

CYBER INNOVATION INSTITUTE

Request for Proposals:
Strategic Planning



with support from

**GEORGE KAISER
FAMILY FOUNDATION**
A supporting organization of Tulsa Community Foundation

Release Date:
February 22, 2021

Submission Deadline:
March 22, 2021

RFP AT A GLANCE

Scope of Work:

A strategic plan for a new Cyber Innovation Institute affiliated with the University of Tulsa

Proposal Requirements:

1. Qualifications and Prior Experience
2. Description of Strategic Planning Approach
3. Consultant Budget

How to Submit:

E-mail proposal in PDF format to Precious Okoruwa at:

precious@tulsainnovationlabs.com

by March 22, 2021, at 5 p.m. CST.

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SECTION 1: INTRODUCTION

A. Executive Summary

In collaboration with Tulsa Innovation Labs (TIL), the University of Tulsa (TU) is developing a new Cyber Innovation Institute (the “Institute”) to expand and lead cyber-related research at TU. The Institute will have a dual mission to create both research and translational impact. It will secure and execute federally-backed research projects as well as collaborate with private sector partners to develop and commercialize technological solutions. The commercialization of these technologies is intended to catalyze local economic growth and position Tulsa as a leader in cyber innovation.

TU is widely recognized for excellence in cyber research and education. TU is one of a small number of universities to have all three Center of Academic Excellence (CAE) designations from the National Security Agency in Cyber Defense Education, Cyber Research, and Cyber Operations. And, more recently, TU was named a contributor to the new Critical Infrastructure Resilience Institute by the U.S. Department of Homeland Security and established a partnership with Team8, a cyber venture creation firm, on a groundbreaking doctoral fellowship aimed at commercializing research.

Through joint projects, the new Cyber Innovation Institute will perform transformative cyber-related research and bring together leaders from across the globe to conceive, refine, test, and implement new tools and technologies. Research areas of interest include: autonomous systems,

artificial intelligence, machine learning, cyber-physical systems, critical infrastructure, and security economics.

The Cyber Innovation Institute is a key piece of the University of Tulsa’s new strategic plan, which focuses on driving growth in both the cyber and energy sectors. The Institute is also a cornerstone of TIL’s vision for Tulsa’s innovation economy, as described in its [“Tulsa’s Tech Niche” report](#).

TIL and TU shall jointly evaluate competitive submissions in response to this Request for Proposals (RFP). This RFP seeks forward-thinking proposals for a four- to eight-week engagement wherein the consultant will translate the current conceptualization of the Cyber Innovation Institute into a carefully considered and fully formulated Strategic Plan. The Strategic Plan shall cover the first five years of the Institute, which is expected to scale and evolve over time.

The governance of the Cyber Innovation Institute is one of the fundamental questions to be explored in the Strategic Plan and can take the form of an independent nonprofit, a new unit within the university, or a new research corporation among other proposed structures.

This consulting engagement will serve as the first step in the development of the Institute, to be followed soon thereafter by recruiting a founding executive director, and the creation of an operational plan that expands on the work completed through this engagement.

cy·ber /'sī·bər/ noun

How We Define Cyber

“Cyber” is an interdisciplinary field that spans multiple industries and reaches farther than cyberscruity alone. Cyber integrates the elements necessary to build and sustain digital infrastructure, which can include security, privacy, data and recovery, identity and access management, and cloud operations. Security is a cornerstone of cyber and often the most easily recognizable component, but the practice also integrates elements of computer science, engineering, and information technology.

B. Consulting Engagement

This RFP seeks respondents with proven expertise in working with multiple stakeholders to develop strategic plans related to academic innovation, research, and technological ventures. Sponsors are also looking for particular experience in cyber technologies, cybersecurity, and the U.S. Federal Government's investment in and funding for cyber, technological development, and academic innovation.

