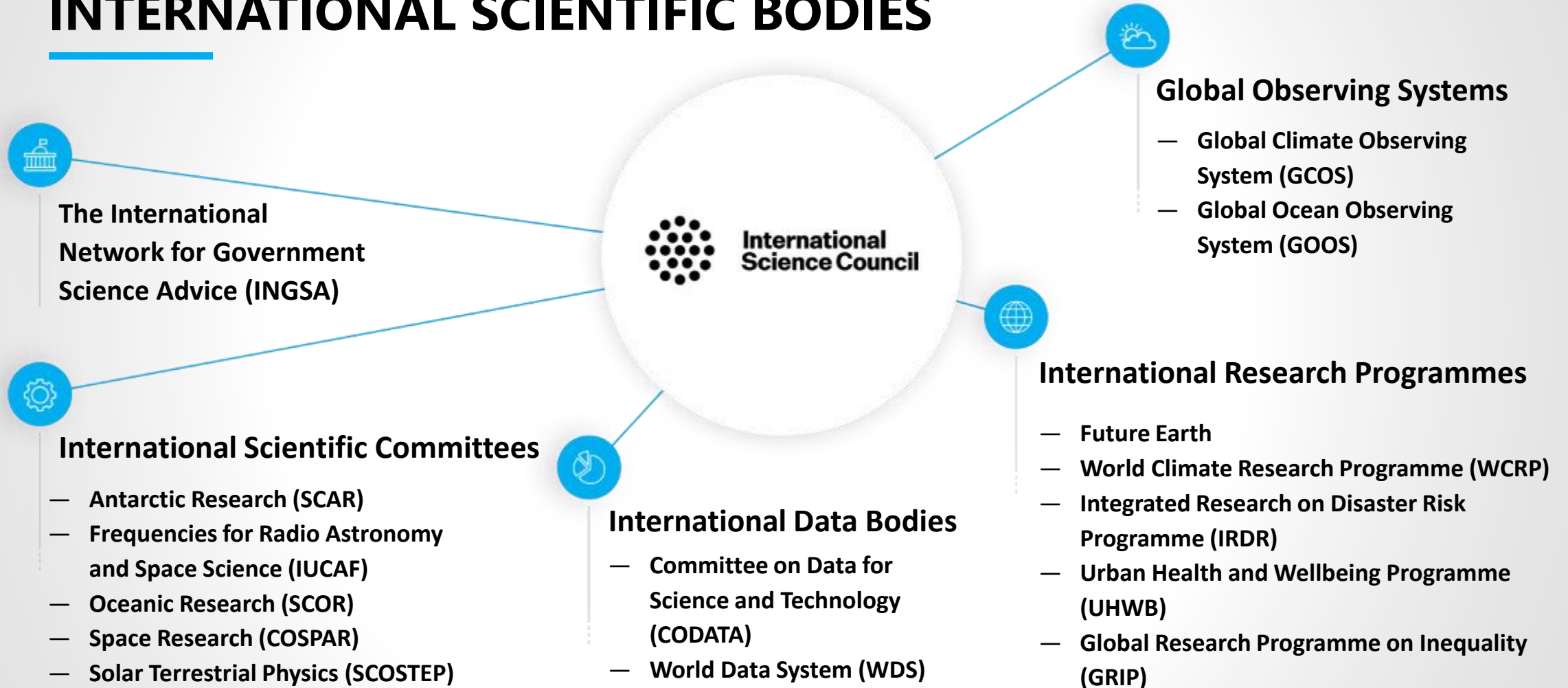


ISC SPONSORED AND AFFILIATED INTERNATIONAL SCIENTIFIC BODIES





COSPAR BRIEFING

Jean-Claude Worms
COSPAR Executive Director

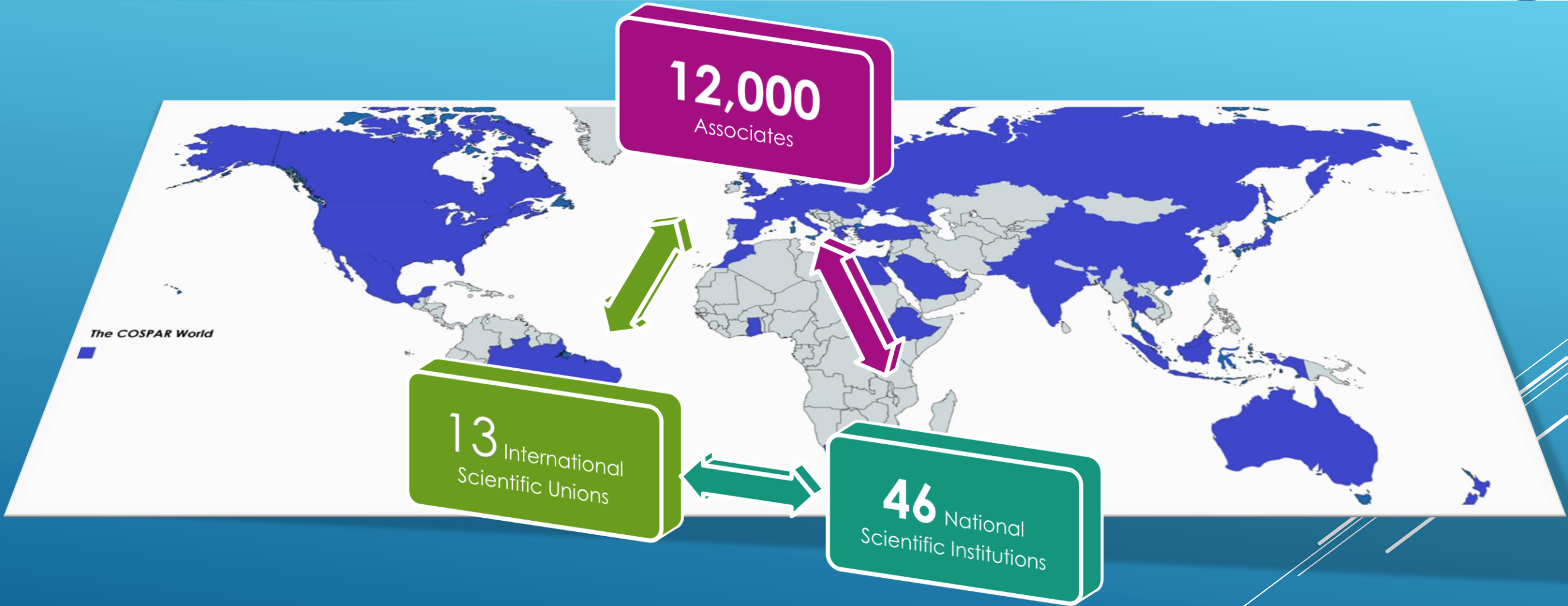
Represented by Aaron JANOFSKY
COSPAR Associate Director



CREATED AT THE DAWN OF
THE SPACE AGE TO OFFER
A **NEUTRAL FORUM** FOR
SPACE SCIENTISTS WORLD-
WIDE

- ▶ New President 2022-2026: Professor Pascale EHRENFREUND (Austria)
- ▶ New Strategy
 - ▶ Strategic Plan initiated under previous Chair
 - ▶ Covered the period 2019-2023 (98% complete)
 - ▶ New strategic planning exercise underway







- ▶ 8 Scientific Commissions covering all space research disciplines
- ▶ 12 Topical Panels, e.g, Planetary Protection, Capacity Building, SSH or Education
- ▶ 8 Task Groups, incl. the latest one on Diversity (IDEA)
- ▶ White Papers and Roadmaps

SPANNING THE WHOLE SPACE SCIENCE SPECTRUM

COSPAR and the United Nations

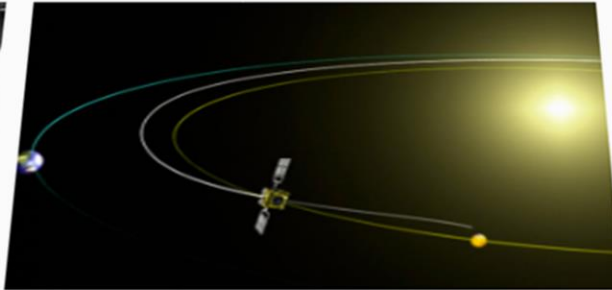
The United Nations Office for Outer Space Affairs (UNOOSA) works to help all countries, especially developing countries, access and leverage the benefits of space to accelerate sustainable development through a variety of activities that cover all aspects related to space, from space law to space applications. UNOOSA provides the Secretariat services to the UN Committee on the Peaceful Uses of Outer Space (COPUOS) and its two Subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee. Since its establishment in 1959, COPUOS has been serving as a focal point for international cooperation in the peaceful exploration and use of outer space, maintaining close contacts with governmental and non-governmental organizations concerned with outer space activities. Today, COPUOS has 102 Member States and 45 Observer Organizations (www.unoosa.org/oosa/en/ourwork/copuos/members/evolution.html).

