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REQUEST FOR INFORMATION
AUTOMATED DRIVING SYSTEMS TECHNOLOGIES FOR INCLUSION IN THE UNITED STATES DEPARTMENT OF TRANSPORTATION AUTOMATED DRIVING SYSTEM DEMONSTRATION GRANT

February 4, 2019

Overview

The Los Angeles Department of Transportation (LADOT) leads transportation planning, design, construction, maintenance and operations in the City of Los Angeles. LADOT partners with other agencies to provide safe, accessible transportation services and infrastructure in the City and region. LADOT has six main operating groups reporting to the general manager. The operating groups are: Parking Enforcement & Traffic Control, Operations, Project Delivery, Parking Management & Regulations, Transit Services, and Administration.

On December 21, 2018, the U.S. Department of Transportation (USDOT) released a [Notice of Funding Availability for "Automated Driving System (ADS) Demonstration Grants](#)" and LADOT is looking to partner with firms and research institutions in submitting an application that will incorporate one or more autonomous elements. These autonomous technologies must meet the USDOT's Goals, Focus Areas and Work Areas as described in the Notice.

This document is a Request for Information (RFI) for interested parties, individual companies or research institutions who have ADS's that are in the research and deployment phase and would like to partner with LADOT in its grant submission. LADOT is a unique partner since it has jurisdiction over traffic signals, curb space, bike lanes, and a transit agency. With LADOT's varied responsibilities, the possibilities for a variety of autonomous projects increase.

DISCLAIMER: THIS IS A REQUEST FOR INFORMATION (RFI) ONLY. This RFI is issued solely for information and purposes – it does not constitute a solicitation or a promise to include the technology as part of LADOT's ADS grant submission. This RFI does not commit the City to contract for any supply or service whatsoever. LADOT will collect and evaluate information provided in response to this RFI and determine the feasibility and benefits to the City from the implementation of any or all of the ADS technology elements.

Respondents are advised that the City will not pay for any information or administrative costs incurred in response to this RFI; all costs associated with responding to this RFI will be borne solely at the interested party's expense. All submissions become City property and will not be returned. *Do not provide proprietary information*.

Background
LADOT is looking to further demonstrate automated driving systems (ADS) within the City of Los Angeles streets and transit system. LADOT is currently implementing a 2016 USDOT Automated Transportation and Congestion Management Technologies (ATCMTD) demonstration grant that exhibits mobility enhancements and traffic safety (V2I,P2I) elements. LADOT offers these platforms as building blocks to an autonomous future that RFI respondents can incorporate in their projects. Please see www.ladot.io for additional information on LADOT's vision and current projects.

Request for Information (RFI)
Interested parties are invited to submit a response to the RFI describing their interest in partnering with LADOT on the proposed grant as a technology partner. LADOT will look at all ADS projects including ADS associated technologies.

Possible ADS projects include but are not limited to:
- Autonomous Driving vehicle (L3 and above)
- Autonomous parking of Transit buses in service yards
- Senior and disabled transportation services

All responses to this RFI must at a minimum express your interest to partner with LADOT and also include a minimum of level 3 technology. While not required as part of your response please consider how you will meet at least one of the goals, focus and work areas and the USDOT's grant requirements of the Automated Driving System Demonstration Grant. A summary of the requirements follows in Appendix A (See Notice of Funding for specific information). Please note that data collection is the most important requirement of this grant. Data must be available in near real time so that USDOT can better inform their rulemaking.

Responses should be brief (we recommend a maximum of five pages) and include the following:

1. Statement of Interest	Describe your interest in partnering with LADOT.
2. Describe ADS technology	What ADS technology or technologies associated with ADS are you proposing and describe in detail the nature of the technology and its projected timeline for deployment as part of the pilot and commercialization?

Submission Date
Interested parties shall submit their Response(s) to the RFI **no later than 2:00 PM PDT on Monday, February 11, 2019**. Due to the short timeframe for submittal questions will be answered as soon as possible. Please send any questions regarding this RFI to Janna Smith at (213) 972-5098 or Janna.Smith@lacity.org.

All RFI Responses shall be emailed to:
Marcel Porras
Chief of Sustainability Officer
Ladot.Innovation@lacity.org

Thank you for your interest and we look forward to your RFI submittal.

Seleta J. Reynolds
General Manager

APPENDIX A

Automated Driving System Demonstration Grant
1. GOALS
The goals of the ADS Demonstration Program are:
a. Safety: Test the safe integration of ADS into the Nation's on-road transportation system. Fund projects that demonstrate how challenges to the safe integration of ADS into the Nation's on-road transportation system can be addressed.

b. Data for Safety Analysis and Rulemaking: Ensure significant data gathering and sharing of project data with USDOT and the public throughout the project in near real time, either by streaming or periodic batch updates, and demonstrate significant commitment to leveraging the demonstration data and results in innovative ways. Fund demonstrations that provide data and information to identify risks, opportunities, and insights relevant for USDOT safety and rulemaking priorities needed to remove governmental barriers to the safe integration of ADS technologies.

