



University of Arizona Big Idea Challenge Request for Proposals for FY26

Overview:

The University of Arizona (U of A) is at the forefront of addressing global challenges that impact society. To further enhance the U of A's position as a leader in seeking, understanding, and implementing solutions to these challenges, the Office of Research, Innovation, and Impact (RII) is launching the **U of A Big Idea Challenge (BIC)**. The BIC is intended to incentivize the formation of transdisciplinary, convergent research teams focused on global grand challenges and will provide funding as a way to incubate ideas with the potential for future extramural support.

Background:

As the State of Arizona's flagship, public, land grant institution that is keenly focused on societal impact through research, educational innovation, scholarship, and creative activity, U of A is uniquely positioned to bring disparate academic disciplines together to foster innovative, comprehensive solutions to global grand challenges.

The BIC will focus on U of A's six, strategic research pillars of defense and national security; energy and environmental sustainability; the future of health and biomedical sciences; the human experience; data, information systems, and AI; and space sciences.

In our vision for research, educational innovation, scholarship, and creative activity, researchers move beyond and across traditional academic boundaries, collaborating across disciplines and internationally with other universities, policy makers, economists, artists and designers, and business leaders to create solutions for a better world. Our goal is to transcend academic disciplines, support multicultural engagement, and bring all of U of A's institutional strengths together to tackle global grand challenges and accelerate the delivery of practical solutions that impact society in direct and tangible ways.

To address global grand challenges (e.g., [The Millennium Project](#) and [World Economic Forum](#)) and positively impact society at the international, national, and regional scales, innovative approaches and new methodologies that converge the perspectives from science, engineering, social sciences, arts, design, and the humanities are needed. Transdisciplinarity occurs when multiple disciplinary perspectives transcend each other, combining knowledge from non-academic collaborators, to form a new holistic approach. The outcome will be completely different from what one would expect from the addition of the parts. Transdisciplinary Research is defined as research efforts conducted by investigators from different disciplines working jointly to create new conceptual, theoretical, methodological, and translational

innovations that integrate and move beyond discipline-specific approaches to address a common problem.

The BIC program will provide resources to transdisciplinary teams of U of A faculty, students, post docs and research staff pursuing bold proposals that go well beyond traditional inter- and multidisciplinary efforts. These projects will position the University as a leader in generating new insights and game-changing contributions to solving regional, national and global international challenges in six **strategic themes** that focus on grand challenges in defense and national security; energy and environmental sustainability; the future of health and biomedical sciences; the human experience; data, information systems and AI; and space sciences.

The transdisciplinary teams supported by the BIC will pursue system-level projects that integrate social, political, cultural, ethical and design and creative arts considerations with advanced science and engineering ideas to generate new holistic impacts and outcomes. Integrating science, engineering, the humanities, the social and behavioral sciences, and design and creative arts thinking with the deepest analysis of societal impacts and risks and keeping the "big picture" in mind will ensure that the great idea your team will bring to life will be truly transformative. We welcome proposals for projects that advance social justice goals of equality, belonging, and freedom of expression in research and public impact, and that leverage our status as a Hispanic Serving Institution and our deep engagement with Arizona's Tribal Nations.

Scope and Themes:

The program will fund **three to four teams**. Project periods will last **up to two years** (depending on scope of the proposal). The BIC is **not intended to provide the full resources** required to create the ultimate solution to a global challenge, or to fund a new center or an institute. Rather, the purpose of the program is to **help nucleate teams and ideas** and create opportunities for new and significant external funding—both public and private—that will position U of A as a national and global leader in the selected areas. At the same time, it will chart new pathways to discoveries, innovations, and social, cultural, and policy solutions, while training the next generation of future transdisciplinary talent.

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In addressing these themes, successful proposals will be cross-cutting and multi-faceted, involving integrated **equal-foot contributions** to the overall project from faculty in the **fine arts, humanities, social sciences, professional programs and STEM** disciplines. **Proposals that cut across these topics (within or even preferably across themes) and bring multiple areas together in the pursuit of a big idea are highly encouraged and will be given priority.**

It is understood that these topics often overlap and do not exist as isolated silos, and as such should only be interpreted as examples and a guide. For example, emerging diseases related to environmental change, global security, and the future of health, can greatly affect the dynamics of communities. As another example, MIT's center for arts, science and technology ([CAST](#)) brings together faculty from multiple disciplines and connects the worlds of art, science, and technology to thrive as interrelated, mutually informing modes of exploration, knowledge, and discovery. Additionally, exponential advances in AI/ML and digital technologies are, today more than ever, impacting the ways in which we live, learn and work in ways that are not fully understood; the ethical, legal and societal implications of this digital transformation are complex and in need of deep scholarly thought and innovative approaches and solutions. Additionally, while progress is taking place in rebalancing the global energy systems toward more sustainable solutions, this progress is slow and new transformative solutions that can move the planet from a situation of energy scarcity to a mentality of energy abundance are urgently needed.

The Application Process: written proposals, oral presentations and a proposed budget

Written proposals shall not to exceed three pages (single spaced, 12-point font, Times Roman, 1" margins) and will be evaluated to select projects for an oral presentation. The written proposal should include:

- A brief executive summary that articulates the global grand challenge the proposal aims to impact, the proposal's Big Idea, and the potential impact of the idea.
- A brief description of the unmet need that the Big Idea tackles.
- What are the goals and expected outcomes, and impact on society of the project?
- Why now?
- A brief description of the benefits of the proposed program to U of A and the world.
- Why U of A? Including a description of the competition in the field and possible partnerships.
- A brief description of the team's approach to meeting the goals, including an articulation of the path to sustained external funding, and how the approach leverages U of A resources.
- A set of milestones that will be met over the period of performance (not to exceed 24 months).