COSPAR was the first organization to be granted an observer status in COPUOS in 1962, and it has worked with UNCOUOS and UNOOSA since then on a variety of topics of joint interest to both organizations, covered under a Memorandum of Understanding.

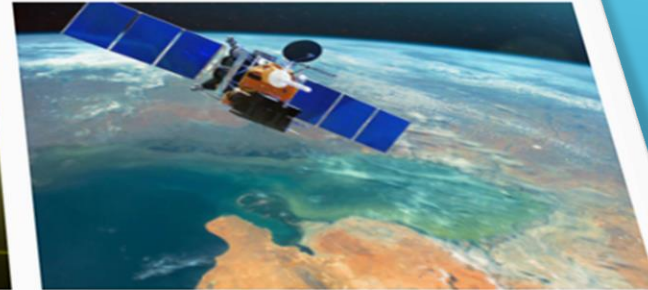
COSPAR resources and activities linked to the United Nations can be found under the links below. Professor Hermann Opgenoorth, Vice-Chair of our Panel on Space Weather, is our COSPAR Liaison to the United Nations.



COSPAR fulfills its responsibilities to provide accepted guidelines on planetary protection to guide compliance with the 1967 Outer Space Treaty and other international agreements. This is managed through the work of the COSPAR Panel on Planetary Protection.



COSPAR is an observer in the UNOOSA International Committee on Global Navigation Satellite Systems (ICG), through our Panel on Satellite Dynamics (PSD)



The COSPAR Panel on Potentially Environmentally Detrimental Activities in Space (PEDAS) acts to evaluate environmental impacts by space activities, e.g. space debris, to advise the international community, in particular UNCOUOS





- ▶ Maintain the traditional neutral forum for scientists to freely exchange on scientific matters, but the model is challenged...
- ▶ Enhance support and capacity-building to researchers and accessing nations – consolidate the Capacity Building Alumni
- ▶ Expand the relations with industry to cater for science needs and ensure concerns are shared and addressed jointly
- ▶ Develop the partnership existing since 1962 with UNCOPUOS to encompass matters of relevance to the new space landscape

BEYOND THE « CLASSICAL » MISSION OF COSPAR

THANK YOU VERY MUCH



<https://cosparhq.cnes.fr>



Committee on Space
Research - COSPAR



cospar@cosparhq.cnes.fr



@CosparHQ



Committee on Space Research



COSPAR



COSPAR 2024
45th Scientific Assembly
July 13-21 2024, BEXCO, Busan, Korea



SCOR is a non-governmental organization set up by **the International Council for Science - ICSU-** in 1957.

SCOR mission advance ocean research within and across disciplines by stimulating international cooperation in ocean sciences.

Help the international ocean science community develop international research to address scientific questions from fundamental to societal through large-scale research projects, Working Groups, and Capacity Development

SCOR sponsors International Research

1. SCOR oversees 5 large-scale scientific programs



2. SCOR supports Working Groups (>160 WG funded)



Currently 18 active WG
10 full members funded for a 3 to 4 year period to advance science in emerging issues

3. SCOR helps **develop the capacity for ocean science** in developing regions of the world (travel grants, visiting scholar program, POGO-SCOR fellowships to train students and technicians in operational oceanography.....)

4. SCOR works with partners (large-scale research & infrastructural programs, CD,)



Intergovernmental Oceanographic Commission (IOC) set up in 1960 by UNESCO.

Policy summaries for policy makers



Science/policy interface for an actionable science to address SDG of the agenda 2030



For more Information

SCOR Web site: www.scor-int.org

secretariat@scor-int.org

Twitter: @SCOR_Int

What is SCAR?

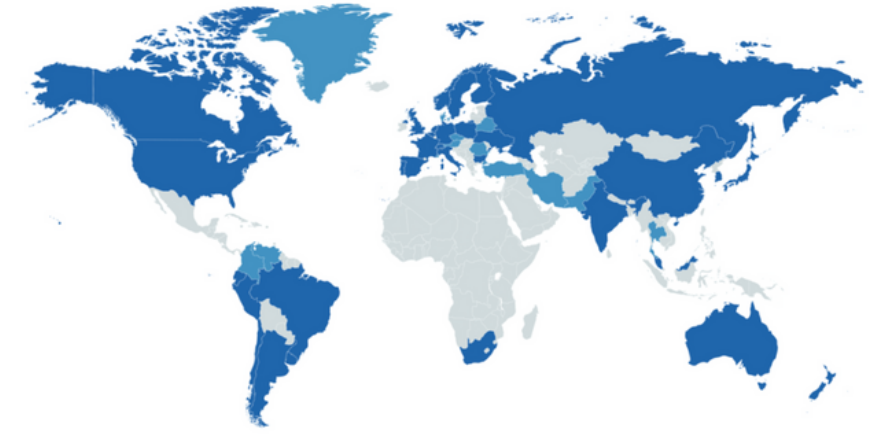
Scientific Committee on Antarctic Research

The 1957-8 **International Geophysical Year** established that international scientific activity in Antarctica needed coordination - SCAR was born!

SCAR **initiates, develops** and **coordinates** high quality international scientific research in the Antarctic region.

The scientific business is conducted by SCAR **Science Groups** which represent the scientific disciplines active in Antarctic research.

SCAR provides objective, independent scientific advice to the **Antarctic Treaty Consultative Meetings** and other organisations such as the **UNFCCC & IPCC**.



46 member countries

42 Science Groups

3 Scientific Research Programmes

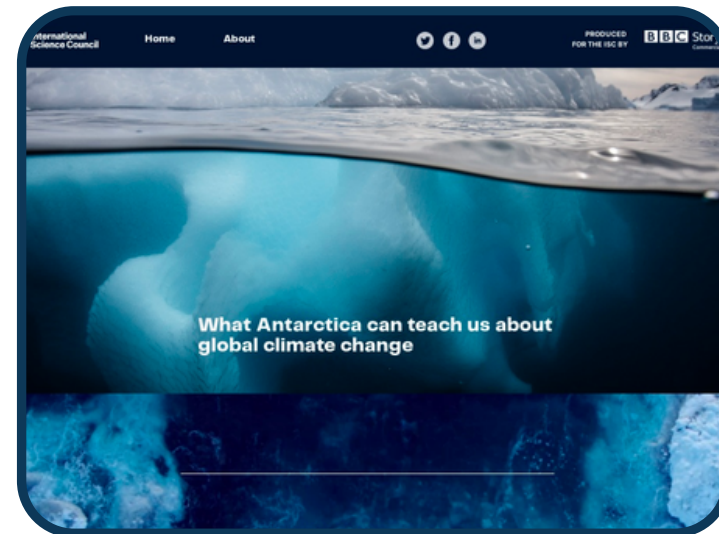
4 Standing Committees

4 Joint initiatives



Key needs

Strengthening networks within the international research and policy community



Learn and share best practices

- Equality, diversity, and inclusion
 - Webinar on SCAR's experience with EDI issues in ISC's Standing Committee for Gender Equality in Science (SCGES) series
- Sustainability and carbon footprint

Opportunities

Get involved in SCAR's activities:

- Join a SCAR group
- Collaborate with us

SCAR Capacity Building Programme:

- SCAR Fellowship Programme (application deadline 31 July)
- SCAR Visiting Scholar scheme (opens later this year)
- Group Fellowships

Upcoming events and conferences:

- SC-HASS Conference, Lisbon, June 2023
- SCAR Biology Symposium, Christchurch, August 2023
- INSTANT Conference, Trieste, September 2023
- SCAR Open Science Conference, Pucón, August 2024



We'd love to hear from you!

