

TASK-ST-09-01: Catalyzing R&D Funding for GEOSS

Task Description

Area	Science and Technology
Overarching Task	ST-09-01: Catalyzing Research and Development (R&D) Resources for GEOSS
Sub Task	n/a
Related Communities of Practice	-
Relevant Committees	-

Task Definition

Encourage national governments and international organizations to address GEOSS Science and Technology needs in their R&D programmes. As stated in "The Role of Science and Technology in GEOSS"[2], it should be a priority for GEO Members and Participating Organizations to involve research institutions and funding agencies in GEOSS implementation. To this end, GEO Members and Participating Organizations will be encouraged to: (i) plan and conduct R&D activities in support of GEOSS implementation; (ii) Contribute relevant R&D activities (planned or ongoing) to GEOSS implementation; (iii) Identify and earmark resource sources for those activities; and (iv) promote GEOSS throughout the process. Related activities will include: Develop proposals and guidelines to assist R&D agencies in addressing GEO needs. Engage a dialogue with decision-makers and funding agencies. Identify programmes relevant to GEOSS Science and Technology needs and encourage them to collaborate with one another.

Leads

Type	Member or PO	Implementing Entity	Contact Name	EmailAddress
Task Lead (PoC)	United States	NASA	Kathleen Fontaine	kathy.fontaine@nasa.gov
Task Lead	ESA	n/a	Jerome Bequigon	jerome.bequigon@esa.int
Task Lead	European Commission	DG-RTD	Florence Beroud	florence.beroud@ec.europa.eu
Task Lead	IIASA	n/a	Michael Obersteiner	oberstei@iiasa.ac.at

Motivation/Background

(Why should this Task or sub-task be implemented? What relevance to society? What is the state of the art?)

Worldwide still only few organizations with available resources and other resources make explicit reference to GEO and GEOSS in their programs. It limits then the engagement of the scientific and technological communities in the realization of GEOSS. Therefore it becomes crucial that the funding and other resource providers dealing with earth observation and the SBAs are becoming more aware of GEO and proactive towards GEOSS.

State of the art: the GEO S&T Committee has produced a document identifying a number of programs relevant to GEOSS and there are already some R&D resource bodies who have flagged activities in their WP (EC, etc.). The task should start from those initial steps.

There are existing organizations at the international level that explicitly address providing resources and other resources for relevant scientific efforts in Earth observations, such as the International Group of Funding Agencies for Global Change (IGFA). In addition, there are many examples of individual Member contributions of funding and other resources to GEO and GEOSS-related efforts. Fostering the conversation that may lead to increasing funding and other resources of all kinds targeted to scientific and technology needs, that will inform the work of applications users and providers, is at the heart of this task.

Current Status

Outputs

Description	By Date
Identified set of key Science and Technology programmes needed in the context of the development of GEOSS as well as targeted funding and other resource mechanisms.	Q1 2011

Activities

Description	By Date
ST-09-01 Kick-off meeting, European Commission, Brussels	July 29-30, 2009
Produce initial list for Activity 1 a-e	Completed July 2009
Activity 3a	Completed November 2009
Develop questions for Activity 3b	Completed December 2009

Resources

Description	By Date
UK: NERC (BGS): S.H.Marsh: shm@bgs.ac.uk : Influence NERC funding schemes to support GEOSS implementation.	On-going

In Planning

Outputs

Description	By Dat
1. Identified set of key funding and resource programs with substantial science, technology, or applications interests in GEOSS or datasets of broad scientific value.	
2. Identified set of key commercial/industry companies with substantial science, technology, or applications interests in GEOSS or datasets of broad scientific value.	Q4 2010
3. Report on S&T gaps, priorities, and continuity needs to support GEO.	Q4 2010
4. Establishment of effective forum/network of resource agencies, Members and POs supporting key Science and Technology programmes to exchange views on current actions and discuss overcoming S&T gaps, priorities and continuity needs. Response to S&T gaps, priorities and continuity needs by this forum, including describing Best Practices in responding to these (e.g. by a workshop report).	Q1 2010

