SUBJECT:  SD Research & Innovation Center & Governor Research Centers

At the end of this fiscal year, the National Center for the Protection of the Financial Infrastructure (NCPFI) will transition away from state funding and have to achieve self-sustainability going into the future. Additionally, the four other centers will meet this milestone at the end of FY14. In anticipation of these events, RAC discussed the potential for combining the review process for the EPSCoR RII Track I requests with an adapted approach to the Governor Research Center selection process. During their October meeting, the REACH committee agreed to reorient the funding approach for the Governor Research Centers, and advanced an RFP (see attachment I) that targeted the creation of one larger South Dakota Research and Innovation Center (SDRIC). The broader goal for the SDRIC is to combine efforts in the area of Basic and Translational research to build research infrastructure necessary to sustain a nationally recognized research center that targets one of the five industry sectors identified in the state Science and Innovation Strategy. Furthermore, funding is also being made available to translational research efforts that are in line with the original Governor Research Centers.

Letters of Intent were required by December 14, 2012, and a total of 7 SDRIC and 19 GRC requests were received. Fully developed proposals were due on March 1, and a total of 6 SDRIC and 17 GRC fully developed proposals were received. Once the proposals were received, the SD EPSCoR office conducted a compliance review and identified nine GRC proposals that were in non-compliance (failure to include elements required in the RFP, lack of collaboration, failure to meet submission deadline, etc.), and those proposals were returned to researchers without further review. On March 8, six SDRIC and eight GRC proposals were submitted to American Association for the Advancement of Science (AAAS) which has the contract with SD EPSCoR to conduct the review process.

It is anticipated that the first-phase, technical merit reviews will be completed and returned to the SD EPSCoR office by the end of the 3rd week in April. The Research & Commercialization Council will meet to consider the reviews and select a subset of the proposals that will be invited to continue in the selection process. The project management team of the SDRIC projects invited to continue in the process will present their project to a review panel.
convened by the AAAS in Sioux Falls May 13-14, 2013. The selection of the GRC will be June 6, 2013 by the RCC and the SDRIC by the REACH Committee on June 7, 2013 based on the panel's reviews. Both meetings are scheduled in Pierre.
SUMMARY OF PROGRAM

The SD EPSCoR Office, the SD Board of Regents (SD BOR) and the SD Governor’s Office of Economic Development (SD GOED) invite proposals to identify science and engineering research focus area(s) that will be the foundation for the state’s NSF Research Infrastructure Improvement (RII) proposal and Governor’s Research Center projects.

This request for proposals combines aspects of the required elements of the NSF RII program and the Governor’s Research Center program to create a new program whose research centers will be known as “South Dakota Research and Innovation Centers”. It also refocuses the former Governor’s Research Center program to emphasize applied research and workforce development. Both centers will begin in July 2013. Please see the full text of this solicitation for additional details.

This request for proposals describes a two-phase process. The first phase is a required Letter of Intent that states the proposer’s intent to submit either a South Dakota Research and Innovation Center or a Governor’s Research Center proposal. The Letters of Intent will be used to identify reviewers for an external peer-review process that will select the research focus area(s) that will form the basis of the next NSF RII proposal or a Governor’s Research Center. The second phase of the process is submission and review of the submitted proposals.

Contacts:
SD EPSCoR Office
James A. Rice, Director, SD EPSCoR Program, South Dakota State University, Box 2202, Brookings, SD 57007-0896; 605-688-4252 (voice), 605-688-4611 (fax), james.rice@sdstate.edu (e-mail).
Karen Theodosopoulos, Program Administrator, SD EPSCoR Program, South Dakota State University, Box 2235, Brookings, SD 57007-0896; 605-688-6228 (voice), 605-688-4611 (fax), karen.theodosopoulos@sdstate.edu (e-mail).

Governor’s Office of Economic Development
Mel Ustad, Director of Commercialization, Governor’s Office of Economic Development, 2329 N. Career Ave., Suite 221, Sioux Falls, SD 57107; 605-367-4515 (voice), mel.ustad@state.sd.us (e-mail).

SD Board of Regents
Paul Turman, System Vice President of Research & Economic Development, South Dakota Board of Regents, 306 East Capitol Avenue, Suite 200, Pierre, SD 57501; 605-773-3455 (voice), paul.turman@sdbor.edu (e-mail).
Eligibility Information:
Eligibility as a lead institution for a South Dakota Research and Innovation Center is limited to South Dakota Regental institutions that offer doctoral degrees in science and/or engineering in NSF-fundable areas.