Get in touch:



info@scar.org



www.scar.org



[SCAR_tweets](#)



Subscribe to our monthly newsletter



IUCAF

The Scientific Committee on Allocation of Frequencies for Radio
Astronomy and Space Science

SCIENTIFIC COMMITTEE ON FREQUENCY ALLOCATIONS FOR RADIO ASTRONOMY AND SPACE SCIENCE

Comité Scientifique pour l'Allocation des Fréquences pour la Radio Astronomie et la Recherche Spatiale

- IUCAF formed 1960 by IAU, URSI & COSPAR

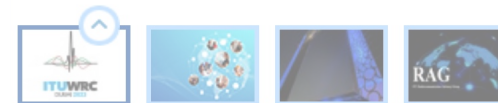
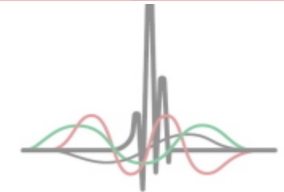


1960 Launch of the Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science (IUCAF)

- Small expert committee 10-12 member-scientists from IAU, URSI, COSPAR doing
 - Spectrum management at ITU-R & nationally
 - Satellite coordination
 - Outreach, education
- IUCAF introduced passive radio spectrum use into the transmitter culture of ITU-R
 - Radio astronomy, remote sensing, space ops
 - Bands now used for weather, climate studies



ITU World Radiocommunication Conference 2023 (WRC-23)
Dubai, United Arab Emirates, 20 November to 15 December 2023



ITUWRC
DUBAI 2023

Contributions [Source: Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science]			
Number	Title	Source	AI/Quest Filter...
[570]	Working document towards a preliminary draft new Report ITU-R M.[NON-SAFETY AMS CHARACTERISTICS AND SHARING STUDIES] related to WRC-23 agenda item 1.10 - Technical characteristics, operational scenarios, spectrum needs, coexistence, and sharing studies of non-safety aeronautical mobile systems in the frequency bands 15.4-15.7 GHz and 22-22.21 GHz	Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science	AI1.10
[569]	Draft CPM text for WRC-23 agenda item 1.10	Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science	AI1.10
[498]	Working document towards a preliminary draft new Report ITU-R [NON-SAFETY AMS CHARACTERISTICS AND SHARING STUDIES] related to WRC-23 agenda item 1.10 - Technical characteristics, operational scenarios, spectrum needs, coexistence, and sharing studies of non-safety aeronautical mobile systems in the frequency bands 15.4-15.7 GHz and 22-22.21 GHz	Scientific Committee on Frequency Allocations for Radio Astronomy and Space Science	AI1.10

Outreach/Education/Involvement

- International schools since 2000
 - Green Bank 2000
 - San Pietro Terme 2005
 - Tokyo 2010
 - Santiago 2014
 - Stellenbosch 2020
 - Pasadena 2024?
- Recruitment is tough
 - Steep learning curve
 - Little advantage for career advancement
 - Even large institutions do not have fully-devoted positions
 - Cost of FTE and travel support borne by IUCAF members' host institutions



Stellenbosch, SA March 7 2020

Recognition of importance of spectrum access for science and intellectual activity is increasing in the face of relentless pressure from commercial operators and seemingly uncaring radio spectrum regulators

ISC Involvement: Satellites & Space May Rope You In

- RAS had its “ah-ha” moments in the late 1970’s – early 1980’s
 - Unfiltered GPS, GLONASS interfered
- Issues have evolved
 - Orbiting radars can destroy a receiver

- ~Million satellites registered at ITU-R
 - Radio spectrum regulators authorize constellations with no remit to consider broader/environmental impact
 - Astronomers and lovers of the dark sky have been fighting this battle alone
 - IAU-UNOOSA Dark&QuietSkies I&II, October 2020, 2021
 - <https://www.iau.org/news/announcements/detail/ann21002/>
 - <https://www.iau.org/news/announcements/detail/ann21002/>
 - Dark & Quiet Skies at UNOOSA COPUOS
 - FCC sued in US by Int’l Dark Sky Assoc. (IDA) in April

Coordination Agreement between
the European Space Agency (ESA)
and
the Scientific Committee on Frequency Allocations for Radio Astronomy and
Space Science (IUCAF)
on the mutual planning procedure for EESS (active) cloud profile radar operations
with radio astronomy service observations in the band 94-94.1 GHz
between EARTHCARE* and IUCAF
version 2, January 2022

GLONASS-IUCAF Agreement
(presented to WRC-93 as document CMR-93/43-E)
AGREEMENT
between the GLONASS Administration and IUCAF concerning frequency usage by GLONASS-M
and the Radio Astronomy Service
The delegation of the GLONASS Administration and the delegation of the Inter-Union
Commission on Frequency Allocations for Radio Astronomy and Space Science (IUCAF),
meeting in Moscow on 2-4 November 1993,



Home About SFCG Members Meetings IWG Resources Coordination Links Harvey Liszt

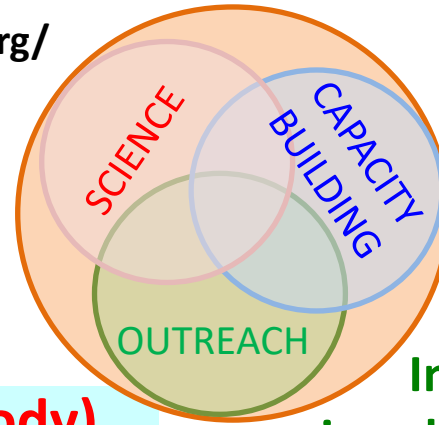
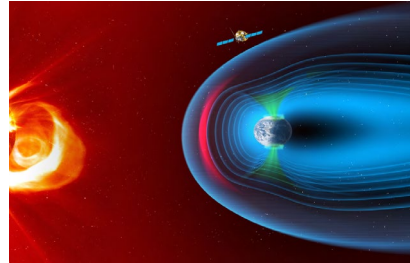
Space Frequency Coordination Group (SFCG)

Annual Meeting

The 42nd annual meeting will be held **30 May to 7 June 2023** and hosted by **Météo-France** in Toulouse, France. The SFCG-42 meeting invitation and other important information can be found [here](#).

Scientific Committee on Solar-Terrestrial Physics

Presenter: Kazuo Shiokawa, President <https://scostep.org/>



SCOSTEP Bureau consists of representatives of eight participating bodies, which are ISC bodies, i.e., **COSPAR, IAGA, IAMAS, IAU, IUPAP, SCAR, URSI, and WDS**

- **A thematic organization (affiliated body) of the International Science Council (ISC) and a permanent observer at UN COPUOS.**
- **Runs long-term (4-5 years) international interdisciplinary scientific programs of solar terrestrial physics**
- **Engages in Capacity Building activities such as the Space Science Schools and comic books.**
- **Disseminates new knowledge on the Sun-Earth System and how the Sun affects life and society, as outreach activities**

International interdisciplinary programs

in solar-terrestrial physics operated by SCOSTEP

1976-1979: **IMS** (International Magnetosphere Study)

1979-1981: **SMY** (Solar Maximum Year)

1982-1985: **MAP** (Middle Atmosphere Program)

1990-1997: **STEP** (Solar-Terrestrial Energy Program)

1998-2002: **Post-STEP** (S-RAMP, PSMOS, EPIC, and ISCS)

2004-2008: **CAWSES** (Climate and Weather of the Sun-Earth System)

2009-2013: **CAWSES-II** (Climate and Weather of the Sun-Earth System-II)

2014-2018: **VarSITI** (Variability of the Sun and Its Terrestrial Impact)

