



EPSCoR and Companion Program Guidelines

State Matching Funds

The State of Kansas provides matching funds for the EPSCoR and Companion programs and has assigned responsibility for the oversight of the State's matching funds to the Kansas Board of Regents (Board). The annual appropriation for state matching funds is approximately \$1M, and is dependent on legislative appropriations. The purpose of state matching funds is to increase the competitiveness of proposals submitted to EPSCoR programs. Once EPSCoR obligations are met, state matching funds may be used for Companion programs.

Two Areas of Funding

EPSCoR Program

The Experimental Program to Stimulate Competitive Research (EPSCoR) program has become the centerpiece of the federal government's efforts to ensure that all states and regions benefit from its science and engineering (S&E) research and education activities. States that historically have received a disproportionately low per capita average of federal research dollars are eligible to apply for EPSCoR funds so that taxpayers in these states no longer subsidize the research efforts of states that historically receive a large share of federal research dollars. The program also aims to improve the ability of EPSCoR-designated states to compete for federal and private sector research and development funding. The experience gained from competing successfully in a merit review process enables many scientists to compete more effectively later in the regular research programs of federal agencies.

Most EPSCoR programs require a state match of federal funding; however, a few EPSCoR programs don't require state matching funds, though state matching funds for such programs greatly enhance the competitiveness of the proposal. Kansas match requirements are met through direct matching of state funds, the waiver of some university indirect costs on the federal dollars, and in some cases, industrial partners' support. For every state dollar invested in this program, at least one more dollar of federal or industrial match is contributed to strengthen our universities' research competitiveness.

Kansas is eligible to participate in active EPSCoR grant competitions held by the Department of Energy (DOE), the National Aeronautics and Science Administration (NASA), the National Institutes of Health (NIH), and the National Science Foundation (NSF). While Kansas is also eligible to participate in EPSCoR competitions held by the Environmental Protection Agency and the Department of Defense, these programs have been inactive due to budget constraints. EPSCoR competitions are restricted to universities unless otherwise specified by the federal granting agency.

Projects Prioritized for Funding and Amount of Matching Funds

EPSCoR projects competing for the following grant programs shall have **first** priority for state matching funds:

DOE EPSCoR

- Implementation Awards
- State/National Laboratory Partnership Grants
- OS Early Career Awards

NASA EPSCoR

- Research Infrastructure Development Awards (RID)
- Cooperative Agreement Notice (CAN Awards)
- International Space Station (ISS) Flight Opportunity Awards

NIH EPSCoR

- Centers of Biomedical Research Excellence (COBRE)
- IDeA Networks of Biomedical Research Excellence (INBRE)
- IDeA-Clinical and Translational Research (CTR)
- Co-funding Awards

NSF EPSCoR

- Research Improvement Awards (Track-1, Track-2, Track-3, & Track-4)
- Co-funding Awards

EPSCoR projects shall be funded with generally a 20% match for the life of the grant or on any matching rate required by the federal agency, contingent upon the availability of state funding. The EPSCoR Review Committee shall approve EPSCoR projects for funding only after such projects align with the priorities of the federal granting agency.

Application Process

Principal investigators shall submit a **completed proposal**, which at a minimum shall contain the following:

- One-page bulleted Executive Summary that contains basic project information and addresses the scoring rubric:
 - Project Title
 - PI/Contact Person information
 - List of government/industry/university and/or stakeholder partnerships involved and brief description as to individual roles
 - Indication of which EPSCoR program the proposal will be submitted to (if applicable)
 - Specific Strategic Focus/Niche Development for the State of Kansas
 - Federal/Industry Dollars Leveraged into Kansas
 - Jobs (FTE's) People working on project
 - Number of Students Involved
 - Indirect/Ancillary Benefit
- In five pages or less, provide the following:
 - Project description, proposed milestones, and a management plan.
 - Detailed budget identifying the use of state funds and all other funding sources.
 - Proof of partner and/or sponsor commitment to financial support.
 - Brief description of the qualifications of key personnel assigned to work on the project.
 - Any other information necessary for evaluation.
- A copy of the original solicitation from the federal awarding agency, if relevant.

Review Process

Proposals for funding shall be submitted three weeks prior to the Review Committee's meetings which are typically scheduled in October and April. The Kansas Board of Regents acts on all funding recommendations made by the Review Committee.

The Committee recognizes that a federal granting agency's submission deadline is not always compatible with the Committee's meeting schedule. In such cases, principal investigators may request that the Board provide a letter of support. The letter of support will indicate the awarding of state matching funds is contingent upon favorable recommendation by the Review Committee, approval by the Board of Regents and availability of state matching funds. Principal investigators receiving letters of support are required to submit a full proposal and understand that receiving a letter of support does not prioritize their project for funding.

In cases where a letter of support will not fulfill the requirements of the federal granting agency, staff will convene a special meeting of the Review Committee. Completed proposals shall be submitted three weeks prior to the special meeting. The Review Committee will make a funding recommendation at the meeting and forward its recommendation to the Board.

All funding recommendations from the Review Committee will be placed on soonest feasible agenda of the Kansas Board of Regents. The Regents have traditionally met monthly, September through June, to act on agenda items.

Award

Upon Board approval of the awarding of state matching funds, a contract will only be issued upon receipt of an official award notice and final budget. The contract, at a minimum, details reporting requirements including submission of an annual survey to the Board to determine how funds are being leveraged, and criteria for continued funding of multi-year projects. All awards are based on continued availability of state appropriations.

