INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS
UNION GÉODÉSIQUE ET GÉOPHYSIQUE INTERNATIONALE

STRATEGIC PLAN

2016 – 2023

Preamble

The International Union of Geodesy and Geophysics (IUGG) is a non-governmental, scientific organization, established in 1919.

IUGG is dedicated to the international promotion and coordination of scientific studies of Earth (physical, chemical, and mathematical) and its environment in space. IUGG encourages the application of this knowledge to societal needs, such as mineral resources, mitigation of natural hazards and environmental preservation.

IUGG is comprised of eight semi-autonomous Associations, each responsible for a specific range of topics or themes within the overall scope of Union activities.

Responsibility for directing the Union's affairs is vested in the IUGG Council by the Statutes and By-Laws. During the General Assemblies, these policy documents that govern the Union are developed, amended, and ratified by voting members.

According to the Statute's Article 1, IUGG's *objectives* are:

a) to promote the study of all problems relating to the figure of the Earth, and the physics and chemistry of the Earth's interior, surface, fresh waters, cryosphere, oceans and atmosphere, along with relevant studies of other planets;
b) to initiate, facilitate and coordinate research into, and investigation of those problems of geodesy and geophysics which require international co-operation or which are of international interest;
c) to provide, on an international basis, for discussion and publication of the results of the research indicated in Article 1.b);
d) to promote co-ordination worldwide of scientific activities in the disciplines of interest to the Union;
e) to assist with scientific advice the study of practical problems of a geodetic or geophysical character when such problems present an international aspect or when they require international co-operation of specialists or facilities;
f) to promote and coordinate the scientific activities of several Permanent Services whose objectives are, on an international basis, to facilitate the standardization of measurements or to collect, analyze and publish geodetic or geophysical data, taking into account the results of planetary studies.

1. Mission Statement

IUGG's *mission* is to advance, strengthen and promote Earth and space sciences for the benefit of humanity, through international research cooperation and education and to communicate the knowledge to governments and policy-makers.

2. Vision Statement

IUGG envisions a future Earth that is environmentally sustainable and where societies are resilient against natural hazards.

3. Core Principles (& Aspirations)

IUGG aspires to:

- ENCOURAGE RESEARCH ACTIVITIES IN THE GEOSCIENCES
  - To foster and support researchers' discoveries in Earth and space sciences
  - To address impacts of Earth system processes on society, including those arising from climate change and natural hazards
  - To contribute to sustainable development, stewardship of natural resources, and the preservation of the environment

- UNDERTAKE RESEARCH COMMUNICATION AND EDUCATION
  - That communicates knowledge to expert community, and to wider society
  - That defends freedom of thought and expression by individual scientists
  - That promotes universal principles of ethical research, such as excellence, inclusiveness, dissemination, participation, ethics, scientific principles, non-political, and public good
  - That encourages countries to guarantee worldwide participation in, and data contribution to, the Earth and space sciences
  - That supports capacity building in developing countries

- INFORM GOVERNMENTAL & INTERNATIONAL POLICY
  - In order to play a leading role in advising policy-makers
  - To champion an open data and open publication policy in the Earth and space sciences
  - To address the issue of supporting scientists from non-IUGG member countries

- IMPROVE GLOBAL RESEARCH COORDINATION
  - To strengthen global cooperation in Earth and space sciences
  - To strengthen its Associations so that they improve their effectiveness
  - To develop and promote standards for data, models and services
  - To deliver those products and services that support the Earth and space sciences that cannot be provided by other organizations and agencies
  - To draw attention to the societal benefits from advances in the Earth and space sciences

IUGG promotes:

- Inter- and multi-disciplinary international programs and projects (see Figure 1)
- The collaboration with other multi-national or regional geodetic, geophysical or other geosciences organizations through its many partnerships and its Affiliate Membership program (see Figure 2), as well as through its Member Countries (Figure 3)

IUGG supports (Figure 4):