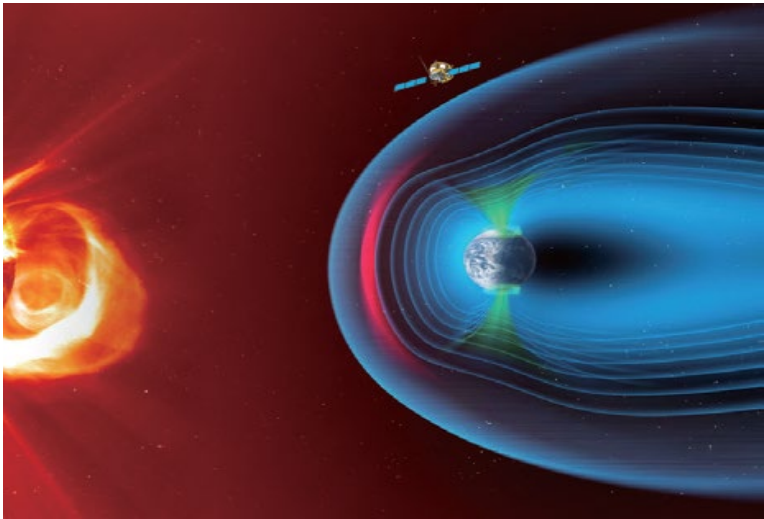
2020-2024: PRESTO (Predictability of the variable Solar-Terrestrial Coupling)



SCOSTEP's international program in 2020-2024
PRESTO: Predictability of the variable Solar-Terrestrial Coupling

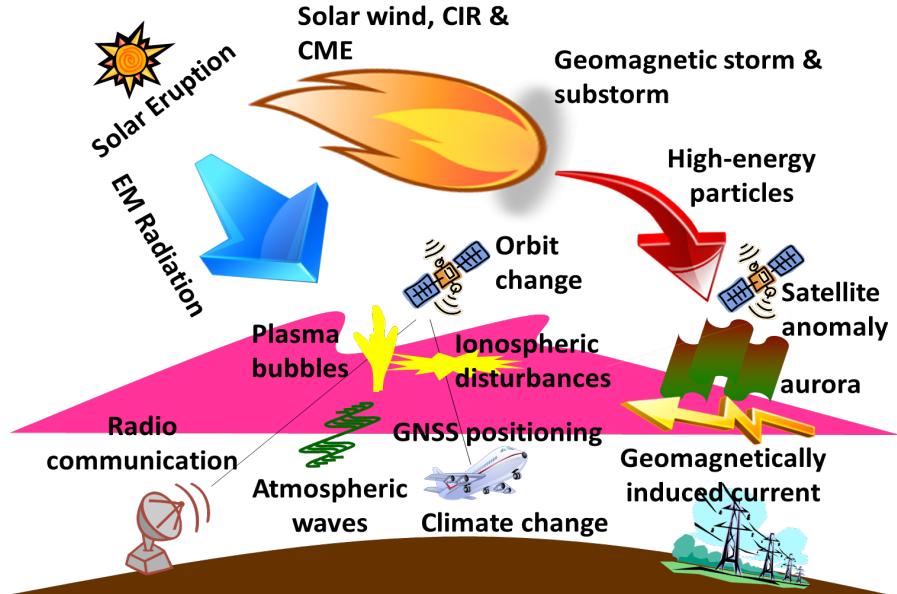
PRESTO identifies **predictability** of the variable solar-terrestrial coupling performance metrics through **modeling, measurements, and data analysis** and to strengthen the **communication between scientists and users**

Pillar 1: Sun, interplanetary space and geospace

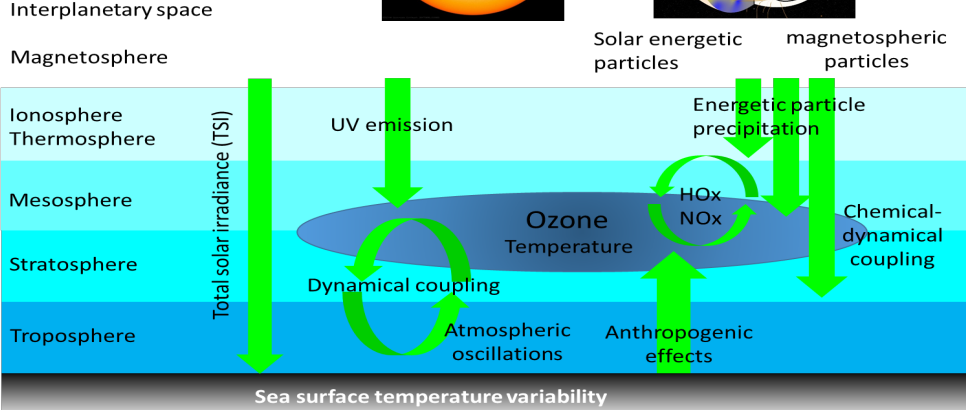
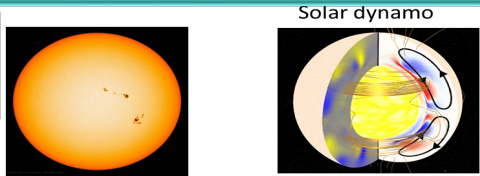
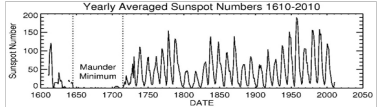


PRESTO runs various **meetings, campaigns and database** constructions, as well as **online seminars**. Some PRESTO meetings have been held in collaboration with **ISC bodies, such as COSPAR, IAGA, IAMAS, IAU, IUPAP, SCAR, URSI, and WDS.**

Pillar 2: Space weather and the Earth's atmosphere



Pillar 3: Solar activity and its influence on the climate of the Earth System



Modified from Gray et al. (2010)

SCOSTEP/PRESTO Newsletter

every 3 months



SCOSTEP/PRESTO NEWSLETTER

Vol. 35, April 2023

Inside this issue

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Article 2: Development of Very Low Frequency (VLF) Radio Wave Database in Anchor University for Regional Advancement of Solar Terrestrial Physics Research 3

Article 3: Atmospheric Electricity Measurements at the Villum Research Station 5

Highlight on Young Scientists 1: Patrick Essein / Ghana 7

Highlight on Young Scientists 2: Talwinder Singh / USA 8

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Article 1:

SOSMAG – Service Oriented Spacecraft Magnetometer on GEO-KOMPSAT-2A



David Fischer¹, Melanie Heil², Hans-Ulrich Auster³, Ovidiu Dragos Constantinescu⁴, Magda Delva⁵, Nick Hatzigeorgiu⁶, Werner Magnes⁴, Ferdinand Plaschke³, Ingo Richter³ and Josef Wilfinger⁷

¹Space Research Institute, Austrian Academy of Sciences, Graz, Austria
²European Space Agency, Darmstadt, Germany
³Institute for Geophysics and Extraterrestrial Physics, TU Braunschweig, Germany
⁴Institute for Space Sciences, Bucharest, Romania
⁵Space Sciences Laboratory, UC Berkeley, USA

The Service Oriented Spacecraft Magnetometer (SOSMAG) [1] is part of ESA's distributed Space Weather Sensor System (D3S), which has the task to provide accurate information for forecast/nowcast of space weather to infrastructure or satellite owners [Figure 1].



Figure 1. Impact of Space Weather, ©ESA/Science Office, CC BY-SA 3.0 IGO.

