

# **Report from ‘Connecting Communities: identifying synergies between international integration initiatives’ Working Session**

2016 ESIP Summer Meeting, Thursday, July 21, 9:00 - 10:30am

**Convenors:** Leslie Hsu, Lindsay Powers, Sara Graves, Vivian Hutchison

**Abstract:** An increasing number of data and cyberinfrastructure communities of practice vie for Earth science practitioners’ attention and time. ESIP, EarthCube, RDA, ICSU-WDS, DataOne, USGEO, GEO, COOPEUS, CODATA and USGS CDI are a non-exhaustive list. These communities have similar goals and host parallel working groups that support the mission of advancing scientific research through data interoperability. There is great diversity in the maturity of these organizations and it is clear that there is much to be learned from and with each other. Volunteer fatigue has become a serious obstacle to advancing the important efforts of these organizations, and we recognize that better communication and collaboration across organizations can help alleviate this problem.

This session will focus on actively identifying synergistic activities and will create a plan for dissemination and maintenance of this dialog. We build on the foundation of previous meetings and projects such as EarthCube’s Mapping the Landscape tool. Our goals are to expose active groups with exemplary achievements, connect organizations to leverage each other’s expertise and knowledge base, and determine gaps to be filled. Join us for a working session to identify and connect opportunities between different communities of practice.

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## Summary

In a working session, thirty-three participants came together to address the challenge of connecting our many overlapping communities of practice and becoming more efficient in our working groups. Together as a large group, we listed challenges to effective work within the groups, and in connecting and working across groups. In smaller breakout groups, we discussed actions to address the challenges. A 2016 FUNding Friday project will carry on related efforts, as well as sessions at RDA and AGU in 2016 (Contacts: FUNding Friday - Steve Diggs, Denise Hills; RDA - Lynn Yarmey; AGU - Lesley Wyborn).

## Challenges to effective and connected working groups

1. **Difficulty in producing tangible outcomes from meetings.** Many meetings have lots of shallow discussion with no time for real depth. Therefore it is hard to work, make decisions, and produce tangible outcomes. Can we structure meetings for doing meaningful things?
2. **Difficulty in maintaining continuity of participation in frequent, global meetings.** International groups have a problem with continuity of community. When meetings are held around the world, multiple times per year, it is difficult to attend all the meetings and track the results of a working group.
3. **Duplication of effort, poor alignment across efforts, and difficulty in pulling groups together.** There is not a clear mapping of distinctions and overlap of all the different groups and activities, and in addition, new groups are cropping up all the time. Political hurdles, funding models that prioritize competition and innovation over collaboration and reuse, pride of ownership, and stovepipes may hinder collaboration and contribute to duplication of effort.
4. **Difficulty in assessing what groups are functioning and productive.** Tracking outcomes and benefits to the community(ies) is difficult especially given the diversity of communication mechanisms and channels.
5. **Meeting fatigue and volunteer fatigue.** Meeting fatigue: It is difficult to justify and fund attendance at the many conferences, workshops, and meetings, even though it's important to contribute to, and understand the outcomes. Volunteer fatigue can happen locally too: once you're identified as an advocate or the "data person" in your organization you become the go-to person that is asked to serve.

# Proposed actions to address the challenges

## 1. Difficulty in producing tangible outcomes from meetings

- a. **Structure the agenda of meetings to facilitate in-depth work.** Meetings to exchange information are fine, but if we want to have outcomes that are meaningful we need to restructure meetings. Perhaps plenary meetings should not be the place where the work gets done. Perhaps some meetings are broad and others have more in depth work occurring in working groups rather than plenaries.
- b. **Committed groups should meet over entire meeting** and spend much more time on extended discussion on targeted topics.
- c. **Facilitator training for leaders of meetings/workshops** could help produce tangible outcomes.
- d. **Publish a synopsis of what a working group was to do** and list the outcomes and also identify action items.
- e. **Create action items with a named person that is responsible for follow-up** or to push the concept forward.
- f. **Clearly identify recommendations that come out of meetings**, for instance lessons learned.
- g. **It is important to have much of the work done between meetings**, maybe this is coupled with having someone responsible for a specific action item

## 2. Difficulty in maintaining continuity of participation in frequent, global meetings.

- a. Encourage various community leaders (e.g., Erin Robinson at ESIP; Mohan Ramamurthy or Leadership Council Chair at EarthCube; Mark Parsons and Lynn Yarmey at RDA) to **meet once a year to coordinate meetings** (time, location, content/agenda) to reduce silo-ing and duplication of effort.
- b. **Create a community of practice for the leaders**
- c. **Encourage co-location of meetings** (economies of scale; allows deeper conversations)
- d. **Encourage more "working style" meetings**, hosted at colleges with dorms
- e. **Encourage accountability from funders** - (look at NIH for an example). May need to have funders look at how the solicit proposals/track proposal outcomes

## 3. Duplication of effort, poor alignment across efforts, and difficulty in pulling groups together

- a. **Map the landscape** - Earthcube, RDA, ESIP is trying to do this. (see links at bottom of this document)
  - i. **Map and document the specific activities** of these different groups is important.

