

COUNCIL OF DATA FACILITIES FOUNDING CHARTER

I. PREAMBLE

This charter provides both structure and flexibility to enable an agile and effective Council of Data Facilities (CDF). The Charter Members are motivated to form this Council in order to coordinate with the many elements of the U.S. National Science Foundation EarthCube initiative and related initiatives at a time when society's expectations of data facilities are increasing in scale and scope. This is a living document, which can be amended or adjusted by a majority of the active members of the Council.

II. VISION

Geoscience data facilities enable transformational science, foster technological development, and promote educational opportunities. They provide direct societal benefits through increased coordination, collaboration, and innovation in the acquisition, curation, preservation, and dissemination of geoscience data, tools, models, software, and services. A federation of existing and emerging geoscience data facilities – through the Council – serves as an effective foundation for EarthCube and related contributors to the cyberinfrastructure for earth system science (lithosphere, hydrosphere, biosphere, atmosphere, and space environment).

III. MISSION AND GOALS

The mission of the Council of Data Facilities is to serve in a coordinating and facilitating role that includes advancing the following responsibilities and goals:

- Providing a collective voice on behalf of the member data facilities to the NSF and other foundations and associations, as appropriate.
- Identifying, endorsing, and promoting standards and best or exemplary practices in the organization and operation of a data facility.
- Collaborating with standard-setting bodies with respect to shared feedback on standards for data, models, software sharing interoperability, metadata, and related matters.
- Identifying opportunities for and supporting the development and utilization of shared cyberinfrastructure, professional staff development and training, and other related activities.
- Fostering innovation through collaborative and interdisciplinary projects.
- Increasing understanding and engagement with relevant stakeholders.

In advancing this mission, the Council of Data Facilities is committed to working with relevant agencies, professional associations, initiatives, and other complementary efforts.

IV. DEFINITION

A data facility is eligible for membership in the Council if it acquires, curates, preserves, and/or disseminates data, software, and/or models for one or more defined communities or disciplines in

the EarthCube initiative. Selection as a member, consistent with this definition, is in accordance with the categories and procedures outlined in sections V and VI below. Compliance with ISO standard 16363 for a Trusted Digital Repository or the ICSU World Data System certification of a data repository are recommended where appropriate, but not required for membership. The elements of this ISO standard include: governance and organizational viability; organizational structure and staffing; procedural accountability and preservation policy framework; financial sustainability; and contracts, licenses, and liabilities. Although the ISO standard is not required for membership, these elements of the ISO standard correspond to the categories covered in the membership application. The Council encourages participation by emerging data facilities and is committed to adapting the definition over time, as appropriate.

V. MEMBERSHIP

There are four categories of membership in the Council of Data Facilities:

- *Category A: NSF-funded not-for-profit or academic data facilities*
 - Data facilities and centers with a substantial portion of their funding and mission associated with the National Science Foundation.
- *Category B: Federally Funded Research and Development Centers (FFRDCs) and other federal, state, and local data facilities.*
 - Data facilities and centers operated by NASA, NOAA, USGS, and other U.S. federal, state, and local agencies.
- *Category C: International, private, and other not-for-profit or academic data facilities.*
 - Data facilities and centers with a substantial portion of their funding and mission associated with international agencies, private foundations, or other sources.
- *Category D: Associate members*
 - Professional associations, publishers, commercial entities, foundations, and consortia in the geosciences, cyber sciences, informatics, and related domains; and individuals not affiliated with a data facility, but supportive of the Council.

Programs or initiatives within a data facility that might fit into more than one category can specify multiple categories, though each facility has just one voting representative. Complex organizations that might constitute more than one facility will be considered on a case-by-case basis.

All member organizations are considered active members through regular participation (or by virtual attendance) in the Council of Data Facilities General Assembly meetings. Active members are those members that have participated in at least two of the three most recent General Assembly meetings. Participation may be either by physical or virtual presence of the CDF Member's principal or alternate member. Members become inactive if they do not participate in two of the three most recent General Assembly meetings. Inactive members will not be allowed to vote in CDF matters at a General Assembly meeting. Inactive members will be reinstated when they participate in two of the last three most recent General Assembly meetings. The Membership Committee may change the rules governing active and inactive status by making a recommendation at a General Assembly meeting and having the General Assembly vote on the modification.

VI. ROLES AND RESPONSIBILITIES

Active members in categories A, B, and C are voting members of the General Assembly.