What this RFP Is:

The scope of work to be performed by the selected respondent shall be to transform our initial concept for the Cyber Innovation Institute into a Strategic Plan that enables TIL and TU to secure additional funding for the project and to quickly proceed to implementation. More specifically, the sponsoring organizations are seeking a consultant to develop a Strategic Plan that defines the governance, structure, and vision needed to make the Institute a reality.

What this RFP Is Not:

This RFP is not requesting an operator for the Institute or partners to join in the development or implementation of the Institute at this time. The RFP is not requesting the creation of an operational plan, such as detailed programmatic recommendations.

C. Sponsoring Organizations

This consulting engagement is being overseen by a joint venture between Tulsa Innovation Labs LLC, a subsidiary company of the George Kaiser Family Foundation, a not-for-profit philanthropy and the University of Tulsa, a not-for-profit academic institution, both based in Tulsa, Oklahoma.



Recognizing that the jobs of the future are rooted in a thriving innovation economy, Tulsa Innovation Labs LLC (TIL) was founded to develop a city-wide strategy that positions Tulsa as a tech hub and leader in the future of work.

Through a diverse coalition of public and private partners, led by George Kaiser Family Foundation (GKFF), TIL is creating economic development programs that seek to make Tulsa the nation's most inclusive tech community.

TIL's startup, academic innovation, and talent initiatives focus on catalyzing growth across five interconnected ecosystems, together called "Tulsa's Tech Niche": virtual health, energy tech, drones, cyber, and analytics (see graphic on next page).

The University of Tulsa (TU) is a private research university located in Tulsa, Oklahoma. Founded in 1894, the university now boasts over 4,412 students and 348 faculty spanning a 200-acre campus. TU has a mission to reflect the core values of excellence in scholarship, dedication to free inquiry, integrity of character, and commitment to humanity.

TU offers multiple academic opportunities for students who want to advance in integral areas of cybersecurity, computer science, computer engineering, and other engineering disciplines. These areas include secure systems engineering; application and testbed development and experimentation; robotics; IoT and cyber physical system security; critical infrastructure protection; network security; security policy planning and enforcement; AI and autonomous systems secure decision making; machine learning; and data analytics.



TULSA

INNOVATION LABS



D. Tulsa's Cyber Ecosystem

The global trend is unmistakable: increasing cybersecurity threats and ever more costly incidents. From data breaches to full-scale cyber attacks, the protection of cyber information has become both urgent and critical for governments, corporations, and individuals alike. These breaches can cost companies millions of dollars and irreparably damage their reputations.

To mitigate these risks, enterprises are making significant investments in cyber research and development. Research dollars are aimed at developing cutting-edge protections and security measures. Universities, such as TU, play an important role in the development of these solutions and serve as drivers of innovation ecosystems around the world.

Traditionally, financial services and banking have been far ahead of the energy, healthcare, and industrial manufacturing sectors in their investment in and adoption of cyber technologies and services. Tulsa is primed to be a leader in cyber, specifically at the intersection of operational technology for energy, given the city's large concentration of oil and gas companies and the magnitude of projected growth in this field.

The Cyber Innovation Institute will serve as the center of Tulsa's cyber ecosystem and position the University of Tulsa as a catalyst for innovation.

Below is a summary of key programs, initiatives, and stakeholders related to cyber at TU and in Tulsa more broadly. These activities speak to the increasing investment in Tulsa and the ambitious plans for the future that TIL and its partners have for the city.

