

## **Challenges and Opportunities for the International Council for Science**

### **A response to the 2014 External Review (Updated January 2016)**

#### **Introduction**

The International Council for Science (ICSU) was reviewed in 2014. Following a decision made during the Council's 31<sup>st</sup> General Assembly (31 August to 3 September 2014, Auckland, New Zealand), the Executive Board (EB) has formulated a response to the review<sup>0</sup>.

The response to the review presented in this document has been formulated on the basis of discussions held during a meeting of ICSU Officers in January 2015, ideas exchanged during the April 2015 meeting of the Committee on Scientific Planning and Review (CSPR), and discussions of the EB, also in April 2015. It draws on ideas raised by the Council's membership during the Auckland General Assembly, as well as the outcomes of a Unions' Survey, conducted by the CSPR in 2014. During June 2015 the EB solicited feedback on its proposals from previous ICSU leadership (Presidents and Vice-Presidents, as well as Executive Directors), and between July and October 2015 ICSU members were invited to submit their feedback.

The 2014 Review Panel issued five key recommendations, which incorporate a longer list of specific concerns and some detailed suggestions for future action. The EB has chosen to respond to the review by doing two things:

- Analysing the full set of recommendations, concerns and suggestions, as well as the broader narrative in which they are embedded, to identify a clearly defined **set of key challenges** that ICSU must confront as it moves into the future. These are presented in **Section A** below.
- Identifying a **set of concrete actions** that address these challenges and that ICSU is in a position to launch and, as appropriate, implement before the 2017 ICSU General Assembly. These are described in **Section B** below.

Support for the way forward from ICSU's membership marks a key turning point in the Council's future. The review called for a revitalisation of the Council's stature and relevance in the global scientific landscape. Our response to that call is intended to build on ICSU's current portfolio of activities (see Appendix 2). It will shape the further development of those activities, as well as the design and implementation of new ones, in the years ahead. It will establish a basis for our next Strategic Plan and

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<sup>0</sup> The review report is available on <http://www.icsu.org/publications/reports-and-reviews/external-review-of-icsu>. Its five key recommendations, all of which are addressed in the Executive Board's response, are provided in Appendix 1.

influence how we organise ourselves for its successful delivery. Most importantly, our response will define ICSU's position as *the* premier organisation mobilising and supporting excellence in integrated, international scientific effort to help solve the most pressing global problems facing societies today and tomorrow.

## **A. Challenges for a relevant and dynamic International Council for Science**

In the EB's reading of the review, there are seven key challenges that ICSU must confront if it is to be the relevant and dynamic organisation the Review Panel foresees. These challenges cover issues of substance and organisational development. They assume a longer-term perspective, serving as 'leitmotifs' in the future development of the organisation. The challenges urge ICSU to:

### **1. Become the truly global voice of science**

Scientific knowledge is an enabling power, which can and must contribute to solving the complex and converging global problems now facing all societies. This calls for an increase in joint scientific efforts at a global scale. And it necessitates the coordinated articulation of – and support for – the focus, nature and needs of such efforts.

To become the global voice of science, ICSU must build a more inclusive membership base, covering all scientific disciplines, geographic regions and sectors of scientific practice. It must ensure that a rich diversity of scientific voices is effectively represented in ICSU activities and leadership structures, particularly those of early career scientists, of women scientists, as well as scientists from traditionally under-represented regions. It must drive alliances and closer structural linkages, with other international scientific organisations. And it must work to overcome global knowledge divides through the development of research and related capacities, particularly in the least developed countries of the world.