Eligibility as a lead institution for a stand alone Governor’s Research Center is open to any South Dakota university and not-for-profit research organization.

An institution may serve as lead institution on more than one proposal in either project category submitted in response to this solicitation.

PI Eligibility Limit:
An investigator may participate in only one proposal as a project director. An investigator may participate in more than one proposal as a senior investigator.

Award Information:
- A South Dakota Research and Innovation Center project will be for a 6-year period. In project year 1, up to $900,000 will be available. In project years 2-6 the following amounts will be available: $5,700,000 (year 2), $5,200,000 (year 3), $4,700,000 (year 4), $4,100,000 (year 5), $3,600,000 (year 6). The number of awards in FY 2014 is contingent on the scope and quality of the proposals. Continued federal funding in project years two through six will be based on an external assessment of the accomplishments achieved during the prior year, successful funding as a NSF RII Track 1 project and is contingent on continued federal funding. Continued state funding will be based on an annual performance review by the REACH Executive Committee (formerly the Research and Commercialization Council) and is contingent on continued South Dakota legislative appropriations.

- A stand alone Governor’s Research Center proposal may request up to $500,000 per year for each year of a two- to five-year project. The number of awards in FY 2014 is contingent on the scope and quality of the proposals. Funding in project years two through five is subject to South Dakota legislative approval. Continued state funding will be based on an annual performance review by the REACH Executive Committee (formerly the Research and Commercialization Council) and is contingent on continued South Dakota legislative appropriations.

Proposal Preparation and Submission Instructions:
A. Proposal Preparation Instructions
- Letter of Intent: Submission of a Letter of Intent (LOI) is required. The LOI must be submitted by the lead institution’s Sponsored Program Office or its equivalent. Please see the full text of this solicitation for instructions on preparing the LOI.
- Projects submitting a Letter of Intent may submit a full proposal by the deadline noted below. No other proposals will be accepted. Please see the full text of this solicitation for instructions on preparing the proposal.

B. Budgetary Information
- The budget period for a South Dakota Research and Innovation Center proposal is six-years. Please see the full text of this solicitation for instructions on preparing the budget and the amounts available each year. The remainder of the total EPSCoR RII award will be used to fund the education, outreach and administrative components of the RII project. The actual amount to be used in the final proposal submitted to NSF to fund the activities of proposal selected may be different from the amount originally requested by a proposal submitted in response to this solicitation depending on the costs associated with the other required components.

- A Governor’s Research Center proposal may request up to $500,000 per year for a two-to-five-year project.

C. Due Dates
- Letter of Intent (required):
FY14 South Dakota Research Infrastructure Center Programs
Request for Proposals

- December 14, 2012 (5 PM CST)
  - Proposal Submission Window Closes:
    o March 1, 2013 (5 PM CST)
  - Panel Presentations and Review
    o April, 2013
  - REACH Committee Selection of Center Proposals
    o June, 2013
  - Full RII Proposal Submission Deadline Target Date:
    o October, 2013

D. Proposal Review Information

- Merit Review Criteria: Standard NSF intellectual merit and broader impacts criteria will apply. An external review panel will be convened by the SD EPSCoR Office to conduct proposal reviews.
- Additional merit review considerations apply. Please see the full text of this request for further information.

E. Award Administration Information

- Award Conditions: Additional award conditions apply. Please see the full text of this solicitation for further information.
- Reporting Requirements: Standard NSF reporting requirements will apply, but reports will be submitted to the SD EPSCoR Office. In addition, the project director and other senior investigators will be required to present an annual progress report to an external RCC advisory panel. Based on the report and presentation of progress to date, the advisory panel will make recommendations to the SD EPSCoR Office for continued funding.
I. INTRODUCTION

South Dakota is approaching its final year of a five-year $20,000,000 National Science Foundation (NSF) Experimental Program to Stimulate Competitive Research (EPSCoR) Research Infrastructure Improvement (RII) Track 1 award and will be eligible to submit a new proposal to NSF in the next competition that will close in Fall 2013. The Governor’s Research Center program is intended to accelerate the growth of research competitiveness, move innovations to market and support expansion of South Dakota’s knowledge economy.

