

UNIVERSITY TECHNOLOGY ACCELERATION GRANT (UTAG) FY17 PROGRAM ANNOUNCEMENT

UTAH SCIENCE TECHNOLOGY AND RESEARCH (USTAR) INITIATIVE

USTAR is the State of Utah's technology catalyst, accelerating the growth of the innovation ecosystem from invention to product development. Guided by Utah's economic clusters, USTAR supports technology entrepreneurs and innovators through training, funding, incubator and accelerator programs; brokering technology transfer by connecting capital, management and industry; addressing market gaps in Utah's technology ecosystem and strengthening the state's research capacity.

UNIVERSITY TECHNOLOGY ACCELERATION GRANT (UTAG)

The purpose of USTAR's University Technology Acceleration Grant (UTAG) program is to support research and development of specific technologies that have significant commercial potential but need additional development before they can be spun out from the university setting. This funding addresses an innovation ecosystem gap between federal research dollars and angel investment, the "valley of death."

UTAG is a competitive research grant, available to individual researchers or ad-hoc teams employed by Utah colleges or universities, to advance the maturity of or derisk technology that has been developed in university labs. All projects funded through UTAG must have an identified market and/or commercialization path.

Anticipated duration of projects will be no more than 18 months.

ELIGIBILITY

- Individual or teams of researchers must be employees of a non-profit Utah college or university to be eligible to apply for UTAG.
 - UTAG proposals should align with the targeted industry sectors identified by the USTAR governing authority (see below).
 - Proposed technology for UTAG funds must be at a technology readiness level (TRL) of 2-5. For information regarding TRLs, visit [USTAR's website](#).

TARGETED TECHNOLOGY SECTORS

USTAR is focused on the following targeted technology industry sectors for FY17 (July 1-June 30):

Automation and Robotics - Automation technology is the use of cutting-edge machinery in industrial applications to minimize human exertion. Robotics is the branch of automation that deals with the design, construction, operation and application of robots, as well as computer systems for their control, sensory feedback and information processing.

Aerospace - Aerospace is the branch of technology and industry concerned with aeronautics and astronautics. Areas for research include, but are not limited to,

innovative approaches in aerodynamics, engineering of aircraft and spacecraft and the autonomous control of aircraft. This includes both manned and unmanned systems.

Advanced Materials - Advanced materials are all fibers, coatings, composites, etc. that are engineered to enhance the efficiency of a product and include new materials or improvements to existing materials. Advanced materials can be applied to the creation of carbon composites, 3D printing advances, climate control, solar technology, water purification, sports, military equipment and textiles.

Big Data - Big data is a term for data sets that are so large or complex that traditional data processing applications are inadequate. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying and information privacy. Analysis of data sets can find new correlations to gather information on topics such as business trends, crime patterns, genome sequences, complex physical environments and more.

Energy and Clean Technology – Energy and clean technology encompasses products and processes that harness renewable and nonrenewable materials to dramatically reduce the use of natural resources, cut emissions and waste, and provide options for efficient energy storage and usage.

Life Sciences – Life science is defined as the study of living organisms from a cellular, molecular, or macroscopic perspective. Research in this area includes, but is not limited to, medical device development, biotechnology, pharmaceuticals, diagnostics, agriculture, genetics and healthcare IT.

APPLICATION PROCESS

Stage 1. Provide a letter of intent that includes your proposal title, technology category and estimated budget request to USTAR by September 14, 2016. A letter of intent is not required to submit a full proposal.

Stage 2. All applicants must work through their respective institutions' Office of Sponsored Programs. All applicants must agree to the UTAG Terms and Conditions and USTAR Statutes and Administrative Rules. In addition to providing administrative information, all applicants must provide a quad chart, white paper and complete the budget template. Applications are due October 4, 2016 at 8 am. A paper application will be provided upon request, by emailing UTAGinfo@utah.gov.

1. The white paper should be no more than five pages with 1.5 spacing. The white paper should include:
 - a. **Introduction:** describe the overall technology or product and the market need. Technology description should include the current TRL, and that anticipated, with successful UTAG assistance.
 - b. **Technical milestones:** Identify the technical milestones that must be achieved under this award. The milestone description should include the technical challenge, need for this challenge to be overcome and the technical approach. A brief discussion of the technical risk and timeline for completion should be included. Project should run no longer than 18 months.
 - c. **Commercialization plan:** Describe the commercialization plan for taking the technology to market. This should include licensing, spin out or other mechanisms. This should also include a description of the resources that will be

required to commercialize and how they will be acquired. Include management talent, funding, equipment or manufacturing, etc. If applicable, applicant must have an identified approach to meeting regulatory requirements.

- d. **Market assessment:** Provide a brief description of the intended market, need for the product, potential competitors, market size and possible revenue.
- e. **Economic impact:** Characterize the potential economic impact on the State of Utah if commercialization is successful. This can be described as potential jobs, revenue, etc. The economic impact description should also include anticipated time to market.
- f. **Funding:** Please describe any private or government funds raised to date or pending. Include the source of government funds. Include total amount raised. Describe potential matching funds available. If USTAR funds have been used to date, please specify the amount including whether PI salary is paid by USTAR.

Stage 3. USTAR reserves the right to invite selected applicants to give a brief presentation to a review panel. A presentation template will be provided in that instance.

BUDGET

Proposals must use the UTAG budget template. Budget requests must be presented both by technology milestones and FY. The state's fiscal year is July 1-June 30.