For example:
• _What safety metrics characterize safety risk of ADS integration into the transportation system?
• _What data are necessary to develop these metrics?
• _How can the demonstration help provide data to set a baseline for human safety?
• _How can the demonstration help provide data to set a baseline for the safety of ADS operation?
• _How can operational data provide leading indicators that would enhance future safety analysis?
• _How can the demonstration help provide data to define safety equivalency for ADS light duty and heavy-duty vehicles, including commercial motor vehicles?

c. Collaboration: This program seeks to work with innovative State and local governments, as well as universities and private partners, to create collaborative environments that harness the collective expertise, ingenuity, and knowledge of multiple stakeholders. These projects should include early and consistent stakeholder engagement, including early coordination with law enforcement, local public agencies, industry, transportation-challenged populations, the public, and other relevant stakeholders as applicable to conduct these demonstrations on terms that work for all parties.

2. FOCUS AREAS
In addition to the program goals listed above, the focus areas of the ADS Demonstration Program are:
a. Significant Public Benefit(s): Fund a select number of larger-scale projects that result in a significant benefit(s) to the public.

b. Addressing Market Failure and Other Compelling Public Needs: Fund projects where industry lacks adequate incentives to participate. This includes areas where cost, risk, or complexity are too significant for any single private sector entity (e.g., cybersecurity) or where a lack of private sector investment has not proven sufficient to support particular groups (e.g., access for individuals with disabilities).

c. Economic Vitality: Ensure that these Federal funds support the U.S. industrial base through Buy American and other requirements. Recognizing Executive Order 13788, proposed projects must support

economic vitality at the national and regional level, including advancing domestic industry and promoting domestic development of intellectual property.

d. Complexity of Technology: Fund a collection of projects that demonstrate automation, with preference for demonstrating L3 or greater automation technologies.

e. Diversity of Projects: Fund a collection of projects that serve a variety of communities, including urban, suburban, and rural environments, and that serve a variety of transportation markets including freight, personal mobility, and public transportation.

f. Transportation-challenged Populations: Fund projects that test applications with the greatest potential to service transportation-challenged populations, including older adults and individuals with disabilities. As applicable for such populations, projects may focus on entry, egress, and options to make transfer easy, which may include design of ADS for accessibility, usability, and safety, including securement and restraint systems for wheelchairs and other equipment for people with disabilities. g. Prototypes: Given the focus on demonstrations, fund projects that include technologies that are, at a minimum, in limited prototype state suitable to support safe demonstrations but do not need to be ready for broader deployment. Demonstrations must meet all applicable safety standards or have a detailed approach concerning how the grantee intends to apply for any necessary exemptions.

3. DEMONSTRATION REQUIREMENTS
In addition to the program goals and focus areas listed above, the minimum requirements of the ADS Demonstration Program are listed below. Each demonstration must comply with all requirements.

a. Each demonstration must focus on the research and development of automation and ADS technology (per the SAE definitions), with a preference for demonstrating L3 or greater automation technologies.

b. Each demonstration must include a physical demonstration. Modeling and simulation may be included activities; however, a physical demonstration is required.

c. Each demonstration must include the gathering and sharing of all relevant and required data with the USDOT throughout the project, in near real time. The Recipient must ensure the appropriate data are accessible to USDOT and/or the public for a minimum of five years after the award period of performance expires. Data demonstrating safety performance should include conventional data regarding safety incidents, operational (vehicle and ecosystem data), exposure measures, and innovative measures of safety-relevant vehicle behaviors that may indicate potential safety problems.

NOTES TO APPLICANTS:
• _Lack of or minimal data sharing due to confidential business information (CBI) claims will be viewed negatively in the awardee selection process.
• _The USDOT may make available a secure data system to store data for evaluation, or projects can designate an appropriate third-party system where

USDOT analysts can conduct their work. Applicants should budget for the costs of data storage and sharing as appropriate. • _The USDOT expects the Recipient to remove sensitive CBI and PII before

providing public access to project data, consistent with the public access requirement in Section F, Paragraph 2.I. of this NOFO.

d. Each demonstration must include input/output user interfaces on the ADS and related applications that are accessible and allow users with varied abilities to input a new destination or communicate route information and to access information generated by the ADS.

e. Each demonstration must address how the demonstration can be scaled to be applicable across the Nation to similar types of road environments, as well as include an outreach task to share demonstration status, results, and lessons learned with other jurisdictions and the public, in furtherance of technical exchange and knowledge transfer.

4. WORK AREAS

Demonstrations may occur on proving grounds, test tracks, port terminals, campuses, or on public roads.
Work areas for Federal funding under the ADS Demonstration Program include:
a. Technologies associated with ADS;

b. Advanced communication systems supporting safety and/or mobility, including vehicle-to-vehicle and vehicle-to-infrastructure interoperable communications that benefit ADS integration;

c. Innovative mobility solutions that involve deployment of automated vehicles;

d. ADS that enhance safety and mobility for older adults and travelers with disabilities;

e. Demonstration of shared interoperable fleet of automated vehicles; and

f. Demonstration and validation of exchanges of data that can support and potentially accelerate the safe, efficient, and secure interoperable integration of ADS. Support the development of candidate system architecture content and the identification of and, where needed, development of voluntary consensus standards that can support large-scale, nationwide or global interoperable integration of ADS technologies into the on-road transportation system.