISC to promote Global South participation in the <u>Frontiers Planet Prize</u> (2022–2025).
- The Geneva Science–Policy Interface for a joint project with UNODA to strengthen the BWC in 2024–2025.
- The New Zealand Government (Ministry for Business, Innovation and Employment), which has supported ISC work on <u>freedom and responsibility in science</u> since 2016, currently from 2020 to 2025.
- UNEP, which funds the ISC's contribution to a joint research effort on <u>foresight</u> in 2023–2024.
- The Sasakawa Peace Foundation and the Richard Lounsbery Foundation, to support a meeting to establish an <u>academy of sciences in the Pacific Islands region</u> in 2023.
- The UNDP, in the framework of the Rethinking Human development project in 2022– 2023.
- The IDRC Canada, for a three-year ISC and INGSA project on Generating Knowledge and Building Networks for Science Advice in Emergencies (2020–2023).
- Sida, which supported transdisciplinary research programmes, <u>T2S</u> and <u>LIRA 2023</u>, from 2014 to 2022.

7.4 Hosting in France

The ISC is grateful for the support of the French State, and the French Ministry of Higher Education and Research in particular, which allowed the Council to use its building in Paris free of charge and has provided a subsidy of 100k EUR per year since its establishment (a continuation of an existing agreement with ICSU). The Governing Board and the CEO are working, with the assistance of its Member in France, the Académie des sciences, to secure a long-term hosting agreement with the French state which would secure its premises and cash subsidy into the future.

7.5 Membership dues

Many ISC Members, of all categories, are having difficulty paying membership dues. Over the course of 2022–2024, some 30 dues relief requests were received, and nearly all were granted in some way. Going forward, the ISC must find a solution for the dues of the many Members that have financial constraints.

The search for the solution must be part of the work to revise the ISC dues structure, which will happen under the supervision of the CFCR in 2024–2025. A special Working

Group has been established to develop and propose a unified, fair and sustainable dues structure for the ISC that takes into account the challenge of affordable dues for Members of limited financial means. The revision of the dues structure could only start after the resolution of residual issues from the merger of ICSU and ISSC around membership, voting and dues. This was accomplished with the revision of the Statutes and Rules of Procedure in 2024. The revision of the dues structure will also benefit from sound analysis of the ISC dues structure done by the Ad Hoc Dues Committee in 2019–2021.

7.6 Policies, processes, systems

The ISC already had several policies and processes in place by 2021 that continued to serve well, including the Conflict of Interest policy for Governing Board and Committee members, the Anti-Corruption and Anti-Money-Laundering policy and an informal language policy.

In the 2022–2024 period, the Committee oversaw the development or updating of the following documents or policies.

- Sponsorship and Endorsement policy and process (2023), for organizations requesting ISC sponsorship or endorsement of their activities.
- ISC Sustainability principles (updated 2024), covering sustainable procurement.
- ISC Travel policy (updated 2023), specifying when business-class travel is allowed and clarifying the basis of reimbursement claims.
- Due Diligence policy (2024), setting out the basis on which the ISC will engage with or receive money from private sector or philanthropic bodies.
- <u>Privacy policy</u> (updated 2024), setting out the ISC's practices regarding the collection and protection of personal data in the era of AI.
- Code of conduct (2024), detailing the expectations of behaviour of representatives of the ISC and the process for reporting suspected violations of the code.

The ISC Statutes and Rules of Procedure, which were revised in March 2024, were also subject to legal scrutiny to confirm their compliance with French law on associations.

SECRETARIAT

In October 2021, in the middle of the COVID-19 pandemic, the ISC Headquarters (HQ) in Paris comprised 20 members of staff. This grew to a high of 26 (and 3 interns) in the first half of 2024, and is at 24 at the end of 2024 (and one intern). See <u>Appendix I</u> for an overview of staff members.

At the end of 2024 the Secretariat comprises:

- a leadership team: the CEO and two Directors (Science and Operations)
- two Heads or Acting Heads of Unit (Global Science Policy and Communications)
- six Science or Senior Science Officers
- two Communications Officers, one Membership Liaison Officer and one Membership Development Officer
- nine Administrative and General Support Officers covering finances, human resources, administration, IT and general services functions.

In addition, the New Zealand Government, through the Ministry of Business, Innovation and Employment, supports the work of the CFRS through financing of a CFRS Special Advisor and the input of a senior expert at the Royal Society Te Apārangi.

The capacity of the Secretariat is greatly strengthened by the teams at the RFPs in LAC and in Asia and the Pacific.

The main changes in the profile of Secretariat staff over three years concerned:

- creating development opportunities through the promotion or redeployment of staff to roles which allowed them to grow
- establishing a presence in New York, through the appointment of a liaison officer.

The ISC takes a keen interest in building capacity and offering opportunities to budding professionals. Twelve interns have been hosted over three years and several of them have been able to move into short-term and even long-term employment at the ISC.

Building capacity is also about honing and developing skills and maintaining the health and safety of all staff. Since October 2022, and in addition to supporting individually requested training and development activities, the ISC has offered the following collective professional training:

- facilitating, chairing and presenting in meetings, by Impact Factory (Sept 2021)
- Prince 2 Project Management training (Nov 2022, Jan/Feb 2023, Sept 2023).

The Secretariat staff enjoy a flexible teleworking policy that allows individuals to work from home normally two to three days a week.

APPENDICES

A Governing Board and advisory body members

Governing Board (October 2021–January 2025)

- **Peter Gluckman**, International Science Council (ISC) President; Koi Tū: The Centre for Informed Futures at the University of Auckland, New Zealand
- **Sawako Shirahase,** ISC Vice-President Finance, Compliance and Risk; University of Tokyo, Japan, and United Nations University (UNU)
- Anne Husebekk, ISC Vice-President Freedom and Responsibility in Science; Arctic University of Norway (UiT), Norway
- Salim Abdool Karim, ISC Vice-President Outreach and Engagement; Centre for the AIDS Program of Research in South Africa (CAPRISA), Columbia University, USA, and University of KwaZulu-Natal, South Africa
- Motoko Kotani, ISC Vice-President Science and Society; Tohoku University, Japan
- Karina Batthyány, CLACSO, Chile, and University of the Republic, Uruguay
- Françoise Baylis, Dalhousie University and Royal Society, Canada
- Geoffrey Boulton, Emeritus, University of Edinburgh, UK
- Melody Burkins, Institute of Arctic Studies and Dartmouth College, USA
- Mei-Hung Chiu, National Taiwan Normal University, China-Taipei
- Pamela Matson, Stanford University, USA
- Helena Nader, Federal University of São Paulo (UNIFESP), Brazil
- Walter Oyawa, National Commission for Science, Technology & Innovation (NACOSTI), Kenya
- Maria Paradiso, University of Naples, Italy
- Martin Visbeck, GEOMAR Helmholtz Centre for Ocean Research Kiel and professor at Kiel University, Germany

Committee for Finance, Compliance and Risk (June 2022 – May 2025)

- Sawako Shirahase, ISC Vice-President Finance, Compliance and Risk (Chair)
- Salvatore Aricò, ISC CEO
- Peter Gluckman, ISC President
- Jisoon Lee, National Academy of Sciences, Republic of Korea
- Isabel Varela Nieto, Spanish National Research Council (CSIC), Spain
- Beatrice Weder di Mauro, Centre for Economic Policy Research and Graduate Institute, Switzerland

Committee for Freedom and Responsibility in Science (June 2022 – May 2025)

- Anne Husebekk, ISC Vice-President for Freedom and Responsibility in Science (Chair)
- Françoise Baylis, ISC Governing Board
- Melody Burkins, ISC Governing Board
- Saths Cooper, Pan-African Psychology Union and formerly International Union of Psychological Science (IUPsyS)
- Robert French, Former Chancellor, University of Western Australia
- **Ke Gong,** Chinese Institute of the New Generation Artificial Intelligence Development Strategies and formerly World Federation of Engineering Organizations
- Robin Grimes, Imperial College, UK
- S. Karly Kehoe, Saint Mary's University in Nova Scotia, Canada
- Staffan I. Lindberg, University of Gothenburg, Sweden
- Roy MacLeod, University College London and Science Museum, London
- Joyce Nyoni, Institute of Social Work, Tanzania
- Sayaka Oki, University of Tokyo, Japan
- Krushil Watene, University of Auckland, New Zealand

