

RFI No.: 606-20

Location: Smart Belt Coalition

Commodity: Driver-Assistive Vehicle Platooning

Pricing: <http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/PurchDocs/>

REQUEST FOR INFORMATION (RFI)

State of Ohio, Department
of Transportation Office of Contract Sales,
Purchasing Services Jack Marchbanks,
Director

Submission Deadline
April 15, 2020 at 2:00 p.m. eastern time

Submitted by:

Company Name: _____

Federal Tax ID No.: _____

Physical/Mailing Address:	Remit to Payment Address:
Street Address:	
P.O. Box:	
City:	
St:	
Zip:	
Contact Person and Phone Number: (authorized to answer questions about your company's bid)	
E-Mail Address (required): (person who filled out bid)	
E-Mail Address (required): (for notification of future bid opportunities)	

Telephone Number	800 Number	Fax Number

**SUBMIT ANY QUESTIONS, CLARIFICATIONS, OR INQUIRIES REGARDING THIS RFI
VIA THE FOLLOWING WEBSITE:**

<http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/PurchasePBQ.aspx>

Introduction

On behalf of the entire Smart Belt Coalition, *DriveOhio* (“ODOT”) is issuing this RFI for information and a demonstration of “Truck Automation and Platooning” technology. This is a Request for Information (“RFI”), and does not constitute a commitment, implied or otherwise, that the Ohio Department of Transportation, by and through *DriveOhio* or any other the member of the Smart Belt Coalition will initiate any procurement action as a result of this RFI. For the purposes of this RFI, a “Respondent” shall mean any interested party who drafts and submits a response to this RFI.

While this RFI focuses on truck automation and platooning technologies, Respondents are encouraged to respond on the potential operation and demonstration of other advanced driving technologies.

This RFI is designed to provide Respondents with the information necessary for the preparation of an appropriate response. It is not intended to be comprehensive, and each Respondent is responsible for determining all factors necessary for submission of a comprehensive response. Responses should be based on the material contained in this RFI or any other relevant information the Respondent believes is appropriate. By submitting a response, each Respondent agrees that it will not bring any claim or have any cause of action against the State of Ohio or any employee of the State, based on any misunderstanding concerning the information provided or concerning ODOT’s failure, negligent or otherwise, to provide the Respondent with pertinent information as intended by this RFI. Information submitted in response to this RFI will become property of ODOT. The State of Ohio will not pay for any information herein requested and is not liable for any cost incurred by the Respondent.

RFI Confidentiality

All Respondents are strongly discouraged from including any information in any response to this RFI that Respondents consider to be a “trade secret,” as that term is defined in Section 1333.61(D) of the Ohio Revised Code. All information submitted in any response to this RFI is public information, unless a statutory exception exists that exempts it from public release. If any information in the RFI is to be treated as a trade secret, the RFI **must**:

- Identify each and every occurrence of the information within the RFI with an asterisk before and after each line containing trade secret information and underline the trade secret information itself.
- Check the “This RFI does include information considered a ‘trade secret’” box on the Respondent Information Page.
- Include a page immediately after the Respondent Information Page listing each page in the RFI that includes trade secret information, as well as the number of occurrences of trade secret information on each page.

Background

The Smart Belt Coalition (“SBC”) was formed in 2016 and is a strategic transportation collaborative comprised of twelve (12) organizations, including five (5) transportation agencies and seven (7) research and academic institutions, located throughout Michigan, Ohio, and Pennsylvania. The SBC was initiated to leverage the ongoing research and deployment of advanced transportation technologies amongst multiple agencies and research affiliates from Michigan, Ohio, and Pennsylvania. Recognizing a mutual interest in establishing a forum for collaboration, the organizations planned and facilitated the inaugural SBC meeting in May 2016.

