



NEBRASKA

**GRAND CHALLENGES CATALYST COMPETITION  
REQUEST FOR PROPOSALS**

**Letter of Intent Deadline:** February 28, 2022 (final day in February annually thereafter)

**Proposal Deadline:** April 29, 2022 (final Friday in April annually thereafter)

**INTRODUCTION**

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The [N2025 Strategic Plan](#) is a guide to help propel the University of Nebraska-Lincoln (UNL) to increased excellence and impact. The rich record of faculty, staff, and student accomplishments across UNL’s tri-partite mission of research, education, and engagement demonstrates a long-standing and deep commitment of service to society. But now is the time to embark on a bolder path.

The N2025 Strategic Plan calls on the university to “[Establish a culture at Nebraska committed to increasing the impact of research and creative activity](#)” and “[Focus research, scholarship, creative activity and student experiences to foster innovative, interdisciplinary endeavors and solve challenges critical to Nebraska and the world.](#)” To that end, as Nebraska’s comprehensive research, land-grant institution, UNL is providing a framework and level of support that will enable the university community to increase its collective impact by thinking and acting in even bigger ways.

The Grand Challenges Catalyst Competition is the next step in UNL’s pursuit of solutions across its portfolio of grand challenge themes. A \$40 million commitment by the Office of the Chancellor and the Office of Research and Economic Development will enable new interdisciplinary projects to move the needle toward the development of solutions for some of humanity’s most wicked problems and pressing opportunities.

**UNL’S GRAND CHALLENGE THEMES**

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A grand challenge theme represents a universal problem or opportunity that, if addressed, will positively impact society. Grand challenge themes are significant in scope; result from complex causes; and often can be solved only by a combination of innovative, interdisciplinary approaches.

During Chancellor Ronnie Green’s 2020 State of Our University address, the Office of Research and Economic Development (ORED) was charged with implementing a process to identify and describe a set of grand challenge themes on which UNL should focus. This process, which involved more than 500 UNL faculty, staff, students, and emeriti, resulted in the selection of seven themes:

- [Anti-racism and Racial Equity](#)
- [Climate Resilience](#)
- [Early Childhood Education and Development](#)
- [Health Equity](#)
- [Quantum Science and Engineering](#)
- [Science and Technology Literacy for Society](#)
- [Sustainable Food and Water Security](#)

## AWARD TYPES AND EXPECTED OUTCOMES

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Two types of support are available through the Grand Challenges Catalyst Competition:

- **Planning grants:** Proposals submitted in this category must describe the teaming, ideation, and development activities necessary for collaborative groups to coalesce around one or more of UNL's grand challenge themes. The expected outcome for an interdisciplinary team receiving a planning grant is that they will prepare a catalyst award proposal. Planning grant proposals may request up to \$150,000 for a maximum 24-month project period.
- **Catalyst awards:** Proposals submitted in this category must describe a plan of work for implementing a goal-based project developed in response to one or more of UNL's grand challenge themes. The expected outcome for an interdisciplinary team receiving a catalyst award is that they will demonstrate measurable progress toward their goal and project sustainability. Catalyst award proposals may request the level of support necessary to pursue the project goal during a period that may not exceed five years.

All proposals submitted to the Grand Challenges Catalyst Competition must be goal-driven. Project goals must be specific, measurable, aspirational (for planning grant proposals) or audacious (for catalyst award proposals), resourced, and time-bound. Project goals also must be bold and catalytic. Proposals must not be aimed at incremental advancement of existing work.

## AVAILABLE FUNDS

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Chancellor Green and Vice Chancellor for Research and Economic Development Bob Wilhelm have committed \$40 million toward the Grand Challenges Catalyst Competition. Up to \$10 million is available for allocation each year in 2022, 2023, 2024, and 2025.

Multiple awards across the competition's two categories of support are expected annually; however, no planning grant proposals will be accepted in 2025.<sup>1</sup> Funding decisions and the number of awards will be determined based on proposal quality and availability of funds. Any Grand Challenges Catalyst Competition funds not awarded in 2022, 2023, or 2024 will carry forward and be available in subsequent years.

## ELIGIBILITY

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Full-time UNL faculty may serve as Principal Investigator (PI) and submit proposals to the Grand Challenges Catalyst Competition. Other essential personnel must hold a UNL appointment.

An individual may receive no more than one planning grant and one catalyst award as PI. There is no limit on the number of applications to which an individual may contribute in another role. Proposals must contain evidence that the PI and any other essential personnel can provide the level of effort necessary to advance their project's goal.

## NOTICE OF INTENT TO SUBMIT

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Notice of intent to submit is a pre-requisite for developing a full proposal in response to the Grand Challenges Catalyst Competition request for proposals (RFP). Notices of intent to submit will be non-binding. However, every PI who provides notice of intent according to the following guidelines may submit a full proposal.

To provide notice of intent to submit, send an email message to [grandchallenges@unl.edu](mailto:grandchallenges@unl.edu). Include the text "Grand Challenges – Intent to Submit" in the message's subject line.

