National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230

NSF 09-051

FAQs Regarding Academic Research Infrastructure – Recovery and Reinvestment (ARI-R^2) Program Solicitation NSF 09-562 – Part 2

IMPORTANT NOTE

These questions and answers are intended for guidance only. The document that defines proposal requirements is the solicitation.

36. What is the general intent of the ARI-R^2 program?

37. When selecting and describing a project, how important is the impact on research and research training?

38. Is it a good idea to roll up several renovations into one proposal?

39. Can I propose the renovation of an existing facility that is not used for research in order to create a new research facility?

40. Do the NSF grant conditions explicitly require awardees to comply with the Americans with Disabilities Act (ADA)?

41. What is the impact of Executive Order 11246 likely to be on the recipients of ARI-R^2 awards?

42. We would like to renovate a research facility that is used for research in the social and economic sciences. Is this eligible for the ARI-R^2 program?

43. As part of our proposed renovation, we will need to knock a hole in the floor. Our physical plant people can do it, but they are employed by the university, and my assumption is that their salaries would not be an allowable cost. Would it be acceptable to engage an outside contractor to do the work?

44. Here are three ideas we are considering for a facility renovation proposal, can you help us choose between them?

45. What will be the average award size?

46. We are having difficulty entering the proposal into FastLane. Who should we contact for help?

47. Do you welcome proposals from community colleges, and do you have any examples of proposals that we could take a look at?

48. We are unfamiliar with some of the Project Management terminology used in the solicitation. Are there some reference materials we could look at?

49. The solicitation asks that the Project Manager's biographical sketch be included in the Biographical Sketches section of the proposal. The Grant Proposal Guide's description of a biographical sketch seems most appropriate for an individual who is a researcher. If the Project

Manager is not a researcher, how should the biographical sketch be completed?

50. We feel that it would be most appropriate to list all of our department faculty members as senior personnel. Do they all have to describe the results of prior research support in the Project Description? Must they all complete the Current and Pending Support section of the proposal?

51. The proposal preparation instructions in the ARI-R^2 solicitation state that the Supplementary Documents section should include, "One set of page-size schematic drawings showing existing conditions and work to be done. Drawings must be an integral part of the proposal package and should be as extensive as possible. These drawings should show appropriate details of existing conditions and proposed work." What level of detail is required in these drawings? Must they be professionally prepared architectural drawings?

52. We wish to propose a renovation that consists of converting office space into research laboratory space. The office space is currently used by research students and post-docs for activities such as computations, simulations, data analysis and the writing of research articles. Is this consistent with the solicitation.

53. Our institution has an in-house facility design and construction department. Its staff members are university employees. We intend to have them assume the lead role in the planning and construction management of our proposed project. This unit typically functions on a recharge basis. Can the services of the people in this unit be billed to the NSF-funded portion of the project budget?

54. In the proposal preparation instructions, proposers are asked to provide, in the standard "Facilities, Equipment, and Other Resources" section of the proposal, a listing of similar and/or related facilities at or near the performing organization as "Other Resources." Is the intent of the question to demonstrate that we are not duplicating similar resources nearby, or that the proposed renovation offers a local/regional resource not otherwise available?

55. We would like to construct a research laboratory in existing space that is currently used for storage. Will such a project be competitive in the ARI-R^2 program?

56. We are planning to renovate our research facility by installing an X system (X = water purification, heating, HVAC, helium recovery, sprinkler, rooftop photovoltaic, etc.) Is this appropriate for an ARI-R^2 proposal?

57. The solicitation states that documents other than those specified in the proposal preparation instructions cannot be included in the Supplementary Documents section of a proposal. This suggests that letters of support from prospective or current users of a research facility cannot be included in the Supplementary Documents section. Is this correct? May we include quotes and endorsements from current and prospective users in the Project Description?

View FAQs – Part 1

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36. **What is the general intent of the ARI-R^2 program?**

The intent of this program is to provide one-time assistance in modernizing the Nation's **existing** shared research facilities where sponsored and/or unsponsored research activities and research training take place. An ideal candidate for an ARI-R^2 project would be an existing research or research training facility that has become dilapidated or partially obsolete so that it cannot effectively support the needs of modern research in the area for which the facility was intended, but which, if repaired and/or renovated, would go on to serve the needs of modern researchers or provide training in modern research, greatly expanding the impact of the facility in its associated area of research and research training.

Reviewers will be asked to comment on the likely impact of the proposed repair or renovation in the context of the institution submitting the proposal.

While new research facilities are important for the research enterprise, the scope of the ARI-R^2 solicitation is limited to the improvement of existing research facilities or research training facilities. The ARI-R^2 program is not intended to support the creation of new facilities for research or research training.