As a result of recommendations in the state Science and Technology Plan, the state is combining aspects of these programs to develop the infrastructure needed to support research activities that span a translational continuum from basic to applied research. This request for proposals combines aspects of the required elements of the NSF RII program and the existing Governor’s Research Center program to create a new program whose research centers will be known as “South Dakota Research and Innovation Center”. It also refocuses the Governor’s Research Center program to emphasize applied research and workforce development. Both centers will begin in July 2013. Please see the full text of this solicitation for additional details.

SD EPSCoR Program

EPSCoR is based on the premise that universities and their faculty and students in science, technology, engineering and mathematics (STEM) fields are valuable resources that can have positive influence on a state’s development in the twenty-first century in much the same way that agricultural, industrial and natural resources did during the twentieth century. EPSCoR’s goal, therefore, is to identify, develop, and fully utilize a state’s academic science and technology resources in a way that will support a more productive and fulfilling way of life for its citizens. To achieve this end, NSF cooperates with state leaders in government, higher education, and business to support productive long-term partnerships in support of common goals. These partnerships are designed to stimulate local action that will result in lasting improvements to the state’s STEM research and educational infrastructure and increased national R&D competitiveness.

EPSCoR increases the R&D competitiveness of an eligible state through the development and use of STEM resources residing in its research, educational, and industrial institutions. While EPSCoR focuses primarily on those universities granting the state’s Ph.D. degrees in STEM disciplines, effective partnerships between those universities and other institutions across the state are encouraged (e.g., predominantly undergraduate universities and colleges, community colleges, and local school districts). There is widespread agreement that our Nation’s continued leadership in science, technology, engineering and mathematics (STEM) and the corresponding economic prosperity that it creates requires that all of its educational and private sector resources be fully employed. Therefore, to ensure full participation of all our universities and colleges in our nation’s economic and scientific future, opportunities for research experiences that prepare citizens for STEM careers is essential. This is especially true in institutions that have a special role in serving groups underrepresented in STEM careers (e.g., two-year colleges, large urban universities, and minority-serving institutions).

As a result of EPSCoR funding, it is expected that sustainable STEM infrastructure improvements at the state and institutional levels will be achieved, significantly increasing the movement of EPSCoR researchers into the mainstream of federal and private sector R&D support.

Although the current SD EPSCoR RII Track 1 award does not end until July 31, 2014, South Dakota will need to submit a proposal sometime during the Fall of 2013 in order to have a new award in place at the completion of the current one. It is anticipated that a new RII award will be used to fund the infrastructure development components, education, outreach, human resource development, and administrative components of the project. In the past, NSF has required a significant “jurisdictional and institutional commitment” in support of an RII proposal. While it is anticipated that this will continue, NSF’s formal announcement of the FY14 RII competition will identify the specific parameters within which the final proposal will be developed.

Governor’s Research Center Program

The commercialization network and infrastructure necessary for further fostering economic development opportunities in South Dakota warrant targeted investments made around a series of critical state assets. Governor’s Research Centers have had a history of success due to this investment strategy.
Each Governor’s Research Center is expected to become a recognized research and education leader in its field by building the physical, human and educational infrastructure needed to be competitive for external funding and be sustained beyond the duration of an award. A successful Center’s outcomes are translational; they expand the state’s economy both directly through creating new employment opportunities at the Center, partnering with businesses and spin off companies, and contribute to STEM workforce development needs.

To accomplish this, a Center’s primary objectives include:

- achieve national standing as a leader in focused research and education areas;
- increase competitiveness for major federal research funding leveraging state and private investments and support future research activities;
- develop focused areas of research that generate demonstrable and significant commercial activity contributing economic growth in South Dakota;
- establish centers in partnership with private sector entities that will ensure research outcomes are commercialized;
- increase the number of research scientists and engineers and knowledge workers in South Dakota.

II. PROGRAM DESCRIPTION

Building the infrastructure to foster the growth of translational research requires an alignment of university and private sector objectives. Research priorities should align with institutional leadership who should be actively involved in the proposal development process. Additionally, these priorities should align with regional and national industry research, development and workforce needs, existing entrepreneurial activities in the state, and collaborations between universities, private industry, and regional economic development entities.

