



BOISE STATE UNIVERSITY

Resource Nexus for Sustainability

Grand Challenges Initiative

Request for Proposals

Background:

The vision of the Boise State University strategic plan, *Blueprint for Success*, is “to be a premier student-success driven research university innovating for statewide and global impact.” To achieve this vision, five goals are identified: 1) Improve educational access and student success; 2) Innovation for institutional impact; 3) Advance research and creative activity; 4) Foster thriving community; and 5) Trailblaze programs and partnerships. The overall strategy in *Blueprint for Success* “calls for us to do what we have done, but in ways we haven’t even yet discovered.”

Specific strategies to focus efforts for goal 3 – Advance Research and Creative Activity – include: 1) Provide the physical space, policies, information systems, technology, budgetary and human resources to sustain and grow research and creative activities; 2) Develop an integrated, transdisciplinary, and accessible research ecosystem dedicated to student excellence and success; and 3) Invest in a Grand Challenges initiative to propel a transdisciplinary model for research and creative activity.

What is a Grand Challenge?

Grand Challenges are ambitious, societally relevant, and transdisciplinary scholarly endeavors. Grand Challenges recruit and engage faculty, staff, and students in scholarly activities at Boise State — building our capacity for research and creative activity, expanding our innovation ecosystems, furthering our educational mission through research, and producing graduates who are ready to make a difference. They connect students and scholars across the university and create partnerships across sectors for co-production of scholarly work while addressing the complexity of today’s world.

Developing the Grand Challenges Initiative:

Initial efforts to develop the Grand Challenges Initiative began in 2019 with a call for faculty concept papers highlighting expertise and research portfolios at Boise State. Based on a review and identification of strengths of the over 150 responses received, four themes were developed: 1) Resource Nexus for Sustainability; 2) Next Generation of Industries; 3) Healthy Idaho: An Approach to a Healthy Mountain West; and 4) Opportunity, Equity and the Just Society.

Outcome:

The outcome of this process has been to prioritize Resource Nexus for Sustainability as the first Grand Challenges Initiative, building upon Boise State University's research and creative activity strengths.

Resource Nexus for Sustainability:

The Resource Nexus for Sustainability Grand Challenge will lead the way towards sustainable communities and resources. With an integrative approach to catalyze a nexus of scholars, this initiative is focused on the interactions between the built and natural environment through the lens of our disciplines and our stakeholders to build more resilient urban and rural systems. Through input from the Boise State community, this initiative is designed to complement existing strengths and bring together competencies over a broad range of topics such as:

- Infrastructure, energy, water, and agriculture systems
- Cultures and policies
- Political, economic, socio-ecological systems
- Resource and material utilization and re-use
- Artificial intelligence
- Cybersecurity
- Human/technology interface

Opportunity:

The intent is to propel the development of a transdisciplinary model of research and creative activity focused on Resource Nexus for Sustainability. Critical to success is the establishment of a team-based approach that genuinely includes perspectives and participation from across disciplinary boundaries and considers co-production of knowledge with our community.

The **first phase** of this effort is the solicitation for *planning grant proposals* to form a Resource Nexus for Sustainability Leadership Team representing the broad interest of the Boise State community. This team will develop the *blueprint* that will guide the research focus, community involvement, and overall success of this Grand Challenges Initiative. \$75,000 will be available to the leadership team for Phase I activities.

During the **second phase** of the initiative, the leadership team will have up to \$350,000 available for investment in Resource Nexus for Sustainability projects (please see Phase II Funding description below). The approach taken by the leadership team to develop and administer these projects will serve as a model for future Phase II Grand Challenge Initiatives.

Phase I Request for Proposals:

Phase I planning grant proposals are requested from the campus community. Please submit to grandchallenges@boisestate.edu prior to January 31, 2022.

The proposing planning grant leadership team must have at least three members. Individual team members will provide focus in one or more of the following areas:

- Development and mentoring of cross-functional research teams,

- Development of curriculum, academic programs, or student participation opportunities,
- Fostering community partnerships.

Together, the team should have demonstrated strengths in each of these areas. The goal is to propose a leadership team that can actively represent a broad cross section of campus and community voices and can effectively build a transdisciplinary research ecosystem promoting the Resource Nexus for Sustainability initiative. The team members should have demonstrated commitment to establishing collaborative partnerships across disciplinary boundaries.