### **2. Promote transformative, solutions-oriented approaches to the production and use of scientific knowledge**

New, and more effective ways of infusing scientific knowledge into policy and practice are required if science is to contribute more effectively to real world problem solving and enable social transformations to sustainability. Working with society in the co-design and co-production of research offers new possibilities in this regard. As championed by Future Earth, this 'transdisciplinary' approach builds on integrated, interdisciplinary traditions to advance scientific excellence and relevance through closer engagement with non-academic stakeholders: decision makers, policy shapers, practitioners, civil society and private sector representatives become knowledge partners in the framing of research agendas, and in the production and use of knowledge. Such partnerships operate in open, networked knowledge arenas that facilitate collaborative learning and joint problem solving between researchers and the so-called "users" of research.

ICSU continues to promote a full range of scientific approaches, including fundamental research. At the same time, and in order to strengthen the science-policy-practice interface, ICSU will work to promote excellence through societal engagement in international research efforts. In this regard the Council must promote a shared understanding of the challenges and opportunities that transdisciplinary approaches entail, and ensure that they are appropriately monitored and advanced in existing and future flagship activities.

### **3. Gain wider recognition as an authoritative, trusted policy advisor**

Trusted science advice to policy is a cornerstone of evidence-informed policy making. Robust and globally coordinated advisory work is necessary if science is to have influence, particular on the formulation and implementation of key regional and international policy frameworks – such as the Post-2015 Development Agenda and 2015-2030 Sendai Framework for Disaster Risk Reduction. For ICSU, the role of policy advisor also entails working in the policy for science arena. Here the challenge is to understand – and advocate for – the innovations in national, regional and international research systems that are necessary if science is to be supported in meeting the demands society now places on it.

ICSU must exploit its leadership role within the United Nations major groups system, as well as its unique membership base, extended networks of expertise and partnerships, to more consistently and effectively produce and disseminate timely policy advice, focusing on global science-for-policy as well as policy-for-science priorities and processes.

### **4. Strengthen outreach, including public engagement with science**

The quality, novelty and relevance of the global scientific enterprise depend, in important ways, on maintaining productive, open relations between science and society. Such relations require, in their turn, effective science communication and media outreach, science education, as well as an understanding by scientists and science policy makers, of the many ways in which the public thinks about, understands and chooses to use scientific knowledge.

For ICSU to have impact in this field, it must significantly enhance its profile and visibility within and beyond the global scientific community. It must develop targeted, externally oriented communications strategies, build trusted relations with the media, and work proactively with its members to initiate and support innovative outreach and engagement mechanisms.

### **5. Pursue a step-change in resource mobilisation for international science**

The costs of international science collaboration have traditionally been carried by national research funding agencies. In the face of urgent global challenges, increased support for such collaboration is essential. This will require closer alignment between national, regional and international agendas and associated funding priorities, as well as the further development of new, multilateral funding initiatives. It will also necessitate new funding alliances, such as those

between national funders and development aid agencies. And it will mean securing new sources of support, including from foundations, philanthropy and the private sector.

For ICSU this will mean strengthening its role in convening forums of diverse funders and working to influence their priorities and practices. It will also mean developing a dedicated fundraising strategy and associated campaign for the organisation and its flagship activities.

## **6. Maintain transparent, unambiguous governance structures and an engaged membership base**

ICSU draws on its members for its strength, its legitimacy and credibility. The diversity of its membership base – which brings together international scientific unions or associations and national scientific organisations (academies or research councils) – makes the Council unique in the landscape of international scientific organisations. An engaged and supportive membership is fundamental to the success of the organisation. So is the transparency and clarity of the way in which it is governed.

These must remain fundamental tenets of ICSU's mode of operation.

## **7. Strengthen the effectiveness of the Secretariat and Regional Offices**

Rising to the challenges posed by the external review will depend in important ways on ICSU's Paris-based Secretariat and its Regional Offices having in place necessary leadership, communications, project management and support capacities, as well as robust partnership networks. To support ICSU's role as the global voice of science, effective interactions between the Paris-based Secretariat and Regional Offices – and synergies between their activities – must be guaranteed. So must effective working relations with the International Programme/Project Offices (IPOs) of ICSU-co-sponsored programmes, international committees and networks.