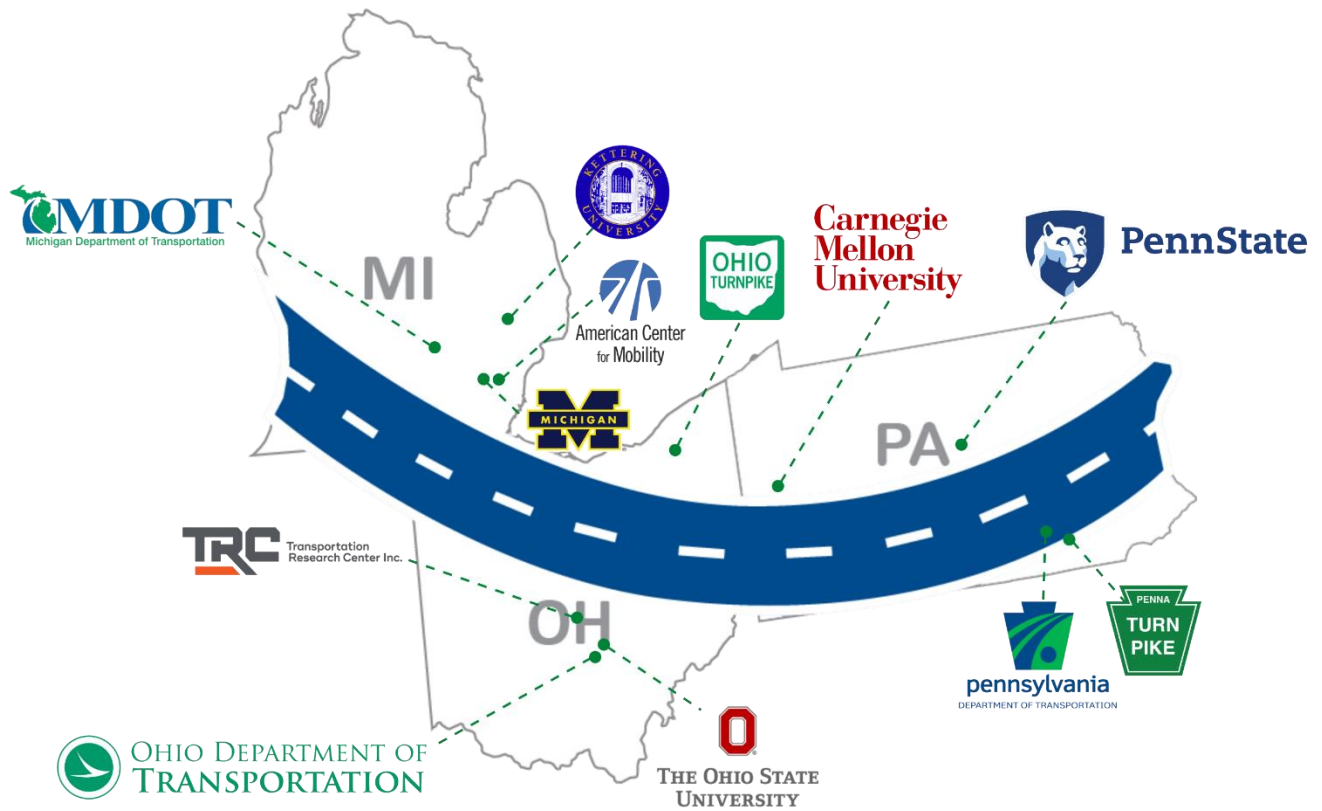


Image 1.0 Smart Belt Coalition Members

The SBC was organized for the safety, economic benefit, and welfare of transportation system users in the partner states. The purpose of the SBC is to foster collaboration involving research, testing, policy, standards development, deployments, outreach, and funding pursuits in the area of connected and automated vehicle technology as well as other innovations in the transportation industry. Key activities to be undertaken by the SBC include, but not limited to, the following:

- Provide standardization and interoperability across the agencies.
- Establish a high-profile, high-impact, and long-distance network for connected and automated vehicle innovations.
- Support platforms to advance the deployment of applications (e.g., agency fleets, first responder vehicles, passenger vehicles, transit vehicles, and trucks).

Purpose

The Midwest is a hub of freight activity, with a significant amount of long-haul interstate and international truck traffic using the highway system in this region of the country. Freight movement is a significant economic engine for all three states within the SBC.

Truck platooning is a technique whereby two (2) or more trucks, using a combination of on-board sensors and vehicle-to-vehicle ("V2V") communications systems supplemented by infrastructure systems and information as needed, travel in close headway (i.e., approximately 50 feet apart or less). This closely spaced operation reduces the aerodynamic drag of the entire platoon resulting in significant fuel savings and reduced vehicle emissions.

Tractor Automation involves several driver-assist capabilities and may include longitudinal and lateral control and V2V communications that facilitate the driving function while improving safety. More advanced levels of automation may include technology that drives the truck without driver assistance except as necessary.