- **TU-Team8 Cyber Fellows**, sponsored by the George Kaiser Family Foundation and the University of Tulsa, in partnership with Team8, a venture capital company, provides stipends and tuitions for 10 doctoral students in STEM degree programs. The collaborative mentorship directs the students' research toward commercialization to have immediate application to industrial solutions.
- The University of Tulsa offers a fully online **professional Master's degree** in Cyber Security. It caters to working professionals as well as full-time graduate students. There are plans to substantially increase TU's cyber degree offerings in the coming years.
- The new **Cyber City** initiative, funded by the George Kaiser Family Foundation in coordination with the University of Tulsa, provides cyber training to K-12 teachers.
- In 2020, TU joined a coalition of universities as part of the **Critical Infrastructure Resilience Institute** that includes the University of Illinois Urbana-Champaign, Purdue University, and Auburn University established by the Department of Homeland Security to develop an academic hub-and-spoke model for a network that educates and trains cybersecurity professionals.
- The University of Tulsa and Tulsa Innovation Labs will be working with **Innovation Accelerator Foundation** (IAF) on a cyber-focused research consortium initiative in conjunction with the U.S. Department of Defense and nationally-renowned research universities.
- Tulsa has multiple **cyber-related startups and companies**, including True Digital Security, EdgeStack, and Cytek that focus on cybersecurity solutions in domains including network protection, vulnerability management, and encryption.
- **Large local corporations are major users of cyber services** and technologies, including Bank of Oklahoma, QuikTrip, Williams, Humana, and Helmerich & Payne.

SECTION 2: CYBER INNOVATION INSTITUTE CONCEPT

A. Mission

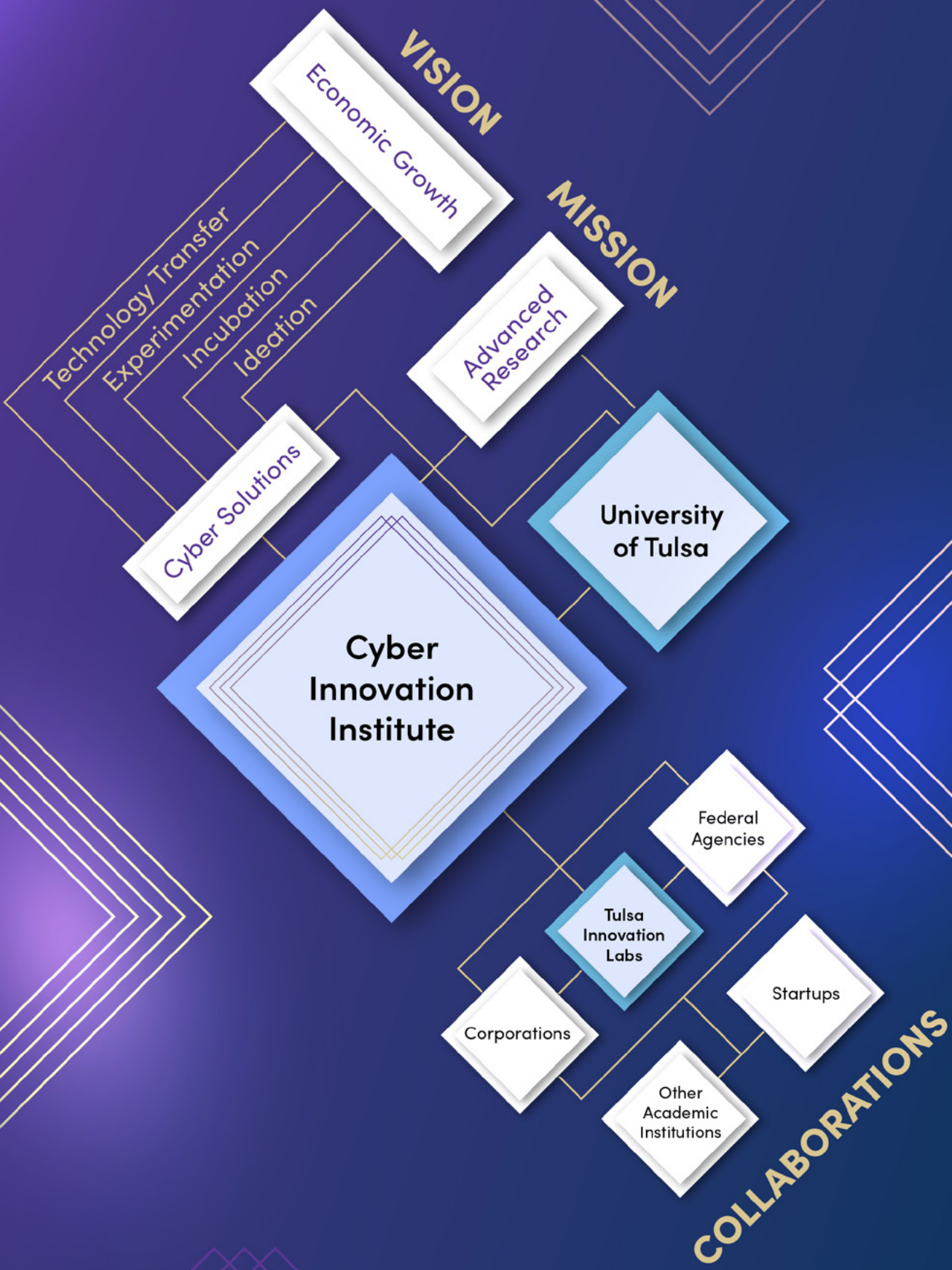
The Cyber Innovation Institute's (the "Institute") main ambition is to nurture the untapped potential for advanced cyber research for business, government, and society by fostering collaboration among TU, federal agencies, corporates, startups, and other academic institutions.