37. **When selecting and describing a project, how important is the impact on research and research training?**

Very important. As described in the preceding FAQ, the core purpose of the ARI-R^2 program is the improvement of existing research and research training facilities so that the Nation's academic and independent non-profit research organizations are better able to advance the boundaries of discovery and innovation. Reviewers are ask to examine and comment upon, "The adequacy and appropriateness of the existing facility for current and expected research and research training activities," and the, "Demonstrated need for improvement of the facility based on analysis of current condition and potential impact."

For a proposal to be successful, it is essential that it describe the current research or research training performed at the facility, the current condition of that facility, the proposed improvements, and the impact that these improvements will have on the future research or research training that will be carried out at the facility.

38. **Is it a good idea to roll up several renovations of multiple facilities into one proposal?**

In general, no. The solicitation is written in terms of a single research facility per proposal while retaining some flexibility about what constitutes a research facility. The intent is that an ARI-R^2 award should support the improvement of something that makes sense as a coherent research facility.   The proposals will be reviewed by a group of external reviewers who will first read the solicitation and make their assessments in the context of the wording of the solicitation. If you feel that you can make a strong case in a proposal that infrastructure in separate locations constitutes a single research facility, and you feel that reviewers and program officers are likely to find this convincing, then you are free to propose an improvement of this facility. However, you should be careful to avoid creating the perception that your proposal is an attempt to get around the one-proposal-per-institution limit.

39. **Can I propose the renovation of an existing facility that is not used for research in order to create a new research facility?**

No.

40. **Do the NSF grant conditions explicitly require awardees to comply with the Americans with Disabilities Act (ADA)?**

The Nondiscrimination section of NSF's General Grant Conditions (http://www.nsf.gov/awards/managing/general_conditions.jsp) subjects any award to the provisions of several civil rights statutes, including the Rehabilitation Act, which prohibits discrimination on the basis of handicap by the Federal government, Federal contractors, and recipients of Federal financial assistance. If you receive an ARI-R^2 award (or a typical NSF research award), you will fall into the category of a recipient of Federal financial assistance. The Americans with Disabilities Act (ADA) is, in fact, based on section 504 of the Rehabilitation Act and its implementing regulations. The obligation to comply with the

Rehabilitation Act also applies to subrecipients, subgrantees, and subcontractors under the award. Thus, all renovations/repairs completed in connection with an ARI-R^2 award must be compliant with the Rehabilitation Act. Although the requirements of the Rehabilitation Act and the ADA are quite similar, there may be slight differences. In addition, it is likely that your institution will have an independent obligation under the law to comply with the ADA. You will need to ask your institution's counsel for guidance on whether the ADA applies to your institution and for the interpretation of what compliance with the Rehabilitation Act, the ADA and associated regulations might entail in the particular circumstance of your institution and the project you intend to propose.

41. **What is the impact of Executive Order 11246 likely to be on the recipients of ARI-R^2 awards?**

    Executive Order 11246 and Department of Labor regulations implementing the Order are directed at government contracts, including construction contracts that are Federally assisted. An academic institution that is the recipient of an ARI-R^2 award should not fall within the scope of most of the order because the funding mechanism used in connection with the ARI solicitation is a Federal assistance grant, not a contract. Thus, such an institution will not be a contractor with NSF and, except in its relations with construction contractors, will not have to implement any parts of the order that go beyond existing statutes that might apply to the institution. The institution will, however, be required to incorporate the provisions set forth in section 202 of the Executive Order, as well as any additional provisions established by the Department of Labor in its implementing regulations, into all construction contracts (and subcontracts) paid for in whole or in part by Federal funds. Thus, any contractors and subcontractors doing construction work in connection with an ARI-R^2 award will be subject to the requirements of the Executive Order and the implementing regulations, unless they are otherwise exempt. You will need to ask your own institution's counsel for guidance on exactly what the Executive Order and associated Department of Labor regulations mean for your particular circumstances.

42. **We would like to renovate a research facility that is used for research in the social and economic sciences. Is this eligible for the ARI-R^2 program**?

    Yes. Proposals can be submitted for the renovation of any area of research that is typically supported by NSF, whether or not the research at the facility in question is directly funded by NSF. Research in the social, economic and behavioral sciences is supported by the NSF.

43. **As part of our proposed renovation, we will need to knock a hole in the floor. Our physical plant people can do it, but they are employed by the university, and my assumption is that their salaries would not be an allowable cost. Would it be acceptable to engage an outside contractor to do the work?**

    The solicitation precludes awardees from including salary and related costs of their employees in proposal budgets. It is acceptable, though not required, to engage an outside contractor to do the work. In this event, please be aware of the answer to FAQ #41.

