

Science Coordination Programmes

(not exhaustive)

| Organisation | More info |
|---|---|
| World Meteorological Office (WMO) | <p>The World Meteorological Organization (WMO) is a specialized agency of the United Nations. It is the UN system's authoritative voice on the state and behaviour of the Earth's atmosphere, its interaction with the oceans, the climate it produces and the resulting distribution of water resources.</p> <p>WMO has a membership of 191 Member States and Territories (on 1 January 2013). It originated from the International Meteorological Organization (IMO), which was founded in 1873. Established in 1950, WMO became the specialized agency of the United Nations in 1951 for meteorology (weather and climate), operational hydrology and related geophysical sciences.</p> |
| World Climate Research Programme (WCRP) | <p>WCRP adopts a multi-disciplinary approach, organizes large-scale observational and modelling projects and provides the international forum to align efforts of thousands of climate scientists to provide the best possible climate information. WCRP science is coordinated through 4 key projects, CLIVAR, CLIC, SPARC and GEWEX.</p> |
| WCRP CLIVAR (Climate and Ocean, Variability, Predictability and Change) | <p>International CLIVAR is a network of scientists and activities around the world that contribute to meeting the CLIVAR objectives. A subset of these scientists are members, on a rotating basis, of committees that facilitate coordination and cooperation amongst national and multinational efforts. The CLIVAR Scientific Steering Group (SSG) is appointed by the WCRP Joint Scientific Committee. The SSG provides overall guidance for CLIVAR activities, in concert with the goals of the WCRP, and establishes CLIVAR Panels and Working Groups and their terms of reference to ensure that the key objectives of the programme are met.</p> <p>CLIVAR Panels and Working Groups meet regularly to review scientific progress, address research priorities, coordinate activities, develop best practices, guidelines and recommendations for the community as a whole and promote scientific capacity development. The current list of CLIVAR panels and working groups can be found here. An open call for nominations to the various CLIVAR committees is announced annually via the CLIVAR newsletter. When considering nominations, the SSG aims for geographic and gender balance, as</p> |

| | |
|--|---|
| | <p>well as providing opportunities for early career scientists and researchers from developing countries to participate.</p> <p>The International CLIVAR Project Office (ICPO) provides secretariat support to the SSG and the various panels and groups and is responsible for the project's outreach activities. It also serves as the point of contact for the CLIVAR scientific community as a whole, and for other relevant activities.</p> |
| <p>WCRP CliC (Climate and Cryosphere)</p> | <p>The "Climate and Cryosphere" project, encourages and promotes research into the cryosphere and its interactions as part of the global climate system. It seeks to focus attention on the most important issues, encourage communication between researchers with common interests in cryospheric and climate science, promote international co-operation, and highlight the importance of this field of science to policy makers, funding agencies, and the general public. CliC also publishes significant findings regarding the role of the cryosphere in climate, and recommends directions for future study. CliC was established as a core project of the World Climate Research Programme in 2003.</p> |
| <p>WCRP GEWEX (Global Energy and Water Exchanges Project)</p> | <p>The Global Energy and Water Cycle Exchanges Project (GEWEX) is an integrated program of research, observations, and science activities that focuses on the atmospheric, terrestrial, radiative, hydrological, coupled processes, and interactions that determine the global and regional hydrological cycle, radiation and energy transitions, and their involvement in climate change. The International GEWEX Project Office (IGPO) is the focal point for the planning and implementation of all GEWEX activities.</p> <p>The goal of GEWEX is to reproduce and predict, by means of suitable models, the variations of the global hydrological regime, its impact on atmospheric and surface dynamics, and variations in regional hydrological processes and water resources and their response to changes in the environment, such as the increase in greenhouse gases. GEWEX will provide an order of magnitude improvement in the ability to model global precipitation and evaporation, as well as accurate assessment of the sensitivity of atmospheric radiation and clouds to climate change.</p> |
| <p>WCRP SPARC</p> | <p>Founded in 1992, SPARC has coordinated for almost two decades high-level research activities of increasing relevance for understanding Earth system processes.</p> <p>SPARC research outcomes contributed significantly to international assessments, such as the assessments of ozone depletion by the World Meteorological Organization (WMO) and United Nations Environmental</p> |

