Ocean Observatories Initiative Facility Board
Charter

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Annexes:

1.   General Purpose

The Ocean Observatories Initiative Facility Board (OOIFB) provides independent input and guidance regarding the management and operation of the Ocean Observatories Initiative (OOI). All such input and guidance will be communicated to the National Science Foundation (NSF).

2.   Mandate

a. Have the leadership role in community oversight of the OOI Science Plan.
   - Annually examine accomplishments of the OOI Operator, in order to provide guidance as to the contributions of the Annual Work Plans (AWPs) to the progress of the OOI Science Plan.
   - Via workshops, community meetings, and/or other mechanisms, stimulate and engage the user community in keeping the accomplishments of the OOI at the cutting edge of scientific inquiry and technological innovation.
b. Serve as the prime scientific and technical conduit between the oceanographic community and NSF regarding OOI.
   - Develop and implement strategies to expand scientific and public awareness of the unique scientific and technological opportunities of the OOI, and ensure that the oceanographic community is kept informed of developments in the OOI.
   - Identify existing and potential end-user communities, their needs for data and meta-data information from the OOI, and provide guidance on the OOI's effectiveness in disseminating this information to end-user communities and the general public.
c. Help identify collaborative relationships with potential governmental, industrial, educational, and international partners in the OOI, where appropriate.
d. Ensure fair and consistent access to the OOI by all sectors of the user community.
e. Monitor community adherence to applicable NSF policies for data collection, sample archiving, etc. as pertains to OOI activities.

f. Monitor the appropriateness of existing, and/or facilitate the evolution of, performance standards for hardware and cyberinfrastructure, and in doing so address issues such as short- and long term instrument calibration, incorporation of novel technologies, sampling, expansion of technological upgrades, etc.

3. OOIFB Membership

a. Membership of the OOIFB will include:
   i. Seven non-conflicted scientists, two of whom will be Chair and Chair-Elect, from the oceanographic community. An institution may have only one Member on the OOIFB at any given time. Conflicts will be identified according to standard NSF policies. These persons will represent all career stages, include member(s) from industry and education fields where appropriate, and reflect the breadth of scientific inquiry and technological capability of the OOI. We embrace diversity in consideration of new members. The seven non-conflicted members will be the voting body of OOIFB.
   ii. Two members from the OOI appointed by the operator. These members will be non-voting. There are no term limits for the two OOI members.
   iii. OOIFB Standing Committee chairs, if not already members of the OOIFB, will be considered as "non-voting" Members.

b. ***OOIFB Chair*****:** The Chair of the OOIFB will be a leading scientist selected for his/her scientific and managerial leadership. The Chair represents OOIFB throughout the oceanographic community, calls, and presides over OOIFB meetings. The OOIFB Chair works with and provides direction to the OOIFB Administrative Support Office. The Chair may attend meetings of the OOIFB committees (if any), and selected national and international scientific conferences as appropriate.

The Chair will serve for two years in this role, and is eligible for a second two-year term. Prior to the last full year of the Chair's final term, the OOIFB will either appoint his/her successor from one of the non-conflicted scientific Members on the OOIFB, or may choose to seek nominations (including self-nominations) from the U.S. scientific community. The OOIFB will vote to select the Chair-Elect with approval by NSF. The Chair-elect will serve for one year to overlap with the outgoing Chair's final year.

c. ***Chair-Elect:*** The duties of the Chair-Elect shall include preparing to assume the office of Chair under the schedule set forth in section 3.b. Normally the Chair-elect will come from the OOIFB.

d. ***Non-Officer, non-conflicted OOIFB Members:*** The OOIFB non-officer, voting members (this excludes the Chair and Chair-Elect) are selected to serve on the OOIFB for 3-year staggered rotations. He/she may serve two consecutive 3-year terms. The OOIFB appointments will be made by the OOIFB and approved by NSF. An open nomination process (including self-nominations) with outreach to the broad oceanographic science, education, and engineering communities will be employed for new members.

e. ***Unexpired Terms*** - A vacancy appointment shall be made for the remainder of the unexpired term of the vacancy, and an individual so appointed may subsequently be appointed for two full 3-year terms if the remainder of the unexpired term is less than 1.5 years. After rotating off the OOIFB or a committee, a person will not be eligible for membership for a period of three years (one term).

f. ***Liaisons and Observers*** - Non-Member liaisons to the OOIFB, as approved by the OOIFB, could include the Chair(s) of any bodies providing internal advice to the OOI Operator (if not included in the formal representation described above), and appropriate UNOLS representative(s).