To facilitate this alignment the SD EPSCoR Office, the SD BOR, and the SD GOED are jointly soliciting proposals to develop South Dakota research and innovation infrastructure by combining the EPSCoR RII Track 1 program and aspects of the Governor’s Research Center program solicitations. The purpose of these new programs is to provide significant support for lasting improvements in a state’s academic research and economic development infrastructure that are consistent with the state’s strategic science and technology goals.

Proposals submitted in response to this request can take two forms;

- a South Dakota Research and Innovation Center proposal whose research and educational infrastructure development activities span the continuum from basic research and educational activities to applied research and education programs that meet specific industry needs
- a Governor’s Research Center proposal that is focused on applied research and education programs that meet specific and significant industry knowledge and workforce development needs in the state’s targeted research sectors.

No other types of proposals other than these two will be accepted in response to this solicitation.

This program will allow South Dakota to make strategic investments in building nationally competitive translational research programs in specific areas of science and engineering that are consistent with state goals. Strategic investments generally take several forms including:

- set-up costs for hiring new faculty in targeted areas;
- equipping and staffing core research facilities;
- postdoctoral, graduate, and undergraduate research programs;
- funds for developing technology-transfer capacity and strengthening university-industry partnerships;
- increasing research access to state-of-the-art information technology;
- visiting-scientist programs;
- workshops and training courses;
- investments in mentoring programs for junior faculty;
- any other strategy to enable South Dakota to dramatically increase its research competitiveness in a focused area;

ATTACHMENT I
and, building strategic industry-university partnerships that drive basic and applied research as well as workforce development activities.

What an award will not fund is research project support in the traditional sense. A key premise behind the initiatives undertaken with an award is that the outcomes must result in progress that will be sustainable beyond the life of the award; it is an expectation that a successful proposal will transition from infrastructure support through this program to a self-sustaining status based on competitive federal research funding and private sector investment in the center’s activities.

A successful proposal must describe the strategy and implementation mechanisms to develop and use the science and technology resources that currently comprise the state’s research and economic development enterprise. In preparation for submitting a proposal, the EPSCoR governing committee has undertaken a comprehensive analysis of the strengths, barriers, and opportunities for development of its institutions in support of overall state objectives. Successful infrastructure improvement plans are likely to be those that represent the opportunities for enhanced academic R&D competitiveness among a state’s universities, including plans for generation of sustained non-EPSCoR support. Most importantly, the state's infrastructure improvement strategy must identify implementation mechanisms that have a high probability of realizing stated goals and objectives. In all instances, specification of performance milestones and a timetable for achieving such milestones is a requirement for EPSCoR support. With infrastructure 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.

It is important to note that an award is NOT the appropriate mechanism to provide support for individual faculty research projects. Requests for support of such projects should be directed to NSF’s regular research and educational grant programs. In addition, because EPSCoR investments are important to enhancing a state’s competitiveness, it is expected that equipment purchased with EPSCoR funds will remain in the state and will not be transferred in the event that an investigator transfers to another state. Some examples of activities that are considered appropriate for EPSCoR infrastructure development are given in the 2012 NSF EPSCoR program solicitation which can be found at: http://www.nsf.gov/pubs/2012/nsf12563/nsf12563.htm.

III. ELIGIBILITY INFORMATION

Eligibility as a lead institution for a South Dakota Research and Innovation Center is limited to South Dakota Regental institutions that offer doctoral degrees in science and/or engineering in NSF-fundable areas.

Eligibility as a lead institution for a Governor’s Research Center is open to South Dakota universities and not-for-profit research organizations.

Letters of Intent and proposals for either type of center must represent a collaborative effort among 2 or more of the South Dakota Regental institutions. Additionally, a South Dakota Research and Innovation Center must represent a collaborative effort among 2 or more of the South Dakota Regental institutions that offer doctoral degrees in science and/or engineering. Collaborations involving industry partners are required. Collaborations involving the other public, tribal or private institutions in South Dakota and industry partners are also required for a South Dakota Research and Innovation Center and strongly encouraged for a Governor’s Research Center. Collaborations involving national laboratories or investigators from outside South Dakota are strongly encouraged for both proposal types. No funds may be requested for participants from outside South Dakota as a part of either proposal.

The research infrastructure development focus area must have national and statewide impact and be directly aligned with South Dakota’s State Science & Technology Plan. The proposed center activities must be aligned with institutional priorities as evidenced by required letters of commitment.