| | |
|--|--|
| | <p>Programme (UNEP) and the climate assessments by the Intergovernmental Panel on Climate Change (IPCC). SPARC concentrates on bottom-up driven research, providing coordination and support, which lead to bite-sized deliverables of significant added scientific value. SPARC activities are organized under three overarching themes and result from an integration of process studies, observations and modelling.</p> |
| <p>Future Earth</p> | <p>Future Earth will provide a global knowledge and collaboration platform and deliver a step-change in the way science for sustainability is produced and used. Future Earth will build on the critical knowledge, scientific and warning capabilities that global change research programmes have developed over the past decades, and enhance them further.</p> <p>Future Earth will develop as a globally-distributed network of knowledge nodes in order to be responsive to needs and priorities of decision-makers at regional and national level, encourage broader participation of users in the research, coordinate global environmental change research agendas and activities, and disseminate knowledge and capacity on science for sustainability across the globe.</p> <p>Future Earth builds on the success of existing global environmental programmes (Diversitas, IGBP, IHDP, WCRP and ESSP).</p> |
| <p>Diversitas (An international programme of biodiversity science)</p> | <p>Biodiversity underpins the life-support system of our planet. Both natural and managed ecosystems deliver important ecological services such as the production of food and fibre, carbon storage, climate regulation and recreation opportunities.</p> <p>DIVERSITAS (the Latin word for “diversity”) was established to address the complex scientific questions posed by the loss in biodiversity and ecosystem services and to offer science based solutions to this crisis.</p> <p>DIVERSITAS is an international programme of biodiversity science with a dual mission:</p> <ul style="list-style-type: none"> • Promoting, facilitating and conducting integrative biodiversity science, that links biological, ecological and social disciplines; and • Providing the sound scientific basis for decision making to secure the planet’s variety of life, while contributing to human well-being and poverty eradication. |
| <p>IHDP (International Human</p> | <p>IHDP was founded in 1990 by the International Social Science Council (ISSC) under the name Human Dimensions Programme (HDP). Together with the</p> |

| | |
|--|---|
| <p>Dimensions Programme)</p> | <p>International Council for Science (ICSU) the ISSC established it under its permanent name International Human Dimensions Programme on Global Environmental Change in 1996. Ten years later, the United Nations University joined as an institutional sponsor and host, and the Secretariat subsequently moved from the University of Bonn to the UN Campus where it had its offices at the "Langer Eugen" office building, the former home of the "Abgeordnetenhaus" of the German Bundestag, until its closure in June 2014.</p> <p>IHDP was an interdisciplinary science programme that worked toward a better understanding of human interaction with and within their natural environment. The programme facilitated dialogue between science and policy to ensure that research results fed into policy-planning and law-making processes, and offered education and training to, what were, future leaders in the field.</p> |
| <p><u>IGBP</u> (International Geosphere-Biosphere Programme)</p> | <p>IGBP was launched in 1987 to coordinate international research on global-scale and regional-scale interactions between Earth's biological, chemical and physical processes and their interactions with human systems. IGBP views the Earth system as the Earth's natural physical, chemical and biological cycles and processes and the social and economic dimensions.</p> |
| <p><u>PAGES</u> (Past Global Changes)</p> | <p>PAGES (Past Global Changes) supports research aimed at understanding the Earth's past environment in order to make predictions for the future. We encourage international and interdisciplinary collaborations and seek to promote the involvement of scientists from developing countries in the global paleo-community discourse.</p> <p>PAGES scope of interest includes the physical climate system, biogeochemical cycles, ecosystem processes, biodiversity, and human dimensions, on different time scales - Pleistocene, Holocene, last millennium and the recent past.</p> <p>Founded in 1991, PAGES is a core project of the International Geosphere-Biosphere Programme (IGBP) and is funded by the U.S. and Swiss National Science Foundations, and the National Oceanic and Atmospheric Administration (NOAA).</p> |
| <p><u>SOLAS</u> (Surface Ocean-Lower Atmosphere)</p> | <p>The International Surface Ocean - Lower Atmosphere Study (SOLAS) project is an international research initiative aiming to understand the key biogeochemical-physical interactions and feedbacks between the ocean and atmosphere. Achievement of this goal is important to understand and quantify the role that ocean-atmosphere interactions play in the regulation of climate and global change.</p> |