Eligibility:

Any Boise State faculty or staff member may serve on the Planning Grant Leadership Team. Each team must designate a team lead who will serve as the main point of contact. The team lead must be a full-time Boise State faculty member. While individual members of the leadership team may be involved in specific research or scholarly activities associated with the initiative, their participation in the leadership core is to inspire and catalyze the effort to maximize the impact of the Resource Nexus for Sustainability initiative. An individual may be included as a member of multiple Phase I proposals. Selected team members may also be part of Phase II requests, however will not be included in the selection process.

Award Criteria:

One Phase I grant of up to \$75,000 will be awarded to support leadership team activities over a 1-year period. Funding may be used for, but not limited to, activities such as course buyout, student support, supplemental pay, outreach, or other uses directly supporting development of the Resource Nexus for Sustainability initiative.

Proposal Requirements:

Cover page (1 page) that includes team membership, titles, affiliation, contact information, and roles.

Project Description (up to 4 pages) that addresses the following elements:

- Short-term goals and long-term vision of the planning grant leadership team.
- Description of motivation and methodology to be used to solicit and select Phase II project proposals (see Phase II Funding description below).
- Detailed plans for engaging a broad cross section of the campus and facilitating participation of faculty, staff, students, and community partners.
- Diversity, Equity & Inclusion plan (DEI) providing guidance for Phase II project team activities and team development.
- Proposed advisory committee(s) to provide technical, academic and community guidance to the Resource Nexus for Sustainability team.
- Identification of revenue and funding sources for long-term sustainability of initiative activities.
- Evidence that the leadership team has the background and expertise to 1) develop and mentor cross-functional faculty research team; 2) develop curriculum, academic programs, or student participation opportunities; and 3) foster community partnerships.

- One-year project timeline for Phase I activities and milestones. Start date commences upon award.

References (1 page)

Budget and budget justification (2 pages) detailing Phase I expenditures over a one-year period.

Curriculum Vitae (CV) (1 page per team member) for each member of the leadership team including relevant scholarship, leadership, mentoring experience, teaming experience, and community building.

Format: Single spaced, 1-inch margins, with 12-point font (Arial, Calibri, Georgia, or Times New Roman). The font sizes used in captions, tables, figures may be smaller, but must be legible when printed.

Phase II Funding Opportunity:

The Phase I project team in partnership with the Division of Research & Economic Development and advisory committees will establish comprehensive plans to solicit, develop, and administer Phase II initiatives. With \$350,000 available for Phase II, the leadership team may develop funding initiatives in support of (but not limited to) items such as:

- Integrated Student Opportunities
 - Undergraduate and Graduate Research Opportunities
 - VIP's
 - Internships
 - Service Learning
- Community Partners
 - Joint Research Products
 - Internships
 - Entrepreneurship
 - SBIRs
 - Economic Development
- Faculty support
 - Research funding
 - Course release
 - Proposal development
 - Supplemental funding
 - Program development
 - Center development
 - Mentoring
 - Networking

Review Criteria:

Proposals will be evaluated according to the following criteria. Each criterion will be equally weighted.

- Qualifications and commitment of proposing project team.
- Potential for project to develop a healthy transdisciplinary research community ecosystem maximizing project impact.
- Grant management basics – timeline, budget, milestones, reporting.

Reporting:

The leadership team will be asked to provide bi-monthly updates detailing progress on project timeline, milestones, and budget.

Submission Requirements and Timelines:

Submit a completed application as a single PDF file to grandchallenges@boisestate.edu by January 31, 2022. Planning grant award announcement will be made in February 2022.

Post-Award:

The Division of Research & Economic Development (DRED) is your partner for this effort.

- DRED will aid in identifying funding opportunities, proposal development, and project management.
- DRED along with the Division of University Advancement will work with the leadership team to establish a research advisory committee. In addition to faculty research experts, this committee shall include community voices from industry, government and federal partner organizations, and representation from the Boise State student body.

Additional Information:

Additional information including a Frequently Asked Questions (FAQs) section is available at the Grand Challenges website: <https://www.boisestate.edu/research-development/grand-challenges-overview/>

The guidelines in this RFP are just that – guidelines! If you have questions, suggestions, different ideas please bring them forward. We want to develop a wildly successful and impactful Grand Challenge initiative for campus and our community. Please reach out to grandchallenges@boisestate.edu at any time.