44. **Here are three ideas we are considering for a facility renovation proposal, can you help us choose between them?**

    No, NSF staff cannot provide feedback on the merits of ideas that you may be considering for proposals. One strategy you might adopt is to put yourself in the place of a reviewer, read the review criteria given in the solicitation, and see which of your ideas you would find the most compelling – e.g., in terms of the highest impact on the capabilities of the college for research and research training, in terms of feasibility, etc.

45. **What will be the average award size?**

The solicitation explains that we anticipate funding approximately 100 proposals in the range $250,000 - $2,000,000, 6-10 in the range $2M - $5M and 3-5 in the range $5M - $10M. The solicitation also states that the total available funding is $200M.

46. **We are having difficulty entering the proposal into FastLane. Who should we contact for help?**

Please contact FastLane User Support at 1-800-673-6188, or email your question to the FastLane Help Desk at fastlane@nsf.gov, or access the FastLane Help System webpage by clicking on the FastLane Help link at the top of the FastLane web-page, www.fastlane.nsf.gov. Please do not contact ARI-R^2 program staff as we are very inexpert in the use of the public FastLane interface.

47. **Do you welcome proposals from community colleges, and do you have any examples of proposals that we could take a look at?**

The ARI-R^2 program welcomes proposals from community colleges and is interested in outcomes that strengthen the opportunities for students at community colleges to conduct independent research under the mentorship of faculty members or of scientists and engineers in the surrounding community. The solicitation calls for proposals for the repair or renovation of an **existing** facility used for research or research training. Provided that you have such a facility at the moment, then you are welcome to propose a renovation of that facility that improves its ability to support research or research training. New construction cannot be included so the renovation cannot include building a new wing or annex, but many other types of major renovations or repairs are possible.
If you have not yet had a chance to look at them, you may find helpful the original set of FAQs for ARI-R^2 (see the link near the bottom of the program web-page at www.nsf.gov/od/oia/programs/ari) and the recording of a webinar about the ARI-R^2 and MRI-R^2 programs (accessible through another link on the program webpage).

If you are unfamiliar with submitting proposals to NSF, you may find the following helpful.

First, if you are not already familiar with FastLane, you will need to have your college's grants office set up a FastLane ID for you as an authorized Principal Investigator for the college.

Submission of a proposal is a two-stage process. Usually the Principal Investigator (PI) prepares the proposal in FastLane. When it is ready, she or he presses the button that forwards the proposal to the college's sponsored program office (SPO). The SPO must then submit it electronically to NSF via FastLane by 5pm on the day of the deadline. You should talk with your SPO in advance to make sure you and the SPO are coordinated. A mistake that occasionally occurs is for the PI to complete the proposal, but for the SPO to fail to submit it.

If you have not used FastLane before, it may be useful to visit www.fldemo.nsf.gov (a demonstration, not the real FastLane site) and play around with it.

There are no publicly available examples of full proposals that are specific to the ARI-R^2 program, but you might get a flavor of what is expected by looking at some materials prepared by people around NSF, available at the following links. (Note that these contain some advice specific to particular programs that are different to ARI-R^2 so don't take them too literally. In particular, ARI-R^2 proposals need some very specific sections and additional documents that are not usually found in research proposals.)

http://www.nsf.gov/pubs/2004/nsf04016/nsf04016.pdf
http://www.nsf.gov/attachments/111743/public/Handouts_ASEE_06-22-08.pdf
http://www.nsf.gov/sbe/bcs/grs/propsamples.jsp

You should also read the Grant Proposal Guide (GPG) if you haven't already done so. (Note that the ARI-R^2 solicitation modifies some of the requirements given in the GPG and adds some others so keep the solicitation in mind as this takes precedence over the GPG.) The GPG may be viewed at:
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg

48. **We are unfamiliar with some of the Project Management terminology used in the solicitation. Are there some reference materials we could look at?**

Pointers to various reference materials may be found at the website of the Project Management Institute (www.pmi.org). An online glossary of project management terms may be found at http://www.maxwideman.com/pmglossary/. And for those who like the introductions in the "Complete Idiot's Guide" series, there is a volume on Project Management.