To be considered in this competition, a South Dakota Research and Innovation Center must be in an NSF-fundable area though the translational research and development activities may extend beyond the basic science, math and engineering disciplines. Letters of Intent outside the areas typically funded by NSF are inappropriate and will be returned without consideration.

A Governor’s Research Center may be proposed in any STEM area aligned with the state’s targeted research sectors.
A single investigator must be designated as the project director and accept management responsibility for the research focus area. An investigator may participate in only one proposal as a project director. An investigator may participate in more than one proposal as a funded senior investigator.

IV. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

An institution may serve as lead institution on more than one proposal in either project category submitted in response to this solicitation.

A. Proposal Preparation Instructions

Letters of Intent not adhering to these guidelines will be returned without further consideration.

Letter of Intent (required):

The Letter of Intent is a required prerequisite to submitting a proposal in response to this solicitation.

The Letter of Intent should be prepared as a single spaced document with 1” margins. It should contain the following:

- A two-page description which includes the
  - Project Title (cover page)
  - Project Director’s name, contact information, and institutional affiliation (cover page)
  - Project Summary (1 page)

- Identifies this proposal as a “South Dakota Research and Innovation Center” or a “Governor’s Research Center”.

- A single table that is an alphabetically ordered list of all people in the academic or professional community who have collaborated with (within the last 48 months), or have been a Ph.D. advisee or advisor of, each of the personnel involved in the proposed project including all advisory boards (i.e. the conflicted individuals). In this table, please include next to the name of each conflicted individual, that individual’s institution or company and the name of the project member with whom he or she has the conflict of interest. It is not necessary to list as collaborators personnel who are simply employees of an institution or company involved in the project. The list must be ordered alphabetically by the first column, i.e. the last names of the conflicted individuals. Note that past or present association with an individual as a thesis/dissertation advisor or thesis/dissertation student presents a lifelong conflict of interest with that individual. All thesis/dissertation advisees supervised must be listed in this table, not just those supervised within the last 48 months. See the guidelines described in Chapter II-11 of the NSF Proposal and Award Policies and Procedures Guide (NSF 13-1, PAPPG) for additional details.

The Letter of Intent must be submitted by the lead institution’s Sponsored Program Office or its equivalent to the address identified in Part D of this section.

Proposal Preparation Instructions:

Proposals not adhering to these guidelines will be returned without review.

Proposals submitted in response to this request should be prepared in accordance with the general guidelines contained in the NSF Proposal and Award Policies and Procedures Guide (PAPPG).

The Project Description should clearly define the goals of the infrastructure development to be accomplished during the project, describe how the desired goals will be achieved and how the success of the activities will be evaluated.

The project leadership should be provided by a small group of the senior investigators that includes the project director. The project director should be a senior scientist with demonstrated organizational, managerial, and leadership ability. The remainder of the leadership team should be drawn from the project’s senior investigators.
from the participating institutions and should provide guidance and oversight on the conduct of the science and engineering activities (include private sector partners in the leadership team). Although a consortium of several organizations may be involved in development of the research infrastructure area, the project director must accept overall responsibility for managing the technical research aspects of the project.

The GPG describes the general format required for proposals. The following instructions deviate from the GPG. The Project Description in the full proposal should be prepared using the maximum page limit guidelines for each section described below (the maximum proposal length is 25 pages total). Pages should have 1-inch margins. Proposals not adhering to the 25 page limit will be returned without review.

1. Description of the current status of the jurisdiction’s academic R&D enterprise relevant to the proposed project must be described. This description must include a comprehensive analysis of the strengths, barriers, and opportunities for development of its academic institutions in support of overall jurisdictional R&D objectives. The proposal narrative should provide convincing background and rationale for the project’s scientific vision. It should show how the overall strategy and accompanying implementation mechanisms, if augmented with the requested infrastructure support, will improve the jurisdiction’s competitiveness for federal, jurisdictional, and private sector R&D funding. This narrative must describe how the activities will add significantly and measurably to research capability in S&T areas of high institutional and jurisdictional priority. The narrative should demonstrate how the specific S&T infrastructure improvements and activities proposed will advance the jurisdiction’s future research competitiveness and develop clearly focused research areas. (3 pages).

2. Description of how the proposed activities are aligned with and support the SD State Science & Technology Plan. (1 page).

