

How the S&T Roadmap responds to the GEOSS Strategic Targets

At its 6th Plenary session, in November 2009, GEO accepted a set of 12 Strategic Targets to provide high-level direction to the implementation of GEOSS by 2015¹. In September 2010 the GEO STC recognized that these targets provided additional guidance for GEOSS implementation and decided to analyse what adjustments were necessary in the S&T Roadmap.

This Annex explains how the S&T Roadmap supports the Strategic Targets.

Of the 12 Strategic Targets, five targets are cross-cutting in nature, i.e. do not refer to the aims specific to any one of the nine Societal Benefit Areas. One of these specifically addresses the domain of "Science and Technology".

Each Strategic Target is complemented by a description of the means by which GEO anticipates to reach the target. The activities of the S&T Roadmap implement many of these directly. All of them are supported to some extent. It is important to note that the STC is not the sole responsible actor in GEO for reaching the Science and Technology Strategic Target. Nor is this Strategic Target the only one that the STC must work to achieve.

The following figure indicates how the 12 activities of the S&T Roadmap support the 5 Strategic Targets.

Roadmap Activities		Strategic Targets											
		4. Ensure full interaction and engagement of relevant science and technology communities such that GEOSS advances through integration of innovations in Earth observation science and											
		promote research and development in key areas of Earth sciences to facilitate improvements to Earth observation systems; technology, enabling the research community to fully benefit from GEOSS accomplishments	research and development for models, data assimilation modules and algorithms for services and products	encouraging and facilitating the transition of systems and techniques from research to operations by fostering collaboration and partnership between the operational and research communities	provision for sensor validation and verification	incorporate of S&T outcomes that improve observing systems and observational capacity	improve interoperability between global observing systems and modelling systems	include societal needs in new research observing system planning and include research considerations in operational observing system planning	life-cycle data management and optimisation, data integration and information fusion, data mining, network enhancement, and design optimization studies, up-scaling and downscaling, and visualisation of large and diverse data sets	1. Sustained operation of GCI	2. Provide comprehensive data of documented quality	5. Ensure user information needs are recognized and met	
Actively engage and incorporate S&T communities in developing GEOSS	1a												X
	1b				X	X						X	
	1c			X		X		X					X
	1d					X				X	X		
	1e	X	X										
Create incentives and promote GEO in S&T communities	2a												
	2b										X		
	2c												
	2d												
	2e											X	
2f	X	X				X				X			
2g	X	X					X						
Earth Observation Capacity Assessment									X				X
Implementation of Work Plan Tasks in general								X	X				
Architecture and Data Committee										X			

Several of the more fundamental Roadmap activities are not reflected directly in the means stated in the Strategic Targets document. Several of the Roadmap activities are more fundamental to the objectives of the STC's objectives and represent

¹ Available at

http://www.earthobservations.org/documents/geo_vi/12_GEOSS%20Strategic%20Targets%20Rev1.pdf

preconditions for GEO's ability to pursue the means. For completeness, the following figure indicates how the Roadmap activities support the STC's objectives²:

Roadmap Activities		GEO Rules of Procedure					
		solicit input from S&T community	Ensure scientific and technological integrity and soundness of GEO Annual Work Plans	Monitor and review output and deliverables of GEO Annual Work Plans	Identify individual experts and groups to participate in GEO working groups	Facilitate linkages and partnership with major relevant international research programmes as well as organizations willing to contribute to GEO activities	
Actively engage and incorporate S&T communities in developing GEOSS	1a	Revolving scientific review of each Work Plan	X	X			X
	1b	Implement review indicators in GEO Work Plan reporting		X	X		
	1c	Assess the requirement for continuity and long-term monitoring					
	1d	Ensure state-of-the-art technology in the GCI and observation infrastructures					
	1e	Respond to S&T needs and priorities					X
Create incentives and promote GEO in S&T communities	2a	Get GEO/GEOSS better acknowledged	X				X
	2b	Build a "GEO Label"			X		
	2c	Build awareness of GEO and GEOSS	X				X
	2d	Show GEOSS at work	X				X
	2e	Enhance registration of scientific data sets	X				X
	2f	Identify key commercial partners	X				X
	2g	Catalyze research and development resources					X

² See Appendix 3 to Annex B of the GEO Rules of Procedure, available at <http://www.earthobservations.org/documents/GEO%20Rules%20of%20Procedure.pdf>.