EVALUATION CRITERIA

An independent panel of technical experts, business and investment experts and state government staff will review USTAR UTAG proposals. Panelists will be prescreened for conflict of interest. All information should be marked as proprietary. An initial screen will be conducted to assure eligibility criteria and TRL are met. Proposals will be reviewed on the following criteria:

- Technical merit and achievability of proposed milestones
- Qualifications of the technical team appropriate TRL (2-5)
- Potential economic impact, as measured by:
 - Job creation
 - Product sales
 - Potential revenue due to expansion of current business or development of a new business
 - And/or projected time to revenue or job creation
- Market need
- Reasonableness of cost proposal (size and allocation of budget is appropriate for the work proposed, additional funds available to complete work)

SCORING RUBRIC FOR UTAG

Technical Merits (score 1-5)

Technical merits (score 5)

- Milestones are specific, measurable and align to technology goals
- Approach demonstrates a strong understanding and application of technology development best practices
- Technical approach has high likelihood of success, is well defined and considers alternative approaches if the original is not successful

- Feasible timeframe for development
- TRL is of the appropriate level

Technical merits (score 3)

- Milestones are not specific or measurable, but align to technology goals
- Approach demonstrates basic understanding and application of tech development best practices
- Technical approach has a high likelihood of success and is well defined
- Development timeframe is reasonable

Technical merits (score 1)

- Milestones are not specific or measurable and do not align to technology goals
- Approach does not illustrate understanding of tech development best practices
- Technical approach lacks detail or has low chance of success
- Development timeframe is not reasonable

Potential Economic Impact in Utah (score 1-5)

Economic Impact in Utah (score 5)

- If successful, technology will be licensed or spun out in 1-3 years
- Technology has a high likelihood of retaining economic impact in Utah once it leaves the university
- Research jobs will be created in the state

Economic Impact in Utah (score 3)

- If successful, technology will be licensed or spun out in 4-8 years
- Technology has the possibility of retaining economic impact in Utah once it leaves the university
- There is potential to create research jobs in the state

Economic Impact in Utah (score 1)

- Technology will most likely not be licensed or spun out.
- Technology does not have the possibility of retaining economic impact in Utah.
- New research jobs will not be created in the state.

Market Need/Commercialization Plan (score 1-5)

Market need for the product (score 5)

- Clear potential market identified
- Researcher can provide data driven definition of market
- Specific plan identified to take the technology to market
- Resources are available/attainable to commercialize technology
- Technology has defined market advantage to current competitors

- Aligns to targeted technology sectors

Market need for the product (score 3)

- Clear potential market identified
- Researcher can provide data driven definition of market
- Specific plan identified to take the technology to market
- Technology has defined market advantage to current competitors
- Aligns to targeted technology sectors

Market need for the product (score 1)

- Market not identified, or market potential small
- No clear market advantage for this product
- Does not align to targeted technology sectors
- Unclear or undefined plan to take product to market

Technical Capability of Team (score 1-5)

Technical capabilities/experience of the team that will enable technical success (score 5)

- The team has the technical background and experience to meet the milestones identified in the proposal
- Team has experience working together with a history of success
- Team has diversity of technical expertise to overcome challenges

Technical capabilities/experience of the team that will enable technical success (score 3)

- Team has sufficient technical credentials to meet the milestones identified in the proposal, but does not have prior experience with taking technology to market
- Team has minimal experience working together

Technical capabilities/experience of the team that will enable technical success (score 1)

- The team does not have the adequate technical capabilities and experience for success
- Team does not have experience working together as a team

Realism of Costs (score 1-5)

Realism of the proposed costs and availability of funds (score 5)

- Proposed budget is both adequate and sufficient to complete the proposed work
- The personnel budgets provide adequate hours for the work to be completed
- Categories of expenses are reasonable and appropriate for the work

Realism of the proposed costs and availability of funds (score 3)

- Proposed budget may be insufficient or more than necessary to complete the work

Realism of the proposed costs and availability of funds (score 1)

- Not realistic in proposal of cost

AWARD

USTAR will have the discretion to limit the amount of funding that may be awarded for each UTAG based on available funds, scope of project, and quality of proposals. USTAR reserves the right to award funding for any proposal in full or in part, to request additional information, or to reject any or all applications based on the eligibility and evaluation criteria set forth in this announcement and according to the judgment and discretion of the governing authority. Upon award of a UTAG, and prior to any disbursement of funds, the sponsor university must enter into a contract with USTAR governing the use of grant funding. Unless addressed in the terms and conditions of the contract between the university and USTAR, the following provisions shall apply:

- Grant funding may not be used to provide a primary benefit to any state other than Utah
- For all other eligibility requirements, awardee must maintain eligibility status for the UTAG program until the project is complete, all milestones have been met, final dispersant of funding has been made, and first year reporting has been completed.

Violations may result in forfeiture of grant funding and require repayment of all or a portion of the funding received as part of the program.

Awardees will be contractually obligated to report to USTAR or affiliated auditors/contractors regarding jobs created and salary ranges, follow on investment, revenue, sales and other information as outlined in the UTAG rules for a minimum of five years following completion of award.

The schedule for disbursement of funds will be defined in the contract and will be contingent on successful completion of milestones.

TIMELINE

Applications will not be reviewed until associated administrative rules have taken effect. In the event of a change to administrative rule, applicants will be notified, and USTAR will post any changes to its website.

USTAR anticipates announcing selected proposals approximately 30 days after the deadline for submissions. Award of contracts will begin to take place approximately 30 days following announcement of selected proposals.

CONTACT INFORMATION

Questions regarding UTAG must be submitted in writing via email to UTAGinfo@utah.gov. Responses will not be provided to questions made by any other means.

All frequently asked questions and answers will be posted under UTAG Questions on the USTAR website.