Capacity Building Schools



Iberian Space Weather School, Spain, June 2022



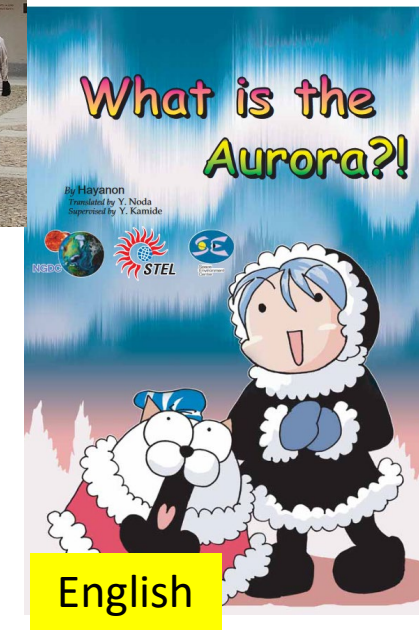
5th edition of the ISWI Maghreb Afrique de l'Ouest (IMAO) school, Côte d'Ivoire, October 2022



Workshop on Machine Learning for Space Weather. Argentina, November 2022

SCOSTEP - Science Comic Books

9 series in 12 languages



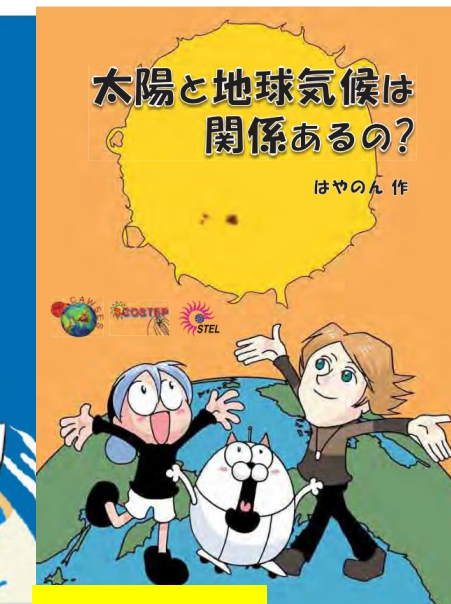
English



French



Hindi



Japanese

WCRP

World Climate Research Programme



- WCRP coordinates research around some of the most pressing scientific questions in relation to the compounded nature of the climate system
- WCRP contributes to advancing our understanding of the multi-scale dynamic interactions between natural and social systems that affect climate, by informing the development of policies, services and promoting science education
- WCRP-supported research builds the climate science that underpins the United Nations Framework Convention on Climate Change, including national commitments under the Paris Agreement of 2015, and contributes to the knowledge that supports the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction



Integrated Research on Disaster Risk

Toward inclusive, safe and sustainable development



Improve
knowledge and
understanding of
risk and
uncertainty



Promote innovation
in research and
action, and explore
effective solutions
in DRR



Build institutional
capacity required
for risk-informed
development

Research Priorities in the New Global Framework

1. Understand risk creation and perpetuation in the present risk landscape
2. Address inequalities, injustices and marginalisation
3. Enable transformative governance and action
4. Understand the implications of new thinking on hazards
5. Harness technologies, data and knowledge for risk reduction
6. Support regional and national science and knowledge for policy and action
7. Support just and equitable transitions, adaptation and risk reduction
8. Measurement to help drive progress
9. Foster interdisciplinary and multi-stakeholder collaboration



Main Deliverables

Contributing to Open Science Development



IRDR Special Reports



IRDR Working Paper Series



IRDR Lectures



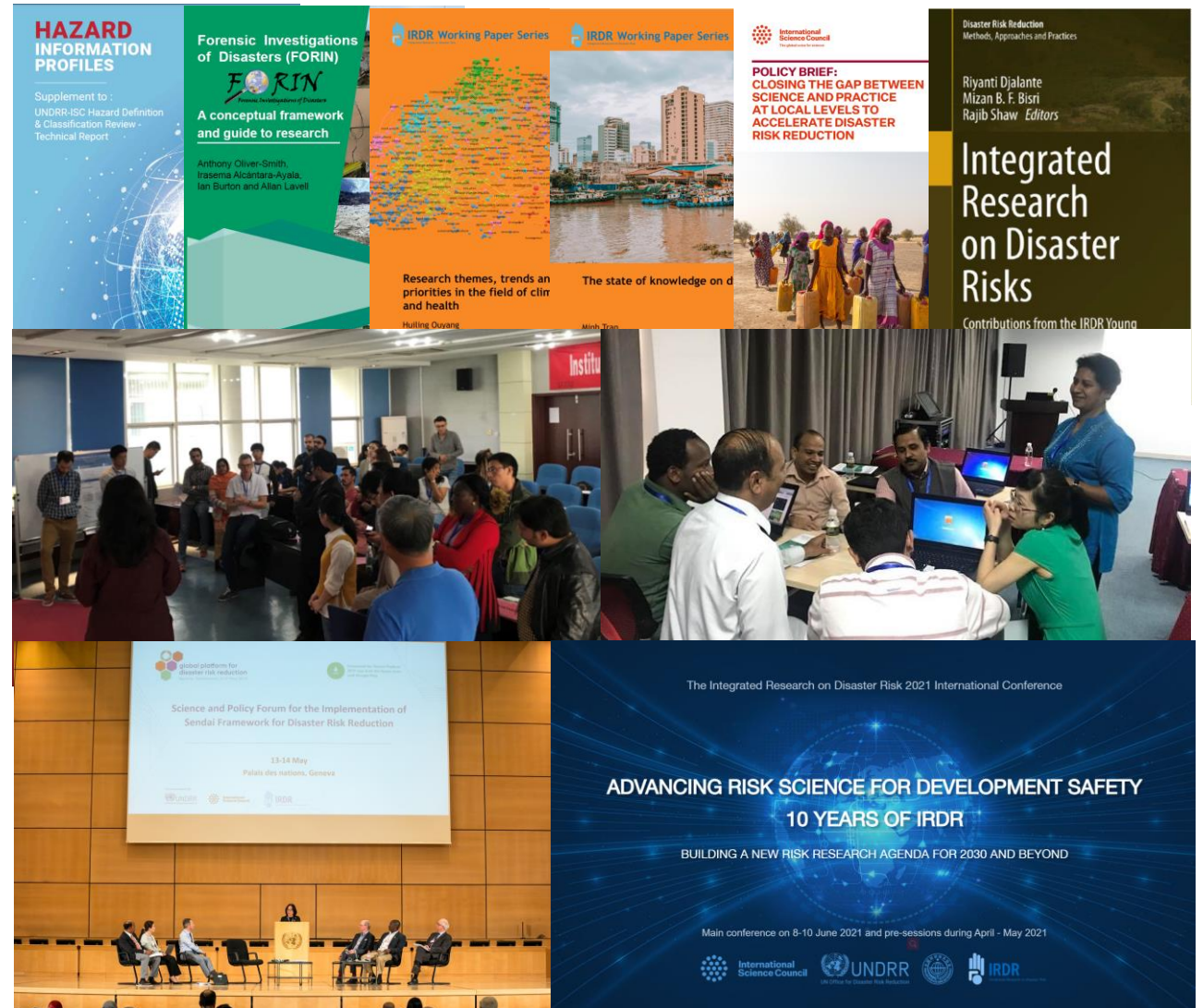
IRDR Trainings and Courses



Service in organising
DRR Science and
Policy Forums



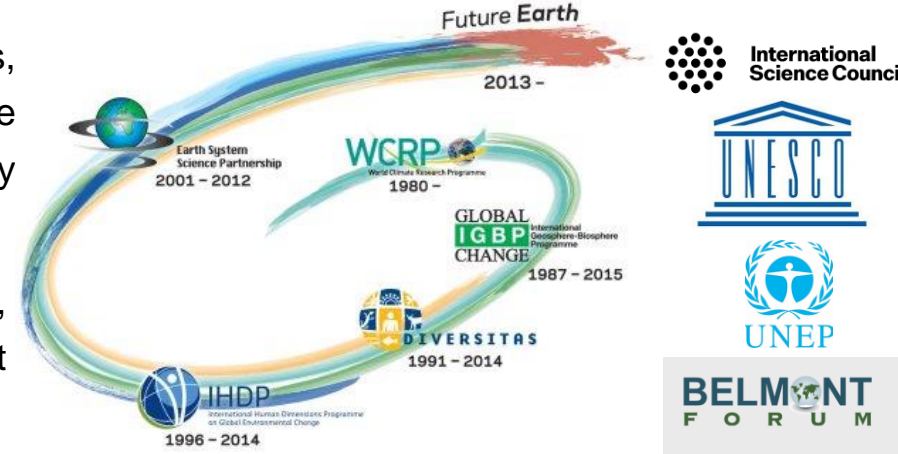
Promotion of risk
science development
and best examples



Future Earth : mission, history, and organization



- **Future Earth** is a network of scientists, researchers, and innovators designed to provide the knowledge needed to support transformations towards sustainability
- **Future Earth** was officially announced in June 2012, and became fully operational with a permanent Secretariat at the end of 2015.
- **Future Earth** has a 17-member Governing Council, 130-member Assembly, and 8+1 **Global Secretariat Hubs (GSHs)**.
- **GSH mission:** Assist in the implementation of Future Earth's mission and goals towards a sustainable planet, build bridges between sciences and actions.