Non-Member observers to the OOIFB will include representatives from NSF, and may include representatives from other institutions not covered above, such as other federal funding agencies or international entities with significant investments in ocean observing.

4. Committees Structure

The OOIFB will be responsible for establishing and/or continuing committees (either standing or ad hoc), and determining their mandates (technical, regional, etc.), representation, schedules, etc. Such committees will report directly to the OOIFB, which will monitor their functionality and composition with regard to expertise, training, demographics, and other parameters.

The Terms of Reference for each OOIFB standing committee will be included as an annex to this Charter.

Committee members will be appointed by the OOIFB in collaboration with NSF. An institution may have only one Member on a given committee at any given time. Perceived conflicts for sub-committee members may be considered subordinate to specifically valued technical and scientific expertise in the sub-committee appointment process.

OOIFB standing committees shall remain in effect for no longer than three years, after which time they shall be dissolved, unless they are reaffirmed by the OOIFB. The OOIFB shall review all Committee's terms of reference and activities as a basis for affirmation, change or dissolution.

OOIFB ad hoc committees shall be formed to address specific issues. The OOIFB will determine the membership, terms of reference and date of expiration of the ad hoc committee.

5. Meetings, Decisions, and Reporting

The OOIFB will convene at least once annually. The OOIFB may convene meetings (in-person or virtual) as appropriate. Meetings will be announced on the OOIFB website.

A quorum for the OOIFB meetings (in-person and web/phone) requires a minimum of four non-conflicted members and a minimum of one OOI member. The OOIFB will operate via consensus of the voting members present, provided a quorum is represented. Such consensus need not be unanimous, as defined. When consensus cannot be reached in a timely manner the Chair may call for a vote. Simple majority rules apply. In the case of a tie, the Chair is the

deciding vote. When dissenting opinions are expressed, they must be clearly indicated in the appropriate record of the discussion.

Minutes of each meeting of the OOIFB and any (sub) committees of the external OOI Advisory Structure will be taken by the OOIFB Administrative Support Office and the draft (provisional) minutes will be made publicly available within one month of a meetings occurrence.

At the end of each calendar year, the OOIFB will provide a public summary of that year's activities to be distributed widely.

OOIFB meetings are open to the public.

6. Modification and Discontinuation

NSF may adjust or discontinue the OOIFB as needed, to address changes in OOI operations, partnerships, or scientific and technical representation.

7. Record of Adoption and Amendments
- Charter adopted May 8, 2018
- Amended on July 25, 2018 – Addition of Annex I, DDCI Terms of Reference
- Revised on October 30, 2018 – Annex I - DDCI Membership Update
- Revised on January 28, 2021 – Annex I – DSC replaces the Data Dissemination and Cyberinfrastructure (DDCI) Committee. The DSC Terms of Reference replace the DDCI Terms of Reference as Annex I.

ANNEX I
Data Systems Committee (DSC)
Terms of Reference

1. Introduction.
The NSF Ocean Observatories Initiative Facility Board (OOIFB) established the Data Systems Committee (DSC) to help ensure timely and reliable access to high-quality OOI data.

2. Purpose.
The DSC evaluates and recommends improvements to the data services policies and practices of the OOI Facility that will lead to more efficient and effective scientific use of OOI data. The DSC will communicate its recommendations to the OOIFB, who will upon approval transmit DSC recommendations to the NSF. While there are numerous, and synergistic interactions between the DSC and the OOI Facility, the DSC does not directly task the OOI Facility, nor does the OOI Facility task the DSC. The DSC will provide critical reviews of data systems and cyberinfrastructure plans, identify short-term priorities, and suggest longer-term strategic actions on an ongoing basis through the OOIFB. From time to time the OOIFB, or the NSF through the OOIFB, will issue specific tasking to the DSC.

