Promoting Awareness and Benefits of GEO in the Science and Technology Community

GEO is promoting awareness and benefits of GEOSS in the scientific and technological communities in order to engage the research community in GEO and GEOSS, with the goal to achieve breakthroughs in the understanding of the Earth's changing environment and global integrated Earth system. The scientific community is encouraged to collaborate within GEO by (i) forming links with major scientific research enterprises in each Societal Benefit Area; (ii) actively encouraging relevant scientists and technical experts to contribute to GEOSS in a truly participatory way; (iii) reaching out to the world's diverse scientific and technological communities to make GEOSS more visible and attractive to them; (iv) contacting universities and laboratories to involve them in GEOSS activities; and (iv) organizing a GEO presence at major symposiums and other meetings.

The Work of ST-09-02 is organized around the following activities:

- Activity 1: Foster links with major scientific research enterprises.
- Activity 2: Encourage scientists and technical experts to contribute to GEOSS.
- Activity 3: Outreach to diverse scientific and technological communities in order to make GEOSS more visible and attractive.
- Activity 4: Specific efforts to contact universities and research laboratories with the goal to involve them in GEOSS activities.
- Activity 5: Presence of GEO at major symposiums and other meetings on different levels.

As part of the effort to increase GEO's presence at major symposiums and meetings at different levels, a number of sessions, workshops and Town hall meetings have been organized with the goal to introduce specific science and technology communities to GEO and GEOSS and to facilitate their support for the implementation of GEOSS. An example illustrating the appreciation of GEO for the support from science communities is the Integrated Global Observing Strategy (IGOS) Achievements Symposium, which was organized on November 19, 2009, in Washington DC, immediately following the GEO-VI Plenary. The Symposium featured accomplishments of the former IGOS Themes which have been transitioned into the GEO framework. Several former IGOS Themes have been further transformed since inclusion within GEO into Communities of Practice (CoP), such as the Integrated Global Water Cycle Observation (IGWCO) CoP, the Coastal Zone CoP, and the Geohazards CoP In this context, a report on the successes of the Asian Water Cycle Initiative (AWCI) was delivered, as well as GEO BON (Biodiversity CoP), advances in ocean monitoring (Ocean CoP), and plans for the Supersites Initiative (Geohazards CoP).

An example of bringing a science and technology community closer to GEO is the workshop "*Towards a Roadmap for Future Satellite Gravity Missions,*" which was jointly organized by GEO, NASA, ESA, GGOS, and the IGCP 565 and held on September 30-October 2, 2009 in Graz Austria (http://www.igcp565.org/workshops/Graz). This workshop brought together researchers involved in the analysis of satellite gravity data and acquainted them with GEO and the societal issues benefiting from their research, such as climate monitoring, sea level changes, and the monitoring of natural and anthropogenic changes in the water cycle. The roadmap resulting from the workshop emphasizes the relevance of satellite gravity missions for targets of GEO and affirms the support of the researchers for GEOSS.

An example for the general outreach to large sceince communities is the Union Session on GEOSS, which was organized at the Fall American Geophysical Union (AGU) meeting held on December 14-18, 2009 in San Francisco, convened by NASA, University of Nevada, Reno, and the European Commission Joint Research Centre. The session served as an introduction to GEO for scientists unfamiliar with the framework by featuring presentations illustrating and underlining the importance of GEOSS services for science and research. Moreover, several presentations have become key candidates for "compelling examples." This activity aims at the compilation of a living set of examples that demonstrate the benefits of GEOSS for the science and technology

communities, and these examples will also be used for illustrating the value of GEOSS during the Ministerial Summit in November 2010.

On the heels of the GEOSS Union Session, the IEEE organized the GEOSS Workshop XXXIII focussing on the theme “Using Earth Observations for Water Management.” The Workshop, held 18 December 2009 in San Francisco, was targeted at the users of Earth observations for the water cycle, with a special emphasis on water users with regional and local programs in California. Thus, water resource managers at the state and municipal levels gave presentations while the concept of GEO and Earth observation activities under the Water SBA were introduced.

This Task is also committed to developing the concept of a voluntary GEO Label. This is intended to:

- encourage scientists, researchers, and others to contribute their data and systems to GEOSS by offering an accepted voluntary label that provides recognition that their contribution is valued by the GEO community.
- differentiate components, data and products delivered through GEOSS and provide a “trusted brand” to GEOSS users; member governments may base their decisions on data/products of such contributions.
- highlight the importance of GEOSS to those previously unaware they were reliant on this initiative for their data or product.

The view of the STC is that such a label should assist the users of GEOSS in assessing the scientific relevance, quality, acceptance and societal needs of the components, services and data sets. These parameters clearly contain a mix of objective and subjective assessments. Conceptually, a GEO label could be broken into two categories:

1. Objective labelling (quality, reliability), and
2. Subjective labelling (relevance, usability)

Both ratings would be voluntary in application, and are meant to show value to both the user and provider.

Task ST-09-02 Leads and Contributors:

China, Committee on Earth Observation Satellites (CEOS), Committee On Space Research (COSPAR), Denmark, European Commission, European Space Agency (ESA), France, Germany, International Council for Science (ICSU), Institute of Electrical & Electronics Engineers (IEEE), International Association of Geodesy (IAG), International Institute for Applied Systems Analysis (IIASA), Open Geospatial Consortium (OGC), South Africa, Spain, Turkey, United Kingdom, United States, World Meteorological Organization (WMO).