ICSU must continue to give priority to the further professionalization and resourceful development of these support and coordination structures.

## **B. Responding to the challenges**

Within the above framework of key challenges, the EB has committed to undertaking the concrete actions presented in the table below.

Unless otherwise specified, the proposed actions will be resourced from a fund of just over €200.000 specifically set aside in the 2015 budget for initiatives designed in response to the 2014 External Review. In fulfilling these tasks the EB will seek effective ways to engage ICSU members. It may request advisory input from the CSPR and, where necessary, appoint *ad hoc* Working Groups, which would include relevant expertise from within and beyond the EB itself. Implementation will be supported by ICSU staff, including from the Regional Offices, and progress will be reported to members on a regular basis.

<b>Action</b>	<b>Targeted Timeframe</b>
<b>Articulating an inspiring vision and mission</b>	
<p>1. As part of the 2016 strategic planning process, develop and communicate new vision and mission statements, which can be submitted to ICSU's membership for endorsement. If endorsed, propose necessary changes to the ICSU Statutes in order that they reflect the approved statements.</p> <p><i>(Addressing Challenges A1, A2, A3, A4 and A5)</i></p>	<p>By end 2016, with proposed changes to the Statutes made in time for the 32<sup>nd</sup> ICSU General Assembly to consider these</p>
<b>Building an expanded, inclusive membership base</b>	
<p>2. Social, behavioural, economic and human sciences: Establish a joint Working Group with the International Social Science Council (ISSC), to develop a common position on future options for closer institutional alignment between and, possibly, amalgamation of the two organisations. Outcomes of this work – which should include recommendations about engaging with international organisations representing the human sciences – to be submitted to ICSU and ISSC membership for debate and decision making.</p> <p><i>(Addressing Challenges A1, A2 and A3)</i></p>	<p>Submission to ICSU and ISSC membership by end 2016</p>
<p>3. Other fields of science, including engineering, computer, health and medical sciences: Scan the international scientific landscape in order to identify relevant scientific networks, unions/associations and organisations, and develop a strategy for engaging them as potential new members. In the case of engineering sciences, the strategy should include recommendations about ICSU's relationship with international organisations such as the World Federation of Engineering Organisations (WFEO) and the International Council of Academies of Engineering and Technological Sciences (CAETS).</p> <p><i>(Addressing Challenges A1, A2 and A3)</i></p>	<p>Strategy to be in place by end 2016</p>
<p>4. Broader scientific representation: Identify key contacts in regional and/or global networks of Institutes for Advanced Study, Science and Technology Observatories, and University Associations, requesting their advice and support for drawing such bodies into ICSU as possible Associate Members.</p> <p><i>(Addressing Challenges A1 and A3)</i></p>	<p>Advice to be available by end 2016 (for further deliberation by EB)</p>

<p>5. Regional coverage: Following the (2014-2016) reviews of all three Regional Offices, and based on the advice of the CSPR, evaluate ICSU's overall regional strategy. This should include consideration of strengthening the role of Regional Offices, and working with the European Group of ICSU members, to develop active regional networks and promote liaison with other regional bodies, including affiliated regional networks of the InterAcademy Panel (<i>e.g.</i>, the Network of African Science Academies (NASAC), the InterAmerican Network of Academies of Sciences (IANAS), etc.), as well as Regional Offices of The World Academy of Sciences (TWAS) and of UNESCO.</p> <p><i>(Addressing Challenges A1 and A3)</i></p>	<p>Evaluation to be completed by end 2016</p>
<p>6. Private sector representation: Identify and invite key individuals who work in the private sector and have strong links with, or interests in, science to join a Working Group to develop a strategy for ICSU's engagement with the private sector, and consider appropriate ways of enabling ICSU membership of industrial associations and/or individual companies.</p> <p><i>(Addressing Challenges A1, A2 and A3)</i></p>	<p>Establish working group by mid-2016</p>
<p>7. As a basis for Actions 2 to 6 outlined above, carefully review and where necessary make recommendations regarding ICSU's membership structure; this should include consideration of the pros and cons of admitting more than one (national) organisation per country, of making it possible for individual scientists to join ICSU as "Affiliates", and of establishing new membership categories (<i>e.g.</i>, "Industrial Associates"). Recommendations to be submitted to the membership for approval.</p> <p><i>(Addressing Challenge A1)</i></p>	<p>In time for the 32<sup>nd</sup> ICSU General Assembly to consider these recommendations and related changes to the Statutes</p>
<p><b>Supporting early career scientists and capacity development</b></p>	
<p>8. Engage the Global Young Academy (GYA), groups of Young Academies, and other international networks of Early Career Scientists in the development of an early career science strategy<sup>0</sup> for the organisation.</p> <p><i>(Addressing Challenges A1, A3 and A4)</i></p>	<p>Strategy to be in place by mid-2016</p>

