National Science Foundation
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Frequently Asked Questions (FAQs) for EarthCube Solicitation

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EARTHCUBE CONCEPTUAL DESIGNS

GENERAL EARTHCUBE QUESTIONS ABOUT THE SOLICITATION AND EARTHCUBE WEBSITE

1. **Who are EarthCube stakeholders and what are the communities being served by this solicitation?**

   The primary goal of EarthCube is to provide services and solutions for US academic geoscientists and their students. This solicitation engages communities and stakeholders/end users in the US academic geosciences, in earth, ocean, atmospheric/geospace/space weather and polar sciences.

2. **What is the deadline for Amendment I proposals?**

   The deadline for both types of EarthCube proposals (EarthCube Test Governance and Research Coordination Networks (RCN)) is March 26, 2013.

3. **When is the deadline for Amendment II proposals?**

   The deadline for Amendment II opportunities (Building Blocks and Conceptual Designs) is May 22, 2013.

4. **Given the breadth and volume of geoscience data that is held in Federal repositories, in the private sector, and internationally, what is the scope of EarthCube and to what extent does it need to address all geoscience data?**

   Repositories outside the US academic research community are a critical resource for geoscience data. Ultimately, EarthCube should be designed to make data from such repositories discoverable to the academic geosciences. At this stage, the EarthCube solicitation primarily focuses on organizing the US geosciences academic community and resources generated by academic research. Building interactions and developing communications with major US Federal agencies and international organizations that hold and serve geosciences data is also welcome as part of proposals to the EarthCube solicitation.

5. **The solicitation mentions that responses to this funding opportunity require participation of geoscientists and cyber/computer science experts. What constitutes a qualified geoscientist?**

A qualified geoscientist is a person whose main career focus and professional activities involve studying the Earth system and how it functions.

6. **Do I have to have a degree in geosciences to be considered a geoscientist?**

   No, as long as your main career focus and professional activities involve studying and creating new knowledge the Earth system, it does not matter what discipline your degree(s) were awarded.

7. **The solicitation mentions that responses to this funding opportunity require participation of geoscientists and cyber experts/computer scientists. What constitutes a qualified cyber/computer scientist?**

   A qualified cyber expert/computer scientist is a person whose main career focus and professional activities involve the development of cyberinfrastructure and/or computational, software, data management, theory, tools, algorithms, approaches, and/or utilities that enable the use of computing or data resources by others or by those whose interest is primarily in understanding Earth processes.

8. **Do I have to have a degree in computer science to be considered a cyber-expert or computer scientist?**

   No, as long as your main career focus and professional activities involve the development of cyberinfrastructure as explained above.

9. **Can people from more than one institution appear on the proposal cover page?**

   Yes. If the lead institution allows, the names of PIs from other institutions with significant roles in the project can appear as co-PIs on the cover page of the proposal.

10. **Can international participants be involved as senior personnel or as the lead PI of the proposal or a subaward?**

    International institutions cannot be the lead on a proposal submitted in response to this solicitation. International partners may be included as a subawardee in the proposal if their contribution and services under the subaward are clearly articulated in the proposal and budget justification.

11. **Can US Federal Agency government collaborators receive any funds? State government collaborators? Local government collaborators?**

    NSF is unable to pay the salary for any permanent federal, state, or local government employees. Please, contact the cognizant program officers to discuss the appropriateness of proposed funding. Under some circumstances, expenses of government agencies can be supported.

12. **If I am from a US Federal agency or from a private sector company and would like to submit an EarthCube proposal, what should I do?**

    Please see the Eligibility Information in the solicitation for guidance on submitting to EarthCube competitions. You may then contact one of the cognizant program officers to seek further guidance on how to participate and structure your submission.

13. **Why are there two EarthCube websites: one on the NSF website (http://www.nsf.gov/geo/earthcube/) and an EarthCube community website (http://earthcube.ning.com/) and how are they different?**

    The NSF EarthCube website contains all official NSF communications, including funding opportunities and official announcements, about EarthCube. The EarthCube community hosts discussions and community-generated documents, such as roadmaps and workshop reports about EarthCube, on the *ning* website. It is operated by an interim bridging and outreach group participating in EarthCube. Test Enterprise Governance will run this, or a similar web presence, as part of its award responsibilities

AMENDMENT II

14. **Can private sector companies compete for EarthCube Building Blocks and Conceptual Designs?**

    Yes. NSF encourages private sector involvement in EarthCube. Because the EarthCube goal centers on the needs of the academic geosciences community, private companies should collaborate closely with academic institutions and geosciences end-user communities. Private sector participants and their collaborators should consult with EarthCube program directors to seek guidance on structuring a proposal.