- ii. **Keep the map and document current.**
  - b. **ESIP (i.e. people present in this session!) could hold one session per meeting to create/update/maintain this type of directory/map.** ESIP does already compile the work activities of the ESIP clusters and working groups. This could be expanded to include activities of other groups.
  - c. **Make funders aware of synergistic work across groups** and facilitate the making of connections.
- 4. **Difficulty in assessing what groups are functioning and productive.**
  - a. **Realize that tangible and less tangible outcomes exist**, both are valuable, and are not always easily quantifiable.
  - b. **Publish whitepapers and other grey literature outputs** instead of just meeting notes from our gatherings.
  - c. **Build a web of these actual tangible outputs** across organizational spaces. Start with ESIP and set a trend.
  - d. **Engage in storytelling to communicate deliberate outputs** from all community activities (big meetings, clusters, working groups, committees). Produce an infographic, artwork, short story, whitepaper, etc...
  - e. Start now with the impact of ESIP Summer 2016 - **Ask all meeting participants to either publish something to the Commons as an individual or logical group**; riff on Science as Art to promote freeform thought about what these artifacts might look like
  - f. **Measure the impact through usage metrics on the raw outputs into the ESIP Commons**, what's getting accessed? What's getting commented on?
  - g. **Conduct self-assessment** - Use ESIP ExCom and other advisors to assess how this is working and report on it at the ESIP Winter Meeting 2017.
- 5. **Meeting fatigue and volunteer fatigue.**
  - a. **Implement a procedure to avoid unreasonable proliferation of working groups and meetings.**
    - i. First - map what is currently being done across groups such as ESIP, EarthCube and RDA
    - ii. Second - Ensure that when establishing a new group that they have clear:
      - 1. charter
      - 2. objectives, deliverables, timelines.
      - 3. planned iterative review (6 month, 12 month, 18 month)
      - 4. commitment of members of the group to produce deliverables
      - 5. disband the effort once the charter is complete
    - iii. Establish a panel to adjudicate the work (interested third party)
  - b. **Research similar related groups when deciding to form a new group.** Does the new group add new work, expand existing work, or fill a void where no other entity exists?

- c. **Establish a combined leadership group that vets new ideas across the communities** (or working group leaders) to determine the value of new groups and how then can expand the existing work. This will also make the research of other groups more collaborative and connected.
- d. **Consider using an ontology, (e.g., the SWEET Ontology) as a starting point to map disciplinary areas that each of the groups work on.**

## Miscellaneous

### More ideas

1. Groups are often being asked to do a lot with few resources, which makes this issue very important.
2. Difficulty in interdisciplinary work. It is hard to convince a domain community to expend the effort to address interdisciplinary data issues. There is a challenge related to interdisciplinary activities because the work is not generally part of people's day jobs. Much of the problem relates to lack of dedicated funding for cross-disciplinary work. Contractors really can't do out of scope work. The rest of us have only small amounts of discretionary time to work on the broader issues.
3. Manage expectations
4. Improve cross-communication among organizations and functional entities (WGs, Projects, RCNs etc.)
5. We need to improve the usability of our websites. Talk to Kathy Fontaine to discuss this further.
6. \*This is important work\* Let's follow our own recommendations and make sure that ESIP's Newsletter highlights the fact that we are working on solutions to this very obvious challenge.
7. Federal funding agencies should be aware that these formal discussions are taking place and recommendations (while in their formative stage now) are available for internal and intra-agency discussions.
8. Remember that we are operating in a number of different active organizational/science/data/community research areas - this work is hard and there aren't any easy answers (much less 'right' answers)!

## A working list of Organizations, Working Groups, and Activities

[A working list of organizations, their working groups, and activities.](#)

This is an incomplete working list. Start with: ESIP, EarthCube, RDA, USGS CDI

Note: Please include suggestions for metadata that would be useful to collect in this list.

## Existing projects that are working to map the landscape

We asked participants to add links to known projects that are working to map the landscape of working groups.

1. Mapping the Landscape: <http://dusk.geo.orst.edu/ec-story>
2. SUAVE (EarthCube): [http://maxim.ucsd.edu/suave/ec\\_landscape.html](http://maxim.ucsd.edu/suave/ec_landscape.html)
3. RDA TAB-LOG exercise (led by Steve Diggs) - <https://sites.google.com/site/tablogdiagrambeta/>

## Value of group participation

Participants cited what they valued most about being part of various groups and communities.

