

## EC 2014

The first annual EarthCube All-Hands Meeting was held June 24–26, 2014 in Washington, D.C. Nearly 150 members of the geo- and cyber-science communities, representing over 90 academic institutions, government agencies, non- and for-profit organizations, and consortia were brought together to share their progress and experience with EarthCube thus far, and discuss and plan activities for the coming year. The Meeting had three principal goals:

1. **Come to convergence on an EarthCube Demonstration Governance Charter for use during a pilot phase (October 2014–September 2015)**
2. **Examine the state of cyberinfrastructure in the Geosciences**
3. **Provide a forum for communication among the Geosciences and technology communities**

Session proposals brought forth by the community helped to create a dynamic and diverse meeting, which generated a series of recommendations related to governance, technology, architecture, and community building.

## Governance Outcomes

The primary governance-related goal of the All-Hands Meeting was to facilitate convergence on the EarthCube Test Enterprise Governance Charter, to be implemented during the demonstration period (October 2014–September 2015). This goal was carried out via a series of plenary and breakout sessions designed to gather participant feedback on the Charter, and to allow for real-time, participant-driven changes, resulting in a well-defined governance structure and a set of priorities and actions to address regarding the implementation of that structure. The emergent governance structure components and recommendations are as follows:

- **Leadership Council:** Determines the scope/vision and maintains the strategic direction of EarthCube; acts as single communication point with NSF.
- **Science Standing Committee:** Determines policy/strategy on data management plans; engages scientific community (along with Engagement Team).
- **Technology and Architecture Standing Committee:** Facilitates community convergence on a system architecture (in partnership with Science Committee and Council of Data Facilities); coordinates a testbed for development of EarthCube components.
- **Council of Data Facilities Standing Committee:** Facilitates shared services through data providers.
- **Engagement Team:** Develops a structured communications plan; compiles and disseminates science end-user use cases.
- **Liaison Team:** Initiates and develops implementation of a strategy for collaboration with related activities across agencies, industry, international, and other science domains.

- **Science Funded Team/Technology Funded Team:** Act as coordinating mechanisms across EarthCube funded projects.
- **Working Groups:** Ad hoc but sanctioned organizational units created in response to a pressing issue, opportunity, activity, or deliverable related to EarthCube's goals.
- **Special Interest Groups:** Informal ad hoc groups that self-organize around areas of common interest. They may evolve into formal Working Groups.
- **Membership:** During the demonstration governance phase, membership will be free and open at an individual and institutional level in order to be as inclusive as possible.

## Technology and Architecture Outcomes

A two-day Architecture Forum, organized by members of the Test Enterprise Governance IT Team, convened at the All-Hands Meeting with the primary goal of accelerating community convergence on an EarthCube architecture. A secondary goal of the workshop was to discuss the charter of the Technology and Architecture Standing Committee, to be put into place October 1, 2014 as part of the emerging Demonstration Governance structure, as well as to refine the Committee's functions and responsibilities as presented in the Test Governance Charter document.

The group concluded that concrete decisions about the architecture of EarthCube cannot be made until the governance organization is in place; however, work is underway to seek consensus on the nature of the required architecture specifications and how they will be used. Several points of general agreement emerged from the Architecture Forum plenary and breakout sessions, resulting in a set of organizational and design recommendations to inform activities of the Technology and Architecture Standing Committee, tasked with the stewardship and development of an EarthCube architecture.

A series of facilitated large- and small-group sessions resulted in the following key accomplishments:

- Made significant progress toward a shared understanding of what constitutes an ongoing architecture.
- Identified critical issues of concern to community members regarding an EarthCube architecture.
- Assembled representatives from all of the NSF-funded EarthCube Building Block awards to determine potential alignments, interfaces, and architecture needs, establishing an inventory of emerging architecture elements based on the EarthCube funded projects.
- Collaboratively revised elements of the Technology and Architecture Committee Functions as outlined in the EarthCube Test Enterprise Governance Charter.

## Community Building Outcomes

Outcomes of the All-Hands Meeting included several recommendations for next steps related to engagement and community building, in order to successfully move into and carry out the governance Demonstration Phase. The first of these was to inform the larger EarthCube community of the results of the All-Hands Meeting and how to get involved in the project moving forward. The following timeline was disseminated via the EarthCube Newsletter, social media, listservs, and email outreach:

Meeting participants also identified a need to launch a renewed community outreach program aimed at populating the demonstration governance structures (*Science Standing Committee, Technology and Architecture Standing Committee, Engagement Team, and Liaison Team*) in order to effectively test the proposed Charter and allow for elements to be adjusted to better meet community needs. There was also a call for greater engagement and collaboration with and among the EarthCube portfolio of funded projects.