- Associations dedicated to the major disciplines of the Earth and space sciences, its commissions, divisions and working groups, as well as inter-association activities
- Union Commissions and Working Groups dedicated to interdisciplinary research in Earth and space sciences
- International science meetings
- An interdisciplinary international grants program
- A science education program

4. Major Goals

The Mission and Core Principles of IUGG will be addressed by focusing on several Major Goals and implementing structural and organizational changes in order to reach them:

- IUGG Visibility & Effectiveness
  - Promote IUGG and its Associations, e.g. by organizing more joint events (major IUGG-badged/themed annual event, highlight inter-association meetings, etc.), emphasizing the unique contributions of IUGG and its Associations, prepare “white papers” or summary reports on key topics, etc.
  - Promote the products and services offered by the Associations within the community and to policy-makers, e.g. through the National Correspondents and Liaison Officers, special events, etc.
  - Contribute to promoting and enhancing fundamental research in the geosciences, to understanding of the contributions the Earth and space sciences make to everyday life, and to solving crucial geo-problems in collaboration and coordination with international (e.g. the International Council for Science) or intergovernmental (e.g. U.N. organizations, the Preparatory Commission on Comprehensive Nuclear-Test-Ban Treaty Organization - CTBTO, the Group on Earth Observations - GEO) major initiatives and programs
  - Develop an IUGG Communications (Implementation) Strategy that addresses the above goals, and measures their effectiveness

- IUGG Research Collaboration & Education
  - Encourage greater collaboration with Sister/Partner Organizations, the private industry, national and space agencies

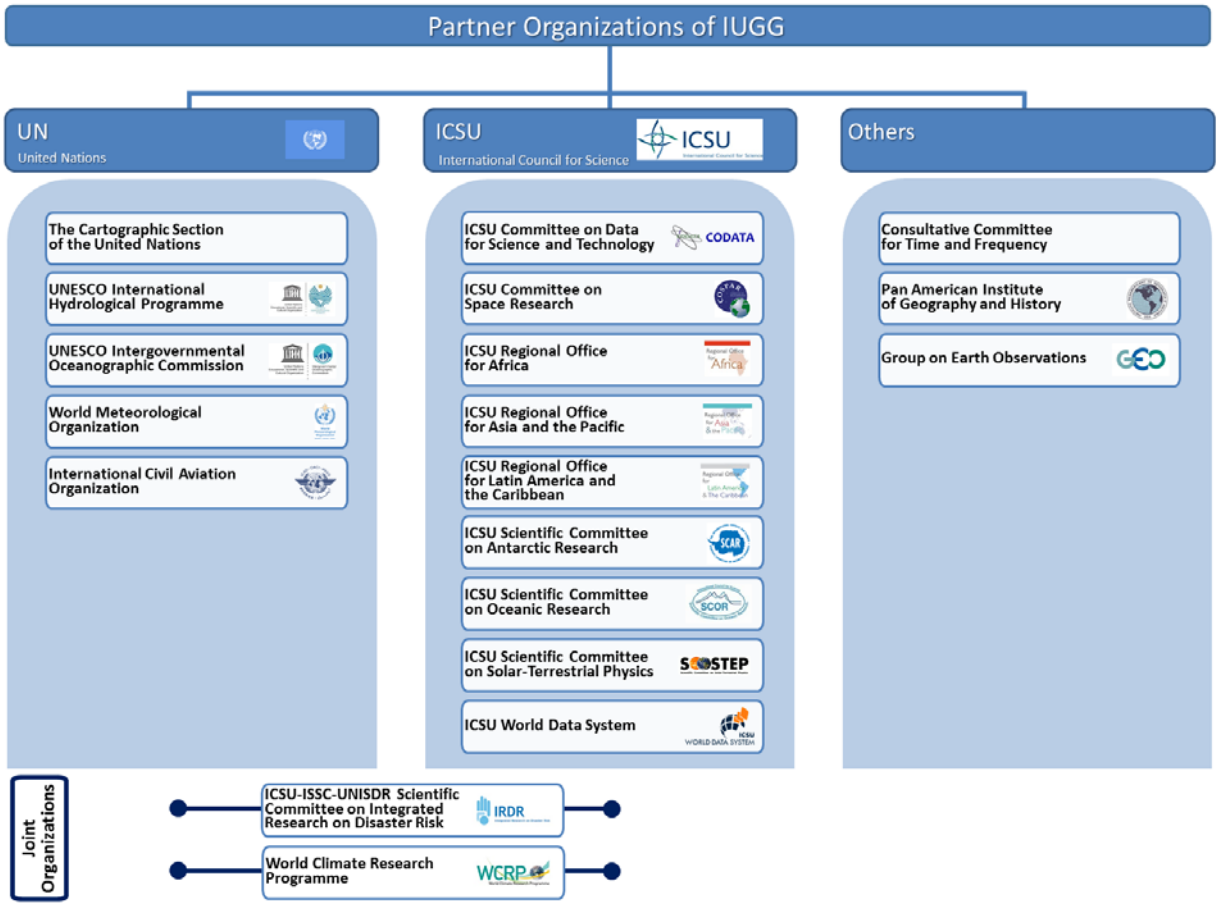
- Encourage early-career geoscientists to participate in international science activities, e.g. through appropriate Association-level strategies, travel grants, etc.
- Encourage countries and agencies to provide free access to data and information, and to initiate collaborative projects that have Regional and Global scope
- Encourage the education of future generations of geoscientists, taking into account challenges and inequities such as gender inequalities, the need to offer education for individuals with diverse backgrounds, the need for greater cross-disciplinary knowledge, etc.
- Develop an IUGG Research Collaboration (Implementation) Strategy that addresses the above goals, and measures their effectiveness

