

REQUEST FOR PRELIMINARY WHITE PAPERS



Experimental Program to
Stimulate Competitive Research

www.ndepscor.nodak.edu

Issued: April 18, 2007
Deadline: Noon, May 22, 2007

TO: Deans and Chairs in the Sciences, Engineering, and Mathematics (SEM)
FROM: David R. Givers, Co-Project Director, ND EPSCoR, NDSU Office
Gary Johnson, Co-Project Director, ND EPSCoR, UND Office
RE: FY 2008 NSF EPSCoR Research Infrastructure Improvement (RII) Proposal

This is an open invitation for researchers to submit a concept white paper for possible incorporation into the state's NSF Research Infrastructure Improvement (RII) proposal. This request describes a two-phase competition. The first phase is an open pre-proposal competition that invites infrastructure improvement proposals in any **NSF-fundable area**. An external peer-review process will select no more than four (4) white papers that will be invited to submit full pre-proposals for a final external peer-review.

Based on the recommendations of an NSF mid-term review of our 2005-08 RII program, we expect to include the two existing State Research Initiatives (SRIs), SUNRISE and Spintronics, in the next RII proposal. Our RFP, issued February 1, 2007, also invited researchers across the campuses to participate in Spintronics and SUNRISE. However, the two current SRIs will submit to the pre-proposal merit review process. It is likely that no more than three SRIs will be proposed to NSF.

Infrastructure Improvement Background

The RII proposal due date is expected to be October 2007. We anticipate that the NSF RII RFP will call for a five year duration. The previous NSF RII Program [Solicitation](#) (NSF 06-583) is available at www.nsf.gov/funding/pgm_summ.jsp?pims_id=502100&org=OIA&sel_org=OIA&from=fund. Refer to it for additional background to help understand the NSF program goals and objectives. A description of ND EPSCoR programs and goals are found at www.ndepscor.nodak.edu

This Call for White Papers begins the identification process of an important component of the RII proposal—tightly focused research areas that address the key points of:

- building collaborative, interdisciplinary research in cutting-edge science that becomes nationally competitive and self sustaining.
- establishing fidelity with North Dakota's Technology Based Economic Development goals and programs including Governor Hoeven's Centers of Excellence (COE) initiative (www.ndus.nodak.edu/reports/default.asp?ID=389), and Senator Dorgan's Red River Valley Research Corridor (www.theresearchcorridor.com).

Fidelity with the state's identified research and economic development priorities was considered to be an important evaluation criterion in the previous RII competition. COE defined-focus areas are technology, aerospace, value-added agriculture, energy, advanced manufacturing, and tourism. The initiative is designed to pursue academic excellence and spur R&D, new technology, and job creation and transform the state's economy toward science and technology.

As stated in the last NSF RFP:

"The purpose of an EPSCoR Research Infrastructure Improvement (RII) Grant is to provide support for lasting improvements in a jurisdiction's academic research infrastructure, its research capacity and capability in identified research areas, and hence, increased national competitiveness. EPSCoR support is intended to add specific value to the jurisdiction's academic infrastructure not generally available through other funding sources."

"With EPSCoR support, it is expected that the improvement strategies will enable targeted research areas to become nationally competitive and sustained by non-EPSCoR support after the award period. Furthermore, improvement strategies must be targeted to foster strength building in order to initiate collaborative efforts for the solution of important problems having both regional and national significance."

Eligibility Information:

Eligibility is limited to North Dakota institutions that offer doctoral degrees in science and/or engineering (the University of North Dakota and North Dakota State University). **PI Eligibility Limit**—The investigator may participate in only one pre-proposal as an SRI Director. Participating researchers/research team members may be involved in more than one pre-proposal.

Primary Evaluation Criteria:

- Standard NSF criteria described in the Grant Proposal Guide (GPG) (i.e., intellectual merit, broader impacts, etc.).
- State Fidelity, that is, the relevance to long-term North Dakota research initiatives expressed by the governor, the state legislature, and the congressional delegation.
- Reasonableness of the budget. The budget should propose up to \$750,000/yr for five years. The budget justification should explain the allocation provided to each collaborator, equipment purchases, students and other participants.
- White papers must propose a collaborative effort between the two institutions. Additional collaborations involving national laboratories or other investigators from within or outside North Dakota are strongly encouraged. However, no funds may be requested for the support of investigators from outside North Dakota or at a national laboratory.

Additional Evaluation Criteria:

- Potential for proposed activities to achieve self-sustaining status.
- Nature and quality of the multi-institutional interactions.
- Capabilities of the project leadership, including managerial and organizational ability of the lead PI and of the proposed leadership team.

Checklist Requirements—Submit both paper and electronic copy

Proposal Hard Copies: Original + Five (5) copies.

Must be double-spaced and no more than five, one-sided pages, margins $\geq 1"$, with no less than a 10-point font. Staple all copies in the following order)

1. ND EPSCoR Cover Page—Available from www.ndepscor.nodak.edu
2. Abstract (one page).
3. Proposal description (no more than five pages formatted as described above).
4. NSF style budget sheet available from www.ndepscor.nodak.edu (not counted in the page limit).
Clarification: five-year cumulative budget only
5. Budget justification (not counted in the page limit)
6. Appendices (20-page maximum) limited to and in the following order:
 - a) Interdepartmental support letters if specific departmental collaboration is proposed.
 - b) Biographical sketches with current and pending support of all participants; two page maximum for each.

Proposal Electronic Copy: A complete proposal in a single PDF file to the campus Co-Project Director via e-mail attachment.

NDSU: Please direct your questions to Mr. David R. Givers at 701-231-7516 or David.Givers@ndsu.edu

UND: Please direct your questions to Dr. Gary Johnson at 701-777-2492 or

GaryEJohnson@mail.und.nodak.edu

For information about ND EPSCoR and other funding opportunities, please visit the Web site at www.ndepscor.nodak.edu