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<sup>1</sup> Planning grant proposals submitted in 2024 should have a project period of no more than nine months. Planning grant proposals will not be accepted in 2025.

In the body of the message, list the name, title, and affiliation of the project PI; the project title; and the type of support being sought: planning grant or catalyst award.

Attach to the message a document prepared using an 8.5" x 11" page size with 1" margins and single-spaced 11-point font (Arial, Calibri, Georgia, or Times New Roman). The email attachment must be a **single** PDF containing the following:

- For **planning grant** proposals, a cover page that includes the project title and a list of project team members (including titles, affiliations, and roles). Also include a brief project summary/abstract. The project summary/abstract (300 words maximum) should identify the opportunity for an interdisciplinary team to prepare a catalyst award proposal for submission in a subsequent year.
- For **catalyst award** proposals, a cover page that includes the project title and list of project team members (including titles, affiliations, and roles). Also include a project concept note. The project concept note (three pages maximum) must describe:
  - The project vision and goals along with how the effort aligns with one or more of UNL's grand challenge themes.
  - What is novel in the proposed approach and how it represents a significant **new** opportunity.
  - Expected project impacts and their scale (i.e., local, regional, national, or global).
  - The expertise and resources that will be brought to bear.
  - The team's approach toward project evaluation.
  - An estimated project timeline and cost.

ORED will acknowledge all notices of intent to submit. In addition, catalyst award PIs also will receive an initial assessment of their concept note's responsiveness to the Grand Challenges Catalyst Competition RFP.

No submissions will be rejected at this phase. The goal is to inform catalyst award PIs whose concept notes appear non-responsive.

PIs of catalyst award projects indicating they intend to request more than \$5 million will be invited to a consultative meeting with ORED leaders and their associate dean(s) for research or designee(s).

Notices of intent to submit are due by **5:00 p.m. Central** on the following dates: **February 28, 2022; February 28, 2023; February 29, 2024; and February 28, 2025.**<sup>2</sup>

**Late notices of intent to submit will not be accepted.**

## **PROPOSAL REQUIREMENTS**

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PIs who provide notice of intent to submit as described above may submit full proposals. Proposals should be prepared using an 8.5" x 11" page size with 1" margins and single-spaced 11-point font (Arial, Calibri, Georgia, or Times New Roman). The font sizes used in captions, graphics, and detailed budgets may be smaller, but this text must be legible when printed.

**Planning grant** proposals must be a **single** PDF containing the following components in the order specified:

- A cover page listing the project title, all project team members (including their titles, affiliations, and project roles), proposed project period, and total budget request (two pages maximum).
- A proposal narrative (three pages maximum) containing the following:
  - Discussion about the significance of and potential for a collaborative group to form and vision a feasible solution toward one or more of UNL's grand challenge themes.

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<sup>2</sup> Only catalyst award proposals will be accepted in 2025.

- Detailed plans that involve activities like networking, brainstorming, partnership building, and focusing that will result in the submission of a catalyst award proposal.
- A project leadership and management strategy that details the relevant experience and expertise of the PI, essential personnel, and other team members and strategies for meaningful interdisciplinary engagement and collaboration. Proposals must contain evidence that the PI and essential personnel are able to provide the level of effort necessary to advance project goals.
- A plan for diversity, equity, and inclusion that will increase the participation of underrepresented individuals, groups, or institutions in meaningful ways.
- A project collaboration plan that describes efforts to intentionally integrate colleagues from the arts and humanities into the proposed activities in a substantive way.
- A list of references cited (one page maximum).
- Two-page CVs, résumés, or biographical sketches for the PI and any essential project personnel. The same format should be used for all team members.
- A listing of current and pending support (internal and external) for the PI and any essential project personnel. The same format should be used for all team members.
- A detailed budget (one page maximum) and budget justification (one page maximum).
- Letters of commitment from partners engaging in or supporting the project in ways that are essential to its completion. Up to three letters may be submitted, and they should not be used to circumvent proposal page length requirements.

**Catalyst award** proposals must be a **single** PDF containing the following components in the order specified:

- A cover page listing the project title, all project team members (including their titles, affiliations, and project roles), proposed project period, and total budget request (two pages maximum).
- A proposal narrative (12 pages maximum) containing the following:
  - Discussion about the significance and potential impact of the proposed project and its alignment with one or more of UNL's grand challenge themes.
  - A plan of work that describes:
    - the project's vision, goal, and specific objectives;
    - the proposed approach;
    - what is novel in the proposed approach and how it represents a significant **new** opportunity;
    - the project's potential to advance research, scholarship, and creative activity as well as education and engagement at UNL;
    - the project's alignment with institutional priorities; and
    - a project evaluation plan.
  - A project leadership and management strategy that details the relevant experience and expertise of the PI, essential project personnel, and other team members and strategies for substantive interdisciplinary engagement and collaboration. Proposals must contain evidence that the PIs and essential project personnel are able to provide the level of effort (and mentorship, where relevant) necessary to advance project goals.
  - A project collaboration plan that describes intentional efforts to integrate colleagues from the arts and humanities into the proposed activities in a substantive way.
  - A plan for diversity, equity, and inclusion that will increase the participation of underrepresented individuals, groups, or institutions in meaningful ways.