| | |
|--|--|
| | <p>The scope and goals of SOLAS are detailed in the SOLAS Science Plan and Implementation Strategy. SOLAS deals with the following issues or foci. Each focus is divided into several activities.</p> |
| <p>IMBER (Integrated Marine Biogeochemistry and Ecosystem Research)</p> | <p>IMBER is an international project of the IGBP programme that aims to investigate the sensitivity of marine biogeochemical cycles and ecosystems to global change, on time scales ranging from years to decades. IMBER aims to provide a comprehensive understanding of, and accurate predictive capacity for ocean responses to accelerating global change and the consequent effects on the Earth System and human society.</p> |
| <p>Intergovernmental Oceanographic Commission (IOC)</p> | <p>Intergovernmental Oceanographic Commission (IOC) of UNESCO is the United Nations body for ocean science, ocean observatories, ocean data and information exchange, and ocean services such as Tsunami warning systems. Its mission is to promote international cooperation and to coordinate programmes in research, services and capacity building to learn more about the nature and resources of the oceans and coastal areas, and to apply this knowledge to improved management, sustainable development and protection of the marine environment and the decision making processes of States.</p> |
| <p>GOOS (Global Ocean Observing System)</p> | <p>GOOS is a permanent global system for observations, modelling and analysis of marine and ocean variables to support operational ocean services worldwide. GOOS provides accurate descriptions of the present state of the oceans, including living resources; continuous forecasts of the future conditions of the sea for as far ahead as possible, and the basis for forecasts of climate change.</p> |
| <p>JCOMM (The Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology)</p> | <p>JCOMM, the Joint Technical Commission for Oceanography and Marine Meteorology, is an intergovernmental body of technical experts that provides a mechanism for international coordination of oceanographic and marine meteorological observing, data management and services, combining the expertise, technologies and capacity building capabilities of the meteorological and oceanographic communities. The creation of this Joint Technical Commission results from a general recognition that worldwide improvements in coordination and efficiency may be achieved by combining the expertise and technological capabilities of World Meteorological Organization (WMO) and UNESCO's Intergovernmental Oceanographic Commission (IOC).</p> |
| <p>IODE (International Oceanographic Data)</p> | <p>The programme "International Oceanographic Data and Information Exchange" (IODE) of the "Intergovernmental Oceanographic Commission" (IOC) of UNESCO was established in 1961. Its purpose is to enhance marine research,</p> |

| | |
|---|---|
| <p>and Information Exchange)</p> | <p>exploitation and development, by facilitating the exchange of oceanographic data and information between participating Member States, and by meeting the needs of users for data and information products.</p> <p>The IODE system forms a worldwide service oriented network consisting of DNAs (Designated National Agencies), NODCs (National Oceanographic Data Centres), RNODCs (Responsible National Oceanographic Data Centres) and WDCs (World Data Centres – Oceanography). During the past 50 years, IOC Member States have established over 80 oceanographic data centres in as many countries. This network has been able to collect, control the quality of, and archive millions of ocean observations, and makes these available to Member States.</p> |
| <p><u>EuroGOOS</u></p> | <p>EuroGOOS is an International Non-Profit Association of national governmental agencies and research organisations, committed to European-scale operational oceanography within the context of the intergovernmental Global Ocean Observing System (GOOS). Founded in 1994, EuroGOOS has today 37 members from 18 European countries providing operational oceanographic services and carrying out marine research.</p> <p>Six regional sea areas where operational systems are being developed have been defined: the Arctic (Arctic ROOS), the Baltic (BOOS), the North West Shelf (NOOS), the Ireland-Biscay-Iberian area (IBI-ROOS) and the Mediterranean (MONGOOS). Additionally the Organisation cooperates through an MoU with Black Sea GOOS which acts as a ROOS in the Black Sea. Strong cooperation within these regions, enabling the involvement of many more regional partners and countries, forms the basis of EuroGOOS work, and is combined with high-level representation at European and Global forums.</p> <p>Through its Working Groups, EuroGOOS develops strategies, priorities and standards in order to establish a concerted European approach to the development of Operational Oceanography. These strategies are actively promoted towards the European and National operational and funding agencies aiming to maximize their impact.</p> <p>The work is done in close collaboration with the international community of operational oceanography especially through JCOMM and global programs (GODAE, ARGO, OceanSITES, SOOP etc). EuroGOOS is one of the 12 GOOS Regional Alliances (GRA) and works with them for a coordinated approach in the development of regional and coastal operational oceanography.</p> |