Committee for Outreach and Engagement (June 2022 – January 2025)

- Salim Abdool Karim, ISC Vice-President for Outreach and Engagement (Chair)
- Mei-Hung Chiu, ISC Governing Board
- Walter O. Oyawa, ISC Governing Board
- Maria Paradiso, ISC Governing Board
- John G. Hildebrand, National Academies of Science, USA
- María Estelí Jarquín, UK Centre for Ecology & Hydrology (UKCEH), UK
- Naim Akhtar Khan, International Union of Physiological Sciences (IUPS)
- Jahnavi Phalkey, Science Gallery, Bengaluru, India
- **Magdalena Stoeva**, International Union for Physical and Engineering Sciences in Medicine (IUPESM)

Committee for Science Planning (June 2022 – January 2025)

- Motoko Kotani, ISC Vice-President Science and Society (Chair)
- Karina Batthyány, ISC Governing Board
- Geoffrey Boulton, ISC Governing Board
- Pamela Matson, ISC Governing Board
- Helena B. Nader, ISC Governing Board
- Martin Visbeck, ISC Governing Board
- Eva Alisic, Melbourne School of Population and Global Health, Australia
- Dieter Armbruster, Emeritus, Arizona State University, USA
- Alan Bernstein, University of Oxford, UK
- Naoko Ishii, University of Tokyo, Japan
- Asma Ismail, International Islamic University Malaysia
- Lluis M. Mir, Emeritus, French National Centre for Scientific Research (CNRS)
- Sandra Mitchell, University of Pittsburgh, USA
- Barend Mons, Leiden University, Netherlands
- Adebayo Olukoshi, Wits School of Governance, South Africa
- Ekrem Tatoglu, Ibn Haldun University, Turkey, and Gulf University for Science and Technology, Kuwait
- Waceke Wanjohi, Kenyatta University and Kenya National Academy of Sciences, Kenya
- Yongguan Zhu, Chinese Academy of Sciences, China

Working Group on Constitutional Revision (December 2022 - March 2024)

- Julie Maxton, Royal Society, UK (Chair)
- Irina Bokova, ISC Patron, formerly UNESCO
- Debra Elmegreen, Emeritus, Vassar College, USA, and International Astronomical Union
 (IAU)
- Mark Ferguson, European Innovation Council (EIC); formerly Science Foundation Ireland
- **Terrence Forrester,** University of the West Indies (UWI), Chair, ISC Foundation Fellowship Council
- Alik Ismail-Zadeh, Karlsruhe Institute of Technology, Germany; ISC Governing Board Secretary (2018–2021)
- Catherine Jami, French National Centre for Scientific Research (CNRS) and International Union of History and Philosophy of Science and Technology (IUHPST)
- **Mike Meadows**, Emeritus Professor, University of Cape Town and International Geographical Union (IGU)
- Khotso Mokhele, Advisory Council of the African Open Science Platform, South Africa
- Mobolaj Oladoyin Odubanjo, Nigerian Academy of Science, Nigeria
- Roger Pfister, Swiss Academies of Arts and Sciences, Switzerland
- Michael Saliba, University of Stuttgart, Germany and Global Young Academy
- Vaughan Turekian, US National Academies of Science, Engineering and Medicine

Science Education Consultative Group (July 2023 – October 2024)

- Motoko Kotani, ISC Vice-President Science and Society and Tohoku University, Japan (Chair)
- Mei-Hung Chiu, ISC Governing Board (Co-Chair)
- Irasema Alcántara-Ayala, National Autonomous University of Mexico (UNAM)
- Karina Batthyány, ISC Governing Board, CLACSO, Chile, and University of the Republic, Uruguay
- Yuri Belfali, Organisation for Economic Co-operation and Development (OECD)
- Jacquie Bay, University of Auckland
- Mark Ferguson, European Innovation Council (EIC); formerly Science Foundation Ireland
- Peter Finegold, Royal Society UK
- Kevin Govender, IAU Office of Astronomy for Development
- Hiromichi Katayama, UNESCO
- Joseph Krajcik, Michigan State University, USA
- Chee-Kit Looi, Education University of Hong Kong
- Magdalena Skipper, Nature
- Jane Yau, DIPF Leibniz Institute for Research and Information in Education, Germany
- Akiyoshi Yonezawa, Tohoku University, Japan (Facilitator)

General Assembly 2025 Programme Committee (January 2024 – January 2025)

- Yousuf Al Bulushi, GU Tech, Oman
- Motoko Kotani, ISC Governing Board
- Karina Batthyány, ISC Governing Board
- Maria Paradiso, ISC Governing Board
- Martin Visbeck, ISC Governing Board

Nominations and Elections Committee (May 2024 – May 2028)

- Irina Bokova, ISC Patron; formerly UNESCO (Chair)
- Salim Abdool Karim, ISC Vice-President Outreach and Engagement
- Mei-Hung Chiu, ISC Governing Board
- Maria Esteban, University of Paris-Dauphine, France, and International Council for Industrial and Applied Mathematics (ICIAM)
- Anderson Ho Cheung Shum, University of Hong Kong and Global Young Academy
- Nathalie Lemarchand, University of Paris VIII, France, and International Geographical Union
- Narinder Mehra, Indian National Science Academy (INSA)
- Elina Moustaira, National & Kapodistrian University of Athens, International Association of Legal Science (IALS)
- Cheryl Praeger, University of Western Australia and International Mathematical Union
 (IMU)
- Vaughan Turekian, US National Academies of Science, Engineering and Medicine
- Albert van Jaarsveld, formerly International Institute for Applied Systems Analysis (IIASA)

Dues Revision Working Group (from September 2024)

- Sawako Shirahase, ISC Vice-President for Finance, Compliance and Risk (Chair)
- **Magdalena Stoeva**, Secretary-General, International Union for Physical and Engineering Sciences in Medicine (IUPESM)
- Ehud Keinan, International Union of Pure and Applied Chemistry (IUPAC)
- Irasema Coronado, International Political Science Association (IPSA)
- **Ourania Kosti**, US National Academies of Science, Engineering and Medicine and InterAcademy Partnership (IAP)
- Lai Meng Looi, Academy of Sciences of Malaysia
- Jones Fairfax Agwata, Kenya National Academy of Sciences
- Silvia L. Vilches, International Consortium of Research Staff Associations (ICoRSA)

Governing Board Working Group on Inequalities (from 2024)

- Karina Batthyány, ISC Governing Board (Chair)
- Sawako Shirahase, ISC Vice-President for Finance, Compliance and Risk
- Nadya Araujo Guimarães, University of São Paulo, Brazil
- Haroon Bhorat, University of Cape Town, South Africa
- Joyeeta Gupta, University of Amsterdam, the Netherlands
- **Don Kalb,** Global Research Programme on Inequality (GRIP), University of Bergen, Norway
- Collin Tukuitonga, University of Auckland, New Zealand

B ISC Member movements since October 2021

| New Members | | |
|--|----------------------------------|------|
| Member organization | Membership category | Year |
| International Council for Industrial and Applied Mathematics (ICIAM) | Category 1 (prior Category 3) | 2022 |
| Kenya, National Commission for Science, Technology & Innovation (NACOSTI) | Category 2 | 2022 |
| International Commission for Optics (ICO) | Category 1 (prior Category 3) | 2022 |
| Congo, Congolese Academy of Sciences (ACCOS) | Category 1 | 2022 |
| International Consortium of Research Staff Associations (ICoRSA) | Category 3 | 2022 |
| International Commission on Illumination (CIE) | Category 1 (prior Category 3) | 2022 |
| UK Academy of Medical Sciences | Category 2 | 2023 |
| Australia, Australian Early- and Mid-Career Researchers Forum (EMCR Forum) | Category 3 | 2023 |
| Bangladesh, National Young Academy of Bangladesh (NYAB) | Category 3 | 2023 |
| Belgium, Young Academy of Belgium (Flanders) | Category 3 | 2023 |
| Canada, Royal Society of Canada's College of New Scholars, Artists and Scientists (RSC College) | Category 3 | 2023 |
| Colombia, Young Academy of Colombia | Category 3 | 2023 |
| Denmark, Danish Young Academy | Category 3 | 2023 |
| Ghana, Ghana Young Academy (GhYA) | Category 3 | 2023 |
| India, Young Academy of India | Category 3 | 2023 |
| Indonesia, Indonesian Young Academy of Sciences (ALMI) | Category 3 | 2023 |
| TWAS Young Affiliates Network (TYAN) | Category 3 | 2023 |
| Nigeria, Nigerian Young Academy (NYA) | Category 3 | 2023 |
| Pakistan, National Academy of Young Scientists Pakistan (NAYS) | Category 3 | 2023 |
| Spain, Young Academy of Spain | Category 3 | 2023 |
| Young Academy of Europe | Category 3 | 2023 |
| International Association of Physics Students (IAPS) | Category 3 | 2023 |
| Ethiopia, Ethiopian Academy of Science (EAS) | Category 2 | 2023 |
| Sudan, Sudanese National Academy of Sciences (SNAS) | Category 2 | 2023 |
| Inter-American Institute for Global Change Research (IAI) | Category 3 | 2023 |
| Botswana, Botswana Academy of Science (BAS) | Category 2 | 2023 |
| Poland, Polish Young Academy | Category 3 | 2023 |
| India, Indian National Young Academy of Sciences (INYAS) | Category 3 | 2023 |
| International Union of Speleology (UIS) | Category 1 (prior Category 3) | 2024 |
| Ecuador, Academy of Sciences of Ecuador (ACE) | Category 4 | 2024 |
| Cyprus, Cyprus Academy of Sciences, Letters and Arts | Category 2 | 2024 |
| Rwanda, Rwanda Academy of Sciences (RAS) | Category 2 | 2024 |