<sup>0</sup> This strategy should build on a draft prepared by Professor Kimberly Nicholas, who chaired the Early Career Scientists' Panel during the 31<sup>st</sup> General Assembly.

<p>9. Raise support to promote research capacity development – particularly in low-income countries – as a cross cutting priority in all ICSU’s activities. As part of this, submit a funding proposal to the Swedish International Development Agency (Sida) to launch a new five-year programme of global change research training and support for early career scientists in Africa. This initiative has been designed and will be implemented with the Regional Office for Africa, as well as key partners at the regional and global level, including the Network of African Science Academies and the ISSC.</p> <p><i>(Addressing Challenges A1, A2 and A5)</i></p>	<p>Proposal by end of 2015</p>
<p>10. Work with the ISSC on securing resources for a second phase (2016/17-2018/19) of the ICSU- ISSC-Future Earth Early Career Scientists’ Conferences.</p> <p><i>(Addressing Challenges A1, A2, A3 and A5)</i></p>	<p>Proposal to be submitted by end 2015</p>
<p><b>Promoting gender equality and sensitivity in international research</b></p>	
<p>11. Request GenderInSITE (the Gender in Science, Innovation, Technology and Engineering Campaign)<sup>0</sup> to develop a gender policy – including best practice guidelines – for the functioning of international scientific organisations like ICSU and the ISSC, including for international research programming and management activities. Advice and input will be sought from ICSU’s Committee on Freedom and Responsibility in the Conduct of Science (CFRS).</p> <p><i>(Addressing Challenges A1, A2 and A3)</i></p>	<p>Requested task negotiated by end 2015, with advisory report expected by end 2016</p>
<p><b>Promoting transformative, solutions-oriented research approaches</b></p>	
<p>12. Partner with the ISSC, START and the Belmont Forum to support a series of national and regional transdisciplinarity (TD) training events, and foster a global community of TD practice. Support for this action has been built into ICSU’s five-year proposal to Sida for global change research training and support (see Action 9 above).</p> <p><i>(Addressing Challenges A2 and A5)</i></p>	<p>Ongoing</p>

<sup>0</sup> GenderInSITE is organized by the Gender Advisory Board, United Nations Commission on Science and Technology for Development, the Organization for Women in Science for the Developing World (OWSD), and TWAS, with funding from Sida.