The purpose of this effort is not to test technology, but to determine how an actual automation and platooning operation can be conducted through a multi-jurisdictional environment. This will demonstrate how a truck automation and/or platooning operation will navigate the administrative and procedural requirements necessary to travel continuously across all three SBC states. The demonstration will allow for SBC members to identify the processes needed to ensure a successful truck automation and/or platooning operation and provide the opportunity to align processes with best practices to the extent allowable by existing state regulations. This will also present a public relations opportunity for the provider as well as showcase work being done collaboratively through the coalition as something tangible that the public and public officials could witness first hand.

Each state has its own vehicle code, and regulations and policies that have been derived from them. Each state, per code and regulations, may treat the ability to handle truck automation and platooning enabled by technology, differently. The applicable regulations and/or policies relating to truck platoons for each state are detailed below:

Michigan:

- [Public Act 332 of 2016](#)
- [Public Act 377 of 2018](#)

Pennsylvania

- [PA Title 75 Section 3317](#)
- [Vehicle Platooning Policy \(April 22, 2019\)](#)

Ohio

Ohio has determined through comprehensive review by the Ohio Department of Transportation and the Ohio State Highway Patrol that truck platooning enabled through technology is inherently permitted under existing laws and regulations; as a result, there are not any rules, laws, regulations or policies regarding truck platooning that are specific to the State of Ohio.

Through the demonstration described in the “Scope” Section below, SBC members will identify the potential gaps in policies and procedures that may be a hurdle for the successful inter-jurisdictional operation of truck platooning technology. The demonstration will also serve as an opportunity to provide the public with insight as to how the infrastructure owners and operators of the SBC are preparing for the introduction of new transportation technology solutions.

Scope

SBC, through *DriveOhio*, is looking for potential partners that are willing to demonstrate a truck automation or platooning operation, mainly as an in-revenue service model, through the three designated SBC states on roadways operated by the above-mentioned five (5) transportation agencies.

Definition

The Pennsylvania Truck Platooning legislation from Act 117 defines truck platooning technology as:

Driver-Assistive Vehicle Platooning (DAVP) -Vehicle automation and safety technology that integrates sensor array, wireless vehicle-to-vehicle communications, active safety systems, and specialized software to link safety systems and synchronize acceleration and braking between vehicles while leaving each vehicle's steering control and systems command in the control of the vehicle's driver in compliance with the National Highway Traffic Safety Administration rules regarding vehicle-to-vehicle communications.

- The Michigan Truck Platooning legislation ([Public Act 332 of 2016](#)) defines a truck platoon as:

"Platoon" means a group of individual motor vehicles that are traveling in a unified manner at electronically coordinated speeds.

While the focus of this RFI is on truck automation, including platooning technologies, Respondents are encouraged to respond on the potential operation and demonstration of other advanced driving technologies.

Truck Platooning Demonstration Requirements

The truck platooning demonstration is intended to operate continuously over public roadways and turnpikes in Michigan, Ohio and Pennsylvania. The demonstrator will work with the SBC Project Team to develop and execute the truck platooning plan and demonstration. In general, the truck platooning demonstration must include one (1) or more route(s) that meet all of the following conditions:

1. Operate(s) over public limited access roadways through each of the three SBC states.
2. Operate(s) over a segment of roadway operated by the Ohio Turnpike and Infrastructure Commission.
3. Operate(s) over a segment of roadway operated by the Pennsylvania Turnpike Commission.

The demonstrator can be a developer and operator of truck platooning technology, a truck or commercial vehicle fleet operator using automated driving and/or truck platooning technology, a research or educational consortium developing and deploying truck platooning technology, or any combination of the three above-mentioned entities.

Ideally, the demonstration will be operated continuously across the three (3) SBC jurisdictions, without extensive stopping or pausing, between jurisdictions. The Respondent will be required to follow each state's individual platooning laws, regulations and policies during the demonstration.

It is highly desired that the route and operation be an in-revenue service model in order to promote actual business use cases being performed using this technology. It is understandable that some models may not promote the use of truck platooning over part or any of the route. In these models, the use of truck automation is highly desired to show how truck automation can be utilized across state boundaries.

