

IN-02-C1 Overview

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POC of IN-02-C1

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GEO Work Plan IN-02-C1

- Development of Regional/Global Information and Cross-cutting Datasets (including socio-economic information)
 - *Priority Actions*
 - Provide a suite of global datasets based on improved and validated data sources. Facilitate interoperability among data sets using the GEOSS architecture
 - Produce a global, coordinated and integrated Digital Elevation Model (DEM), facilitating interoperability among existing Digital Elevation Model data sets
 - Improve Global Map and foster its use across Societal Benefit Areas. Global Map datasets provide a full and consistent coverage of land on the Earth – at 1 km resolution or higher
 - Develop a global digital geological map of the world. Make existing geological map data web accessible.
 - Use OneGeology to transfer know-how to the developing world. Develop a 3D geo information infrastructure to enhance the effectiveness of in-situ geo-scientific datasets
 - Support the development of a global soil information system incorporating data from global, regional and national soil data projects
 - Develop a global road and human settlements map on GEO Grid. Collect, maintain, and evaluate relevant remote sensing and Geographic Information Systems data.
 - Develop systems on GEO Grid towards sharing, developing and distributing data

1. WGISS-Related Activities

(outside of CEOS)

- GEO Work Plan IN-02-C1: Development of Regional/Global Information and Cross-cutting Datasets (including socio-economic information)
 - Status
 - CEOS/WGISS is POC of the component.
 - Coordination is on-going.
 - The latest task (component) sheet is available via http://earthobservations.org/geoss_imp.php
 - Coordination among IN-02 components and others is planned during “GEO Work Plan Symposium” week (April 30).

PLAN (COMPONENT SHEET)

<WGISS/WGCV RELATED PARTS>

Outputs and Activities

I. Infrastructure

Key Outputs (1/2)

Short Description	Start	End	LEAD
1. GEO Best Practices for data management approaches that encompass a broad perspective of the observation data life-cycle	Q1 2012	Q4 2015	CEOS/WGISS ESA Japan (TBC) USGS
1-1 The CEOS WGISS Data Management Statement document (for Earth Observation Satellite Data) [1 st version]	Q1 2012	Q4 2012	CEOS/WGISS USGS
2. GEO Strategy for the long-term preservation of Earth observation data	Q1 2012	Q4 2015	CEOS/WGISS ESA USGS
2-1 Specific, targeted white papers(1 st version, for Earth observation satellite data) including the following titles; a) Long-Term Archive Strategies (White Papers) b) Data Preservation Techniques (White Papers) c) Data Lifecycle Models and Concepts (White Papers) d) Browse Survey 1997-2010 (White Papers) e) Guidelines for GIS-Ready Products (White Papers) f) Offline Media Trade Study (Reports)	Q1 2012	Q4 2012	CEOS/WGISS USGS
3. GEO Strategy for data quality assurance	Q1 2012	Q4 2015	CEOS/WGCV
4. Develop an architecture and constituent elements needed for implementation of an operational system to insure the long term interoperability of EO data to meet the SBA needs, particularly climate; e.g. Methodologies, test sites, database infrastructure for quality.	Q1 2012	Q3 2013	CEOS/WGCV

Complete!

a)~c) & f) :Complete!
e): To be finalized at WGISS-34
d): To be discussed at WGISS-34

(e.g. products and services which result from the activities of the Component; outlined in the form of deliverables with timelines)

I. Infrastructure

Key Outputs (2/2)

Short Description	Start	End	LEAD
5. Develop a general Earth System Spatial Grid (ESSG) for GEOSS data long term registration, cloud management, sharing access, integrated analysis and SBAs application	Q1 2012	Q4 2015	China
5-1 Standard global spatial reference frames, without projection and domain limitations, for GEOSS data positioning and analysis based on a general 3D grid system a) Earth System Spatial Grid (ESSG), covering the inner, surface and outer of planet Earth, acts as a global reference frame (white paper) b) A unique spatial coding system of ESSG for data positioning (white paper) c) Specific strategies of digital manipulation based on the coding system for data analysis (White paper)	Q1 2012	Q4 2012	China
5-2 A unique spatial coding system based on ESSG for GEOSS data positioning, registration, storage, management and index a) Standard ESSG coding scheme (White Paper) b) ESSG dimensional refined coding scheme (White Paper)	Q3 2013	Q4 2014	China
5-3 ESSG-based tool sets, free-downloaded, for GEOSS data registration, conversion, link, access, integration, analysis, tracking and visualization a) ESSG-based tool for GEOSS data positioning and registration b) ESSG-based tool for GEOSS data link and access c) ESSG-based tool for GEOSS data conversion d) ESSG-based tools for GEOSS data integration and fusion e) ESSG-based tool for GEOSS data-updating automatic tracking f) ESSG-based tool for GEOSS data analysis for SBAs applications g) ESSG-based tool for massive GEOSS data visualization	Q4 2012	Q4 2015	China
5-4 GEOSS data sharing service based on ESSG with easy achieving and access for SBAs under cloud environment. a) ESSG-based data sharing mode under cloud environment b) GEOSS data sharing middleware based on ESSG under cloud environment	Q1 2014	Q4 2015	China

Outputs and Activities

I. Infrastructure

Key Activities (1/2)

