

Work Group 8 – Data Integration and Interoperability

Report to the GEO BON Science Committee, July 2010

List of Members

The following individuals participated at one or more stages (telecons, email, Asilomar meeting) in Work Group 8. The appended "Asilomar" indicates those who attended the Asilomar WG8 meeting :

Hannu Saarenmaa, University of Helsinki, Finland (co-lead) - Asilomar
Éamonn Ó Tuama, GBIF, Denmark (co-lead) - Asilomar
Edward van den Berghe, IOBIS, USA - Asilomar
Nicolas Bertrand, NERC, UK - Asilomar
Dora Canhos, CRIA, Brazil - Asilomar
Gladys Cotter, NBII, USA - Asilomar
Sara Chun, NSF, USA - Asilomar
Matt Jones, NCEAS, USA
Roman Khalikov, ZIN-RAS, Russia - Asilomar
Meredith Lane, NBII, USA
Wouter Los, LifeWatch, Netherlands
William Michener, LTER, USA
Stefano Nativi, IMAA-CNR, Italy
Mark Schildhauer, NCEAS, USA - Asilomar
Lori Scott, NatureServe, USA - Asilomar
Mariliza Ticsay-Rusco, ASEAN Centre for Biodiversity - Asilomar
Javier de la Torre, Vizuality, Spain
Sheila Vergara, ASEAN Centre for Biodiversity, Philippines - Asilomar

In order to maintain balance and provide comprehensive expertise, the membership is still being expanded. Other individuals who were nominated/agreed to participate in the Work Group 8:

Jaan de Leeuw, NIOZ, Netherlands
Michael Keller, NEON, USA
Utsugi Jinbo, GBIF Japan, Japan
Harvey Tyler-Walters, MARS, UK
Jon Parr, MARS, UK

Current Activities

The most recent activity of the task group was the delivery of "[Principles of the GEO BON Architecture](#)", a companion document to the Detailed Implementation Plan.

Focal Activities and Milestones

The following activities/milestones have been identified by WG8 as key requirements in implementing the GEO BON informatics network.

#	Activities/Milestones	Time Frame
1	Establish a working group and coordinating unit for technical implementation	Q3-Q4 2010
2	Review of existing data provider networks; establish partnerships commence	Q3 2010 - ongoing
3	Review of data processing needs of other Working Groups	Q3-Q4 2010
4	Design the information architecture of GEO BON	Q4 2010, Q1 - Q2 2011
5	Public review of the proposed architecture, symposium	Q1 - Q3 2011
6	Call for contributions to implement architecture	Q3 2011
7	Build the components such as portal, registry, ontologies	Q4 2011, 2012, 2013
8	Helpdesk and registration of components and networks	Q2 2011 - ongoing
9	Training and capacity building events	Q2 2011 – ongoing

Barriers to Progress

We highlight two key, fundamental issues:

1. To commence implementation, a technical coordination and support unit needs to be established in Q3-Q4 2010 as one of the first activities of GEO BON. As indicated in the detailed implementation plan document, we feel it will be hard to establish any permanent informatics network or similar functions for GEO BON without such support. One way forward is for a group of interested participants to apply for funding (to whom?) and in-kind contributions to establish this unit or team. It should be a joint activity with all Working Groups.
2. The other thematic working groups must identify clear products/deliverables so that WG8 can develop the informatics framework that will support delivery of such products. The questionnaire circulated after the Asilomar meeting can be used to begin the process of gathering requirements.

Other Barriers

Other major barriers identified by WG 8 that could hinder progress of GEO BON are listed in the following table.

#	Barrier	Possible Solution
1	Lack of key data in a usable format, in particular, monitoring data	Thematic groups agree on data requirements for particular products; WG8 then advise on formats/ standards
2	Integration of data is still technically very hard to do	Promote collaboration around development of standards
3	Data sharing does not yet bring scientific recognition directly, constraining data availability	Promote "data papers" and associated citation mechanism
4	Lack of funding	Position GEO BON in funding calls

Key Partnerships

1. All other GEO BON work groups: WG8 is a cross-cutting group that can assist the other thematic groups realise their plans through provision of the underlying informatics framework.
2. The GEOSS Architecture and Data Committee (ADC): The ADC has developed the GEOSS Common Infrastructure which can guide development of GEO BON.