Departing Members

Category 1

- International Society for Ecological Economics
- International Economic Association

Category 2

- Czech Academy of Sciences
- Economic and Social Research Council (ESRC)
- Scientific and Technological Research Council (TUBITAK)
- Social Science and Humanities Research Council of Canada (SSHRC)

Category 3

- Association of Science and Technology Centers
- International Association for Hydro-Environment Engineering and Research
- International Federation for Information Processing
- International Federation of Data Organizations (no longer exists)
- International Studies Association
- International Water Association
- Social Science Research Council

C ISC Affiliated Bodies

The international research programmes, observing systems, data bodies, committees and networks that the International Science Council (ISC) (co-)sponsors or that operate under the auspices of the Council are listed below. The list provides information on other organizations involved as co-sponsors and partners, and the ISC's representation in these initiatives.

→ More about Affiliated Bodies

Thematic bodies

<u>Committee on Space Research (COSPAR)</u> COSPAR is an interdisciplinary scientific body concerned with the progress on an international scale of all kinds of scientific investigations carried out with space vehicles, rockets and balloons.

The membership of COSPAR is composed of national academies of science (or the equivalent) and International Scientific Unions.

<u>Future Earth</u> Future Earth is a global network of scientists, researchers and innovators collaborating for a more sustainable planet.

The 'custodian organizations' are the ISC, Belmont Forum, the United Nations (UN) Educational, Scientific and Cultural Organization (UNESCO) and the UN Environment Programme (UNEP).

<u>Global Research Programme on Inequality (GRIP)</u> GRIP is an interdisciplinary research programme on inequality.

GRIP is a partnership between the ISC and the University of Bergen.

Integrated Research on Disaster Risk (IRDR) IRDR is a decade-long, interdisciplinary research programme seeking to address the challenges brought by natural hazard events, mitigate their impacts and improve related policy-making mechanisms.

Co-sponsors: the ISC, UN Office for Disaster Risk Reduction (UNDRR).

International Network for Governmental Science Advice (INGSA) INGSA was formed as a legacy of the first global conference in 2014 on science advice to governments coorganized by our predecessor organization, the International Council of Scientific Unions (ICSU) in Auckland, New Zealand.

INGSA is a New Zealand-based international organization hosted at the University of Auckland by Koi Tū: the Centre for Informed Futures, operating under the auspices of the ISC. INGSA became an Incorporated Society under the New Zealand Charities Services in 2021.

<u>Scientific Committee on Antarctic Research (SCAR)</u> The vision of SCAR is to establish through scientific research and international cooperation a broad understanding of the nature of Antarctica, the role of Antarctica in the earth system and the effects of global change on Antarctica.

SCAR currently includes 46 member countries (35 full and 11 associate members) and 9 ISC unions.

<u>Scientific Committee on Oceanic Research (SCOR)</u> SCOR works to further international scientific activity in all branches of oceanic research.

SCOR has Representative Members that are elected representatives of Affiliated Organizations (ex-officio), active SCOR Subsidiary Bodies (ex-officio), the SCOR Scientific Rapporteurs (ex-officio) and the nominees of ISC, its Scientific Unions and its Scientific Committees (those willing to participate and agreed by SCOR).

<u>Scientific Committee on Solar-terrestrial Physics (SCOSTEP)</u> SCOSTEP runs international interdisciplinary scientific programmes and promotes solar-terrestrial physics research by providing the necessary scientific framework for international collaboration and dissemination of the derived scientific knowledge in collaboration with other ISC bodies.

The Council of SCOSTEP is comprised of Adherent Representatives, meaning unions and other ISC bodies that express an interest in some aspect of solar-terrestrial physics.

<u>Urban Health and Wellbeing (UHW)</u> The UHW programme proposes a new conceptual framework for considering the multi-factorial nature of both the determinants and the manifestations of health and wellbeing in urban populations.

The co-sponsors are the ISC, the International Society of Urban Health, the InterAcademy Partnership and the Institute of Urban Environment of the Chinese Academy of Sciences.

<u>World Climate Research Programme (WCRP)</u> The WCRP facilitates analysis and prediction of earth system change for use in a range of practical applications of direct relevance, benefit and value to society. The WCRP aims to determine the predictability of climate and the effect of human activities on climate.

The co-sponsors are the ISC, the World Meteorological Organization (WMO) and UNESCO's Intergovernmental Oceanographic Commission (IOC).

Data and information bodies

<u>Committee on Data (CODATA)</u> CODATA is the Committee on Data of the ISC. The mission of CODATA is to strengthen international science for the benefit of society by promoting improved scientific and technical data management and use.

CODATA is a membership organization with three principal membership categories: National Members, ISC Bodies and Institutional Members (both research/not-forprofit and commercial).

<u>Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science</u> (IUCAF) The IUCAF is an international committee that works in the field of spectrum management on behalf of the passive radio sciences, like radio astronomy, remote sensing, space research and meteorological remote sensing.

The following ISC entities are represented: International Astronomical Union (IAU), Union Radio Scientifique Internationale (URSI) and COSPAR. <u>World Data System (WDS)</u> The mission of WDS is to promote long-term stewardship of, and universal and equitable access to, quality-assured scientific data and data services, products and information across all disciplines in the natural and social sciences, and the humanities.

The co-sponsors are the ISC, the Oak Ridge Institute and the University of Victoria, Canada.

Observing systems

<u>Global Climate Observing System (GCOS)</u> The GCOS is based upon the coordination of existing and planned operational observing systems and research programmes for observing global climate.

The GCOS is co-sponsored by the WMO, the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), the UNEP and the ISC.

<u>Global Ocean Observing System (GOOS)</u> The purpose of the GOOS is to enable the state of the ocean to be described, its changing conditions to be forecast and its effects on climate change to be predicted, and to facilitate sustainable development by ocean users and managers.

The GCOS is co-sponsored by the WMO, IOC-UNESCO, the UNEP and the ISC.