Other considerations include the following:

- The proposal must clearly identify a team leader and project champion who must be an experienced (tenured or tenure track) faculty member with a significant record of success in translating new ideas to extramural research support. Research faculty and non-TTE with research appointments are eligible as Co-PIs.



- If possible, the proposal should identify a **partner** from a local, state, or global community to strengthen the system approach and societal impact.
- The milestones should set a clear **path towards federal, philanthropic, or industry-sponsored funding** after the BIC program ends.
- The milestones should set targets for **tangible progress** to be achieved and will be reviewed every six months for continuing funding.

Once a proposal has been submitted, the proposal will undergo peer review. Finalists will be notified of an opportunity to attend a proposal pitch day, where they will be asked to present a lightning talk to U of A Senior Leadership.

Additional Information

If selected for the BIC program, the team will work closely with U of A's Washington DC consultants ([Lewis-Burke Associates](#)), [Research Development Services](#), and with [Foundation Relations](#) to find and create potential funding opportunities (federal, state, foundation, private, etc.) and develop a long-term vision for the research. Further, marketing and communications support will be provided to selected teams to support the development of related news articles. A member of the Research Development team will be assigned each awarded proposal to support identification of extramural funding, provide teaming support (on and off-campus), and for coordinating with Lewis-Burke Associates. For relevant projects, Tech Launch Arizona (for technology transfer) and Tech Parks Arizona (for start-up support) will also be engaged. Finally, the team will be supported by a team of mentors from across the institution that has successfully leveraged their big idea into an externally funded effort.

An annual research showcase will take place in May of each year and will consist of a lightning talk and poster sessions on the activities to date. Investigators should plan for at least two students to present at this event in addition to the investigators. The event will be open to others in the U of A community.

Awardees will be required to submit annual progress reports and a final report at the end of the funding period.

Budgeting and Available Resources

A detailed budget request aligned with the milestones should also be included in the submission. An Excel template is provided and must be uploaded in Excel to the submission system. Additionally, a one-page budget justification is required.

It is expected that a typical project will have a budget of up to \$125,000 per year for up to two years. However, final budget determinations will be made after selection based on final scope and schedule. Budget resources will be provided by the U of A's Research, Innovation, and Impact.



PIs may request summer salary and in extremely well-justified cases a course release with the support of their department head. The budget must include at least one trip per year to Washington, D.C. for at least two faculty to support further engagement. In addition, the proposals must include at least two outbound trips to external partner facilities. Finally, proposals must include at least one “all hands” meeting for the full team (including external partners).

Cost-share that reduces the overall cost to RII of a project (and therefore allows for more projects to be funded) from colleges or elsewhere is not required but is highly encouraged and valued.

Continued budget allocation to a winning project will be contingent on satisfactory progress in meeting the annual milestones. Projects that do not show sufficient progress against their milestones will be terminated prior to the two-year nominal performance term. No cost extensions beyond two years will not be allowed.

Proposals must be submitted electronically through Arizona Cultivate, <https://azcultivate.arizona.edu/> no later than 5:00pm MST on the proposal due date.

Timeline

- Solicitation Release: January 8, 2025
- Opportunity Kick-Off with Q&A Session: on or near January 16, 2025
- Campus “Open House” Sessions: February of 2025
- Proposal Deadline: March 26, 2025
- Notification of Pitch Date Invitation: April 16, 2025
- Pitch Date: on or near May 14, 2025
- Award Date: May 28, 2025
- Project Start Date: July 1, 2025

Proposal Evaluation

Proposals will be evaluated by a team of selected U of A academic leaders and external advisors representing the broad interests and capabilities of the campus. Care will be exercised to ensure diversity in the evaluation team, and that there is no conflict of interest in the proposal evaluation process. External reviewers will be required to sign a non-disclosure agreement.

The proposals will be scored based on the following weighed criteria:

- 40% - Is the team truly interdisciplinary, integrating multiple academic disciplines into a transdisciplinary approach that is bigger than the sum of the parts? To what degree is this truly a new collaborative research endeavor? What will be the potential societal impact of the project?
- 20% - How compelling is the value proposition? What intellectual value or contribution is represented by the idea? How strong is the scholarship/research base for the



proposal? Will the project catalyze or enable new areas of research or new collaborations? Does the project aim to create solutions that are oriented toward diversity, equity, and inclusion?

- 40% - How likely is it that the BIC funding will result in new federal, corporate, donor and/or foundation funding at significant scale? Identify likely funding sources as specifically as possible. Why is this team, and why is U of A, the right place to lead this effort?

Teams whose written proposals are selected for oral presentation will be invited to pitch their Big Idea in an oral presentation. The teams will compete in a public process akin to an entrepreneur's pitch to venture capitalists. Presentations will be strictly limited to 8 minutes, with an additional 7 minutes for questions, and are expected to succinctly, but clearly address all elements of the project, as well as describe the project team leadership qualifications, milestones and the budget. Details on presentation framework will be shared with the selected teams.

Contact Information

For questions regarding this solicitation, please contact:

Research Development Services

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