B. Vision

The Institute will be a catalyst for economic growth in the Tulsa region and beyond by supporting the ideation, incubation, experimentation, and technology transfer of industry-relevant cyber solutions.

C. Main Objectives

- Create a consortium of scholars, researchers, developers, and students dedicated to cyber collaboration with measurable outcomes
- Increase public and private sector investment including a mix of federal and private funding and engagement
- Facilitate research collaboration among local and non-local universities with TU
- Explore the potential for classified cyber research at TU
- Increase cyber talent retention and impact in the Tulsa region
- Expand and streamline existing resources such as technology transfer capabilities and faculty exchange programs
- Contribute to the recruitment of cyber startups and entrepreneurs to Tulsa



D. Goals and Key Performance Indicators

It is of utmost importance that the Institute be designed with a clear sense of the desired impact and that performance monitoring and impact assessments are conducted regularly to ensure the Institute's overall success.

Below is our initial understanding of the Institute's goals and key performance indicators, subject to being tested and refined by the selected consultant.

Research Productivity

- Incrementally increase cyber-related research funding to the University of Tulsa from federal contracts to reach a total of \$XM in 5 years
- Acquire and maintain the number of classified research projects at \$XM/year in 5 years to justify personnel, SCIF, and project oversight

Commercialization and Tech Transfer

- Expect seminal publications and patents at a combined and stable rate of X per year by 5 years
- Reach a level of X% of institute participants (students, researchers, and/or faculty) involved in entrepreneurship or commercialization activities per year

Community and Educational Engagement

- Engage industry to fund research and scholarship to reach \$XM in 5 years
- Incrementally increase the number of undergraduate and graduate students involved in cyber research activities by X% per year to reach a stable state of X each year
- Employ X post-doctoral or visiting researchers per year to add increased project expertise and management
- Support the university's goal to produce X cyber professionals per year

SECTION 3: SCOPE OF WORK

Upon entering into this engagement with Tulsa Innovation Labs (TIL) and the University of Tulsa (TU), the consultant will be required to work primarily with TIL and TU as well as other local stakeholders to develop a Strategic Plan for the launch of the first five years of the Cyber Innovation Institute.

A. Consultant Scope of Work

General Concept

- Refine Institute concept, objectives, and metrics around the two priorities of increasing federal research funding and increasing research commercialization capacity
- Develop governance plan with a recommended legal and organizational structure based on TU's Strategic Plan
- Propose strategies for resource sharing and exchange between the research institute and the university
- Identify case studies and models for similar research centers
- Determine potential research focus areas based on current and forward-looking industry trends as well as TU and TIL's strategies
- Make recommendations for scaling, growth, and evolution over time