3. Description of the research program and research infrastructure development activities. The research program is the heart of a proposal, and all other project components are built around it; it’s clear articulation is critical. This includes the roles of the various partner institutions and the private sector in achieving the research and research infrastructure development goals. (15 pages).

4. Plans for human resource development, including involvement of undergraduate students, graduate students, postdoctoral associates, and new faculty hires. The addition of new tenure track faculty in departments or programs appropriate to support the proposed research area is required. Alignment of the proposed activities with the targeted sector(s)’s workforce development needs should be discussed. Plans to attract and effectively involve individuals from under-represented groups should be described. (2 pages).

5. Description of a clearly articulated cyberinfrastructure plan for the utilization, development, improvement, and deployment of cyberinfrastructure appropriate to pursuit of the research goals of the proposed research program and related activities is required. Cyberinfrastructure can provide opportunities to leapfrog impediments posed by limited physical infrastructure and can enable broad educational engagement at the frontiers of discovery and innovation in science and engineering. Well-articulated plans for the development, improvement, and deployment of cyberinfrastructure appropriate to pursuit of the goals of both the RII Track-1 project and the jurisdiction’s S&T Plan are required. (1 page).

6. Description of a plan for long-term sustainability of the proposed research and/or education programs that clearly presents the strategy and implementation plan (with milestones) for sustaining the impacts and achievements in the science and technology enterprise subsequent to the period of proposed NSF EPSCoR support. Describe the vision and specific plans for sustaining the research activities beyond the duration of RII Track-1 support. Present a detailed strategy to build ongoing research relationships and generate subsequent, sustained non-EPSCoR funding from federal, jurisdictional, and private sector sources. Describe commercialization or economic development plans and projected impacts associated with the proposed research infrastructure development plan. (1 page).

7. Description of a plan for external engagement activities that will expand institutional participation, student career options, and facilitate the entry of women and members of underrepresented groups into STEM fields. Potential external engagement activities including outreach, communication, and dissemination are essential elements of successful strategies for the development of a diverse, well-prepared, internationally competent, and globally engaged STEM workforce and for a more scientifically literate public. This plan may include engagement of the private sector to develop partnerships that promote STEM pipeline development and research infrastructure development activities. This plan may also include other collaborations such as intra-

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1 In the current NSF RII Track 1 project a number of institutions have successfully used a graduated salary commitment to hire new tenure-track faculty and demonstrate part of their institutional commitment. For example, in year 1 a new hire’s salary may be split 75% EPSCoR/25% institution, in year 2 it is split 50% EPSCoR/50% institution, in year 3 it is split 25% EPSCoR/75% institution, and in year 4 it is 100% institution. This also is a way to demonstrate sustainability of the investment.
jurisdictional, inter-jurisdictional, regional, etc. as appropriate. Activities in informal science education should be presented with a research-based justification for their choice. Engagement by NSF staff in disciplinary areas of importance to the jurisdiction’s science and technology strategic plan is appropriate. Communicating the results, benefits, and processes of science to citizens at all educational levels builds scientific literacy and strengthens educational and research capacity throughout jurisdictions. Plans for the development of substantive technology that enables and facilitates communication within and among the partnering institutions and other EPSCoR jurisdictions must be described. (1 page).

8. Description of the management plan for the investigator team that clearly outlines the proposed organizational structure, mechanisms for focusing and maintaining development activities, criteria for selection of participants, and procedures for allocation of funds and equipment. Project technical advisory committees are a required component of the organizational structure; describe expected membership from academia and the private sector. (1 page).

**Additional Required Proposal Elements**

i. A South Dakota Research and Innovation Center must clearly describe what project component(s) could be separately funded and continue on their own merit in the event that the NSF EPSCoR RII proposal is not funded. (2 pages). This item is outside the 25-page limit. This requirement does not apply to a Governor’s Research Center proposal.

ii. All proposals must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans. The Data Management Plan will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate. Links to data management requirements and plans relevant to specific Directorates, Offices, Divisions, Programs, or other NSF units are available on the NSF website. See Chapter II-20 of the NSF Proposal and Award Proposal Policies and Guide Guide (PAPPG, NSF 13-1) for further information about the implementation of this requirement. This item is outside the 25-page limit. Proposals that fail to address this requirement will be returned without review.