49. **The solicitation asks that the Project Manager's biographical sketch be included in the Biographical Sketches section of the proposal. The Grant Proposal Guide's description of a biographical sketch seems most appropriate for an individual who is a researcher. If the Project Manager is not a researcher, how should the biographical sketch be completed?**

The Project Manager's Biographical Sketch should convey her or his qualifications and experience. The document should clearly identify that the individual will be the Project Manager (PM) and list the PM's professional training and professional appointments as described in the Grant Proposal Guide (GPG). It may go on to briefly describe the PM's previous experience in project management. It must conclude with a section on Collaborators and Other Affiliations, as described in the GPG. The Project Manager's Biographical Sketch should be no more than two pages in length and conform to the basic format requirements described in Chapter II, Section B of the GPG:
http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_29/gpg_2.jsp#IIB

50. **We feel that it would be most appropriate to list all of our department faculty members as senior personnel. Do they all have to describe the results of prior research support in the Project Description? Must they all complete the Current and Pending Support section of the proposal?**

It is unlikely to be necessary or helpful to list all of the department's faculty members as senior personnel. If the intent is to describe the range of investigators who will use the research or research training facility, this should be done in the Project Description. If the success of the proposed project requires a commitment of time from an individual who belongs to one of the categories of senior personnel described in the Grant Proposal Guide, then it would be appropriate to list that individual.

The inclusion, in the Project Description, of Results from Prior NSF Support is required only for the PI and co-PIs and only if that individual has received NSF funding in the past five years. Each PI and co-PI who has received *more than one award* (excluding amendments) should report only on the award most closely related to the proposal. Details of what should be reported are given in the Grant Proposal Guide:
http://www.nsf.gov/pubs/policydocs/pappguide/nsf09_29/gpg_2.jsp#IIC2d

The Grant Proposal Guide states that Current and Pending Support must be reported for **the PI and all other senior personnel** involved in the project. Information is required, "on all current and pending support for ongoing projects and proposals, including

subsequent funding in the case of continuing grants. All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the PI and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support. Similar information must be provided for all proposals already submitted or submitted concurrently to other possible sponsors, including NSF."

51. **The proposal preparation instructions in the ARI-R^2 solicitation state that the Supplementary Documents section should include, "One set of page-size schematic drawings showing existing conditions and work to be done. Drawings must be an integral part of the proposal package and should be as extensive as possible. These drawings should show appropriate details of existing conditions and proposed work." What level of detail is required in these drawings? Must they be professionally prepared architectural drawings?**

There are no specific requirements on the level of detail in the drawings. It is anticipated that different groups will be at different stages in planning and will submit drawings appropriate to that stage. The important thing is for the reviewers to be able to understand clearly what you want to do, to evaluate the likely accuracy of your cost estimates, to assess risk, and to be able to judge the impact of the proposed renovation.

52. **We wish to propose a renovation that consists of converting office space into research laboratory space. The office space is currently used by research students and post-docs for activities such as computations, simulations, data analysis and the writing of research articles. Is this consistent with the solicitation.**

No. It is not consistent with the solicitation and is unlikely to be competitive.

53. **Our institution has an in-house facility design and construction department. Its staff members are university employees. We intend to have them assume the lead role in the planning and construction management of our proposed project. This unit typically functions on a recharge basis. Can the services of the people in this unit be billed to the NSF-funded portion of the project budget?**

No. The solicitation states that the ARI-R^2 program will not fund salary costs of submission-eligible organizations' employees. The component of the recharge rate that corresponds to salary costs and related expenses cannot be included in the proposal's budget request.

54. **In the proposal preparation instructions, proposers are asked to provide, in the standard "Facilities, Equipment, and Other Resources" section of the proposal, a listing of similar and/or related facilities at or near the performing organization as "Other Resources." Is the intent of the question to demonstrate that we are not duplicating similar resources nearby, or that the proposed renovation offers a local/regional resource not otherwise available?**

We anticipate that reviewers will read the "Facilities, Equipment, and Other Resources" section of the proposal and comment if they see unnecessary duplication or evidence that the proposed renovation would provide a unique resource for the locality or region.

55. **We would like to construct a research laboratory in existing space that is currently used for storage. Will such a project be competitive in the ARI-R^2 program?**

This sounds a lot like renovating something that is not an existing research facility in order to create a new research facility. As such it does not seem consistent with the solicitation which calls for the repair or renovation of an existing research facility.

56. **We are planning to renovate our research facility by installing an X system (X = water purification, heating, HVAC, helium recovery, sprinkler, rooftop photovoltaic, etc.) Is this appropriate for an ARI-R^2 proposal?**

    We really cannot make such a determination before a proposal is submitted. We anticipate that we will ask the reviewers for their advice on whether such a system is needed in order to pursue the research or research training that you describe the renovated facility being used for.

57. **The solicitation states that documents other than those specified in the proposal preparation instructions cannot be included in the Supplementary Documents section of a proposal. This suggests that letters of support from prospective or current users of a research facility cannot be included in the Supplementary Documents section. Is this correct? May we include quotes and endorsements from current and prospective users in the Project Description?**

    This interpretation is correct. Letters of support may not be included in the Supplementary Documents section of the proposal but extracts from or reproductions of letters of support may be included in the Project Description.