General Assembly Roles and Responsibilities:

- The General Assembly has overall responsibility for strategic direction and guiding vision for the Council.
- Members are responsible for providing a participating voting representative to the Winter and Summer meetings of the General Assembly (others are welcome as observers).
- Members will provide advice and guidance to EarthCube governance via the Council's Executive Committee on matters pertaining to data facilities, as appropriate.
- Members will identify and develop opportunities for collaboration with respect to shared infrastructure, professional development of staff and other initiatives in the mutual interest and benefit for data facilities.
- Members should aim to identify potential pilot projects and participate in projects that are relevant to their operations, resources permitting.
- Members will seek to contribute to the development of geoscience cyberinfrastructure standards and identified best practices and their implementation or adoption.
- Where recommendations are agreed to on standards for metadata and other matters, members will help advance compliance and integration into the architectures and workflows of their respective facilities, as appropriate (including, but not limited to EarthCube).
- When not following recommendations provided by the Council, members will help to provide explanations for their choices and remain open to future alignments with the recommendations.
- Members will collaborate to develop metrics to track progress of the Council and report such metrics to EarthCube governance and NSF, as appropriate.
- Members will work to educate other members of the Council on new developments relevant to data centers in their respective fields, disciplines, and domains (international, private foundation, etc.).
- Members will support, participate in, and contribute to EarthCube initiatives and activities, resources permitting.

From among the General Assembly representatives, members of an Executive Committee will be elected, including a chair, a vice-chair, a secretary, and four other representatives from the active membership. Candidates for membership on the Executive Committee will be nominated at meetings of the general assembly or virtually (self nominations are permitted) and then elected by a majority vote of the General Assembly.

In addition to the above, Executive Committee Roles and Responsibilities:

- The Executive Committee has leadership responsibility for the harmonious and effective functioning of the Council under this Charter.
- Executive Committee members will participate in regularly scheduled meetings (in person or virtually).
- The Executive Committee will develop the agenda and design for General Assembly meetings, including solicitation of potential agenda items from among Council members, and ensuring appropriate facilitation of these sessions.

- The Executive Committee will serve as the point of contact, representing the Council in dialogue with the NSF, the EarthCube Governance, and other relevant organizations and initiatives.
- The Executive Committee will provide periodic updates to members, following meetings of the General Assembly and at other times as appropriate.

In addition to the above, Roles and Responsibilities of the Secretary:

- Ensure the master list of action items and Council projects is maintained.
- Ensure metric information relevant to Council goals and objectives are maintained.
- Ensure compliance with the Charter and meeting process

Staff and resource support for travel and meetings will be provided initially through EarthCube Governance and by other means as appropriate.

Membership Committee:

- A Membership Committee, appointed by the Executive Committee, will serve to review applications by data facilities for membership, consistent with the definition in this charter.
- The Membership Committee will consist of 3 representatives from the General Assembly.
- All recommendations from the Membership Committee will be reviewed by the Executive Committee and approved by a majority of the General Assembly.
- Members of the membership committee serve 2 year terms, starting at the General Assembly where the appointment is announced. The Executive Committee can appoint the same person for multiple terms.

Representatives and Executive Committee:

- Each member facility will identify a single designated voting representative for participation in the General Assembly. That member may authorize a proxy for any vote by notifying the Executive Committee secretary in advance. No single person may have more than one vote in any election.
- A chair, vice-chair, and a secretary will be elected to serve on the Executive Committee by the General Assembly from among the representatives at the General Assembly.
- Four additional members of the Executive Committee will be elected by the General Assembly from among the representatives at the General Assembly. Elections will be staggered, with the initial group including two representatives with two-year terms, two with one-year terms and two positions open for election each subsequent year.
- Members of the Executive Committee will serve 2-year terms.
- Elections will take place each year at the Summer General Assembly and the term will begin at the end of the meeting (with a concluding Executive Committee meeting that includes the members of the Executive Committee who just completed their terms and the new members).

Roles and Responsibilities of Staff/Support Resources (Currently, the EarthCube Program Office):

- Maintain the roster of active and inactive members of the Council
- At the beginning of each General Assembly, determine the current membership status and count of active members.
- Assist with the operation of a CDF web site, within the EarthCube website.
- Assist in the development of session designs and facilitation for meetings of the full Council and the Executive Committee.

- Maintain a master list of action items and Council projects.
- Compile metric information relevant to Council goals and objectives.
- Provide feedback on group dynamics and adherence to stated principles.
- Provide assistance with the communication strategy and in conducting periodic surveys and needs assessments of the Council.

VII. OPERATIONS

Adjusting the Charter:

- This charter may be amended or adjusted at any General Assembly Meeting by a majority vote of the active membership.
- The charter will be formally reviewed and adjusted every three years.