Activities

Description	By Date
<p>1. Identify a set of key programmes delivering or supporting science and technology activities needed in the context of the development of GEOSS as well as targeted funding and other resource mechanisms (mid 2009); resources in this context refers to the Capacity Building Committee's I3 description. Build on these existing initiatives; include input from relevant activities within the CBC, ADC, UIC.</p> <p>Identify key resource providing mechanisms and networks, being proactive as possible.</p> <p>a. Work with CBC to use their existing lists and contacts.</p> <p>b. Identify organizations outside those lists.</p> <p>c. Use the regional approach where it makes sense.</p> <p>d. Use the SBA approach where it makes sense.</p> <p>e. Use the global organization approach (eg. IGFA) where it makes sense</p> <p>Identify information regarding at least.</p> <p>f. Operating mechanism.</p> <p>g. SBA or discipline.</p> <p>h. Point of contact</p> <p>i. Type of resource available</p> <p>2. Identify key industry partners. Many commercial companies are using capabilities, knowledge and observational means provided by the S&T communities. These could also benefit from improved observational means, products and services and might therefore be interested in providing resources for certain S&T developments in this context. Moreover, many relevant datasets are produced by such companies, and are of interest for GEOSS users. Therefore, an attempt should be made to have these data sets registered when they become publicly available.</p> <p>Understand the Nature of relationship between GEO and industry</p> <p>a. Activities include discussions with GEO Sec, GEO Members and others</p> <p>b. Identify commercial/industrial companies' interest in and potential contribution to GEOSS</p>	<p>Q 4 2010 - all ongoing</p> <p>Q4 2010 - all ongoing</p>



<p>c. Activities include holding open discussions with commercial/industrial companies to gauge interest.</p> <p>Identify information regarding at least</p> <p>d. Operating mechanism</p> <p>e. SBA or discipline</p> <p>f. Point of contact</p> <p>g. Type of resource available</p>	
<p>3. Collect from the Task leads the answers to the following questions from the task sheets: “In relation to the S&T component(s) of this Task, please describe gaps, priorities, continuity needs, barriers, scientific expertise, and additional resource needs (this information will be used for developing a gaps and needs assessment in Task ST-09-01).</p>	
<p>a. Meet with the STC Co-Chairs and the Activity 1a group to discuss the expectations for this task as regards Activity 1a (S&T Roadmap Activity 1a: Work Plan Review. One objective of the STC is to ensure that the evolving GEO Work Plan is and remains scientifically and technologically sound and contributes to answering relevant questions in the SBAs. This will be achieved through a revolving scientific review of each Work Plan, starting with the current work plan for 2009-2011. The outcome of this review will be an assessment report of the Work Plan against the outstanding questions and challenges in each of the SBAs. This assessment may recommend changes to objectives and scope of existing Tasks or propose new Tasks to respond to any identified deficits or overlaps. The recommendations may also identify opportunities for cooperation between Tasks, suggest inclusion of specific activities from outside GEOSS, or motivate the definition of new ones. The scope of the Work Plan Review also includes reviewing the completeness of the nine Societal Benefit Areas.)</p>	<p>Q4 2010</p> <p>a. Completed Q3/Q4 2009</p>
<p>b. Collect from the Task leads the answers to the following questions from the task sheets: “In relation to the S&T component(s) of this Task, please describe gaps, priorities, continuity needs, barriers, scientific expertise, and additional resource needs (this information will be used for developing a gaps and needs assessment in Task ST-09-01).” (Maps to Activity 1a – Work Plan Review)</p>	<p>b. On-going</p> <p>c. Ongoing</p> <p>d. Ongoing</p>
<p>c. Identify additional science plans, reports, and other material to be reviewed.</p>	<p>e. Ongoing</p>
<p>d. Invite science groups (such as former IGOS-P theme leads and ICSU) and application groups to contribute to analysis of the feedback from task leads. (Maps to Activity 1e – Responding to S&T needs)</p>	
<p>e. Analyze all feedback gathered from the task leads and from the science and application group feedback. (This relates to S&T Roadmap Activity 1e: Responding to S&T needs. Identify concrete deficits and gaps that hinder the full implementation of GEOSS or its effectiveness. In order to address these deficits and gaps efficiently, an attractive platform must be established for broadly agreeing on priorities. GEO should set up a process for coordinating scientific priorities in Earth observation and report them in a way that stimulates appropriate responses from GEO Members and Participating Organizations. This analysis may uncover gaps in component continuity, research, technologies, or other areas.)</p>	
<p>4. Bring together an effective forum/network that can discuss regularly GEO S&T issues and programming and publish forum notes that document the outcome of the forum.</p>	
<p>Establishment of effective forum/network of funding agencies, Members and POs supporting key Science and Technology programmes to exchange views on current actions and discuss overcoming S&T gaps, priorities and continuity needs.</p>	
<p>a. Identify possible forum format(s) and networking format(s)</p>	<p>Q1 2011- all on- going</p>
<p>b. Collect Output 1-3 results to better format the mechanism</p>	
<p>c. Plan for a first forum</p>	
<p>d. Type and release the proceedings/notes from this forum.</p>	