3. Organization / Membership.
The DSC is composed of nine relevant subject matter experts, which includes the Chair. The members of the committee are drawn primarily from academia to reflect the interests of scientists, but membership may also include representatives from the private sector who can provide key advice about events and conditions that could affect the program. Typically, two representatives of the OOI Marine Implementing Organizations (MIOs) are also included as members. Conflicts will not necessarily preclude participation, in particular when the required expertise of a potential member outweighs any such conflict.

a. *Chair* - The DSC Chair shall represent the committee in all matters deemed necessary in the interest of the committee. The Chair shall preside over the committee meetings. Unless the Chair is already a member of the OOIFB, the Chair will participate in OOIFB meetings as a non-voting member. The Chair cannot be an employee of an OOI MIO.

b. *Ex-officio members*: Ex-officio representation on DSC will include the:
   - OOIFB Chair
   - OOI Data Delivery Manager or equivalent OOI person.
   Ex-officio members are non-voting members of the DSC.

c. *Liaisons* - Representatives of the OOI Cyberinfrastructure (CI) team will be asked to participate as liaisons as needed. They will be non-voting.

d. *Appointment Process* - Applications/nominations for membership (non-OOI MIO member positions) on the DSC and for the DSC Chair will be reviewed and voted on by the standing DSC members. An open nomination process (including self-nominations) with outreach in the public domain will be employed. The standing DSC will select one nominee for each open position and forward the nomination to the OOIFB Chair. The

OOIFB Chair, with the endorsement of the OOIFB, shall appoint the DSC members and Chair(s) from the nominations put forward by DSC. All appointments shall be in collaboration with NSF.

The OOI Program Management Office (PMO) will appoint up to two representatives of the OOI MIOs to serve as members of the DSC. The PMO can make replacement appointments of the MIO representatives at will.

e. ***Term Lengths*** – The DSC Chair and members will be appointed with terms of staggered rotation. The Chair and members may serve up to two consecutive 3-year terms.

The OOI MIO appointments to the DSC have no designated term limits. Appointment lengths for these positions are determined by the OOI PMO.

f. ***Unexpired Terms*** - A vacancy appointment shall be for the remainder of the unexpired term of the vacancy, and an individual so appointed may subsequently be appointed for two full 3-year terms if the remainder of the unexpired term is less than 1.5 years.

4. Objectives
The objectives of the committee may include, but are not limited to, the following:

- Keeping abreast of the current state of the OOI cyberinfrastructure and data services with the goal of helping to promote maximum scientific use of OOI data. These efforts will be informed by the FAIR Guiding Principles for scientific data management and stewardship, such that data are:
    a) Findable
    b) Accessible
    c) Interoperable
    d) Reusable

    Further information on the FAIR Guiding Principles for scientific data management and stewardship can be found at https://www.go-fair.org/fair-principles/

- Encouraging the use of best practices, standards, and naming conventions established by the oceanographic community, including standards such as COARDS and CF conventions, as well as standard data access platforms such as ERDDAP.

- Engaging with the user community through meetings, surveys, and other means, to gauge user needs in regard to OOI data systems, and to facilitate the promotion of a positive user experience that includes in part:

    a) Data systems that are reliable, inclusive, and easy to navigate
    b) Data that include well-organized and informative metadata
    c) The use of well-defined QC procedures (and flags)
    d) Documentation and user training information (e.g., code examples, cookbooks, tutorials)

e) Implementation of best practices for data security, disaster recovery, and version control

- Staying current on potential new modes of data service and access, data analysis methodologies, and related technologies that facilitate the use of OOI data through engagement with the broader data science community, and promoting best practices by the OOI as such technologies emerge and develop.

- Engaging with the OOI PMO and MIOs in constructive interactions, subject to the limitations described above, regarding the priorities and plans of the OOI cyberinfrastructure groups.

- Making recommendations for data products, usage metrics, and improving the user experience on the OOI Data Explorer as well as other data service systems employed by the OOI.

5. Meetings/Reports

The DSC will convene at least once annually. The DSC may convene meetings (in-person or virtual) as appropriate. Minutes and reports will be posted on an OOIFB-supported website.

Reports of DSC meetings, activities, and recommendations shall be made to the OOIFB. The DSC will provide an annual report to the OOIFB on February 1 of each year.

6. DOCUMENT HISTORY
- July 25, 2018 - OOIFB adopts the DDCI Terms of Reference as Annex I.
- Annex I revised on October 30, 2018 – DDCI Membership is updated.
- Annex I revised on January 28, 2021 – The OOIFB endorses the DSC Terms of Reference. Annex I is replaced with the DSC Terms of Reference.