Future Earth Global Secretariat Hub (China)

- **GSH (China):** Launched in 2021, supported by China Association for Science and Technology and Sun Yat-sen University.



FE GSH (China) at Sun Yat-sen University, Zhuhai

- FE GSH (China) serves as liaisons for Global Research Networks, more is launching ...!

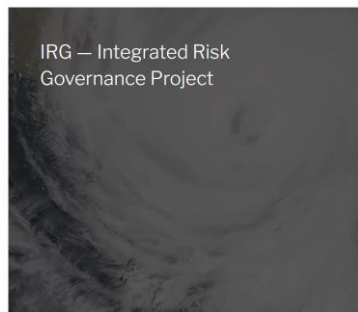
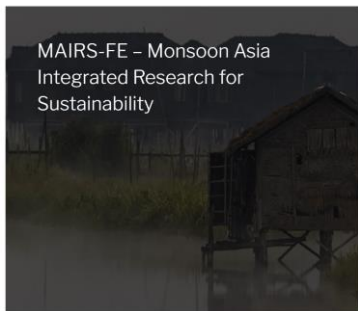


- FE GSH (China) promoting scientist joining high-impact conference, research, and report



Opportunities: Collaboration on leading scientific projects

- FE GSH (China) serves as liaisons for Global Research Networks, more is launching ...!



- FE GSH (China) promoting scientist joining high-impact conference, research, and report



THE OCEAN CONFERENCE | **Ocean Negative Carbon Emissions ONCE**

2022 UN OCEAN CONFERENCE: Virtual Side Event
Ocean Negative Carbon Emission and Sustainable Development
30 June, 1:00pm – 2:15pm Lisbon (UTC+1) Time

The event focuses on addressing ocean negative carbon emission (ONCE) approaches for the mitigation of climate change and the sustainable development of coastal ecosystems and the community as a whole.

Moderator, Speakers and Panelists to include:

- Prof. Carol Robinson
- Dr. Nianchi Jiao
- Dr. Ken Buesseler
- Dr. Wei-Jun Cai
- Dr. David P. Keller
- Dr. Cecilia Negrão Signori
- Dr. Jean-Pierre Gattuso
- Dr. Miranda Boettcher
- Dr. Douglas Wallace
- Dr. Greg H. Rau
- Dr. Lata Gouveia
- Dr. Celeste Lopez Abbate
- Ms. Raquel Flynn

For detailed information & registration:
<https://once.xmu.edu.cn/Activities/Conference.htm>

futurearth research for global sustainability | **PICES** | **ICES CIEM** | **IMBeR** Integrated Marine Biosphere Research | **OCEAN NETS**



Global Research Programme on Inequality

GRIP is an interdisciplinary research programme that aims to understand and address the multiple dimensions and consequences of rising inequalities.



Global Research Programme on Inequality

- Flexibility
- Timeframe
- Capacity building



Global Research Programme on Inequality

- Interdisciplinary ‘anticipatory’ research projects
- GRIP Fellowship Programme
- Standing Committee on Inequality
- Dissemination

URBAN HEALTH AND WELLBEING

A systems approach



**International
Science Council**

ISUH

**International Society
for Urban Health**

Xiamen · CHINA



Urban Health & Wellbeing Programme - Vision and goals



Goals

Support efforts for implementing Health in All Policies and the Xiamen Call for action

Lead the development of an interdisciplinary research project

Communicate the systems approach to urban health and wellbeing

Inform and develop training and communication material

Build networks for collective intelligence on urban health and wellbeing

Vision: Building and governing cities as nodal points in global networks and thereby creating healthy and sustainable 'lives' for both people and the planet.

Urban Health & Wellbeing Programme – Key Needs

Global Impacts

With the ISC & ISUH,

- With the MOU signed by **ISC-UN Habitat-IUE(UHWB)** in 2019, implement urban and territorial planning for improving health and wellbeing in urban areas.

With other international partners,

- With the MOU signed by **Global Forum on Human Settlements (GFHS)** and **UHWB** in 2020, take advantages of GFHS network with **UNDESA, UNEP** and other relevant organizations on urban sustainable development.



Expand global partnership network and promote SDGs

Regional Impacts

With the ISC regional partners,

- (If possible) Together with the **Asia-Pacific office**, promote the cooperation with **UN-ESCAP** on urban healthy development through carrying out research program and developing and applying scientific tool for guiding urban sustainable planning and development.

With the local government,

- Jointly promote the establishment of International Center on Ecological Civilization, including ecological education and green community development.



Build healthy communities and cities

Opportunities for ISC members engagement in UHWB activities

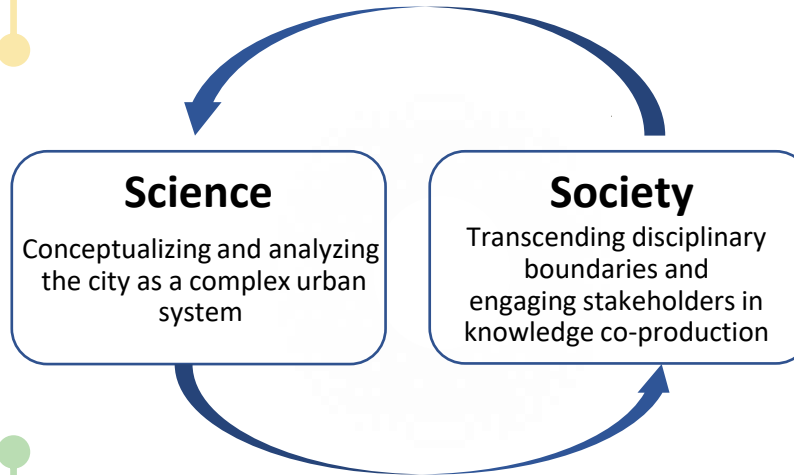
Cooperation & Communication

- Contribute to the cooperation with UN-Habitat on enhancing global awareness of urban health and wellbeing.
- Together with ISC-Regional Office of AP, promote the cooperation with UN-ESCAP in central Asia.

Research & Training

- Give talks to UHWB summer school, winter school, lecture series on Urban Science and Sustainability (USS).
- Strengthen the construction of scientific research ability and personnel training

Conferences and Cooperation



Publications and Activities

Networking & Participation

- Jointly build international networks and union for urban health/sustainability science
- Actively nominate experts for SC members and apply for the Executive Director of UHWB
- Participate in UHWB-held conference and symposium

Publication & Podcast

- Jointly publish papers, books, policy briefs on urban health
- Contribute to the establishment of the *Journal of Urban Health & Management* (in prep.)



Thank you!



URBAN HEALTH
AND WELLBEING
A SYSTEMS APPROACH

Contact us

Address: 1799 Jimei Road, Xiamen 361021, China

Email: uhwb@iue.ac.cn

Website: <http://www.urbanhealth.cn>

Why observe the ocean?



Climate and weather

The ocean plays a huge role in the Earth's climate and weather: it absorbs 90% of excess heat and takes up 25% of anthropogenic carbon every year. At the same time, it is being affected by climate change.



Ocean health

Life in the ocean gives us the oxygen we breathe and the food we eat. Overfishing, climate change and pollution are putting these vital natural services at risk, and their impacts are critically under-observed.