D Activities endorsed or sponsored by the ISC

Activities and initiatives endorsed or sponsored by the International Science Council (ISC) from October 2021 to December 2024.

| Activity | Lead or partner organizations | Time period of activity |
|---|--|------------------------------|
| <u>Ethnografilm festival</u> Paris | Ethnografilm festival Paris, Society for Social Studies of Science (4S) | Annual |
| ISC-Geo Unions Distinguished Lecture Series | International Geographical Union | 2023–2025 |
| COVID Educational Alliance (COVIDEA) | Platform for Tech for SDGs (P4TT), Foundation for Global Governance and Sustainability (FOGGS) | Launched 2020, ongoing |
| International Decade of Soils 2015–2024 | International Union of Soil Sciences (IUSS) | 2015–2024 |
| <u>UN Decade of Ocean</u> <u>Science for Sustainable</u> <u>Development 2021–2030</u> | Intergovernmental Oceanographic Commission (IOC) –UNESCO (Lead), European Commission, Japan, Sweden, Canada | 2021–2030 |
| International Year of Caves and Karst 2021– 2022) | International Union of Speleology (UIS) | 2021–2022 |
| International Year of Glass 2022 | International Union of Crystallography (IUCr), International Union of Pure and Applied Physics (IUPAP), International Union of Pure and Applied Chemistry (IUPAC) | 2022 |
| International Year of Basic Science for Sustainable Development 2022 | IUPAP, Union of Crystallography (IUCr), IAU, International Mathematical Union (IMU), IUPAC, International Union of Geodesy and Geophysics (IUGG), International Union of Biological Sciences (IUBS), International Institute for Applied Systems Analysis (IIASA), International Union of History and Philosophy of Science and Technology (IUHPST), International Union for Vacuum Science, Technique and Applications (IUVSTA), European Organization for Nuclear Research (CERN), International Centre for Theoretical Physics (ICTP) | 2022 |
| <u>Planning for International</u> <u>Polar Year 2032–2033</u> | International Arctic Science Committee (IASC) and Scientific Committee on Antarctic Research (SCAR), World Meteorological Organization (WMO), ISC, University of the Arctic, International Arctic Social Sciences Association (IASSA), Association of Polar Early Career Scientists (APECS) | 2023–2033 |

| Activity | Lead or partner organizations | Time period of activity |
|---|---|----------------------------|
| Sustainability, Research & Innovation Congress 2023, Panama | Future Earth, Belmont Forum | June 2023 |
| Rencontres Recherche et Création 10e Edition 2023 | Agence nationale de la recherche (ANR) and Festival international de théâtre d'Avignon | 10–11 July 2023 |
| <u>World Science</u> <u>& Technology</u> <u>Development Forum</u> 2023 | China Association for Science and Technology (CAST) | 24 November 2023 |
| <u>18th Global Forum on</u> <u>Human Settlements,</u> <u>Dubai, UAE</u> | Global Human Settlements Foundation | 2–3 December 2023 |
| <u>INGSA2024 Biennial</u> <u>Global Conference,</u> <u>Kigali, Rwanda</u> | International Network for Governmental Science Advice (INGSA) | 30 April to 03 May 2024 |
| Rencontres Recherche et Création 11º Edition 2024 | ANR and Festival international de théâtre d'Avignon | 08–09 July 2024 |
| COSPAR 45th Scientific Assembly, Busan, South Korea | Committee on Space Research (COSPAR) | 13–21 July 2024 |
| <u>SCAR Open Science</u> <u>Conference 2024 –</u> <u>Antarctic Science:</u> <u>Crossroads for a New</u> <u>Hope</u> | SCAR | 19–23 August 2024 |
| <u>GLOBALGOALS2024,</u> <u>Utrecht</u> | Utrecht University and Earth System Governance Project | 29–30 Aug 2024 |
| Sustainability, Research & Innovation Congress 2024, Helsinki | Future Earth, Belmont Forum | 10–14 June 2024 |
| <u>World Science</u> <u>& Technology</u> <u>Development Forum</u> 2024 | CAST | 22–24 October 2024 |

E Main ISC publications October 2021 to December 2024

Note: The following list includes outputs which were either published by the International Science Council (ISC) or where ISC staff or representatives were authors or editors of the output. The date is the date of publication on the ISC website.

Corporate

| Action Plan 2021–2024, Science and Society in Transition | Strategy | 08-Dec-2021 |
|---|----------|-------------|
| ISC Activity and Achievement Report: July 2018 to June 2021 | Strategy | 20-Dec-2021 |
| International Science Council Introductory Brochure 2022 | Report | 04-May-2022 |
| Annual Report 2021 | Report | 20-Jul-2022 |
| ISC Annual Report 2022 | Report | 05-Jun-2023 |
| ISC Sponsorship and Endorsement Policy | Policies | 12-Dec-2023 |
| ISC Due Diligence Policy | Policies | 31-May-2024 |
| Annual Report 2023 | Report | 10-Jul-2024 |

Global

| Report on the ISC Meeting of Pacific Scholars | Report | 13-Dec-2023 |
|---|---------------------------------|-------------|
| Fact sheet: Pacific Academy of Sciences | Fact sheet | 17-May-2024 |
| From Shores to Horizons: Empowering Science for the Future of Large Ocean States | Policy brief / advisory note | 07-Jun-2024 |

Action Plan Priority 1: Global Sustainability

| Hazard Information Profiles: Supplement to UNDRR-ISC Hazard Definition & Classification Review | Technical report | 04-Oct-2021 |
|---|---------------------------------|-------------|
| <u>A Framework for Global Science.</u> In Support of Risk-informed Sustainable Development and Planetary Health | Report | 02-Dec-2021 |
| Global Risks Perceptions Report 2021 | Report | 13-Dec-2021 |
| The transformative potential of managed retreat in the face of rising sea levels | Knowledge brief | 31-Jan-2022 |
| Briefing Note on Systemic Risk | Policy brief / advisory note | 10-Mar-2022 |
| Policy Brief: Using UNDRR/ISC Hazard Information Profiles to manage risk and implement the Sendai Framework for Disaster Risk Reduction | Policy brief / advisory note | 18-May-2022 |
| Policy Brief: Closing the gap between science and practice at local levels to accelerate disaster risk reduction | Policy brief / advisory note | 18-May-2022 |
| Policy Brief: Harnessing data to accelerate the transition from disaster response to recovery | Policy brief / advisory note | 24-May-2022 |
| Science for Stockholm +50 | Position paper | 01-Jun-2022 |
| Position paper of the Scientific and Technological Community Major Group for the 2022 High-Level Political Forum | Position paper | 17-Jun-2022 |

| Report for the Mid-Term Review of the Sendai Framework for Disaster Risk Reduction | Report | 28-Feb-2023 |
|---|---------------------------------|-------------|
| UN 2023 Water Conference: ISC Policy Brief | Policy brief / advisory note | 15-Mar-2023 |
| LIRA 2030 Africa: Learning from Practising Transdisciplinary Research for Sustainable Development in African Cities | Report | 03-Apr-2023 |
| LIRA 2030 Africa: Key Achievements and Learnings | Report | 03-Apr-2023 |
| Advancing transdisciplinary research in the Global South | Book chapter | 12-May-2023 |
| Position paper for the 2023 High-Level Political Forum | Position paper | 06-Jul-2023 |
| A Model for Implementing Mission Science for Sustainability: proposed by the Technical Advisory Group to the Global Commission on Science Missions for Sustainability | Report | 11-Jul-2023 |
| Flipping the Science Model: A Roadmap to Science Missions for Sustainability | Report | 17-Jul-2023 |
| Hazards with Escalation Potential: Governing the Drivers of Global and Existential Catastrophes | Report | 24-Aug-2023 |
| Harnessing Scientific Evidence and Decision-making to Accelerate Progress on the SDGs | Report | 14-Sep-2023 |
| Policy Brief: Creating a Strong Interface between Science, Policy and Society to Tackle Global Plastic Pollution | Policy brief / advisory note | 09-Nov-2023 |
| Final Evaluation Report: LIRA 2030 Africa | Report | 16-Nov-2023 |
| Policy Brief: Global Sea-Level Rise | Policy brief / advisory note | 17-Nov-2023 |
| Key Requirements for a Science-based International Legally Binding Instrument to End Plastic Pollution | Policy brief / advisory note | 02-May-2024 |
| From Science to Action: Leveraging Scientific Knowledge and Solutions for Advancing Sustainable and Resilient Development | Report | 04-Jul-2024 |
| <u>Transformative Labour: The Hidden (and Not-So-Hidden)</u> Work of Transformations to Sustainability | Report | 12-Jul-2024 |
| Social Transformations to Sustainability through a Critical Lens: Integrative Insights from Twelve Research Projects Funded under the Transformations to Sustainability Research Programme | Report | 12-Jul-2024 |
| Programme Design for Transformations to Sustainability Research: A Comparative Analysis of the Design of Two Research Programmes on Transformations to Sustainability | Report | 12-Jul-2024 |
| Navigating New Horizons: A Global Foresight Report on Planetary Health and Human Wellbeing | Report | 15-Jul-2024 |

Action Plan Priority 2: Converging Science and Technology in the Digital Era

| A framework for evaluating rapidly developing digital and related technologies: AI, large language models and beyond | Position paper | 23-Oct-2023 |
|--|-------------------|-------------|
| Preparing national research ecosystems for AI: strategies and progress in 2024 | Working paper | 27-Mar-2024 |
| Science organizations in the digital age | Working paper | 02-Apr-2024 |
| A Guide for Policy-makers: Evaluating Rapidly Developing Technologies including AI, Large Language Models and Beyond | Report | 17-Apr-2024 |