Truck Platooning Operation Plan

Michigan and Pennsylvania require a demonstrator or operator of truck platooning technology to submit a written truck platooning plan to their respective states prior to the start of demonstration, pursuant to Michigan Public Act 332 of 2016, and PA Title 75 Section 3317. The Commonwealth of Pennsylvania has developed a template for a truck platooning plan that meets the requirements of Act 117, and is attached to this RFI as Appendix A. The State of Michigan has determined that submitting a report following the template laid out in Act 117 would satisfy the plan requirements of Public Act 332 of 2016. The demonstrator thus only needs to submit one (1) truck platooning plan that adheres to the requirements laid out in Act 117, as provided in Appendix A and such a platooning plan will satisfy the requirements of all SBC members.

While the demonstrator must provide its truck platooning plan before the start of the demonstration, the demonstrator is not required to include the plan as part of its response to this RFI. Truck Platooning Plan information is provided as a reference so the Respondent knows what will be expected from a plan preparation standpoint. A copy of the Pennsylvania Platooning Plan template can be found as an Appendix to this RFI.

Visual Identifier

Pennsylvania regulations require a visual identifier for vehicles operating with truck platooning technology, so that law enforcement officers may properly identify the vehicles equipped with the technology. An example of the visual identifier proposed by Pennsylvania can be found below (**Figure 1**). It is anticipated that the proper use of this identifier will comply with all identification and marking requirements of the three (3) SBC states.

Figure 1 – Visual Identifier



Public Relations

Public relations departments from the three (3) SBC States' respective Departments of Transportation and two (2) tollways that are part of the SBC will coordinate messaging and press releases during the demonstration. The Respondent will coordinate with these public relations departments on a public relations and messaging program.

As part of this demonstration, SBC members would like to showcase how the technology being employed could benefit the local community surrounding the scope of any proposed demonstration through a public relations campaign. Respondents are asked to share any ideas to potentially incorporate some form of charitable contribution or donation commitment to the scope of any proposed demonstration (e.g., transferring Food Bank donations between states, etc.).

Demonstration Approach

As part of the response to this RFI, the Respondent will submit an approach addressing the scope and demonstration requirements, including the proposed time frame and route of the demonstration, as well as the expected number of vehicles to be used in the platoon.

Evaluation

At the conclusion of the demonstration, SBC members will work with the Respondent to identify the following key items:

- i. Level of effort by the Respondent to perform truck platooning across multiple jurisdictions.
- ii. Level of effort by the agencies necessary to permit and coordinate truck platooning across multiple jurisdictions.
- iii. Consistencies or gaps in policies and standards among agencies.
- iv. Any infrastructure elements that interfered with the deployment or operation of the truck platooning technology.

This RFI will not result in a formal agreement, but an opportunity for the Respondent to play a role in the evolution of truck platooning technology and its public acceptance. The Respondent would be interacting directly with the above-mentioned five (5) transportation agencies to discuss benefits and disadvantages of the demonstration. For this RFI, a Respondent may be an individual company or research organization, or a partnership of companies and/or research organizations.

Timeline

The SBC will determine any future activity and timeline with information provided to this RFI.

RFI Procedure

Respondents to this RFI should include the information listed in the “RFI Content” section, below.

All responses must be emailed as PDF or Word documents to:

ODOT Office of Contracts
[Contracts.purchasing@dot.state.oh](mailto:Contracts.purchasing@dot.state.oh.us)
[.us](mailto:Contracts.purchasing@dot.state.oh.us)

Responses are due no later than: **2:00 p.m. April 15, 2020**

RFI Content

In addition to a demonstration plan that addresses the items in the Scope section of this RFI, Respondents should include the following information:

- Respondent Name / Organization
- Point of Contact
- Physical Address
- Phone Number

- Email Address

Responses to this RFI should also address the following questions:

1. Is any information in the response considered a “trade secret”? (Yes/No)
2. Provide a proposed demonstration plan that meets the scope described in this RFI.
3. What are the technology companies, commercial vehicle operators, and/or research institutions you have partnered with in response to this RFI?
4. What materials do the commercial vehicles in this demonstration typically ship in the ordinary course of business?
5. What type of vehicles would be included in the demonstration?
6. How many vehicles would be included in the demonstration?
7. Does your company currently run freight in the tri-state region?
8. Would you be willing to have an observation vehicle follow the fleet during a platooning trip?
9. Would you be willing to share any roadway infrastructure issues that would impact your truck platooning technology?
10. Do you have procedures in place regarding media relations for truck platooning demonstrations?
11. What degree of media coverage would you be comfortable with?

Appendix A – Platoon Operations Plan SEE ADDENDA 1