

## Terms of Reference

# IUGS Task Group on Global Geoscience Workforce

### BACKGROUND

Application of the geosciences is a global activity in which geoscientists work, learn, collaborate and contribute, often across international boundaries. The health of the discipline of geoscience and of its practitioners is dependent on there being a sustained contribution to the well-being of society, strong public awareness and support of the Earth sciences and, most importantly, the continuing development of new professionals to replace the old.

Like many other professional groups, the global geoscience workforce faces two major concerns: the pending retirement of post WWII professionals and uncertainty regarding the adequacy of their replacement with respect to quantity and quality. This concern is acute both in developed and developing nations.

Knowledge of the number of geo-professionals and their distribution, both in terms of specialization and affiliation, is currently very poor globally. There is even greater uncertainty with respect to predicting the number of new Earth science graduates and post graduates.

The establishment of an IUGS Task Group on Global Geoscience Workforce will enable the Union to take a leadership role in raising the quality of our understanding of the geoscience workforce across the world. As demonstrated in recent conferences, including the 33<sup>rd</sup> IGC in Oslo, the issue of a sustainable Earth sciences workforce is of global concern, but the ability to address the issue remains elusive for most nations.

Through the leadership of individuals and organizations that have already documented details for this particular issue, the IUGS Task Group on Global Geoscience Workforce will facilitate the development of national and international measurement and understanding of the workforce issues. In addition, the Task Group will represent a key organ in building an understanding of the varied educational and employment environments across the world, so that baselines that allow for comparability of metrics and capabilities may be established and shared with member countries.

## **APPROACH**

The Task Group will work exclusively through modern means of telecommunication including discussions, meetings and information exchange via the “wiki”, email and teleconference. These virtual meetings will be held regularly relying on a rotational system of meeting “chairs” to ensure that the full variety of issues and opinions are adequately addressed. Normal communiqués will be maintained between these virtual meetings. As a consequence this group will function at very little cost to any organization.

## **PARTICIPANTS**

Representatives of institutes, national committees, societies and other geoscience organizations interested in workforce issues such as employment and educational trends, international transfer of human resources, highly qualified personnel (HQP) and others, may be invited to contribute to the interaction and outcomes of this Task Group. Participants will be identified via two avenues – known organizations and individuals which have undertaken efforts to address workforce issues, and those that have the intent and interest, but seek assistance in developing the appropriate framework. The IUGS intends to contact all National Bodies and Affiliated Organizations inviting them to nominate relevant candidates to the Task Group who would contribute substantially towards addressing the Group’s objectives.

The American Geological Institute (AGI) has agreed to provide the leadership to the Task Group. AGI will enlist the assistance of participants from the 33<sup>rd</sup> IGC Workshop WSS-22 on global workforce, all of whom represent organizations actively participating in this endeavor. Additional contacts will be made from leading organizations in other countries that have earlier expressed an interest and desire to participate, including some in China, Russia, India, and Iran.

## **OUTPUTS**

The Task Group will investigate and generate a series of globally relevant items which will be published and/or distributed as appropriate under the auspices of the IUGS, for example:

- Descriptions and definitions for ensuring comparability of data and information regarding issues such as job classifications, educational levels, fields of Earth science specialisation, immigration/emigration versus temporary transfers, etc.

- Report on the global baseline of knowledge regarding the geoscience workforce. The baseline report is key for identifying the major fields of endeavour in the Earth sciences, the raising of public awareness of the importance of these, educational and training requirements, professional workforce levels and adequacy, cross-boundary issues and regional roles in the geoscience marketplace
- Strategies for capacity building that ensure durable global competency in Earth sciences for the future, and enable the profession to position the Earth sciences to promote sustainable economic development globally

## **OUTCOMES**

This Task Group should be action-focused with agreed common product goals including the production of useful baseline studies of employment trends and predicted requirements, and of related educational needs; sponsorship of relevant workshops and sessions at conferences globally; encouragement of submissions to technical journals and conference sessions on geoscience workforce matters; provision of support and information for efforts to educate and inform the public about the important role of geosciences in supporting their welfare.

Individuals interested in participating in this new Task Group and contributing to the goals of the mission should directly contact the Interim Task Group Chair (Dr. Christopher M. Keane).

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