Coastal communities

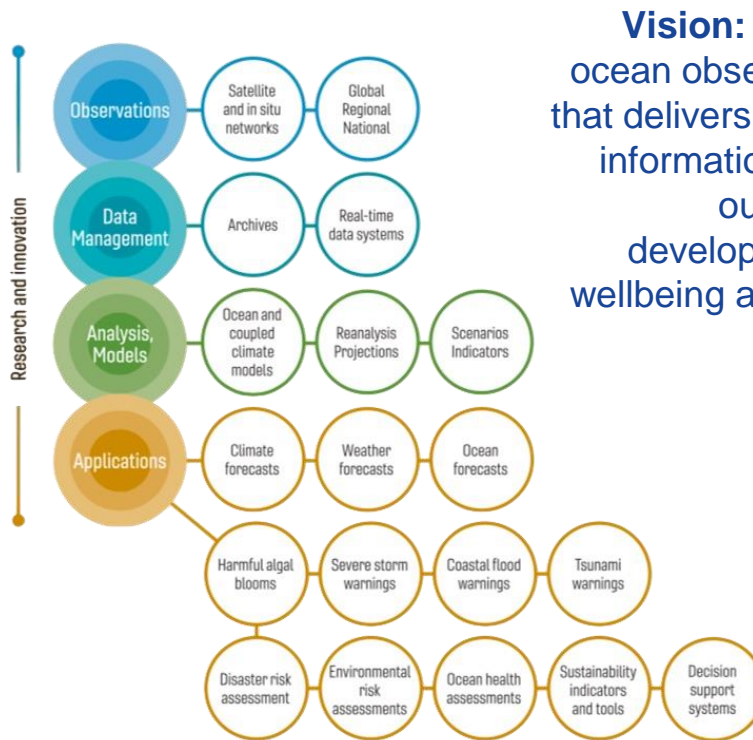
Coastal communities are in the front line facing threats posed by changing oceans. Communities in many less developed areas are particularly at risk from changing weather and ocean patterns, and increased disaster risk.

If we haven't got data underpinning our decisions, we might as well be guessing at solutions

The Global Ocean Observing System

2030 Strategy

Underpinning a wide range of applications

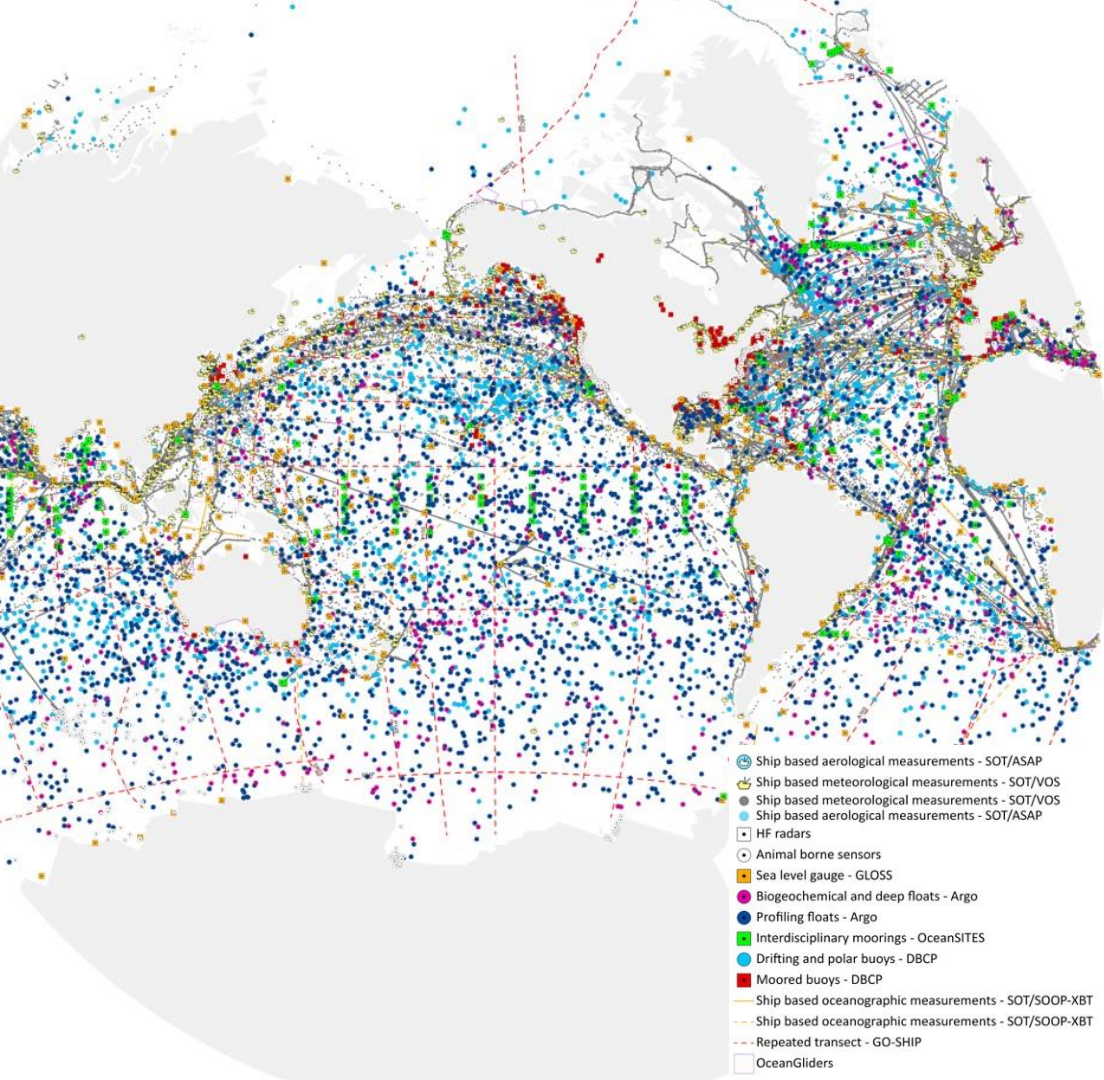


Vision: A truly global ocean observing system that delivers the essential information needed for our sustainable development, safety, wellbeing and prosperity

GOOS Today

- 84 countries, 8,700+ observing platforms, 13 global networks
- More than 100,000 observations per day - delivering an accessible, safe and productive ocean
- Global observing networks, e.g. Argo, GO-SHIP, Drifting Buoys, plus emerging networks, e.g., OceanGliders, HF Radar.

“The weather forecasting systems will run off the rails if they don’t have the surface pressure information over the ocean to constrain them” - Lars Peter Riishojgaard, Director of the Earth System Branch WMO



GOOS & ISC



Expert Panels: Physics and Climate, Biology and Ecosystems, Biogeochemistry

Connected to GCOS, WCRP, SCOR ?? Future Earth, IRDR



Observing: Observations Coordination Group (OCG), OceanOPS, global observing networks, GOOS National Focal Points and projects

?? SCAR, CODATA, WDS



Prediction: Expert Team on Operational Ocean Forecast Systems (ETOOFS)

ISC as a strong GOOS Sponsor:

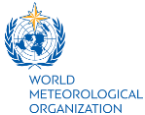
- Support to mobilise science organisations and funders towards **sustained funding for ocean observing** - a public good infrastructure that delivers data & benefits, a lack of sustained funding holds sustainable growth back, fragility of a key system
- Participate to **Evolve GOOS Governance**
- **Connect on communications**
- **Advocate UN** for observations/science as the base to underpin ambition of international agreement: climate, plastics, CBD, Sendai, BBNJ



The Global Ocean Observing System

Thank you

goosocean.org





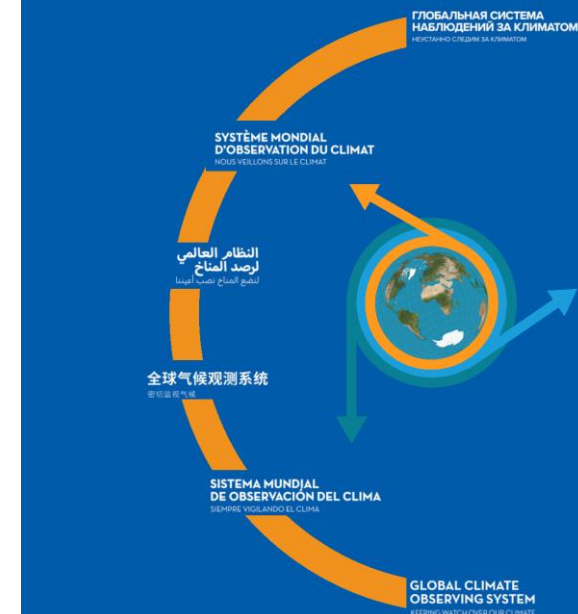
Global Climate Observing System (GCOS) assesses the status of global climate observations of the atmosphere, land and ocean and produces guidance for its improvement.