15. **Because EarthCube Amendment I awards will not be made before the Amendment II deadline, how should EarthCube Building Blocks and Conceptual Design proposals address the requirement to participate with other EarthCube awards?**

    Although EarthCube Amendment I awards will be made after the Amendment II deadline, proposers to Amendment II should discuss the mechanisms, including budgeting and organization, that will allow them to participate in Test Enterprise Governance activities and interact with EarthCube RCNs. Proposals should have a reasonable amount of travel/virtual communications tools allocated for integrating into the larger EarthCube process.

EARTHCUBE BUILDING BLOCKS

16. **Are the groups who were awarded the initial EarthCube EAGER Concept Awards the only ones eligible to submit EarthCube Building Blocks?**

    No. The Building Blocks competition is not limited EAGER awardees. The EAGER Concept awards provided valuable ideas and demonstrations of cyberinfrastructure to the early stage of EarthCube. This phase is completed. Building Blocks also solicits for the development of cyberinfrastructure, but the scope and integration expected of proposals to Building Blocks is broader, engaging more geoscientists and cyber/computer scientists.

17. **Will Building Blocks proposals have to include collaborators from both the geosciences and cyber/computer science?**

    Successful Building Blocks proposals will include both geoscientists and researchers with expertise in cyberinfrastructure or computer science. Proposals will be evaluated on the partnership between researchers in both disciplinary areas, and the integration of geosciences end-users into the development process.

18. **Are Building Blocks proposals required to address needs in more than one geosciences**

domain?

The purpose of Building Blocks awards is to explore technology approaches that may potentially be used across the geosciences to integrate resources and make data, models, and tools accessible to a broader set of researchers than currently access them. Thus, the most successful proposals will be those that integrate across more than one geosciences domain. Other opportunities are available within NSF for cyberinfrastructure development that targets the specific needs of a single geosciences community. PIs should discuss their ideas with the EarthCube program directors for guidance on the appropriate breadth of a Building Blocks proposal.

19. **Will proposals to develop new databases for communities that do not have identifiable data repositories be considered in this call?**

    No, the EarthCube Building Blocks competition is focused on linking present investments in cyberinfrastructure or providing essential tools and utilities that crosscut geoscience disciplines. Database proposals focusing on individual fields should be discussed with the Program Officers in the relevant core programs. Researchers may also contact the EarthCube program directors.

20. **Will testbeds and other means for comparing cyberinfrastructure approaches, as opposed to the development of independent cyberinfrastructure solutions, be considered for Building Blocks proposals?**

    Yes, efforts to test various methods, approaches, tools or utilities to solve geosciences resource management needs are considered appropriate and potentially important activities for this Building Blocks call. Proposals for such activities that show motivations and connections to community developed documents, including but not limited to the EarthCube roadmaps, are encouraged.

EARTHCUBE CONCEPTUAL DESIGNS

21. **Who is expected to be on a Conceptual Design team?**

    NSF is looking for researchers with experience developing software architectures to lead and organize Conceptual Design teams. Proposals will be evaluated on the team's expertise and proven record of working with complex and evolving systems like EarthCube. Innovative and experimental concepts are welcome.

22. **Can an investigator be the lead PI on a Conceptual Design proposal if he/she is already a lead PI on another EarthCube proposal?**

    Yes. There is no restriction on the lead PIs on Conceptual Designs. However, PIs should think seriously about the time commitment needed for Conceptual Design activities, and contact the EarthCube program director to discuss submission of multiple proposals.

23. **How much emphasis should be placed on serving/linking NSF-funded facilities? Should proposals also address integration with major federal data repositories and modeling efforts?**

    The enterprise architecture of EarthCube will require integration of NSF-funded investments in data and cyberinfrastructure, as well as other Federal geosciences data resources. Conceptual Design proposals should define and justify the selected scope of their architectural vision. Serving the needs of the academic geosciences community will be central to successful Conceptual Designs.

24. **What is the expected format for Conceptual Design Reports?**

    There is no prescribed format for the Conceptual Design Report. Conceptual Design teams will be expected to present their results to a broad audience, including those with computer science expertise as well as those without this understanding. Reports should make the design concepts clear so that the merits of various approaches may be discussed by other participants of EarthCube. Proposals should describe the format that the design team will use for this report.

25. **Will an EarthCube enterprise architecture be chosen from the Conceptual Design awardees?**

    Since EarthCube is still in a requirements gathering stage, it is unlikely that any initial Conceptual Design Report will fully represent the entire geosciences community or the entire landscape of resources that support this domain. This call for Conceptual Designs is intended as a planning phase, the first step in a multi-step process to develop EarthCube enterprise architecture. An anticipated step for refinement of designs will allow input from other activities in EarthCube to be incorporated into architecture designs.