<p>13. Explore interests of members and partners such as UNESCO in developing collaborative activities aimed at identifying and addressing the challenges that transformative, solutions-oriented research approaches pose for national, regional and international systems of scientific training, funding, monitoring and evaluation.</p> <p><i>(Addressing Challenges A2 and A4)</i></p>	<p>Based on interest, proposed action to be considered in 2016.</p>
<p><b>Building global policy partnerships for science</b></p>	
<p>14. Convene a series of annual ‘Science International’ meetings, bringing together the leadership of ICSU, the InterAcademy Partnership, the ISSC and TWAS. Each meeting will focus on a contemporary science and technology policy challenge (with the first in the series to focus on the issue of open data in a big data world). A small group of relevant experts would be appointed by the organisations to prepare an international policy communiqué for joint debate and publication. An early meeting of Science International should give consideration to the inclusion of other international organisations, notably the World Federation of Engineering Organisations (WFEO) and/or the International Council of Academies of Engineering and Technological Sciences (CAETS), the International Council for Philosophy and Humanistic Studies (CIPSH) and UNESCO.</p> <p><i>(Addressing Challenges A1 and A3)</i></p>	<p>First meeting held in December 2015</p>
<p><b>Strengthening the voice of science in international policy frameworks</b></p>	
<p>15. Work with Regional Offices and relevant IPOs to strengthen ICSU’s role in securing and coordinating the input of its members, co-sponsored programmes, international scientific committees and networks (<i>i.e.</i> Interdisciplinary Bodies) in the preparation of statements, contributions to assessment reports, and scientific briefings for key regional and international policy processes, including those on sustainable development, disaster risk reduction, urbanisation and climate change.</p> <p><i>(Addressing Challenges A3 and A6)</i></p>	<p>Ongoing</p>

<p>16. Support the development of the International Network for Government Science Advice (INGSA) as a legacy of the August 2014 Auckland Conference and secure ICSU's role and visibility as the network's parent validating body. Contribute to shaping a dynamic profile of activities (including capacity development) for INGSA and work with the network to increase ICSU's contacts and influence with governments.</p> <p><i>(Addressing Challenge A3)</i></p>	<p>Ongoing</p>
<p><b>Increasing visibility, outreach and engagement</b></p>	
<p>17. Implement the EB-approved 2015-2016 communications work plan, essential elements of which include:</p> <ul style="list-style-type: none"> <li>Rebranding and new logo options</li> <li>A redesigned website</li> <li>New corporate presentation materials</li> <li>A reviewed newsletter (format, frequency and distribution)</li> </ul> <p><i>(Addressing Challenges A1, A4, A5 and A6)</i></p>	<p>Work plan to be implemented by mid-2016</p>
<p>18. Identify and engage 'media-savvy' scientists and other communications experts to join an ICSU Working Group tasked to develop a longer-term communications and outreach strategy for the organisation. Such a strategy should include actions aimed at reaching carefully targeted audiences, including opinion shapers and policy makers; it should clearly address the role of social media, new technologies and associated cultural trends in securing the success of ICSU's outreach work.</p> <p><i>(Addressing Challenges A4 and A5)</i></p>	<p>Strategy to be in place by end 2016</p>
<p>19. Redesign the ICSU grants programme in order to provide three multi-year grants (each of €100.000 <i>per annum</i>) for international, interdisciplinary, membership-led public outreach and science education initiatives related to scientific fields/issues of topical importance. Groups of Scientific Unions would be expected to lead such initiatives and would be encouraged to collaborate with national members, as well as ICSU co-sponsored programmes, international committees and networks.</p> <p><i>(Addressing Challenges A4, A5 and A6)</i></p>	<p>Applications for the new scheme to be invited in 2016</p>