Resources

Description	By Date
UK: NERC (BGS): S.H.Marsh: shm@bgs.ac.uk: Influence NERC funding schemes to support GEOSS implementation.	Ongoing

Cross-cutting Components

Architecture and Data

- 1) Please briefly describe any task-related Earth observation resources (data set, system, website/portal) and any related Web Service interfaces that are contributed to GEOSS. State whether these items are or will be registered with the GEOSS Component and Service Registry for access via the GEO Web Portals, and whether any associated standards or other interoperability arrangements will be registered in the Standards and Interoperability Registry.
- 2) Please also describe what data and information your activity/system needs that you would request to be accessible through the GEOSS Common Infrastructure.

Capacity Building

(capacity building is defined to include the development of capacity related to: (i) Infrastructure and technology transfer (Hardware, Software and other technology required to develop, access and use EO); (ii) Individuals (education and training of individuals to be aware of, access, use and develop EO) and (iii) Institutions – building policies, programs & organizational structures to enhance the value of EO data and products).

- 1) In accordance with the above definition does this Task have a capacity-building component? If so, please provide a short description of this component including a description of end users.
- 2) Have any additional CB needs for this Task been identified? Please provide a short description.

This task supports the development of programs and organizational structures to enhance the value of EO data and products through the forum activity.

Science and Technology

1. Please briefly describe the elements of scientific research or technological development contained in this Task
2. In relation to the S&T component(s) of this Task, please describe gaps, priorities, continuity needs, barriers, scientific expertise and additional resource needs (this information will be used for developing a gaps and needs assessment in Task ST-09-01)

User Engagement

Please briefly describe to what extent end users are engaged in this Task and influence the nature of the outputs produced

Users are key to this effort; the application community is an essential element of the data gathering, analysis, and forum activities. One of the proposed products is a report on gaps, needs, and other issues in the science, technology, and applications communities gleaned, in part, from the task leads.

Contribution to Outputs and Activities Above

**UK**

NERC (BGS): Influence NERC funding schemes to support GEOSS implementation.

EC

EuroGEOSS will contribute to the analysis of GEO S&T needs as identified by GEO Task leads.

ESA

ESA will support EC in this task.

Participation

Type	Member or PO	Implementing Entity	Contact Name	EmailAddress
Task Lead (PoC)	United States	NASA	Kathleen Fontaine	kathy.fontaine@nasa.gov
Task Lead	ESA	n/a	Jerome Bequigon	jerome.bequigon@esa.int
Task Lead	European Commission	DG-RTD	Florence Beroud	florence.beroud@ec.europa.eu
Task Lead	IIASA	n/a	Michael Obersteiner	oberstei@iiasa.ac.at
Task Contributor	Denmark	n/a	Jun She	js@dmi.dk
Task Contributor	ESA	n/a	Jerome Bequigon	jerome.bequigon@esa.int
Task Contributor	ESA	n/a	Jean Louis Fellous	jean-louis.fellous@esa.int
Task Contributor	European Commission	EuroGEOSS	Massimo Craglia	massimo.craglia@jrc.it
Task Contributor	Germany	n/a	Susanne Fretzdorff	s.fretzdorff@fz-juelich.de
Task Contributor	ICSU	n/a	Gisbert Glaser	gisbert.glaser@icsu.org
Task Contributor	Spain	Instituto Espa	Gregorio Parrilla-Barrera	gregorio.parrilla@md.ieo.es
Task Contributor	United Kingdom	NERC (BGS)	Stuart Marsh	shm@bgs.ac.uk
Task	WMO	RES	Jim Caughey	jim.caughey@gmail.com



Contributor				
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