- IUGG Management
  - Strengthen the role of the IUGG Council, e.g. by making decisions through electronic voting, increasing participation of its members, etc.
  - Make more effective use of Business Meetings (Bureau / Executive Committee / Council Meetings), e.g. by reducing oral reporting (focus on written reporting instead)
  - Make use of modern technology where possible to reduce the need for travel, e.g. teleconferencing
  - Strengthen the National Committees, e.g. by giving clear roles to the National Correspondents of the Associations
  - Strengthen the links to Sister/Partner Organizations through the Liaison Officers
  - Develop guidelines for Individual membership of Associations, e.g. harmonizing terminology, expectations, voting, representations, etc.
  - Develop an attractive National Membership Program to encourage countries to become a member of IUGG
  - Facilitate early-career geoscientists playing greater roles in IUGG and its Associations, e.g. by encouraging National Committees to identify such people, to mentor them, provide internship opportunities, etc.

Figure 1: Programs and Projects initiated and/or supported by IUGG

Current	Past
• **International Lithosphere Programme** (ILP, a joint IUGS-IUGG activity)	• **International Geosphere-Biosphere Programme** (IGBP, 1987-2015)
• **Global Geodetic Observing System** (GGOS, an IAG program)	• **International Year of Deltas** (IYD, 2013-2014)
• **World Climate Research Programme** (WCRP)	• **Extreme Natural Hazards and Societal Implications** (ENHANS, 2010-2014)
• **Integrated Research on Disaster Risk** (IRDR)	• **International Year of Planet Earth** (IYPE, 2007-2010)
• **International Year of Global Understanding** (IYGU)	• **Electronic Geophysical Year** (eGY, 2007-2008)
• **Mathematics of Planet Earth** (MPE)	• **International Polar Year** (IPY, 2007-2008)
• **World Data System** (WDS)	• **International Heliophysical Year** (IHY, 2007-2008)
	• **International Decade for Natural Disaster Reduction** (IDNDR, 1990-1999)
	• **Geodynamics Project** (1972-1979)
	• **Global Atmospheric Research Programme** (1967-1980)
	• **International Hydrological Decade** (1965-1974)
	• **Upper Mantle Project** (1964-1970)
	• **International Geophysical Year** (IGY, 1957-1958)

