



## Solicitation Number: RFI TTI 16-0036 (Link to PDF)

The Texas A&M Transportation Institute (TTI) is seeking responses to this RFI regarding technologies, ideas, and products that could be offered for

**(a) pilot demonstration and proof-of-concept projects across the entire spectrum of the campus transportation environment, and/or**

**(b) research opportunities ready for test-bed deployments to progress and refine transformational transportation technologies.**

## How Will the Campus Transportation Technology Initiative Work?

TTI, partnering with the Texas A&M Engineering Experiment Station and operating under contract to Texas A&M University, seeks to develop a smarter campus transportation ecosystem, increasing safety, mobility, throughput, and efficiency across all modes of transportation in the campus environment.

The primary goal of this initiative is to encourage anyone who has technologies to potentially improve a transportation environment to bring them to Texas A&M's campus where administrators and planners are looking for ideas that can be demonstrated and evaluated. The use of multiple technologies of the same type or in the same location will also show how synergies can be developed between technologies and modes. The demonstration results can be used in marketing, competitive proposals, and other real-world applications.

Once the demonstration is in place in the campus environment, TTI and its partners will evaluate the technologies and determine how well they work independently or in combination with other technologies in a complementary fashion to solve transportation issues in the campus environment. Specifically, the initiative will:

- assess technologies and services proposed for the campus,
- recommend technologies and practices to include on-campus demonstrations,
- provide testing venues for technology demonstrations,
- integrate multimodal transportation strategies,
- evaluate the technology demonstrations for benefits and advancements in the campus transportation environment, and
- prepare and publish a comprehensive report of findings.

The primary implementation path seeks demonstrations in the short, mid-, and long term to effectively showcase the continuous evolution of the campus transportation environment, including operational and safety improvements, modal efficiencies, and connected and automated vehicles.

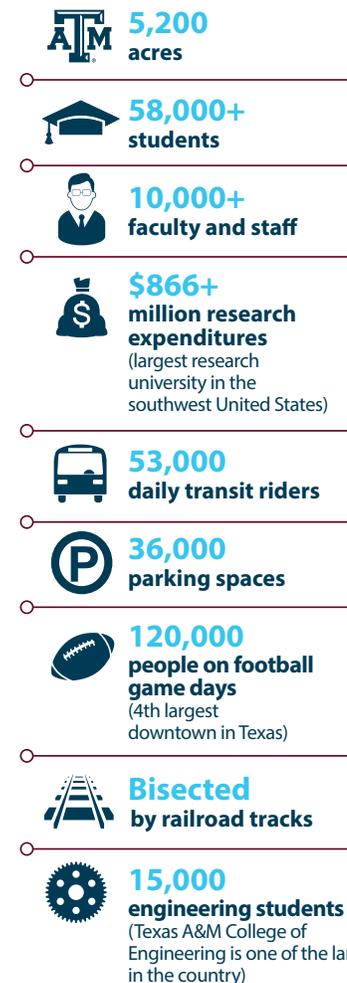
A secondary implementation path for the initiative is that companies needing test-bed environments can use the laboratory and field test beds across the Texas A&M campus facilities (as well as access to the combined expertise of faculty, staff, and students) to test and refine products and ideas in a controlled laboratory or field test-bed environment.

In essence, respondents are encouraged to submit project demonstration ideas across the entire arena of the campus transportation environment. While demonstrations may include physical equipment, transformational technologies also include items such as data mining and analytics, mobile applications, and transportation/mobility services. Demonstrations may be applicable to the main campus, RELLIS, or transportation between them. Respondents can be individual organizations or consortiums.

Example demonstration project areas include, but are not limited to, the following:

- Automated vehicles
- Signage and markings
- Connected vehicles
- Parking (including automated and parking assist)
- Electric vehicles
- Data mining and analytics
- Green and sustainable transportation
- Mobility applications (e.g., smartphone)
- Smart intersections
- Incentive programs (e.g., ride sharing)
- Pedestrian mobility and safety
- Last-mile shuttles
- Bicycle mobility and safety
- Transportation as a service
- Transit system safety
- Mobility as a service
- Transit system operational efficiency
- Campus work zones

## Campus Facts





## Texas A&M University

Texas A&M University is the number one ranked university in Texas and is in the top three nationally for academic excellence, research, and service to the nation. Research expenditures continue to climb, totaling nearly \$867 million in 2015, and Texas A&M ranks second nationally in the number of new National Merit Scholars each year among public institutions. As a federally designated land-grant, sea-grant, and space-grant institution, Texas A&M is committed to the transformation necessary to achieve its mission as a globally preeminent institution of higher education and research.

