

Summary of Supersites discussion at **FRINGE 2011 meeting**

Frascati 21 Sept. 2011- splinter meeting

Chair:

Falk Amelung (GEO task leader)

Craig Dobson, represented by Jeanne Sauber
(NASA - CEOS task leader)

Massimo Cocco (INGV - EPOS leader)

Objective of the Splinter meeting:

- general information on progress on action of previous splinter meeting
- information on Space / In-situ collaboration
- Endorsement of White Paper (Bylaws, consortium structure, governance structure, every contributor own data policy, time delay for volcanoes)
- Input for Strategic Plan (2012-2013). Focus: Natural laboratories (presented to GEO plenary Nov 16), Focus sites for Space within European Natural Laboratory
- Next steps / milestones / demonstrators (GEO Plenary, GEOSS of Americas, UNAVCO Science meeting,??)

General information on progress on action of previous splinter meeting

- Previously identified actions → closed (White Paper, Bylaws, Partnership instead of Consortium)
- Enlargement of on-line data repository → done. In particular good progress has been made for the event Supersites Haiti and Japan with data from Envisat, TS-X, ALOS, Radarsat, UAV SAR
- DLR gave a presentation about procedures for accessing TS-X data to the Supersite initiative
- ESA makes very good progress in populating natural laboratories

Space & in-situ are joining forces

- Impressive presentation about in-situ assets:
 - EPOS: the “European Plate Observatory System” infrastructure project. Data assets from 18 countries are being contributed
 - Unavco (Earthscope, CocoNet)
 - Japan;
- US- European coordination of in-situ assets under way
- The European Commission has opened a call for several Supersites in Europe with a funding of 6M€ each.
- Monitoring agencies are getting integrated into the Supersite structure
- New results have been presented exploitation of synergy of multiple data sources across discipline

Endorsement of White Paper

- governance: representative for in-situ data provider needed as co-Chair
- Results of CEOS survey on the Supersites:
 - The White Paper looks fine
 - Supersite PI should submit proposal with specific data needs to CEOS PoC, showing expected results and synergy utilizing the specific strengths of satellites and in-situ data (value of the combination should be clear)
 - Reporting from the science community to the data providers is essential. The benefit for both, data provider and scientists, of openly available access needs to be shown.
 - Individual data policies need to be respected
- International coordination of in-situ data provider is a big challenge. In many countries the in-situ responsibility is not clear (except: EPOS for Europe, USGS and Earthscope for USA)

Input for Strategic Plan (2012-2013).

- In the Splinter meeting it became clear that before expanding the number of Supersites and Natural Laboratories, success and usefulness needs to be demonstrated
- However the Natural Laboratories could /should be used as a mechanism for data providers to attract innovative science, leading to new applications and services.
- The Strategic Plan is close to be finalized
- An updated strategic plan will be posted on Supersites website together with a questionnaire on potential Supersites/Natural Laboratories and in-situ data provider, and the input form the community will be solicited.
- Willing in-situ data provider (who contribute data) should be rewarded by establishment of additional Supersites.

Unresolved issues

- Reporting: the usefulness of the SSNL data provision for the CEOS is not obvious, even though results exist. Expectation from some CEOS Agencies are not obvious to fulfill (e.g. how data are used by decision makers and cabinet office)
- Differences in expectations from Space Agency's: NASA: vulnerability, DLR: vulnerability is a business case. Science is priority without interfering with business opportunities.
- Different understanding of business opportunities between Space Agencies: DLR, ASI?: services (data processing and interpretation). Japan (selling of data). ESA: (1) Science; (2) innovation engine for EO (from R&D to operations, services).
- No in-situ data provider as PoC has been identified in Japan → Opportunities for CEOS data exists, but has not been exploited (e.g. no TerraSAR-X acquisitions)

Actions for GEO task lead

Changes to White Paper (approval by CEOS requested)

1. “Consortium” will be changed to “partnership” (remains consortium among data users (universities))
2. Clarify difference between geologic hazards and geologic risks (see next slide; triggered by JAXA survey comments)

SSNL focus is on geological hazards. The development of another GEO structure with focus on geological risks is encouraged.

Develop comprehensive strategic plan about a global network of Natural Laboratories and Supersites (requested in GEO workplan)

Geological hazard versus geological risk

Hazard	Risk
Natural occurrence of earthquakes and volcanic eruptions and the resulting effects (ground shaking and explosions/flows).	Danger the hazard poses to life and property
Geological fact. Needs to be estimated.	Depends on humans (where they live and how they build).

Areas of high hazard can be of low risk if nobody lives there (e.g. Tibet).

Risks can be reduced but not hazards.

SSNL concerned with geological hazards (fundamental research).

A different GEO structure could focus on risks, building on SSNL.

Space agencies can encourage risk reduction by data provision for selected areas (e.g. ESA providing data for Europe)

The Challenge:

SSNL concept requires critical thinking.