

# UIC Report to the GEO-V Plenary: Accomplishments, Activities, and Recommendations 20 November, 2008

## The UIC Co-Chairs

***Ellsworth LeDrew, IEEE***

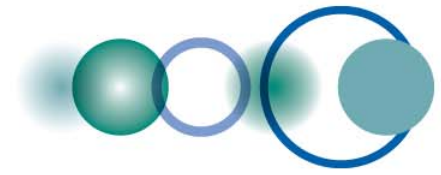
***Thierry Ranchin, France***

***Francesco Pignatelli, EC***

***Gary J. Foley, USA***

***Jai Parihar, Indian Space  
Research Organisation***





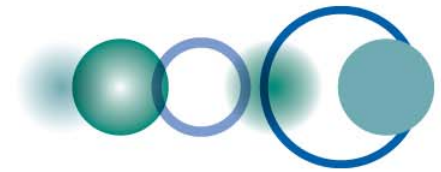
# Terms of Reference

## GEO User Interface Committee

### **Goal**

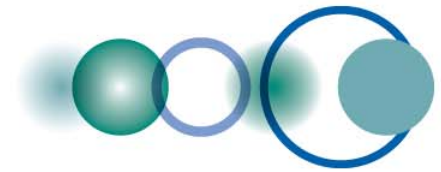
- To engage users in the development and implementation of a sustained GEOSS that provides the data and information required within and among the nine societal benefit areas as specified by user groups on national, regional and global scales

*Also a specific goal to address cross-cutting issues and oversee the **Communities of Practice** (CPs), ensuring continuity & avoiding duplication.*



## Approach and Functions

- From a “user-centric” perspective, make recommendations to GEO Plenary to improve delivery of user needs and produce Societal Benefits;
- Work with CoPs, the IGOS Theme teams and willing organizations to identify major user requirements, and the ability of GEOSS to fill them (US-06-02);
- Identify, document and prioritize requirements for current and future EO and review and update them periodically (US-06-01);
- Coordinate GEO WP Tasks assigned to UIC; and
- Conduct User Engagement activities

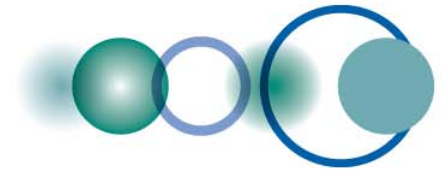


## Communities of Practice

- “A group of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly.”

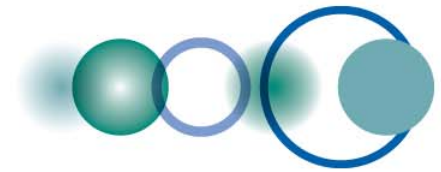
*Etienne Wenger*

- Domain . . . the concern, interest or passion
- Community . . . who value the interactions, often practitioners
- Practice . . . sharing familiar experiences, building a shared knowledge and learning



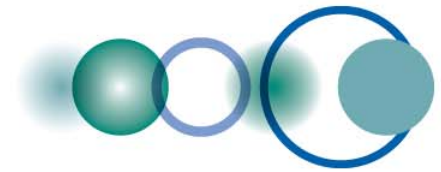
## Major 2008 Accomplishments

- *UIC has established the Community of Practice (CoP) concept within GEO starting at GEO-I.*
- *Further implement CoPs relevant to the GEO Work Plan, such as*
  - Forest
  - Energy (new)
  - Geohazards
  - Water
  - Health
  - Coastal Zone
  - Biodiversity
  - Air Quality
- *Engaged the IGOS Theme Teams, highlighted their work in the UIC and utilized their workshops as opportunities for user engagement.*



## Major 2008 Accomplishments, cont'd

- *Launched a GEO effort to document user requirements for each SBA (US-06-01), linked to user types and user applications and maintain these in a set of registries that are compatible with the GEO architecture.*
- *Provided a user perspective for the GEOSS Common Infrastructure by active participation in the IOC Task Force.*



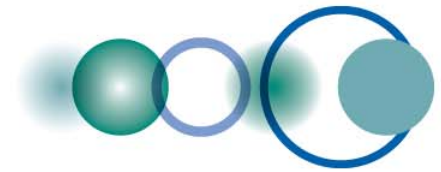
## Major 2008 Accomplishments, cont'd

- *Drafted a Call for Participation with the Capacity Building Committee to jointly identify user needs and capacity building opportunities.*
- *Continued the partnership with the ADC through active participation in the Architectural Implementation Pilots.*