1. tangible product outputs from working groups
2. opportunities to challenge my assumptions by hearing from experts in the field, and when I learn things that help me guide my own research and development activities
3. connections that help determine how to get our own products/activities out
4. friendships and opportunities for collaboration
5. learning new trends that I can bring back to office. Or bringing an idea to the community to see how to move it along.
6. the opportunity to exchange knowledge with trusted collaborators and to meet new potential collaborators

## Participants

Alphabetical by first name with selected (not comprehensive) affiliations, as captured during the introductions.

1. Bill Michener - DataONE, RDA
2. Brian Wee - EarthCube, COOPEUS (<https://www.coopeus.eu/>), ESIP Board of Directors, GLOBUS-b
3. Chris Lenhardt - CoDATA, RDA, ESIP, CoopEUS.
4. Chuck Hutchinson: U of AZ (retired), ESIP (Board of Directors), International Symposium of Remote Sensing, International Airlines Consortium
5. Cyndy Chandler (Information Systems Specialist, Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution) Communities: NSF GEO/ACI funded EarthCube Initiative ([earthcube.org/](http://earthcube.org/)), Research Data Alliance ([rd-alliance.org](http://rd-alliance.org)), Ocean Data Interoperability Platform (ODIP; [odip.org](http://odip.org)), International Oceanographic Data & Information Exchange (IODE; [iode.org](http://iode.org)) of the Intergovernmental Oceanographic Commission (IOC) of UNESCO
6. Danie Kinkade - BCO-DMO (Biological and Chemical Oceanography Data Management Office) at WHOI, recovering from volunteer fatigue :), - ESIP Partnership Committee Chair, EarthCube (former member of the Leadership Council), ESIP Leadership
7. Dave Durden- Battelle/ NEON

8. Dawn Lowe - ESDIS
9. Denise Hills - Geologic Survey of Alabama, ESIP (Visioneers, Nominations, SciComm), RDA attendee, Chair of Geological Society of America Geoinformatics division, past co-chair of engagement team at Earthcube, CODATA Samples Task Force, iSamples (EarthCube), American Association of Petroleum Geologists' Preservation of geoscience data committee member
10. Emily Law - ESIP President, JPL, EarthCube coPI, EC TAC, International Planetary Alliance
11. Erin Robinson - ESIP, AGU DM, GEO, RDA,
12. Karen Stocks - SCRIPPS, EarthCube, ESIP, attend RDA, Ocean Data Interop Platform (ODIP)
13. Kathy Fontaine - RDA/US Early Career Development, GEO, ESIP
14. Lea Shanley - Executive Director Big Data Hub - South, geospatial communities at state level, Federal CoP Crowdsourcing and Citizen Science, citizen science association (US and Europe)
15. Leslie Hsu - USGS CDI (Community coordinator), EarthCube
16. Lindsay Powers - The HDF Group, EarthCube (leadership council, Liaison team, CDF), ESIP Partnership committee and Documentation Cluster, RDA Brokering Governance WG, NOAA Big Data WG, iSamples Steering Committee and Metadata WG
17. Lindsey Harriman - USGS
18. Lynn Yarmey - RDA/US Community Development, EarthCube Leadership Council
19. Madison Langseth - USGS CDI, ESIP.
20. Maggi Glasscoe - JPL, ESIP Disaster Lifecycle Cluster, working with CA Earthquake Clearinghouse and state partners
21. Martha Maiden. NASA (retired), ESIP
22. Mohan Ramamurthy - Unidata, ESIP, EarthCube Science Support Office
23. Nancy Hoebelheinrich, Knowledge Motifs - ESIP, CDI, DataONE participant, National Data Stewardship Alliance
24. Philip Tarrant - LTER Information Mgmt Committee, Sustainability groups Global Sustainability Outcomes
25. Rebecca Koskela - DataONE and RDA/US, RDA, ESIP
26. Richard - NASA, GEO Energy CoP, ESIP Climate and Energy WG, CEOSS, US Global Change Research Program, WG and Writing of strategic plan
27. Shannon Rauch - BCO-DMO, DataONE CEO
28. Shayna Skolnik - Navteca/NASA Science and Tech Group in D.C. Chamber of Commerce, local MeetUps such as Data Wranglers
29. Shelley Stall - AGU, ESIP, COPDESS, DAMA
30. Sky Bristol - USGS CDI, ESIP Executive Committee, ESIP Semantic Tech Committee, RDA Biodiversity Data Integration, EarthCube Digital Crust co-PI and Science Committee, IEDA Policy Committee, Ocean Biogeographic Information System Steering Group co-chair, USGEO Data Management Working Group;
31. Steve Diggs - CCHDO (Climate and Carbon Hydrographic Data Office) @ Scripps, EarthCube PI, RDA Technical Advisory Board, ESIP Visioneers (co-chief with Denise Hills)
32. Tim Ahern, IRIS - Seismologist FDSN, World Data Systems , CoopEUS, EarthCube, National Computing Infrastructure Australia
33. Viv Hutchison - USGS Community for Data Integration - Data Management WG, DataONE Community Engagement and Outreach, ESIP