Ecosystem Mapping & Positioning

- Define the Institute's role within local and national cyber ecosystems
- Establish guiding principles for building partnerships, including efficient production of MOUs and CRADAs for partnerships with federal agencies, federal contractors, industries, and other universities
- Recommend optimal working relationships with state and federal governments, local and non-local universities, national labs, and others
- Map how the Institute fits into TU and TIL's broader strategies
- Identify how potential partnerships could lead to funding opportunities

Defining Success

- Consider different pathways to success for the Institute and analyze the implications of each across multiple dimensions, including academic research, tech transfer and commercialization, branding, student education, and others
- Identify a subset of Key Performance Indicators (KPIs) most important to determining the Institute's overall impact for the university and the local ecosystem

Financing & ROI

- Evaluate preliminary budget requirements and business models
- Consider and analyze different sustainable revenue and long-term funding models
- Identify leverageable assets within the university and ecosystem
- Provide an outline of potential return on investment (ROI) across multiple sectors including research productivity and funding

Looking Ahead

- Create a leadership profile to be used in the hiring of an Executive Director
- Provide a plan of actionable recommendations for translating the Strategic Plan into an Operational Plan
- Generate templates for future applications (“pre-application materials”) the Institute will submit for federal grant funding and contracts

B. Deliverables

At the conclusion of the engagement, the consultant will deliver:

1. A full final report representing the Strategic Plan that includes the aforementioned requirements
2. A public-facing summary deck to drive interest and exposure among local stakeholders, potential funders, and the press
3. The consultant’s background research and data, including case law and/or case studies in a form usable for our interests and purposes, including excel formulas, etc.

C. Client Information

The individual clients to whom the consultant will report are: **Nicholas Lalla**, co-founder and managing director of Tulsa Innovation Labs, and **Dr. Rose Gamble**, senior associate dean of the College of Engineering and Natural Sciences at the University of Tulsa.

The consultant will also convene regularly with **Precious Okoruwa**, associate for cyber and analytics at Tulsa Innovation Labs, and **Dr. Tyler Moore**, Tandy Professor of Cybersecurity at the University of Tulsa.

SECTION 4: SUBMISSION REQUIREMENTS

We strongly encourage respondents to be creative in their proposals and to bring us unique approaches and ideas that meet our minimum objectives and to also showcase their expertise and inspire us to think big.

TIL and TU are not liable for any costs incurred in the development of the respondent's RFP proposal. All submitted proposals become the property of TIL and TU.

Each respondent will provide a complete and detailed proposal that is to include the following:

A. Qualifications and Prior Experience

1. Respondent Information
 - a. List the Primary Respondent(s) including name, title, address, phone number, and email address. Detail whether the respondent is a single entity or group of individuals
 - b. Describe previous experiences writing and executing strategic planning. Attach your previous sample or draft strategic plans to your RFP submission
 - c. Include a summary of the organizational history of the respondent
 - d. The above information for any associated respondents and detailed information about their role in the project
2. Relevant Experience
 - a. Provide a detailed explanation of prior experience strategic planning for higher education research institutions or similar projects completed within the last five (5) years that demonstrate the respondent's capability and experience
- b. Include the following:
 - i. Name and Location of Institution
 - ii. Program Timeline
 - iii. Current Status of Program
 - iv. Project Success Metrics
3. References
 - a. Include at least three (3) but no more than five (5) professional references that can attest to the respondent's capability in designing strategic operating plans. These references must be affiliated with the prior projects listed in section B (Qualifications and Prior Experience)
 - i. Two references should be from previous university clients
 - b. Each reference should include a name, title, affiliation, organization, phone number, and email address

B. Strategic Planning Proposal

1. Provide in full detail the respondent's outline and approach for developing a Strategic Development for the Cyber Innovation Institute
 - a. See Scope of Work section for insight into the strategic plan requirements and identify other areas that would be valuable to consider

C. Consultant Budget

1. Using the aforementioned key components of the respondent's Strategic Planning Proposal outline, describe a line-item budget that the respondent will need to accomplish all items in the consulting engagement
 - a. Include operational costs for consultant, travel, supplies, and other elements specific to the buildout of your strategic plan

Respondent Profile and Expectations

The respondent(s) may be but are not limited to, public or private corporations, consultancy firms, individual consultants, or informal groups of consultants. Respondents must be able to provide examples or samples of previous work developing similar strategic plans. Specific industry or academic knowledge of cyber is not required but is strongly encouraged. The consultant must have a strong understanding of university operations and research governance.