Action Plan Priority 3: Science in Policy and Public Discourse

| Science as a Global Public Good | Position paper | 01-Oct-2021 |
|---|-------------------|-------------|
| Public perceptions and understandings of science | Position paper | 27-Oct-2021 |
| ISC Strategy in the Intergovernmental System | Report | 02-Dec-2021 |
| Principles and Structures of Science Advice: An Outline | Report | 07-Mar-2022 |
| Unprecedented & Unfinished: COVID-19 and Implications for National and Global Policy | Report | 16-May-2022 |
| Unprecedented & Unfinished, Second Edition | Report | 13-May-2023 |
| A guide to anticipation: tools and methods of horizon scanning and foresight | Working paper | 09-Sep-2024 |

Action Plan Priority 4: Changing Practices in Science and Science Systems

| Strengthening research integrity: the role and responsibilities of publishing | Position paper | 03-Nov-2021 |
|---|-------------------|-------------|
| The normalization of preprints | Position paper | 09-Mar-2022 |
| Looking at the future of transdisciplinary research | Working paper | 25-Apr-2023 |
| The Future of Research Evaluation: A Synthesis of Current Debates and Developments | Report | 11-May-2023 |
| The contextualization deficit: reframing trust in science for multilateral policy | Position paper | 07-Nov-2023 |
| The case for reform of scientific publishing | Working paper | 17-Nov-2023 |
| The Key Principles for Scientific Publishing | Report | 17-Nov-2023 |
| Snapshots of Reform: Researcher Evaluation within Science Organizations | Report | 25-May-2024 |

Action Plan Priority 5: Freedom and Responsibility in Science

| A Contemporary Perspective on the Free and Responsible Practice of Science in the 21st Century | Report | 10-Dec- 2021 |
|--|------------------|-----------------|
| Conference on the Ukraine Crisis: Responses from the European Higher Education and Research Sectors | Report | 31-Aug- 2022 |
| One Year of War in Ukraine: Exploring the Impact on the Science Sector and Supporting Initiatives | Report | 04-Aug- 2023 |
| Protecting science in times of crisis – how do we stop being reactive, and become proactive? | Working paper | 19-Feb- 2024 |

Internal normative development:

- <u>Updated Principles of Freedom and Responsibility in Science</u> (June 2024)
- The right to participate in and benefit from science (November 2024)

CFRS statements and Governing Board positions:

- ISC position on the role of universities in enabling responsible discussion and upholding rational debate in times of crisis (Jul 2024)
- ISC updated position on academic boycotts (Jul 2024)
- Open letter: Support for the integrity of Argentina's science system (Feb 2024)
- ISC statement on protecting science in times of crisis (Nov 2023)
- Joint statement with IAP: Statement on Protecting the Autonomy of National Academies
 <u>of Science</u> (Dec 2023)
- Statement on concerns over regressing scientific freedoms in Nicaragua (May 2023)
- Statement on concerns over escalation of extreme violence in Sudan (Apr 2023)
- <u>Science in Exile Declaration</u> (Jun 2022)
- <u>Statement against exclusion of women from higher education in Afghanistan</u> (Dec 2022)
- Statement on concerns for scientists in Iran (Mar 2022)
- International Science Council statement on Ukraine (Feb 2022)

Support resources:

- <u>Supporting at-risk and displaced Sudanese scientists: offers of assistance, news and</u> resources 12/8/24
- Supporting at-risk and displaced Palestinian scientists: offers of assistance, news and resources 29/7/2024
- Ukraine: Statements, offers of assistance and resources 24/2/23
- Afghanistan: Statements, offers of assistance and resources 24/1/23

Educational resources:

 CFRS contribution to Massive Open Online Course by Global Campus of Human Rights: <u>Science as a Human Right</u> (October 2022)

Podcasts:

- Scientific Freedom and Responsibility in the 21st Century (6 episodes) (May 2023)
- <u>Nature Working Scientist Science Diversified (6 episodes)</u> (June 2021)
- Science in Times of Crisis (5 episodes) 1/12/22
- Science in Exile (6 episodes) 30/9/21

Blogs:

- Fighting disinformation with sunshine: promoting funding transparency in science 7/8/24
- Looting of the Sudan National Museum more is at stake than priceless ancient <u>treasures</u> 10/9/24
- The collapse of science: a scientist's personal account from Gaza 20/8/24
- Science at risk: a race against time to protect seeds and science in Sudan 12/8/24
- Putting science on the agenda for post-crisis recovery 14/3/24
- Science in times of crisis: lessons from Fukushima and WWII 20/2/24
- Crisis-ready science: a framework for proactive and resilient sector 19/2/24
- Assessing the support offered to displaced Ukrainian scientists 26/1/24
- <u>Converging and interdependent crises are amplifying the impacts of one another with</u> often devastating consequences 16/11/23
- Bridging the trust gap: scientific freedom and responsibility in Asia-Pacific 7/11/23
- Sudan at risk of losing a generation of scientific talents 2/10/23
- Surviving war, sustaining science: how Ukrainian research carries on 21/9/23
- <u>Safeguarding science in the wake of conflict</u> 12/9/22
- ISC and partners release report on the Ukraine Crisis, highlighting seven key recommendations for the international community to better support science systems affected by conflict 31/8/2
- Indigenous Environmental Defenders are critical for nature and for science, but face serious risk 9/8/23
- <u>Attacks on environmental scientists: implications for the free and responsible practice</u> of science 6/7/23
- UN International Day of Solidarity with Detained and Missing Staff Members CFRS and SAR call for release of Niloufar Bayani 25/3/23
- <u>Concern for science and research in Afghanistan following authorities' ban on women</u> <u>from higher education</u> 24/1/23
- <u>'No problem is too big' Combating discrimination in geospatial science</u> 10/1/23
- <u>Concern over ongoing legal proceedings against the Greek economist and statistician</u> <u>Andreas Georgiou</u> 19/12/22
- <u>The state of HIV/AIDS research in Africa: an interview with Dr. Joyce Nyoni for World</u> <u>AIDS Day</u> 1/12/22
- <u>5 key takeaways from NASEM's webinar: 'Censorship and the Right to Information</u> <u>during the Pandemic'</u> 19/10/22
- Halt the execution of Dr. Ahmadreza Djalali 9/5/22
- ISC joins Scholars at Risk 5/4/22
- International science organizations unite in support of at-risk, displaced and refugee scientists 21/4/22
- Science in Exile: supporting displaced, refugee and at-risk scientists 19/4/22
- Spotlight on Science in Exile 19/4/22
- A call to ISC Members: how to assist displaced Ukrainian scholars 11/4/22
- Ukrainian academics face exile, harassment and censorship in ongoing war 31/3/22
- The scientific knowledge being lost to conflict 1/12/21
- World Science Day for Peace and Development: supporting at-risk, displaced and refugee scientists 10/11/21
- ISC report highlights how researchers combat new threats to key human rights 10/12/21
- Support Dr. Ahmadreza Djalali to protect scientific freedom and responsibility 2/12/21
- <u>A new social contract must include genuine participation and partnership of</u>
 <u>Indigenous peoples in decision-making about research</u> 9/8/21

F Composition of project steering groups and expert bodies

- 1. Centre for Science Futures Advisory Council
- 2. CODES Steering Group
- 3. Future Africa Scoping Project Steering Committee
- 4. Future of Scientific Publishing Steering Group
- 5. Hazard Information Profiles Review Steering Group
- 6. ISC-UNEP Strategic Foresight for the Environment Expert Panel
- 7. ISC-UNDP Rethinking Human Development (Phase II)
- 8. Pacific Academy Establishment Group
- 9. Plastic Pollution Expert Group
- 10. Public Value of Science Expert Panel
- 11. Science Missions for Sustainability: Global Commission
- 12. Science Missions for Sustainability: Technical Advisory Group
- 13. Science-policy synergies for the Biological Weapons Convention Expert Group
- 14. Sendai Mid-term Review Expert Group
- 15. SIDS Liaison Committee
- 16. UN 2023 Water Conference Policy Brief Expert Group
- 17. 2023 Global Sustainable Development Report Review Working Group