<p>20. Establish an <i>Alumni</i> of ICSU Fellows, for scientists who have served the Council on any of its committees and on their retirement from active involvement. Fellows would serve as ambassadors for ICSU, impacting positively on the Council's reach and visibility.</p> <p><i>(Addressing Challenges A4 and A6)</i></p>	<p>To be launched by mid-2016</p>
<p>21. Identify high-profile, external public, business and scientific events – such as the World Economic Forum – and ensure high-profile ICSU participation in them.</p> <p><i>(Addressing Challenge A4)</i></p>	<p>Ongoing</p>
<p>22. Investigate opportunities for EB and other governance meetings to be held in different locations, to be hosted by ICSU members or to coincide with meetings of ICSU's Regional Committees.</p> <p><i>(Addressing Challenge A1 and A6)</i></p>	<p>Starting in 2016</p>
<p><b>Increasing resources</b></p>	
<p>23. Establish a Fundraising Working Group to advise the Secretariat on resource mobilisation actions for ICSU flagship activities (existing and new), as well as core organisational support. The group should comprise a small group of EB members and include a select number of invited experts/advisors, including, for <i>e.g.</i>, influential scientists and previous heads of national funding agencies..</p> <p><i>(Addressing Challenge A5)</i></p>	<p>Working Group to be established by end 2015</p>
<p>24. Convene Soweto II as a follow-up to the meeting of global change research funders held in Soweto, South Africa, in 2014; this meeting will include national funding agencies and donor aid agencies and should be convened as part of the Sida-funded programme of global change research training and support (see Action 9 above).</p> <p><i>(Addressing Challenge A5)</i></p>	<p>Meeting to take place by end 2016</p>

<b>Increasing Secretariat and Regional Office support</b>	
<p>25. As indicated in Action 5 above, an evaluation of ICSU's overall regional strategy will be undertaken once the reviews of all three Regional Offices have been completed. Such an evaluation will include consideration of the organisational development and capacity needs of Regional Offices, as well as practices for more effective collaboration between them and the Paris-based Secretariat.</p> <p><i>(Addressing Challenges A1 and A7)</i></p>	<p>Evaluation to be completed by end 2016</p>
<p>26. Depending on the outcomes of a new resource mobilisation plan of action (see Action 23 above), give priority to enhancing communications capacity within the Secretariat.</p> <p><i>(Addressing Challenge A7)</i></p>	<p>As possible</p>
<p>27. Issue an annual call to national members for the 'secondment' of staff to work with ICSU and its Regional Offices on the design and implementation of specific activities. Secondment arrangements should be subject to national labour laws and need not involve the physical presence of staff at ICSU or one of its Regional Offices.</p> <p><i>(Addressing Challenges A6 and A7)</i></p>	<p>Starting in 2016</p>
<p>28. Implement results-based management (RBM) training for all staff (Paris and Regional Offices), and develop impact-oriented approaches to activity planning, monitoring and reporting.</p> <p><i>(Addressing Challenge A7)</i></p>	<p>Training by end 2015; implementation of RBM approaches starting in 2016</p>

## Conclusion

The 2014 external review provided little guidance on the substantive directions ICSU might pursue in the years to come, noting simply a range of important issues that could be considered, from public health and societal inequalities to science education and innovation for sustainability. The review urged the Council to restrict its focus to a limited number of flagship initiatives, and Future Earth was held up as a model of the nature and level of ambition such flagships should entail.

These are issues that the EB will address in the development of ICSU's next Strategic Plan, to be adopted by the Council's membership during its 2017 General Assembly. Responsibility for the preparation of the 2018-2022 Strategic Plan will lie, in the first instance, with the CSPR and will involve consultations aimed at securing the ideas and insights of ICSU members and key partners. In addition to futures exploration, analysis and feedback, the strategic planning process will be shaped by the challenges and concrete actions presented in this document. It will also build on the outcomes of reviews of specific ICSU activities, including the current reviews of the Scientific Committee on Oceanic Research (SCOR) and the Scientific Committee on Antarctic Research (SCAR), as well as the forthcoming review of the Integrated Research on Disaster Risk (IRDR) programme. And, as suggested in the 2014 Review Report, ICSU's new Strategic Plan will be impact-oriented and accompanied by a concrete implementation plan.