- Detailed plans for achieving project sustainability through institutionalization and/or strategic pursuit of follow-on external funding.
- A list of references cited (three pages maximum)
- Two-page CVs, résumés, or biographical sketches for the PI and any essential project personnel. The same format should be used for all team members.
- A listing of current and pending support (internal and external) for the PI and any essential project personnel. The same format should be used for all team members.
- A detailed budget (two pages maximum) and budget justification (three pages maximum).
- A plan for managing project data (two pages maximum) appropriate to the emphasis and scale of the proposed work. Data management consultation and resources are available throughout the university, including at the [UNL Libraries](#) and [Holland Computing Center](#).
- Letters of commitment from partners engaging in or supporting the project in ways that are essential to its completion and/or sustainability. Up to 12 letters may be submitted, but they should not be used to circumvent proposal page length requirements.

**Incomplete proposals will not be reviewed.**

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## **BUDGET AND REPORTING**

All requested direct costs will be permitted provided they are well-justified. This includes, but is **not** limited to, support for partnership development, course buyout(s), costs for faculty hiring (e.g., cluster hiring or recruiting research track faculty), instrument acquisition or development, and laboratory renovation or construction. Projects that include faculty hiring plans may request salary support for up to five years to cover the costs associated with the research apportionment of any proposed hire(s). Facilities and administrative (F&A) costs, also known as indirect costs, are not allowed.

Sub-awards are not allowed; however, external partners may invoice UNL for project-related costs.

Annual progress and final project reports will be required. Funding beyond Year 1 is not guaranteed and will be contingent on adequate project progress (i.e., demonstrated progress toward a project's stated goal).

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## **PROPOSAL SUBMISSION AND DEADLINES**

Grand Challenges Catalyst Competition proposals must be submitted via the internal competitions module within NuRamp (<https://nuramp.nebraska.edu>).

Proposals will be accepted annually from 2022 to 2025 following submission of notice of intent to submit (see above). Proposals must be submitted by **5:00 p.m. Central** on the following dates: **April 29, 2022; April 28, 2023; April 26, 2024; and April 25, 2025.**<sup>3</sup>

**Late proposals will not be reviewed.**

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## **PROPOSAL REVIEW CRITERIA AND PROCESS**

ORED will solicit internal reviews of planning grant proposals and secure external reviews of catalyst award proposals to aid in the decision-making process.

The Chancellor and Vice Chancellor for Research and Economic Development will make final funding decisions. Award notifications are expected to be made in June each year from 2022 to 2025.

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<sup>3</sup> Only catalyst award proposals will be accepted in 2025.

Planning grant proposals will be reviewed based on the following scoring rubric (100 points possible):

Proposal Review Criteria – Planning Grant Proposals	Maximum Value
Potential for interdisciplinary collaboration involving multiple segments of the university (e.g., faculty, staff, and students) that will result in the development and submission of a compelling catalyst award proposal	35 points
Quality and feasibility of the proposed plan of work	25 points
Qualifications of the project team	10 points
Quality of the plan for diversity, equity, and inclusion	10 points
Intentional integration of the arts and humanities into project plans	10 points
Alignment with UNL’s strategic priorities articulated in the <a href="#">Report of the N 150 Commission</a> and the <a href="#">N2025 Strategic Plan</a> as well as goals of participating colleges, schools/departments, and centers	5 points
Realism of the budget and quality of its justification, including the potential for sustainability through institutionalization and/or strategic pursuit of external funding	5 points

Catalyst award proposals will be reviewed based on the following scoring rubric (100 points possible):

Proposal Review Criteria – Catalyst Award Proposals	Maximum Value
Significance of the proposed project and its potential to provide measurable evidence of impact in research, scholarship, and creative activity as well as education and engagement at UNL	30 points
Quality and feasibility of the proposed plan of work	10 points
Potential for interdisciplinary collaboration involving multiple segments of the university (e.g., faculty, staff, and students)	10 points
Qualifications of the project team	10 points
Quality of the plan for diversity, equity, and inclusion	10 points
Intentional integration of the arts and humanities into project plans	10 points
Quality of the project evaluation plan	10 points
Alignment with UNL’s strategic priorities articulated in the <a href="#">Report of the N 150 Commission</a> and the <a href="#">N2025 Strategic Plan</a> as well as goals of participating colleges, schools/departments, and centers	5 points
Realism of the budget and quality of its justification, including the potential for sustainability through institutionalization and/or strategic pursuit of external funding	5 points

#### ADDITIONAL INFORMATION

For additional information about the Grand Challenges Catalyst Competition, contact:

- Rick Bevins, interim associate vice chancellor for research, at [rbevins1@unl.edu](mailto:rbevins1@unl.edu) or 402-472-2851
- Nathan Meier, assistant vice chancellor for research, at [nlm@unl.edu](mailto:nlm@unl.edu) or 402-472-3902

To learn more about UNL’s grand challenges process, visit <https://research.unl.edu/grandchallenges/>.