1. Centre for Science Futures Advisory Council

- Maria Fernanda Espinosa, Former President of the United Nations General Assembly
- Jinghai Li, National Natural Science Foundation of China
- Sudip Parikh, American Association for the Advancement of Science
- Sarah De Rijcke, Leiden University
- Derrick Swartz, Nelson Mandela University
- Christina Yan Zhang, Metaverse Institute

2. CODES Steering Group

- Micheline Ayoub, Future Earth
- Catalin Marinescu, ITU
- Vanessa McBride, ISC
- Dirk Messner, German Environment Agency
- Reina Otsuka, UNDP
- Golestan Radwan, UNEP
- Philip Thigo, Office of the Deputy President of Kenya

3. Future Africa Scoping Project Steering Committee

- Isabella Aboderin, PARC, University of Bristol, UK
- Christian Acemah, Uganda National Academy of Sciences
- Ahmed Bawa, University of Johannesburg
- Jackie Kado, Network of African Academies
- Priscilla Kolibea Mante, Global Young Academy, Ghana
- Lisa Korsten, African Academy of Sciences
- Nokuthula Mchunu, African Open Science Platform

- Dorothy Ngila, National Research Foundation, South Africa
- Oladoyin Odubanjo, Nigerian Academy of Sciences
- Mavoarilala Claudine Ramiarison, Madagascar Ministry of Research
- Daya Reddy, University of Cape Town, South Africa (Chair)

4. Future of Scientific Publishing Steering Group

- Abrizah Abdullah, University of Malaya
- Subbiah Arunachalam, IISc
- Dominique Babini, CLACSO
- Ahmed Bawa, University of Johannesburg
- Geoffrey Boulton, University of Edinburgh
- Amy Brand, MIT Press
- Luke Drury, ALLEA
- Rupert Gatti, Trinity College, Cambridge
- Heather Joseph, SPARC
- Joy Owango, Training Centre in Communication
- Wang Qinglin, CAST

5. Hazard Information Profiles Review Steering Group (2023-2025)

- Virginia Murray (Chair), UK Health Security Agency
- Dina Abdelhakim, UNEP
- Nicholas Bishop, International Organization for Migration
- Bapon Fakhruddin, Green Climate Fund
- Justin Ginnetti, Red Cross Societies
- Tom De Groeve, EU Joint Research Centre
- Richard Hartshorn, University of Canterbury
- Andrea Hinwood, UNEP
- Simon Hodson, CODATA
- Wirya Kim, FAO
- Jenty Kirsch-Wood, UNDRR
- Osvaldo Luis Leal de Moraes, Federal University of Brazil
- Ohran Osmani, ITU
- Ed Pope, Insurance Development Forum

6. ISC-UNEP Strategic Foresight for the Environment

- Elham Ali Mohamed, NARSS
- Salvatore Aricò, International Science Council
- Ljubisa Bojic, University of Belgrade
- Henrik Carlsen, Stockholm Environment Institute
- Fang Lee Cooke, Monash University
- Ranjan Datta, Mount Royal University
- Debra Davidson, University of Alberta
- Peter Gluckman, International Science Council
- Edgar E. Gutiérrez-Espeleta, University of Costa Rica
- Andrea Hinwood, UNEP
- Gensuo Jiang, Chinese Academy of Sciences

- Nicholas King, Wilderness Foundation Africa
- Nadejda Komendantova, International Institute for Applied Systems Analysis
- Simone Lucatello, CONACYT
- Wilfred Lunga, Human Sciences Research Council
- Nyovani Madise, African Institute for Development Policy
- Diana Mangalagiu, University of Oxford
- Felix Moronta Barrios, ICGEB
- Michelle Mycoo, The University of the West Indies
- Wibool Piyawattanametha, King Mongkut's Institute of Technology Ladkrabang
- Soumya Swaminathan, M S Swaminathan Research Foundation
- Diana Ürge-Vorsatz, Central European University
- 7. ISC-UNDP Rethinking Human Development (Phase II)
- Pedro Conceição, UNDP
- Koen Decancq, University of Antwerp
- Marc Fleurbaey, Paris School of Economics
- Melissa Leach, Institute of Development Studies
- Elisa Reis, Federal University of Rio de Janeiro (UFRJ)
- Binyam Sisay Mendisu, The Africa Institute, Sharjah, UAE
- Yanchun Zhang, Victoria University

8. Pacific Academy Establishment Committee

- Teatulohi Matainaho (Co-Chair), Pacific Adventist University
- Collin Tukuitonga (Co-Chair), University of Auckland
- Vomaranda Joy Botleng, Janessa's Research and Consultancy Services
- Robert Karoro, Kiribati Climate Action Network
- Eric Katovai, Solomon Islands National University
- Sushil Kumar, University of the South Pacific
- Peseta Su'a Desmond Mene Lee Hang, National University of Samoa
- Salot Nasalo, University of the South Pacific
- Steven Ratuva, University of Canterbury
- Ora Renagi OL, Papua New Guinea University of Technology
- Catherine Ris, University of New Caledonia
- Merita Tuari'i, Puna Vai Mārama

9. Plastic Pollution Expert Group

- Ramia Al Bakain, The University of Jordan
- Stefano Aliani, SCOR and Institute Marine Science of National Research Council of Italy
- Kishore Boodhoo, University of Mauritius
- Ilaria Corsi, SCAR Plastic-AG and University of Siena
- Judith Gobin, The University of the West Indies, Dept. of Life Sciences
- Alex Godoy, Global Young Academy and Universidad del Desarrollo
- Anne Kahru, Estonian Academy of Sciences
- Christine Luscombe, Okinawa Institute of Science and Technology
- Adetoun Mustapha, Nigerian Institute of Medical Research and Lead City University
- Sarva Mangala Praveena, Universiti Putra Malaysia
- Noreen O'Meara, University of Surrey, UK

- Fani Sakellariadou, University of Piraeus
- Patrick Schröder, Chatham House
- Margaret Spring, US NAS committee Chair and Monterey Bay Aquarium
- Peng Wang, Chinese Academy of Sciences

10. Public Value of Science Expert Panel

- Felix Bast, Central University of Punjab
- Elodie Chabrol, Pint of Science
- Marta Entradas, University Institute of Lisbon
- Yvette d'Entremont, Influencer
- Tawana Kupe, University of Pretoria
- Robert Leopenies, Karlshochschule International University
- Genner Llanes-Ortiz, Bishop's University
- Jennifer Metcalfe, Econnect Communication
- Kamila Navarr, National University of Singapore
- Courtney Radsch, Center for Journalism and Liberty
- Andrew Revkin, Columbia University's Climate School
- Paul Richards, Australian Academy of Science
- Daniel Williams, Corpus Christi College, University of Cambridge

11. Science Missions for Sustainability – Global Commission

- Abdulsalam Al-Murshidi, Oman Investment Authority
- Salvatore Aricò, International Science Council
- Irina Bokova, ISC Patron; formerly UNESCO
- · James Cameron, Film director and philanthropist
- Helen Clark, Former Prime Minister of New Zealand
- Jeremy Farrar, Wellcome, UK
- Peter Gluckman, International Science Council
- Huadong Guo, CBAS
- Heide Hackmann, Future Africa
- Thomas Hughes-Hallett, Marshall Institute, London School of Economics
- Albert van Jaarsveld, IIASA
- Macharia Kamau, East Africa Community Facilitator on DRC
- Hiroshi Komiyama, STS Forum, Japan
- Maria Leptin, European Research Council
- Pamela Matson, Stanford University
- Naledi Pandor, Minister of International Relations, South Africa
- Martin Rees, Astronomer Royal, UK
- Johan Rockström, Potsdam Institute for Climate Impact Research
- Bernard Sabrier, Unigestion, Switzerland
- Ismail Serageldin, Bibliotheca Alexandrina
- Magdalena Skipper, Nature
- Izabella Teixeira, International Resource Panel, Brazil
- Yuan Tseh Lee, Academia Sinica, Taiwan
- Beatrice Weder di Mauro, CEPR
- Julie Wrigley, Global Futures Laboratory, USA