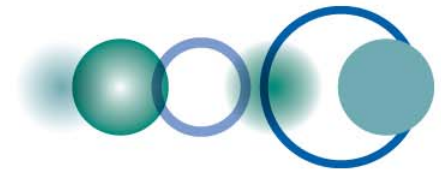
## Key Community of Practice 2008 Accomplishments

- Forest - completed an initial assessment of priority observation gaps
- Biodiversity – established GEO BON
- Energy – Issue of IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing on “Renewable Energy and Earth Observations” – guest edited by Energy CoP Co-Chairs
- Geohazards – Designed, developed, and published a status document on an interoperable and distributed metadata system for inventorying hazards maps (GeoHazData)
- Water – undertook a preliminary review of user needs for water cycle information in anticipation of Task US-06-01
- Health – convening a GEO Health and Environment side meeting on Friday
- Coastal Zone – first workshop in a series of regional workshops was held in the Mediterranean (with large north/south differences like the globe)
- Air Quality – established a world wide community of air quality professionals.



## Progress Updates from GEO-IV Plenary

- *Co-chairs were added from France, India and the EC to increase the number to 5.*
- *Canada, ECMWF, IEEE, IGOS, US and the Secretariat are contributing to the efforts under GEO Work Plan task US-06-01.*
- *Developed the User Requirements Registry in partnership with ADC, which will be populated during the next year by the UIC through the US-06-01 and US-06-02 tasks.*



## Still to be Completed from GEO-IV Plenary

- Gathering additional Member Countries Points of Contact from organizations in their respective Countries to increase and enhance membership/participation in the UIC and/or the CoPs.
  - Points of Contact in developing countries would especially be appreciated.
- Assembling or identifying resources to develop the SBA-oriented User-centric Registries.



## UIC Major Topics for GEO-V Plenary

### **The New Draft Work Plan 09-11**

- The UIC has offered to work with the Secretariat on the following:
  - More explicit description of the plans of CoPs/IGOS-themes in the Task/Sub-tasks.
  - Expansion of the Task/Sub-task write-ups in this Work Plan to describe role and related activities of each Committee in 2-3 sentences.



## UIC Major Topics for GEO-V Plenary

### **Committee Collaboration/Performance**

- The UIC embraces **increased opportunities for collaboration** with other GEO Committees through
  - Renewing its focus on user needs and cross-Committee collaboration,
  - Renewing its effort to augment UIC skills and increase membership,
  - Preparing **a draft broad call for participation**, to be circulated by the GEO Secretariat.



## UIC Major Topics for GEO-V Plenary

### Communication & Information Flow

- The UIC embraces the concepts of **enhanced and increased quality and effectiveness of communication** through
  - More conference calls of Co-Chairs between and among Committees
  - Increased information flow with Secretariat on key activities/meetings/travel of the Secretariat
  - Automated Task Sheet reports



## UIC Major Topics for GEO-V Plenary

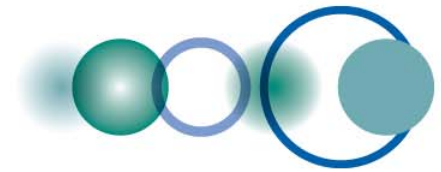
### Engaging New Participants and Users

- The UIC encourages making [www.earthobservations.org](http://www.earthobservations.org) **an even more user-oriented entry point to GEOSS**, through
  - More attention to material and tools that would engage the “novice” users, e.g. tutorials;
  - Case study examples of how other users in each of the SBA areas have been engaged by GEO and learned the benefits of GEOSS.



## Recommendations to the GEO-V Plenary

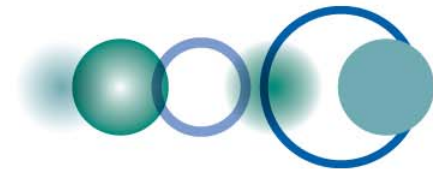
- **Committee reports should be submitted to Plenary for information.**
- **Identify volunteer participants for**
  - US-06-01 user requirements gathering process, as part of the Societal Benefit Area Advisory Groups.
  - CoP/IGOS Theme Teams to increase participation and identify in-kind contributions to their work.
  - Populating and developing databases on user types, user applications and user requirements, as well as the Best Practices Wiki, in each of the SBA areas by **designating points-of-contact** that can bring their “user” experiences into this work.
- **“Campaign for GEO Portal” – stimulate GEO components registration, testing, and feedback.**