## RELLIS Campus

With a commitment of \$250 million, The Texas A&M University System is creating a new paradigm for the future of applied research, technology development, and education by advancing the redevelopment of the Riverside Campus. Located on approximately 2,000 acres of prime, largely underdeveloped real estate located adjacent to State Highways 47 and 21, the campus is being renamed RELLIS after the core Aggie values of respect, excellence, leadership, loyalty, integrity, and selfless service. The transformation of the Riverside Campus into the multi-institutional research, testing, and workforce development RELLIS Campus will enhance and expand the current research capabilities, provide more opportunities for education and training, and foster industry partnerships to address some of the most critical engineering problems faced today.



# RELLIS CAMPUS

**\$250 million  
COMMITMENT**

**2,000 acres  
prime real estate**



## Smart Intersections

The smart intersection initiative uses TTI's existing traffic signal laboratory and expands to a new full-scale signal testing facility at the RELLIS Campus. In partnership with seven private companies, the ultimate vision of this project is to create a real-world, working signal system on Texas A&M's West Campus where proven technology and strategies can be deployed in a high-traffic environment.

## Why Develop and Demonstrate on the Texas A&M Campus?

Texas A&M recognizes that the request for companies to donate materials, products, and time (the ask) is a significant undertaking and expenditure of scarce resources. However, we believe the value received (the give) is even more significant. Any future product procurements for full implementations will take place in the normal manner. We believe the following elements combine to make an exceptional value proposition for partnering with Texas A&M on this initiative.



### Model Campus

The Texas A&M campus is a robust model of the emerging class of mega-campuses that provide access to large numbers of students while also maintaining their traditional stature as high-end research institutions. And these model campuses are similar in many ways to suburban and metropolitan regional transportation challenges but with much less complicated political and community environments. In other words, developing solutions for us positions you at the leading edge of providing similar services to emerging campuses and urban environments in the future.

### Influencing the Sales Channel

By demonstrating on the Texas A&M campus, your company and product have access to a vast marketplace of potential future sales on A&M System (and partner) campuses, entry paths to state and national purchasing contracts, and future sales capability to cite Texas A&M demonstration and evaluation.

### Marketing

Although direct payment for these demonstrations is not possible, Texas A&M has a number of marketing outreach components planned for both the initiative at large and individual demonstrations. These include print story placement, promotion through Texas A&M social media channels, physical sign placement on Texas A&M assets, and a comprehensive initiative website showcasing the demonstrations. This provides marketing and name recognition benefits to participants in this initiative.

### Research and Development

Technology demonstrations on campus can reduce research and development (R&D) time and costs via student involvement and the inclusion of expertise from across campus. The initiative provides the opportunity for a long-term, real-world, high-quality test-bed environment for continued product development and quality assurance/quality control as well as joint publication opportunities from the evaluation of the technologies.



### Controlled Environment

The process of performing test-bed research and/or demonstrations can be a time-consuming process with a myriad of requirements. Texas A&M is fully vested in this initiative and has the ability to access facilities and talent, including access to Texas A&M fleet and transit vehicles, streamlined approvals, assistance in developing test and evaluation plans, and engagement of the campus as a whole as a support system.

### Crosscutting

The initiative and demonstrations provide a unique opportunity to explore and test synergies and interoperability with other companies and products.

### Affiliation with Agencies of National Stature

By working with Texas A&M and its partners on demonstrations, your company has access to faculty and staff at multiple agencies that can help reduce your R&D time, enhance your products, and increase your exposure:

- TTI is the largest transportation research program in the country, with \$60 million per year in contract research and almost 400 full-time researchers. The institute has an unsurpassed breadth and depth of programs, facilities, and capabilities and has made significant breakthroughs across all facets of transportation over the last 65 years.

- Texas A&M is one of the largest research universities in the United States and the largest research university in the Southwest. Our faculty-researchers generate almost \$900 million in research expenditures, all while enhancing undergraduate and graduate education. They provide hands-on research and laboratory experiences for the next-generation workforce that is unmatched anywhere else in the country.



### Access to Students

The Texas A&M College of Engineering is one of the largest in the country with more than 15,000 students currently, with a target of growing to 25,000 students by 2025. Demonstrations at Texas A&M offer a unique opportunity for entities that participate in the campus transportation technology demonstration project to engage talented students across multiple technical, business, and policy areas to support technology evaluation, feasibility studies, and adaptation of emerging technologies related to this RFI.

Additional requests for submissions against this RFI are expected to be made periodically up to the effective closing date. Submissions will be accepted at any time. This is an open RFI that closes August 31, 2017. Responses to the initial call against this RFI are due August 15, 2016.

### For More Information

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