Meetings:

- Meetings of the General Assembly will take place twice a year, with an initial meeting of the Executive Committee, followed by a meeting of the General Assembly in each case.
- The Winter meeting pair will be as follows:
 - Executive Committee meeting is adjacent to the December AGU meeting.
 - General Assembly meeting is adjacent with the January ESIP meeting.
- The Summer meeting pair will be as follows:
 - Executive Committee meeting is adjacent with the June EarthCube All Hands meeting.
 - General Assembly meeting is adjacent with the July ESIP meeting.
- Observers are welcome at the meetings of the Executive Committee.
- The meetings of the General Assembly are open to the official representatives from all member data facilities, additional member organization personnel as desired by the members, as well as observers.

Decision Making:

- It is the intent of the Executive Committee and the General Assembly to operate on a consensus basis, though a majority vote of official members representatives present (provided a quorum is achieved) may be taken on matters where a consensus cannot be achieved.
 - A consensus is defined as an agreement that may not be everyone's first choice, but is one that everyone can accept and no one has a better alternative to offer.
 - A quorum consists of at least one third of active members.
 - Voting can be virtual.
- The review process on decisions is as follows:
 - If there is the desire to appeal an Executive Committee decision, there are two options: 1) it can be placed on the agenda of the General Assembly or 2) an ad hoc committee can be established with neutral representatives to review the decision.
 - Decisions of all other CDF committees and other working groups can be appealed to the Executive Committee.

VIII. COORDINATION WITH EARTHCUBE

The Council of Data Facilities functions in concert with other assemblies associated with the EarthCube initiative. EarthCube is advancing the community-based cyberinfrastructure to better understand and predict the evolution of the Earth as a system—from the space environment to the core, including the influences of humans and ecosystems. Launched by the U.S. National Science Foundation (NSF), the EarthCube cyberinfrastructure is bringing together existing and emerging data, tools, models, software, and collaboration spaces, to facilitate research and education, transforming the way we do science.

The Council of Data Facilities does not presume to be a gatekeeper for EarthCube, but it is committed to interact constructively with all aspects of EarthCube through communication, coordination, and, where appropriate, integration of activities, initiatives, products, and processes. The Council of Data Facilities endorses and supports the EarthCube Governance guiding principles and goals as specified in the EarthCube Governance Charter.

IX. CHARTER MEMBERS AND REPRESENTATIVES

The following individuals represent the charter representatives launching the Council of Data Facilities. There will be a six-month process from June 2014 to December 2014 during which charter membership will remain open. The first task of the Membership Committee will be to identify the appropriate membership categories for these representatives as they become charter members. Following the procedures outlined in this document, the members of the Council will change over time.

Tim Ahern, Incorporated Research Institutions for Seismology
Arlene Anderson, DOE Geothermal Data Repository
Robert Arko, Rolling Deck to Repository Program
Beverly DeJarnett, University of Texas Bureau of Economic Geology
Fran Boler & Chuck Meertens, UNAVCO
Christopher Crosby, OpenTopography
Steve Diggs, CLIVAR & Carbon Hydrographic Data Office
Ruth Duerr, National Snow and Ice Data Center
Doug Fils, Consortium for Ocean Leadership
Paul Foster, International Ocean Discovery Program
Sara Graves, University of Alabama-Huntsville
Jessica Hausman, Physical Oceanography Distributed Active Archive Center
Rick Hooper, The Consortium of Universities for the Advancement of Hydrologic Science, Inc.
/Water Data Center
Chris Jenkins, dbSEABED, University of Colorado
Matthew Jones, KNB Data Repository, National Center for Ecological Analysis and Synthesis
Ken Keiser, University of Alabama-Huntsville
Danie Kinkade, The Biological and Chemical Oceanography Data Management Office
Kerstin Lehnert, Integrated Earth Data Applications
Chris Lenhardt, Renaissance Computing Institute
Chris MacDermaid, Cooperative Institute for Research in the Atmosphere
Jerry Manweiler, Fundamental Technologies, LLC
Charles Mcelroy, Case Western Reserve University
Don Middleton, National Center for Atmospheric Research
Bernard Minster, Scripps Institution of Oceanography/World Data System

Anders Noren, Continental Scientific Drilling Coordination Office
Lindsay Powers, National Ecological Observatory Network Inc./CoopEUS
Mohan Ramamurthy, University Corporation for Atmospheric Research/Unidata
Steve Berukoff, National Solar Observatory
Erin Robinson, Foundation for Earth Science
Yang Shen, University of Rhode Island
Alison Smith, Neotoma
Karen Stocks, Scripps Institution of Oceanography/Geological Data Center
Susan Winter, University of Maryland
Ilya Zaslavsky, San Diego Supercomputing Center

Facilitation:

Joel Cutcher-Gershenfeld, University of Illinois at Urbana-Champaign and the National Center for Supercomputing Applications

Support:

EarthCube Office