Short Description	Start	End	LEAD
1. Coordinate data management approaches in order to prepare "GEO Best Practices".	Q1 2012	Q4 2015	CEOS/WGISS ESA USGS
1-1 Sharing data management life cycle models and recommendations starting with preparation of the CEOS WGISS Data Management Statement document (for Earth Observation Satellite Data)	Q1 2012	Q4 2012 Complete!	CEOS/WGISS USGS
2. Develop a GEO strategy for the long-term preservation of Earth observation data, building upon existing GEO long-term data preservation guidelines	Q1 2012	Q4 2015	ESA CEOS/WGISS USGS
2-1 Provide data management guidance by coordination and preparing specific targeted papers shown under "Key Outputs" item 2-1.	Q1 2012	Q4 2015 In Progress (4 of 6 outputs were completed)	CEOS/WGISS USGS
3. Prepare Long Term Data Preservation (LTDP) User requirement document and Content Standard.	Q1 2012	Q4 2015	ESA
4. Develop a GEO strategy for data quality assurance, starting with CEOS Quality Assurance Framework for Earth Observation (QA4EO) and gradually expand into in-situ observations.	Q1 2012	Q4 2015	CEOS/WGCV
4-1 Define GEO QA Requirements for key SBA efforts (SBA, CEOS WG/VCs)	Q1 2012	Q4 2012 Status?	CEOS/WGCV
4-2 Develop QA4EO Implementation pilots on the highest priority GEO Data/Information/SBA efforts	Q1 2012	Q3 2012 Status?	CEOS/WGCV

Outputs and Activities

I. Infrastructure

Key Activities (2/2)

Short Description	Start	End	LEAD
4-3 In order to establish QA4EO "being used as a quality badge" or some quality id process related to GEO Data/Information/Products, develop a draft plan for implementation.	Q1 2012	Q2 2013	CEOS/WGCV
5. Enabling Data and Information Interoperability and Harmonization in CEOS and GEO.	Q1 2012	Q3 2013	CEOS/WGCV
6. Documentation of ESSG for "GEO Best Practices", including the followings; a) Define an ESSG model with preparation of ESSG reference frame documents b) Define ESSG coding scheme with preparation of corresponding documents	Q1 2012	Q2 2013	China
7. Develop a group of ESSG-based tool sets for GEOSS data sharing with functions of registration, conversion, link, access, integration, analysis, tracking and visualization	Q3 2013	Q4 2014	China
8. Develop cloud-based service providing GEOSS data sharing services of data registration, archiving and access for SBAs. a) Prepare the documentations and specifications of the ESSG-based sharing mode b) Integrate the ESSG-based tool sets into a middleware providing data sharing services of data registration, archiving and access for SBAs in cloud environment	Q4 2013	Q4 2015	China
9. Build upon the Data Integration and Analysis System (DIAS) to assess and document Earth datasets in cooperation with operational- and research- data centers.	Q1 2012	Q4 2015	Japan
10. Develop a process and tools for incorporation of quality assurance information and work with DIAS to support implementation. (TBC)	Q1 2012	Q4 2015	CEOS/WGCV Japan (TBC)

Outputs and Activities

II. Institutions and Development/Capacity Building Key Outputs

Short Description	Start Date	End Date	LEAD
1. A group of tools for cloud-based GEOSS data management, free access and easy application	Q1 2012	Q4 2015	China
2. A virtual pool of GEOSS data for sharing access, computation and visualization services	Q1 2013	Q4 2015	China
3. A process and tool for data quality indication and 'fitness for purpose'	Q1 2012	Q4 2015	CEOS/WGCV
4. Workshops and training courses on ESSG-based data sharing services for scientists and decision makers across SBAs	Q1 2012	Q4 2015	China

Key Activities

Short Description	Start Date	End Date	LEAD
1. Using the tools and providing quality and data management information with data/information packages	Q1 2012	Q4 2015	CEOS/WGCV

Outputs and Activities

III. Social Benefits

Key Outputs

Short Description	Start Date	End Date	LEAD
1. Guidance documents and tools supporting the preservation of data and the quality assurance of data used across SBAs.	Q1 2012	Q4 2015	CEOS/WGCV CEOS/WGISS
2. Best practices for ESSG-based data sharing middleware across SBAs to make GEOSS data access easily and conveniently.	Q1 2013	Q4 2015	China
3. Guidance documents and tools supporting ESSG-based cloud storage, sharing access and automatic tracking across SBAs	Q1 2012	Q4 2015	China

Key Activities

Short Description	Start Date	End Date	LEAD
1. Prepare the best practices as well as guidance documents of ESSG-based data sharing middleware to SBAs based on the existing UN and ICSU datasets under cloud environment	Q1 2012	Q4 2015	China

ACCOMPLISHMENTS

WGISS

- 1-1 The CEOS WGISS Data Management Statement document (for Earth Observation Satellite Data) [1st version]
- 2-1 Specific, targeted white papers(1st version, for Earth observation satellite data) including the following titles;
 - a. Long-Term Archive Strategies (White Papers)
 - b. Data Preservation Techniques (White Papers)
 - c. Data Lifecycle Models and Concepts (White Papers)
 - f. Offline Media Trade Study (Reports)