12. Science Missions for Sustainability – Technical Advisory Group

- Zakri Abdul Hamid, INGSA Science Advice Network, ASEAN
- Alan Bernstein, University of Oxford
- William Clark, Harvard University
- Ian Goldin, University of Oxford
- Maria Ivanova, Northeastern University
- Albert van Jaarsveld, IIASA
- Lorrae van Kerkhoff, Institute for Water Futures
- Pamela Matson, Stanford University
- Barend Mons, Leiden University
- Connie Nshemereirwe, Africa Science Leadership Programme
- Ingrin Petersson, Lund University

13. Science-policy synergies for the Biological Weapons Convention Expert Group

- Ali Asy, Animal Health Research Institute
- Laura Cochrane, Emergent BioSolutions
- Jonathan Forman, Pacific Northwest National Laboratory
- Levent Kenar, University of Health Sciences
- Zabta Khan Shinwari, Federal Urdu University
- Sandra Lopez-Verges, Gorgas Memorial Research Institute
- Irma Makalinao, University of the Philippines
- Shambhavi Naik, Takshashila Institution
- Otim Maxwell Onapa, Busitema University
- Sana Zakaria, RAND Europe

14. Sendai Mid-term Review Expert Group

- Kristiann Allen, INGSA
- Angela Bednarek, The Pew Charitable Trusts
- Charlotte Benson, Asian Development Bank
- Alonso Brenes, LA RED
- Maria Pilar Cornejo, Pacific International Center for Disaster Risk Reduction
- Oliver Costello, Bush Heritage Australia
- Susan Cutter, University of South Carolina and IRDR International Center of Excellence
- Bapon Fakhruddin, Green Climate Fund
- Victor Galaz, Stockholm Resilience Center
- Franziska Gaupp, Food Systems Economics Commission
- Satoru Nishikawa, Nagoya University
- Rathana Peou Norbert-Munns, FAO
- Roger Pulwarty, NOAA
- Aromar Revi, Indian Institute for Human Settlements
- Albert Salamanca, Stockholm Environment Institute Asia Center
- Pauline Scheelbeek, WHO Collaborating Centre, London School of Hygiene and Tropical Medicine
- Renato Solidum, Philippine Institute of Volcanology and Seismology

15. SIDS Liaison Committee

- Dania Bacardí Fernández, University of Medical Sciences in Havana
- Xavier Estico, NISTI
- Terrence Forrester, University of the West Indies
- Peter Gluckman, International Science Council
- Eric Katovai, Solomon Islands National University
- Teatulohi Matainaho, Pacific Adventist University
- Michelle Mycoo, University of the West Indies
- Vidushi Neergheen, University of Mauritius
- Salome Taufa, Pacific Islands Forum Secretariat
- Adelle Thomas, Natural Resources Defense Council, IPCC
- Mark Wuddivira, Caribbean Academy of Sciences and University of the West Indies

16. UN 2023 Water Conference Policy Brief Expert Group

- Ramia Al Bakain, University of Jordan
- Apostolos Apostolou, Bulgarian Academy of Sciences
- Samia Benabbas Kaghouche, Algerian Academy of Sciences and Technologies
- Christophe Cudennec, IAHS
- Shreya Chakraborty, IWMI
- Ovie Augustine Edegbene, Federal University of Health Sciences, Nigeria
- Lahcen El Youssfi, Ibn Tofail University
- Mehmet Emin Aydin, Necmettin Erbakan University
- Hugo Hidalgo León, University of Costa Rica
- Suzanne Hulscher, University of Twente
- Mahesh W. Jayaweera, University of Moratuwa
- Yunzhong Jiang, IWHR
- Shameen Jinadasa, University of Peradeniya, Sri Lanka
- Piet Kenabatho, University of Botswana
- Shabana Khan, Indian Research Academy
- Euloge Kossi Agbossou, Institut National de l'Eau, Benin
- Ismail Koyuncu, ITU
- Antonio Lo Porto, CNR-IRSA
- Pulane Mswela, Botswana Academy of Science
- Daniel Olago, University of Nairobi
- Heather O'Leary, IUAES
- Eduardo Planos Gutiérrez, Institute of Meteorology, Cuba
- Joao Porto de Albuquerque, University of Glasgow
- Jan Polcher, CNRS and World Climate Research Programme
- Paweł Rowiński, Polish Academy of Sciences
- Suad Sulaiman, Sudanese National Academy of Sciences
- Jonathan Tonkin, University of Canterbury
- Stella Tsani, University of Ioannina, Greece
- Frank Winde, IGU Water Sustainability Commission

1 2 3 4 5 6 7 8 9 APPENDICES

17. 2023 Global Sustainable Development Report Working Group

- Julius Atlhopheng, University of Botswana
- Kathryn Bowen, University of Melbourne
- Susan Clayton, College of Wooster
- Nicolas Duvoux, Université Paris 8
- Caroline Gevaert, University of Twente
- Quentin Grafton, The Australian National University
- Sherilee Herper (Chair), University of Alberta
- Gensuo Jia, Chinese Academy of Sciences
- Raphael Kaplinsky, Institute of Development Studies
- Monica Kerretts-Makau, Thunderbird's Center for Excellence for Africa
- Tonni A. Kurniawan, Xiamen University
- Shunsuke Managi, Kyushu University
- Michele Mycoo, University of the West Indies
- Ramón Pichs-Madruga, Cuban Academy of Sciences and IPCC
- Nico Schrijver, Leiden University
- Laura Zimmermann, University of Georgia

| Object of agreement | Parties | Scope | Entry into effect | Duration/ end year |
|--|--|---|------------------------|-----------------------|
| Global Research Programme on Inequality (GRIP) | International Science Council (ISC), University of Bergen | Agreement between the ISC and the University of Bergen about GRIP (formerly The Comparative Research Programme on Poverty [CROP]) for the period October 2019 to December 2021. | Sep-19 | 2021 |
| IAP–ISC cooperation framework | ISC, InterAcademy Partnership (IAP) | Memorandum of Understanding: Working towards strengthening cooperation and collaboration. To be reviewed every two years. | Nov-20 | 2022 |
| ISC–UNDRR partnership | ISC, UN Office for Disaster Risk Reduction (UNDRR) | UNDRR–ISC partnership agreement. Signed in 2019 for two years; renewed March 2021 until end of 2023. | Jun-19 | 2023 |
| World Data System (WDS) International Technology Office | ISC, University of Victoria, Ocean Networks Canada Society | Non-binding Memorandum of Understanding concerning collaboration to host the International Council for science (ICSU) WDS International Technology Office and its director and staff. Renewal in 2021 until 2024. | Apr-18 | 2024 |
| Urban Health and Wellbeing (UHWB) | ISC, International Society for Urban Health (ISUH), Institute of Urban Environment (IUE) at the Chinese Academy of Sciences | Memorandum of Understanding concerning the operation of the International Programme Office of UHWB. | Jun-23 Or May-24 | May-24 May-34 |

G Formal agreements and memoranda of understanding

| Object of agreement | Parties | Scope | Entry into effect | Duration/ end year |
|---|---|---|----------------------|-----------------------|
| Collaboration on implementing urban and territorial planning and policy for improved health and wellbeing | ISC, UN Human Settlements Programme and the IUE of the Chinese Academy of Sciences | Framework for collaboration between UN-Habitat, the ISC and the IUE. | Jun-19 | 2024 |
| Regional Focal Point (RFP) Latin America and the Caribbean (RFP- LAC) | ISC, Colombian Academy of Exact, Physical and Natural Sciences | Agreement setting out the terms and conditions for the establishment and support of the RFP-LAC, which will be hosted by the Colombian Academy of Exact, Physical and Natural Sciences. | 2021 | Dec-2024 |
| UN Decade of Ocean Science for Sustainable Development (2021–2030) | ISC, the Intergovernmental Oceanographic Commission (IOC) of UNESCO | Cooperation in the framework of the UN Decade of Ocean Science for Sustainable Development (2021–2030). Initial period of five years, renewed automatically. | Feb-20 | Indefinite |
| SciencesPo | ISC, SciencesPo | Memorandum of Understanding to facilitate and strengthen collaboration between the ISC and SciencesPo, particularly in relation to science diplomacy and academic freedom. | May-23 | May-25 |
| Committee on Freedom and Responsibility in Science (CFRS) | ISC, Ministry of Business, Innovation and Employment of New Zealand | Support to the ISC's work on freedom and responsibility in research through financial support for the CFRS. Five- year duration. | Jun-20 | 2025 |
| Sustainability in the Digital Age partnership | ISC, Sustainability in the Digital Age (SDA) | Non-binding agreement between SDA and the ISC on cooperation at the intersection of digital technologies and sustainability. | Oct-20 | 2025 |

