



# **GEO Programme Board**

## **Sub-group 4**

### **Science and Technology**

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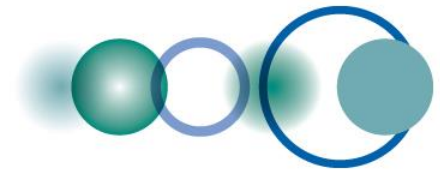
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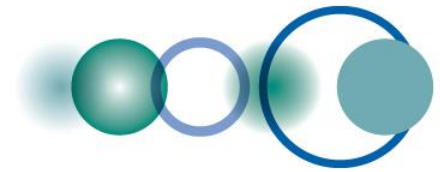
## Remit

Taken From the Programme Board Minutes:

To “review the S&T Roadmap to track the fate of various issues and asses whether they either have been resolved, or are adequately addressed in activities of current Work Programme.”

- primarily, covering the S&T Roadmap and its Annex, but
- secondarily, considering the background documents that supported its creation and support its implementation

We agreed to identify anything in the S&T Roadmap that has not been done, but remains relevant.



## Work Done

The following documents were gathered during March:

*Science & Technology Committee Roadmap (STC, 2011)*

*Science & Technology Committee Roadmap Annex (STC, 2011)*

*Draft GEOSS Data Citation white paper (2011, STC)*

*The Role of Science and Technology in GEOSS (2009, STC)*

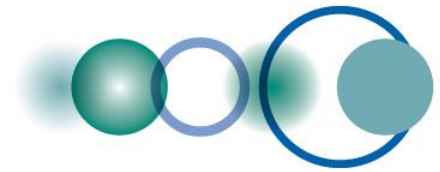
*GEO and Science (2010, ESA and STC)*

*Science and Technology Roadmap Assessment (Japan, 2016)*

*Observation and integrated Earth-system science: A roadmap for 2016–2025 (2016, COSPAR)*

We reviewed the documents briefly and split them in two:

- one set that informs the backward looking review
- Another set that looks forward and considers S&T in the context of the new work plan and its future development



# Review and Gap Analysis

Activity	Action	Short description	Needs attention?	Status
1a - Revolving scientific review of each Work Plan	1	Review Process	No	incomplete
	2	Raise funding	No	not started
	3	Review WP 2012-15	Yes	not started
1b - Implement review indicators in the GEO Work Plan reporting	1	Implement review indicators in task sheets	No	delayed
	2	Track review indicators	No	not started
	3	Implement user feedback option in portals	Yes	pending
1c - Assess the requirement for continuity and long-term monitoring	1	Develop continuity indicators	Yes	pending
	2	Propose process to evaluate criticality	Yes	pending
	3	Framework to coordinate responses	Yes	pending
1d - Ensuring state-of-the-art technology in the GEOSS Common Infrastructure (GCI) and Observation Infrastructures	1	Review GCI technology	No	progressing
	2	Review technology and relevance of Component systems	No	delayed
1e - Responding to S&T needs and priorities	1	process to communicate S&T priorities to effect responses	Yes	delayed
2a - Getting GEO/GEOSS better acknowledged	1	Propose a GEOSS citation standard	Yes	progressing
	2	Promote citation standard	No	pending
2b - Establishing a "GEO label"	1	Propose GEO Label	Yes	delayed
	2	Discuss it in STC	No	pending
2c - Building awareness of GEO and GEOSS	1	Sessions at conferences	No	progressing
2d - Showing GEOSS at work	1	Document case examples	No	completed?
2e - Enhancing registration of scientific data sets	1	List key data sets	Yes	unclear
	2	Pursue their registration	No	not started
2f - Identify key commercial partners	1	List key companies	No	unclear
	2	Pursue opportunities	No	delayed
2g - Catalyze research and developing funding	1	Identify programmes	Yes	unclear
	2	Convenc forum/network	No	not started

The final STC document provides a good starting point:

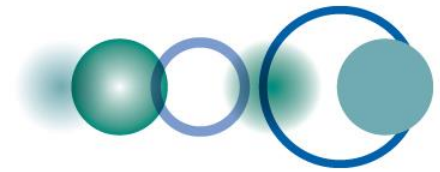
**GEO S&T Roadmap Status Report (2011)**

This has been updated using the GEO Work Plan and Symposium.

These three **potential gaps** remain:

- GEO Label** (as part of 'brand')
- Data Citation** (taken up by RDA)
- S&T visibility, forums & reviews**

**EO Continuity Indicators (GD-03/5), Data (GD-01) and Funding (SO-04)**



## Recommendations

- Take into account both the **GEO Label** and **Data Citation** within the *branding* activity currently being developed
- **Consider S&T issues explicitly in GEO Work Programme reviews**; both the use of the state of the art in the existing activities and developing new activity from S&T advances
  - SG4 proposes four documents to underpin these reviews:
    - *GEO and Science (2010, ESA and STC)*
    - *Science and Technology Roadmap Assessment (Japan, 2016)*
    - *Observation and integrated Earth-system science: A roadmap for 2016–2025 (2016, COSPAR)*
    - *Common Framework for EO Data (US Nat. S&T Council, 2016)*
- Extend **S&T visibility** & engage **S&T Community** in Forums