## Appendix 1

### Five key recommendations of the 2014 External Review of ICSU

- I. Adopt a vision and have ICSU leaders promote it, a vision that others can be inspired by and rally to.
- II. Resolve the ambiguities in its relations with other global institutions of Science, *i.e.* clarify the manner in which it cooperates or competes with the other institutions of science on a global scale, specifically Global Network of Science Academies (IAP) and Inter-Academy Council (IAC), the Global Research Council (GRC) as well as The World Academy of Sciences (TWAS) and World Academy of Art and Science (WAAS).
- III. Secure the funding to support the programs that will involve its membership, engage its international partners and implement its vision.
- IV. Resolve outstanding issues (which are described in what follows) in the current governance of ICSU so that it can truly speak for its whole membership and can count on that membership to be thoroughly engaged in the program that its leadership articulates.
- V. Specifically address the needs of the ICSU Regional Offices (ROs) so that they truly become a major part of the ICSU family.

## Appendix 2

### International Council for Science: Overview of main activities

#### International research coordination and collaboration

Working in collaboration with partner organisations, including UN agencies, ICSU promotes integrated, international research through a range of flagship research programmes, as well as international scientific committees and networks. These include:

#### International research programmes

Future Earth

<http://www.futureearth.org/>

Co-sponsored by ICSU, ISSC, Belmont Forum, SDSN, UNESCO, UNEP, UNU, WMO

International Geosphere-Biosphere Programme (IGBP)

<http://www.igbp.net/>

Sponsored by ICSU

World Climate Research Programme (WCRP)

<http://wcrp-climate.org/>

Co-sponsored by ICSU, WMO, IOC

Ecosystem Change and Society (PECS)

<http://www.pecs-science.org/>

Co-sponsored by ICSU, UNESCO

Integrated Research on Disaster Risk (IRDR)

<http://www.irdrinternational.org/>

Co-sponsored by ICSU, ISSC, UNISDR

Health and Wellbeing in the Changing Urban Environment

<http://www.icsu.org/what-we-do/interdisciplinary-bodies/health-and-wellbeing-in-the-changing-urban-environment>

Co-sponsored by ICSU, UNU, IAMP

#### International scientific committees and networks

Space Research (COSPAR)

<https://cosparhq.cnes.fr/>

Antarctic Research (SCAR)

<http://www.scar.org/>

Oceanic Research (SCOR)

<http://www.scor-int.org/>

Solar-Terrestrial Physics (SCOSTEP)

<http://www.yorku.ca/scostep/>

Global Climate Observing System (GCOS)

<http://www.wmo.int/pages/prog/gcos/index.php>

Co-sponsored by ICSU, WMO, IOC, UNEP

Global Ocean Observing System (GOOS)

<http://www.ioc-goos.org/>

Co-sponsored by ICSU, IOC, WMO, UNEP

Global Earth Observing System of Systems (GEOSS)

<http://www.earthobservations.org/geoss.php>

Data for Science and Technology (CODATA)

<http://www.codata.org/>

World Data Systems (WDS)

<http://www.icsu-wds.org/>

Network for the availability of Scientific Publications (INASP)

<http://www.inasp.info/en/>

## **Science for Policy and Policy for Science**

As the primary coordinator of the international science and technology community within the UN Major Groups system, ICSU plays an active role in linking science to policy. This work is done primarily in the context of international policy frameworks, including those on sustainable development, disaster risk reduction, urbanisation and climate change.

ICSU has established a new global network of science advisors to national governments, which works under the leadership of Sir Peter Gluckman, the Chief Science Advisor to the Prime Minister of New Zealand.

International Network for Government Science Advice (INGSA),

<http://www.globalscienceadvice.org/>

ICSU is also an active partner in the Belmont Forum, an international forum of global change research funders.

<http://belmontforum.org/>

## Universality of Science

ICSU's Committee on Freedom and Responsibility in the Conduct of Science (CFRS) serves as the guardian of the Council's Principle of Universality of Science. Adherence to this principle is a condition of membership in the Council. The CFRS raises international awareness about a wide range of aspects related to the freedom and responsibility of science, and it also considers cases of individual scientists whose right to free movement, to freely associate and to communicate is infringed. <http://www.icsu.org/freedom-responsibility>