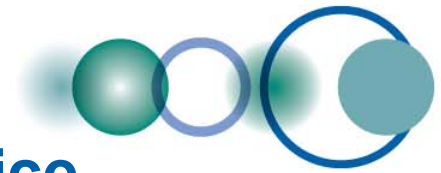
## Special Recognitions

### The UIC

- **Thanks the Secretariat for reinsertion of US-06-01 and 02 Tasks**, along with the **recognition of the users' importance and requirements within GEOSS.**
- **Thanks the ADC and the CBC** for its active engagement of the UIC.
- **Welcomes the IGOS Theme teams to GEO**, and recognizes that they have produced a **significant body of science** that needs to become part of GEOSS and be accessible through the GCI, the Best Practices Wiki and the GEOSS web site.



# Back-up Charts



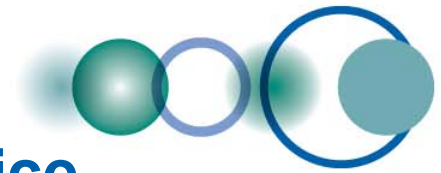
## Coastal Zone Community of Practice Activities/Plans

*Draft Workshop Report available at*

*<http://www.greekgeo.noa.gr/geoworkshop1/page01.html> and  
<http://www.czcp.org>.*

### *Conclusions resulting from the First CZCP Workshop:*

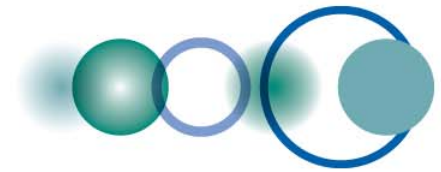
1. Region-scale differences in observational capabilities hinder progress in the development of basin-wide observing and decision support systems.
2. There is a need for enhanced risk awareness, based on scientific hazard and vulnerability assessments.
3. There is a need for enhanced Land Cover /Land Use & Digital Elevation Maps.
4. There is a need to assess the impact of climate change on nearshore processes under both current and future (up to year 2100) conditions.
5. There is a need to assess the “*dynamic*” impacts of climate change on inundation, erosion and shoreline change.
6. There is a need to assess nutrient loading (terrestrial input), hypoxic/anoxic conditions, habitat alteration and water quality.



# Coastal Zone Community of Practice Activities/Plans

## *Recommendations resulting from the First CZCP Workshop:*

- Develop a Pilot Project to address and promote the minimization of the North-South differences in observational capabilities in the Mediterranean.
- Develop and facilitate improved basin-wide observation capabilities to help enable the capability for dynamics-based inundation forecasting for both short-term events and long-term water level changes.
- Develop and facilitate improved basin-wide observation capabilities to provide improved ecological/habitat assessments and forecasting capabilities as well as trans-boundary (e.g., watershed-ocean) assessments and integrated modelling efforts.
- Existing Land Cover/Land Use maps should be updated and standardized for more effective use by the Integrated Coastal Area Management (ICAM) community.
- Develop climatologies and forcing scenarios for future (up to year 2100) conditions, including winds, atmospheric pressure, precipitation at scales from local to basin-wide.
- Develop proposal to initiate more effective use of information analyses to support risk & vulnerability assessments in the Mediterranean
- Form a CZCP Mediterranean
- Develop basin-wide capability to perform ecological and water quality Assessments,
- Forecasts and Scenarios (e.g., biodiversity, water quality, and fisheries) under conditions provided by IPCC (and other) predictions in forms useful for use in ICAM.



# Energy Community of Practice

- 10 year GEO Energy Strategic Plan developed and adopted
- Committees for Renewable Solar, Wind, Ocean, Geothermal, Biofuels plus Expert Advisory Committee
- Website for Energy CoP <<http://www.geoss-ecp.org/>>
- Peer Reviewed Issue of IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing on “Renewable Energy and Earth Observations” Guest Edited by Energy CoP Co-Chairs
- Invited Session at 33<sup>rd</sup> International Remote Sensing of Environment Symposium, Stresa, 2009
- Successful Renewable Energy Theme in Europe Framework 7 in negotiation by Energy CoP Co-Chairs.
- Energy one of the Geo AIP
  - **Thierry Ranchin** [thierry.ranchin@ensmp.fr](mailto:thierry.ranchin@ensmp.fr) Mines Paris Tech
  - **Ellsworth LeDrew** [ells@watele.uwaterloo.ca](mailto:ells@watele.uwaterloo.ca) UIC Co-Chair