GCOS expert panels maintain definitions of Essential Climate Variables (ECVs) which are required to systematically observe Earth`s changing climate.

The observations supported by GCOS contribute to solving challenges in climate research and also underpin climate services and adaptation measures.

GCOS works towards a world where climate observations are accurate and sustained, and access to climate data is free and open.

The 2022 GCOS Implementation Plan



CODATA: Making Data Work...

CODATA's mission and operation

- **CODATA's vision is of a world in which science is empowered to address universal challenges through the transparent, trustworthy and equitable use of data and information.**
- **The mission of CODATA is to “Connect data and people to advance science and improve our world”.**
- As the ‘Committee on Data of the International Science Council (ISC)’, CODATA supports the ISC’s mission of ‘advancing science as a global public good’ by promoting Open Science and FAIR data.
- CODATA convenes a global expert community and provides a forum for international consensus building and agreements around a range of data science and data policy issues, from the fundamental physical constants to cross-domain data specifications.
- **CODATA's membership includes national data committees, scientific academies, International Scientific Unions and other organisations.**



Making Data Work...



WorldFAIR



- Decadal Programme: Making Data Work for Cross Domain Grand Challenges
- WorldFAIR Project
- Recommendations on core interoperability and FAIR
- FAIR Vocabularies with ISUs
- Cross-Domain Case Studies
- Global Open Science Cloud initiative
- Regional Open Science Platforms

Data Policies



- International Data Policy Committee <http://bit.ly/data-policy-committee>;
- One major policy report per year.
- 20-Year Review of GBIF published in May 2020
- Preparing Independent Review of CAS Earth data policy and practices

Data Science



23-26 OCT
2023
SALZBURG



International Data Week
A FESTIVAL OF DATA



- Data Science Journal: <https://datascience.codata.org/>
- International Data Week and CODATA Conference series.
- Task Groups and Working Groups.

Data Skills



- CODATA-RDA School of Research Data Science.
- Beijing and other training workshops.
- CODATA RDM Terminology

Opportunities to Engage with CODATA



WorldFAIR



CODATA – RDA

Data
Schools

- **Making Data Work and WorldFAIR** <https://worldfair-project.eu/>
 - Keen to explore additional domain and cross-domain case studies, undertake ‘FAIR Implementation Profile’ exercises.
 - Explore collaboration and testing on the Cross-Domain Interoperability Framework
- **Global Open Science Cloud**
 - Opportunity to collaboration on Open Science platforms: policy, governance, technical alignment and case studies
- **Work with Unions/Associations on FAIR Vocabularies/Terminologies**
 - See report with IUSSP on FAIR Vocabularies in Population Research <https://doi.org/10.5281/zenodo.7818157>
- **Digital Representation of Units of Measure (DRUM)**
 - Invited Union ‘Ambassadors’; keen to do further work on alignment of unit systems and quantities/data elements/variables...
- **Data Policy Committee**
 - New programme of work includes ‘data policy for emergencies’, ‘reliability’, ‘training and education in data policy’, and ‘data policy, responsibility and AI’.
- **CODATA-RDA Data Schools**
 - Opportunities to host schools, support the programme, engage with varied subject areas.

CODATA Needs...

- Increase National Membership
 - Keen to explore additional members with existing ISC members.
- Increase collaboration with Union Members
 - WorldFAIR
 - DRUM
 - FAIR Vocabularies
 - Data Policy
- Maintain and enhance clear sense of purpose and role in ISC community; increase collaboration with WDS.
- Increase resources and the secretariat, in particular for the priority initiatives.



WorldFAIR and a Festival of Data

- **International Data Week, 23-26 October, Salzburg, Austria:** <https://internationaldataweek.org/>
 - IDW combines SciDataCon and RDA Plenary.
 - Deadline for SciDataCon session, presentations and posters is 15 May: <https://www.scidatacon.org/IDW-2023-Salzburg/>
- **CODATA General Assembly, 27-28 October 2023**
 - Elections of Executive Committee and selection of Task Groups
- **CODATA Report 'WorldFAIR and a Festival of Data':** <https://doi.org/10.5281/zenodo.7473141>

23-26 OCT
2023
SALZBURG



**International
Data Week**
A FESTIVAL OF DATA

Thank you for your attention

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World Data System

Dr David Castle, University of Victoria
&
Dr. Suzie Allard, University of Tennessee



WDS Mandate & Mission

The **mission of the World Data System** is to enhance the capabilities, impact, and sustainability of our member data repositories and data services by:



Creating trusted communities of scientific data repositories



Strengthening the scientific enterprise throughout the entire lifecycle of data and all related components creating first-class data that feeds first-class research output



Advocating for accessible data and transparent and reproducible science

WDS Key Challenges Needing Action

- Enhancing communication, services and support to existing 128 members
- Recruiting new members – global south, underserved data-intensive fields (e.g. life sciences, computational social sciences, and digital humanities)
- Creating a framework for members' value narratives for communications, funding and sustainability
- Supporting organizations: priority setting, assistance with technology adoption services, data stewardship, roadmaps, standard, and accreditation
- Enhance access, quality, trust, and accessibility of data worldwide
- Supporting Early Career Researchers (ECR) through the WDS Data Stewardship Award and the ECR Network

ISC and Members' Engagement with WDS

Science as a global public good – and data aspects thereof – needs leveraging at the national level by science funders and policymakers

Open science – ISC members, and beyond, could consider adhering to and promoting the WDS Data Sharing Principles (in the WDS Bylaws)

Trust in science – work with ISC to develop webinars, events and other activities to address trust in science and thwart mis/disinformation

Capacity building – Systematically align on the global south and across disciplines recognizing different cultures of practice and societal readiness levels

Certified data repositories – Work ISC and CODATA to request education/access with unions and other members on the importance of using certified data repositories. Partner with unions to reach their members

Early career researchers – Collaborate to support all of our ECR groups

23-26 OCT
2023
SALZBURG



**International
Data Week**
A FESTIVAL OF DATA



<https://www.rd-alliance.org/plenaries/international-data-week-2023-salzburg>

Organised by



Hosted by:





The International Network for Governmental Science Advice (INGSA)

Prof Rémi Quirion, President, INGSA
& Québec Chief Scientist



www.ingsa.org



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A Truly Global Network of Evidence-to-Policy Innovation

INGSA is a collaborative platform for exchange, capacity building and research across diverse global science advisory organizations and national systems

- **Established in 2014**
- **Over 5,500 members in 120 countries**
- **3 Regional Chapters (Africa, Asia, and Latin America & Caribbean) and Thematic Divisions (Foreign Ministries, *Réseau International Francophone en Conseil Scientifique*)**
- **Our trademark: lively workshop training sessions – Capacity Building**
- **Highly interactive - role-playing training sessions (web)**
- **Triennial Conferences – May 2024, Kigali, Rwanda.**



INGSA Board Members



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Chief Scientist of Quebec and President
INGSA, Canada



Dr Claire Craig – VP (Evidence)
Provost, Queen's College Oxford,
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INGSA Strategic Plan 2022-2025 – Priorities

Sustain and strengthen INGSA chapters, core activities, governance, and funding

- Francophone Network
- INGSA Africa Hub Rwanda (Kigali)
- INGSA-Asia – US National Academies – Zoonosis Guidebook Joint project (2022-2025)

Address the impact of linguistic and cultural diversity on science advice mechanisms and practices to support collaboration across boundaries

- European Chapter – INCLUSIVE Project (Chair: Claire Craig, Oxford)

Strengthen vertical integration of science advice from local (cities) to global levels

- North American Chapter



INGSA - Opportunities for Partnership and Networking

- **Worldwide network of practitioners**
- **Great potential to engage & support other ISC Affiliates**
- **Organization of workshops for capacity building (oriented at advisor(s) and governments authorities)**
- **Engage globally (Secretariat) or directly in Regions (Chapters) – Local (cities), regional, thematic & linguistic network still growing**
- **Upcoming INGSA2024 conference, focused on Africa and Global South, May 2024 (Kigali, Rwanda)**
 - **Open to all to attend**
 - **Topics to suggest?**