The respondent must be able to meet all the requirements outlined in the scope of work. The respondents must be available for continual open communication with TIL and TU through email and phone. Given the ongoing COVID-19 Public Health Emergency, we anticipate the majority of work to be completed remotely.

Diversity and inclusion are core values for the sponsoring organizations. The respondents to the RFP are expected to demonstrate their dedication to diversity, equity, and inclusion in their proposals as well as propose a consulting team that reflects these values.

How to Submit Proposal

- Please email your proposal in a singular PDF to precious@tulsainnovationlabs.com.
- Final proposals should be submitted no later than **5 p.m. CST on March 22nd, 2021**.
- **Respondents can expect to get a confirmation of receipt email within two business days of submitting their proposal.**

Selection and Engagement Timeline



Information Session

TIL and TU will hold an information session on March 10 at 1p.m., which will include an overview of the Institute and the RFP requirements as well as time to answer questions from respondents regarding the Cyber Innovation Institute. If interested in attending this information session, please contact precious@tulsainnovationlabs.com.

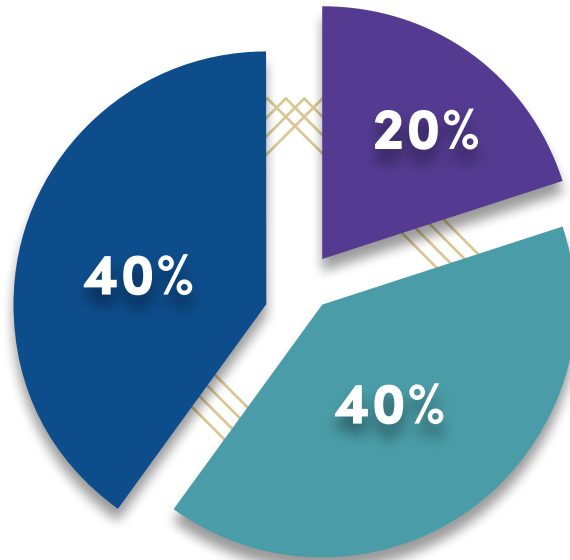
Following this presentation, the sponsoring organizations will release an FAQ document based on the questions emailed and asked during the information session.

All candidates who respond to the RFP will be notified of their status no later than April 12th, 2021, by email. The contract period for the consulting engagement is intended to begin in May 2021 and is expected to conclude no later than the final week of June 2021.

*All dates subject to change

Evaluation Criteria

The respondents to the RFP will be evaluated on the following criteria:



Strength of Qualifications and Experience

- A. Experience developing similar strategic plans
- B. Strength and reputation of consultant leadership and team
- C. Knowledge of university, applied research, and U.S. Federal Government investments in cyber and innovation
- D. References

Quality of Strategic Planning Proposal

- A. Level of detail and viability
- B. Understanding of Tulsa ecosystems
- C. Understanding of trends in academic and commercial cyber research
- D. Alignment with TIL and TU values and vision
- E. Uniqueness and creativity of proposal

Contractual Readiness

- A. Adequate and reasonable budget
- B. Demonstrated ability to complete tasks in allotted timeline
- C. Demonstration of readiness to proceed and meet the terms of the consulting contract

TIL and TU may contact respondents after the submission deadline to gather further details about their proposal. This can include following up with the respondent for additional supplemental materials or to request a formal presentation of the Strategic Plan outline.

TIL and TU will convene a panel of relevant stakeholders in the Cyber Innovation Institute to review each respondent's proposal according to the above criteria.



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