Figure 2: Partner Organizations of IUGG and Affiliate Members



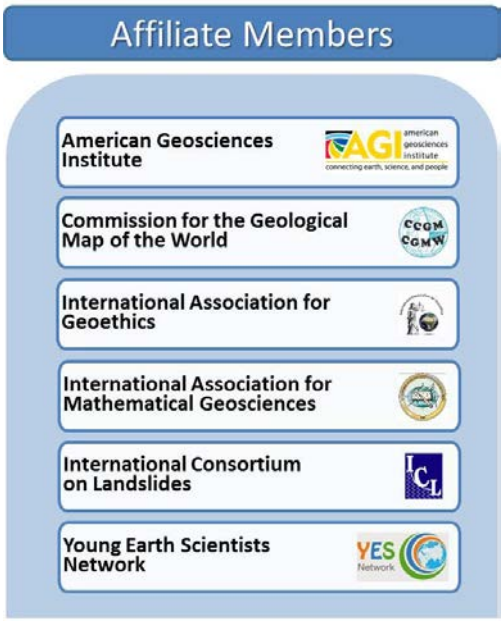


Figure 3: Regional distribution of current (dark green) and former (light green) IUGG Member Countries (as of 01.01.2016)

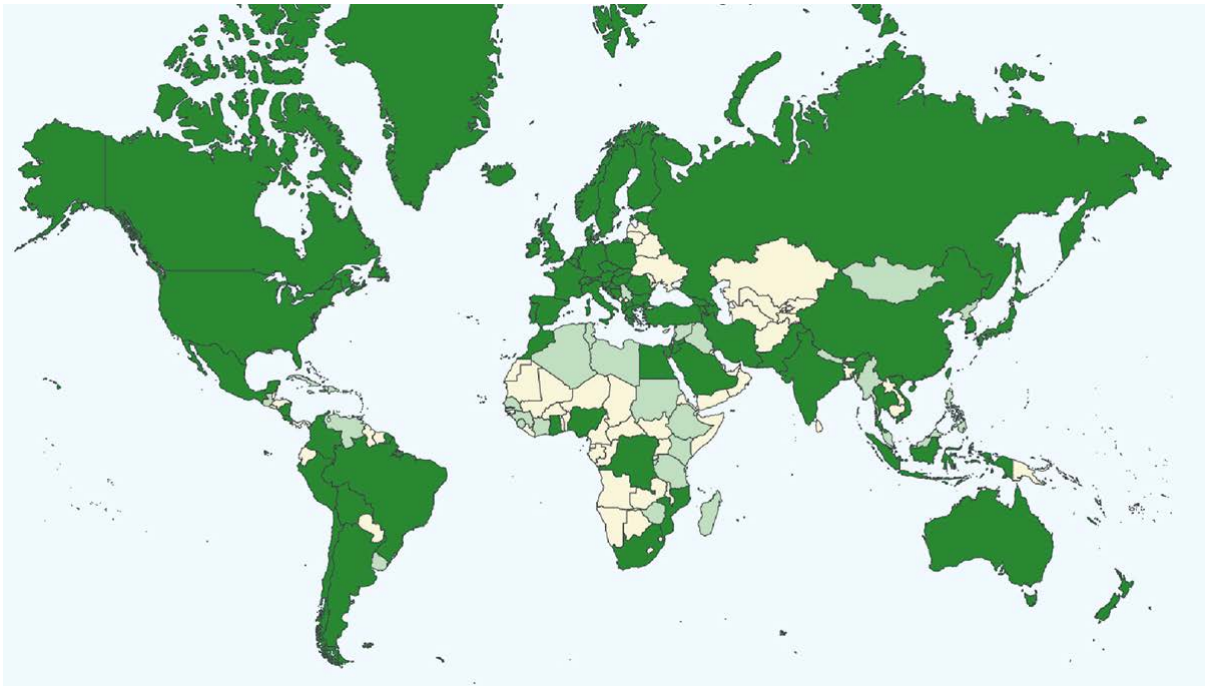


Figure 4: IUGG Structure