iii. A proposal that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals. See Chapter II-19 of the NSF PAPPG for further information about the implementation of this requirement. This item is outside the 25-page limit. Proposals that request support for postdoctoral researchers and fails to address this requirement will be returned without review.

iv. A biographical sketch, limited to two pages and presented in NSF format (PAPPG, Chapter II-10), is required and should be included for the project director and each faculty investigator. A list of current and pending research support presented in NSF format is required for each person who provides a biographical sketch (PAPPG, Chapter II-19). These items are outside the 25-page limit.

v. Quotations for requested equipment may be included as appendices. These items are outside the 25-page limit.

vi. It is critical that these proposals be aligned with institutional priorities. Letters of institutional commitment should be attached at the end of the proposal. Only letters making specific commitments should be attached (e.g., committing new faculty FTE to the research focus area, industry cost-share, space assignments, access to facilities, etc.). These letters must be signed by a university official that has the authority to make the commitments (vice-president for research, provost, etc.). Letters of support that do not make specific commitments should not be included.

No other appendices or attachments are permitted.

**B. Budget Preparation Instructions**

Proposals not adhering to these guidelines will be returned without review.

Cost Sharing:

While no cost-sharing or matching funding is required, significant institutional commitment is required. This may take various forms including but not limited to the allocation of new tenure-track faculty lines, facility and space allocations, support staff, etc. These commitments should be fully described in the proposal budget justification.

Budget Preparation Instructions:
The budget and budget justification should be appended to the end of the required proposal elements discussed in Part A of this section.

**South Dakota Research and Innovation Center Proposal**

This program is **NOT** a mechanism to provide support for individual faculty research projects. Requests for support of such projects should be directed to NSF’s regular research and educational grant programs. Limited summer support as a part of a start-up package for new faculty hires is appropriate, summer support for project participants currently on staff is generally not viewed favorably.

The proposal budget should include funds for all project participants (including the project director) to attend an annual progress review meeting during the award duration. These meetings will be held in South Dakota on dates to be announced.

The budget description should explicitly identify which items are intended for NSF EPSCoR RII funding and which should be funded with the state dollars.

- The budget should be prepared for a six-year period with anticipated start date of July 1, 2013. The first project year may request up to $900,000 for start-up activities (new faculty start-up costs, acquisition of critical equipment, etc.).
- The NSF RII will provide up to $2,000,000 per year; this funding should be used to support basic research infrastructure development activities (e.g., expanding or starting graduate programs, salary support and research start-up for new tenure-track faculty, cyber-infrastructure development, strengthen or creation of core facilities, etc.). NSF funds can not be used for facility construction but may be used to renovate laboratory space for new faculty and equipment installation.
- The state will provide funding in years 2-6 that should be used to fund infrastructure and the translational activities of the project including funding applied research involving the industrial partners and workforce development-related project components. In project years 2-6 the following amounts will be available to fund these aspects of the project: $3,700,000 (year 2), $3,200,000 (year 3), $2,700,000 (year 4), $2,100,000 (year 5), $1,600,000 (year 6).
- The table below summarizes the maximum amount available each project year.

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- Proposals will need to satisfactorily justify that the budget amount proposed is necessary to achieve the stated project goals. The REACH Committee reserves the right to fund a proposal at a lesser amount if the funding requested is not justified by the narrative.

The remainder of the total EPSCoR RII project (expected to be $2 million) will be used to fund the other project components required by NSF; e.g., the education, outreach, evaluation, cyber-infrastructure and administrative components of the final RII project proposal. The actual amount to be used in this final proposal submitted to NSF to fund these required activities may be different from the amount originally requested by a proposal submitted in response to this solicitation depending on the costs associated with the other required RII proposal components.

**Governor’s Research Center Proposal**

A Governor’s Research Center proposal is focused on translational, applied research and education programs that meet specific industry knowledge and workforce development needs in the state’s targeted research sectors.

- The state will provide up to $500,000 that should be used to fund the translational, applied research and workforce development activities of the project including funding activities involving the industrial
partners. Proposals will need to satisfactorily justify that the budget amount proposed is necessary to achieve the stated project goals. The REACH Committee reserves the right to fund a proposal at a lesser amount if the funding requested is not justified by the narrative.

- The table below summarizes the maximum amount available each project year.