| Object of agreement | Parties | Scope | Entry into effect | Duration/ end year |
|---|--|---|-------------------|-----------------------|
| Food and Agriculture Organization of the UN (FAO) | ISC, FAO | Letter of Intent to work together to strengthen science–policy interfaces in agri-food systems with the aim of supporting global progress towards the Sustainable Development Goals (SDGs). | Oct-2023 | Oct-2025 |
| African Open Science Platform | ISC, National Research Foundation South Africa | Memorandum of Agreement for the African Open Science Platform. Five-year duration. | 01-Dec- 20 | Dec-25 |
| WDS International Programme Office | ISC, Oak Ridge Institute at the University of Tennessee | Memorandum of Understanding on the hosting of the WDS International Programme Office at the Oak Ridge Institute. Five-year duration. | Apr-21 | Apr-26 |
| World Federation of Engineering Organizations (WFEO) | ISC, WFEO | Strengthen the partnership between the ISC and WFEO for the advancement of the SDGs and to seek enhanced impact through specific activities and deliverables in areas of mutual interest. | Apr-22 | Apr-26 |
| International Centre of Excellence (ICoE) in Taipei | ISC, Academy of Sciences in Taipei | Agreement on the Management of an Integrated Research on Disaster Risk (IRDR) ICoE. | Jul-24 | Dec-26 |
| United Nations University | ISC, United Nations University | Memorandum of Understanding on academic collaboration between the United Nations University and the ISC. Five-year duration. | 15-Sep- 23 | 2028 |
| Regional Focal Point Asia-Pacific (RFP-AP) | ISC, Australian Academy of Science (AAS) | Agreement setting out the terms and conditions for the establishment and support of the RFP-AP, hosted by the AAS. | Jul-23 | 2028 |
| World Health Organization (WHO) | ISC, WHO | Memorandum of Understanding to strengthen collaboration on research, development and innovation in health. | 14-Oct-22 | 2032 |

| Object of agreement | Parties | Scope | Entry into effect | Duration/ end year |
|--|---|--|----------------------|-----------------------|
| United Nations Environment Programme (UNEP) | ISC, UNEP | Memorandum of Understanding to mobilize scientific expertise, strengthen science–policy interfaces and transdisciplinary approaches to solving environmental problems. | 2022 | Indefinite |
| Integrated Research on Disaster Risk (IRDR) | ISC, IRDR, UNDRR, CAS (AIR), China Association for Science and Technology (CAST) | Letter of Cooperation: IRDR Phase II. | May-23 | 2033 |
| Scholars at Risk (SAR) | ISC, SAR | Partnership agreement for the ISC to join SAR as a Partner Network. | Jul-21 | indefinite |
| World Climate Research Programme (WCRP) | ISC (ICSU), World Meteorological Organization (WMO) and IOC | Agreement on co-sponsorship of WCRP. (Replaces agreement from 1980). | Jan-1993 | Indefinite |
| GCOS – not signed yet? | | | | |

H Regional Focal Point staff and governing bodies

Regional Focal Point for Asia and the Pacific

Secretariat

- Petra Lundgren, Director (departed November 2024)
- Aleta Johnston, Communications Manager
- Salote Austin, Oceania Programme Manager
- Nina Maher, Projects Officer
- Kunzang Choden, Asia Programme Manager

Advisory Council

- Chennupati Jagadish (Co-Chair), Australian Academy of Science (AAS)
- Pal Ahluwalia, University of the South Pacific
- Felix Bast, Central University of Punjab
- Gisela Concepcion, The Marine Science Institute, University of the Philippines
- Jia Gensuo, Global Change Research Center for East Asia (START-TEA)
- Yukio Himiyama, Emeritus Professor, Hokkaido University of Education
- Kathryn Robinson, Emeritus Professor, Australian National University

Regional Focal Point for Latin America and the Caribbean

Secretariat

- Helena Groot, Director, President,
- Carolina Santacruz-Perez, Senior Science Officer

Liaison Committee

- Ana Rada (Co-Chair), Universidad Mayor de San Andrés
- Luis Sobrevia (Co-Chair), Pontificia Universidad Católica de Chile
- Maria del Carmen Samayoa
- Graciela Díaz de Delgado, International Union of Crystallography (IUCr)
- Luisa Fernanda Echeverría-King, Universidad Simón Bolívar in Barranquilla, Colombia
- Dora-Luz Flores, Universidad Autónoma de Baja California (UABC)
- Germán Antonio Gutiérrez Dominguez, Universidad Nacional de Colombia (UNC)
- R. Daniel Peluffo, Universidad de la República, Uruguay
- Silvina Ponce Dawson, University of Barcelona, Argentina's National Scientific and Technical Research Council (CONICET), International Union of Pure and Applied Physics (IUPAP)
- Elisa Reis, Federal University of Rio de Janeiro
- Adelle Thomas, Climate Analytics

I Secretariat staff

The following staff and consultants have worked for the ISC during the period 2022–2024

Current staff

- AHN Yun-Kang, IT Officer
- ARICÒ Salvatore, CEO
- BAREKZAI Sarajuddin, Administrative Officer
- DE MARCHI Natacha, Senior Financial Officer
- GERONIMO Mayette, Financial Officer
- GUENNEC Alexandra, Senior HR officer
- GUILLIER Jane, Administrative Officer
- IVAN Gabriela, Communications Officer, Partnership and Membership Development
- JACOT DES COMBES Hélène, Project Manager
- LEPARMENTIER Eric, General Services Manager
- MCBRIDE Vanessa, Science Director
- MOORE Sarah, Operations Director
- NACACHE Léa, Communications Officer
- POPOVICI Anda, Science Officer
- SAMANDAR EWEIS Dureen, Science Officer
- STAVROU Vivi, Senior Science Officer, Executive Secretary Committee for Freedom and Responsibility in Science
- STEVANCE Anne-Sophie, Senior Science Officer, Head of the Global Policy Unit
- SUD Megha, Senior Science Officer
- THIEME Anne, Communications Officer, Membership Liaison
- TIGHE Olivia, Administrative Officer
- TSOY Zhenya, Senior Communications Officer and Acting Head of Communications
- WADDELL James, Science Officer, Political Affairs Liaison
- YLOSTALO-JOUBERT Miia, Senior Administrative Officer, PA to CEO

Staff departing during reporting period

- DE MARCHI Arno, Administrative Officer
- **DENIS Mathieu**, Senior Director, Head Centre for Science Futures
- HACKMANN Heide, CEO
- MESTON Alison, Communications Director
- PAULAVETS Katsia, Senior Science Officer
- SAYER Lizzie, Senior Communications Officer

Interns

- AGDESTEIN Elise
- AMREIN Alayna
- CLAUSEN Sarah
- FLORES ARICÒ Berta
- GALLOWAY Kathryn
- LIU Dong
- MEUNIER Marine

- RAWSHANGAR Bahram
- SCANLAN Genevieve
- SOMMERS Holly
- TURRISI Alessandra
- WADDELL James

Committee for Freedom and Responsibility Special Advisor

- VAUGHAN Frances
- KESSEL Gustav (current)

Special appointments

- BRIDGEWATER Peter
- CASTLE David

Consultants

- BIXLER Jane, Mid-term Meeting of Members in May 2023
- BUISSE Erin, Science in Times of Crisis
- ELLIOTT Tracey, Research Assessment and ISC Fellowship
- GILLIGAN Aidan, Public Relations
- GOVEAS Jenice, The Future of Scientific Publishing
- HASSAN Ines, COVID-19 Outcome Scenarios
- KAPLAN David, Social sciences, Open Science
- KOLEY Moumita, The Future of Scientific Publishing
- KLUPPELBERG Raina, COVID-19 Outcome Scenarios
- MOSER Susi, Transformations to Sustainability programme
- **PERKINS Nick**, Public Value of Science, Unlocking Science, COVID-19 and implications for national and global policy and the Centre for Science Futures
- ROCK Anthony, ISC Representative to the UN System
- SCOTT Nicholas, Senior Digital Consultant
- SEAG Morgan, Senior ISC Representative to the UN System
- SPARKS Riley, Journalist and Science Writer
- TALON SAMPIERI Sarah, COVID-19 Outcome Scenarios
- TWADDLE Graham, Knowledge management

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