Companion Program

The Companion program supports projects that promote national competitiveness in strategic technology niches holding the most promise for the Kansas economy. Proposals are reviewed with two purposes in mind: (1) pairing the state's science and technology research strengths with the commercialization capacities of Kansas businesses in order to diversify Kansas' innovation economy and sustain a national and global competitive advantage and (2) attracting major federal and /or industry funds to areas of strategic research.

Projects Prioritized for Funding and Amount of Matching Funds

Once all EPSCoR obligations are met and all new EPSCoR projects are recommended for funding, Companion projects may be considered to provide a portion of project funding requirements. Priority will generally be given to projects with additional funding sources secured and providing the largest return on investment to the Kansas economy. Awards generally range from \$10,000 to \$100,000 with proposals exceeding \$100,000 requiring consultation with KBOR staff prior to submission/consideration.

Application Process

Principal investigators shall submit a **completed proposal**, which at a minimum shall contain the following:

- One-page bulleted Executive Summary that contains basic project information and addresses the scoring rubric:
 - Project Title
 - PI/Contact Person information
 - List of government/industry/university and/or stakeholder partnerships involved and brief description as to individual roles
 - Indication of which EPSCoR program the proposal will be submitted to (if applicable)
 - Specific Strategic Focus/Niche Development for the State of Kansas
 - Federal/Industry Dollars Leveraged into Kansas
 - Jobs (FTE's) People working on project
 - Number of Students Involved
 - Economic impact/Commercial potential (*see Appendix A*)
 - Indirect/Ancillary Benefit
- In five pages or less, provide the following:
 - Project description, proposed milestones, and a management plan.
 - Detailed budget identifying the use of state funds and all other funding sources.
 - Proof of partner and/or sponsor commitment to financial support.
 - Brief description of the qualifications of key personnel assigned to work on the project.
 - Any other information necessary for evaluation.
- A copy of the original solicitation from the federal awarding agency, if relevant.

Review and Award Processes

Proposal review and awarding of program funds follow the procedures as outlined above for EPSCoR.

State Matching Fund Contacts

Jennifer Armour, Associate Director for Academic Affairs, jarmour@ksbor.org, 785-430-4288
Jean Redeker, PhD, Vice President for Academic Affairs, jredeker@ksbor.org, 785-430-4281

Appendix A

Economic impact/Commercial potential

A key factor for maintaining a dynamic economy in Kansas is to have a constant stream of new businesses and to facilitate growth. University researchers can have a significant role in this cause for economic development. Research creates new ideas and opportunities where eventually could become very tangible and benefit many including their communities. It is highly recommended that academic researchers realize the incentives they could provide to the State industries and communities. To better understand the potential commercialization impact of their research, they need to be well in sync with the needs of their eventual customers. Commercial skill is normally found outside academia and therefore it is necessary for the individual researcher to build and maintain active contacts with industry. These contacts can play a major role and support in better defining the commercialization of a proposed idea by academic researchers.

Identifying and defining commercialization contribution of research often could be challenging for a researcher, especially for basic research. However, addressing any commercialization impact to any degree could provide better chances in selecting and funding the proposal. The following questions may assist researchers in addressing commercialization contributions of their research proposal:

How will your proposed project contribute to the flow of skilled personnel and qualified graduates with state-of-the-art knowledge from university to industry?

Does the proposed project have commercial potential to lead to a marketable product, process or service?

Does the proposed project have potential to create jobs other than student internship, research assistance, and similar university part-time positions?

Does the proposed project identify any potential intellectual properties, and possible spin-off opportunities and revenue streams as the result of this project?

Who will be the end-user of the deliverable(s) from your proposed project? Can you identify market potentials?

What is the technology readiness level of your proposed project?

An index that is used and understood by industry to realize the possible contribution a research project could have is the technology readiness level (TRL), which was established by NASA a few decades ago. Use the following table to identify the technology readiness level (TRL) for your proposed project:

Technology Readiness Levels	Description
1. Basic principles observed and reported.	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples might include paper studies of a technology's basic properties.
2. Technology concept and/or application formulated.	Invention begins. Once basic principles are observed, practical applications can be invented. The application is speculative and there is no proof or detailed analysis to support the assumption. Examples are still limited to paper studies.

Technology Readiness Levels	Description
3. Analytical and experimental critical function and/or characteristic proof of concept.	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
4. Component and/or breadboard validation in laboratory environment.	Basic technological components are integrated to establish that the pieces will work together. This is relatively “low fidelity” compared to the eventual system. Examples include integration of “ad hoc” hardware in a laboratory.
5. Component and/or breadboard validation in a relevant environment.	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonable, realistic supporting elements so that the technology can be tested in a simulated environment. Examples include “high fidelity” laboratory integration of components.
6. System/subsystem model or prototype demonstration in an operation environment.	Representative model or prototype system, which is well beyond the breadboard tested for TRL 5, is tested in a relevant environment. Represents a major step up in a technology’s demonstrated readiness. Examples include testing a prototype in a high fidelity laboratory environment or in simulated operational environment.
7. System prototype demonstration in an operational environment.	Prototype near or at planned operational system. Represents a major step up from TRL 6, requiring the demonstration of an actual system prototype in an operational environment, such as in an aircraft, vehicle, or space. Examples include testing the prototype in a test bed aircraft.
8. Actual system/product completed and market ready through test and demonstrations.	Technology has been proven to work in its final form and under expected conditions. In almost all cases this TRL represents the end of true system development. Examples include developmental test and evaluation of the system and in its intended weapon system to determine if it meets design specifications.
9. Actual system/product through successful market (beta) testing.	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation. In almost all cases, this is the end of the last “bug fixing” aspects of true system development. Examples include using the system under operational mission conditions.