National Science Foundation
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NSF 11-020

Frequently Asked Questions (FAQ) for Cyber-enabled Discovery and Innovation (CDI) Solicitation NSF 11-502

1. **We plan to submit our CDI proposal early, before the January 18, 2011, date when the new NSF requirement for a Data Management Plan takes effect. Must we comply with this requirement anyway?**

   Yes. As explained in the Grant Proposal Guide, NSF 11-1, http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_sigchanges.jsp, the requirement applies to any proposal that is due on or after January 18, 2011. Because the CDI deadlines are after this date, all CDI submissions must include a Data Management Plan.

2. **Where in FastLane do we submit the Data Management Plan?**

   As explained in the Grant Proposal Guide, NSF 11-1, http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp#IIC2j, the Data Management Plan is submitted with the Special Information and Supplementary Documentation. It is limited to two pages. Consult the GPG for other guidance about this requirement.

3. **Are preliminary proposals or letters of intent required in the 2011 CDI competition?**

   No. Any CDI full proposal submitted in accordance with solicitation NSF 11-502 will be reviewed.

4. **We have more than two PIs but each PI has a small contribution to the project. Can we submit a Type I proposal with more than two PIs if the equivalent effort is two PIs?**

   Yes, and you should clarify this in your budget justification.

5. **What is the meaning of the words "efforts up to a level roughly comparable to" in the descriptions of Type I and Type II awards?**

   This is meant to convey flexibility in the formulation of the project team and work plan. There are no dollar-denominated budget limits in CDI. The effort can be distributed differently between different numbers and categories of team members, as long as the overall effort is comparable.

6. **What topic areas and sizes of awards have been supported in CDI?**

   Go to the program page http://www.nsf.gov/cdi, scroll down to the bottom, and click on What Has Been Funded. For multi-proposal collaborative projects, the total budget will be the sum of the component proposal budgets.

7. **If a project could fit another NSF program, does that mean that CDI will turn it down?**

   Not necessarily, but you should study the CDI review criteria carefully. A type of interdisciplinary project that often arises is one in which tools from a computational or theoretical field are used to advance one particular scientific domain. Such a project is usually better suited for an appropriate disciplinary program in the scientific domain, because that domain is where its impact lies. Since the project does not meet the CDI review criterion relating to outcomes in more than one field of science and engineering, it is unlikely to be a competitive CDI proposal. On the other hand, some other NSF solicitations and programs seek projects that do meet the CDI multidisciplinary criterion, and these types of proposals could be competitive in CDI if they respond to the CDI criteria. The judgment in the CDI review will be based on the CDI criteria, not on whether the project could have fit a different program.

8. **How cross-disciplinary should the CDI project be?**

   The CDI research project needs to be potentially transformative, and to propose innovative advances in more than one field of science or engineering. A project that advances just one field, even if it uses tools from another field or has a co-investigator from another field, does not meet this criterion.

9. **Can the PIs be from the same department?**

There is no restriction regarding the affiliation of the PIs; therefore the PIs can be from the same department. It is best if the PIs and Co-PIs have complementary expertise, and the levels of expertise should be clearly laid out in the proposal.

10. **Does one of the disciplines being advanced in a CDI project have to be computer science?**

No. The project should be clear about the innovation in or innovative use of computational thinking.

11. **What is computational thinking?**

Computational thinking refers to computational concepts, methods, models, algorithms, and tools, broadly interpreted. It encompasses a wider scope than computer science or any other particular discipline. You may consult the abstracts of the awards from 2008-2010 for some examples of computational thinking.

12. **Can experimental or field work be part of a CDI project?**

Yes, up to a point. Experimental or field work is entirely appropriate as a component of a CDI project, for instance in order to validate computational modeling and analysis. However, CDI is primarily cyber-enabled, so experimental or field work should not predominate in the scientific agenda or in the budget.

13. **Can a CDI project be primarily about development of cyberinfrastructure?**

CDI makes heavy use of cyberinfrastructure, but is first and foremost a research program. A competitive proposal must meet the CDI review criteria about research outcomes. Infrastructure development is a positive feature of a proposal, but cannot take the place of research.

14. **Can a for-profit organization participate in a CDI project?**

If the organization is SBIR-eligible, it may be funded as a non-lead subcontractor on an award to an eligible academic institution or non-profit organization. If the organization is not SBIR-eligible, it may participate on an award to an eligible awardee, but it must provide its own funding.

15. **Can other federal agencies or non-NSF federal research centers submit a CDI proposal? Can scientists from other federal agencies participate in a CDI project?**

Consult the Grant Proposal Guide, NSF 11-1, http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_1.jsp#IE7. Generally, these organizations cannot submit proposals directly to NSF, and NSF will not fund the compensation of their staff members. The staff scientists can participate in a CDI project as unfunded collaborators, http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_2.jsp#IIC2div. With program and NSF administrative approval, some CDI-supported activities could be conducted at another federal agency or non-NSF federal research center, on an award to an eligible academic institution or non-profit organization. One possible example is a university-affiliated postdoc or student working at a government laboratory on an internship.

16. **I am interested in collaborating with international researchers in my CDI proposal. Can a foreign scientist be listed as a co-PI and supported on a CDI project?**

CDI encourages U.S. investigators to collaborate with international partners. Unless a foreign collaborator has an appointment at a U.S.-based institution, he or she should be listed as "other senior personnel," and not listed on the cover sheet. A two-page biographical sketch (same format as for PIs and co-PIs) should be included in the proposal. NSF funds should be used to cover costs associated with U.S. institutions.

17. **How do CDI proposals get assigned to divisions or directorates within NSF? How do I know which NSF directorate or division will handle my proposal?**

This was new for fiscal year 2009. All CDI proposals are submitted to the Office of Integrative Activities and handled by teams of Program Directors from multiple directorates and reviewed by multidisciplinary panels with appropriate expertise for the group of

proposals in the respective panels. No proposal is handled in isolation by a particular directorate or division.

18. **How can I participate in the CDI review process?**

Please register as a reviewer-volunteer at http://www.nsf.gov/crssprgm/cdi/form.cfm. If you are selected as a panelist, you will be notified approximately four weeks before the panels.

19. **What do I have to submit in addition to the FastLane or Grants.gov documents?**

Two documents via e-mail to cdi@nsf.gov, sent immediately after submission of the proposal, as explained in the section **"Electronic Documents"** of solicitation NSF 11-502.

20. **In addition to the required Data Management Plan, are there other special supplementary documents required in FastLane or Grants.gov for CDI?**

Any proposal that requests funding to support postdoctoral researchers must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals. If required, FastLane will not permit submission of a proposal that is missing a Postdoctoral Researcher Mentoring Plan.

21. **Whom should we contact with questions about CDI?**

You should send an e-mail to cdi@nsf.gov or call the phone number 703-292-8080. Members of the CDI Working Group listed in the solicitation NSF 11-502 are also available to answer your questions.