<table>
<thead>
<tr>
<th></th>
<th>Project Year 1</th>
<th>Project Year 2</th>
<th>Project Year 3</th>
<th>Project Year 4</th>
<th>Project Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>Total</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$500,000</td>
</tr>
<tr>
<td>Institutional Commitments</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
<td>Required</td>
</tr>
</tbody>
</table>

- Awards may request funding for a project length of two to five years.
- The proposal narrative must demonstrate either that the funding requested can support the activity to the completion of the proposed applied or translational research objectives or describe a clear path for sustaining these activities after the Governor’s Research Center funding ends. Review of a Governor’s Research Center proposal will carefully evaluate proposals to ensure this alignment.
- The actual number of awards is contingent on the number of proposals submitted and their scope.

**General Requirements Applicable to Both Proposal Types**

- An itemized proposal budget should be prepared using standard NSF budget forms and guidelines. Subawards should be included for each participating institution.
- All instrumentation/equipment requests should be carefully justified in the proposal and listed on line D of a year’s proposed budget.
- While funding cannot be provided to collaborators outside South Dakota, it is appropriate to request NSF funds to support researcher (undergraduate and graduate students, postdoctoral associates and senior investigator) travel to partner sites (international, industrial, or national laboratory) to conduct experiments.
- While there is no cost-sharing or matching funding, significant institutional commitment is required. This may take various forms including but not limited to the allocation of new tenure-track faculty lines to project, facility and space allocations, new support staff, etc. These commitments should be given in Line M of the budget forms and fully described in the proposal budget justification.
- A detailed budget description should accompany the budget forms. The budget forms and the budget justification are both outside the 25-page proposal limit.
- Letters from each participating institution specifically stating the institutional commitment are required. These letters are outside the 25-page proposal limit.

**C. Due Dates**

Letters of Intent and proposals should be submitted electronically as a single file in PDF format as an e-mail attachment to the State EPSCoR office by the date and time indicated below using the following e-mail address: karen.theodospoulos@sdstate.edu:

- Letter of Intent (required):
  - December 14, 2012 (5 PM CST)
- Proposal Submission Window Closes:
  - March 1, 2013 (5 PM CST)
- Panel Presentations and Review
  - April, 2013
- REACH Committee Selection of Center Proposals
  - June, 2013
- Full RII Proposal Submission Deadline Target Date:
  - October, 2013
D. Where to Submit

Letters of Intent and proposals should be submitted electronically as a single file in PDF format as an e-mail attachment by 5:00 PM CST on their respective due dates to the SD EPSCoR Office using the following e-mail address: karen.theodosopoulos@sdstate.edu.

Hard copies will not be accepted and will be returned without review.

V. PROPOSAL REVIEW INFORMATION

A. Proposal Review Process

Proposals submitted in response to this solicitation will be reviewed and evaluated by an external panel convened on behalf of the SD EPSCoR program. Project directors will receive a written summary of the review panel’s assessment of their proposal.

Proposals will be reviewed using standard NSF criteria described in the PPAPG (Chapter III, intellectual merit and broader impacts). Additional evaluation criteria that the reviewers will be asked to consider in their assessment of the proposals include:

State & Institutional Fidelity (25%)
- Are the proposed infrastructure improvement activities consistent with the State Science & Technology Plan?
- Are the proposed infrastructure improvement activities consistent with institutional programmatic priorities?
- What is the potential of the proposed infrastructure improvement activities to contribute to state economic development activities?

Significance and Impact (50%)
- Are the proposed research infrastructure improvement activities consistent with NSF funding priorities?
- Are the proposed research and educational activities transformational?
- What is the potential of the scientific activities to impact the nation’s research infrastructure?
- The quality of the project’s education and training components, especially plans to attract and effectively involve individuals from under-represented groups.
- The quality of the project’s education and training components, especially plans to attract and effectively involve individuals from under-represented groups.
- The strength of the multi-institutional interactions that will develop between public, private and tribal higher education, with the private sector and potential for their future growth.
- Is the budget proposed in a manner that is consistent with achieving these impacts?

Outcomes and Sustainability (25%)
- What is the potential for proposed activities to achieve a self-sustaining funding status?
- The quality of the project management plan.
- Quality and strength of the proposed public/private partnerships.
- What is the project’s economic impact: e.g., development of research and development partnerships with industry, creation of private sector jobs and the workforce to fill them, etc.
- Strength of the institutional commitments to the proposed project.