

# Minnesota Connected and Automated Vehicle (CAV) Challenge: A CASE STUDY

A recurring challenge in public procurement is: How can government keep up with procuring technological innovation? The state of Minnesota Office of State Procurement (OSP) faced this question in 2018 when the Minnesota Department of Transportation (MnDOT) approached OSP looking for a procurement solution to their predicament.

MnDOT came to OSP with their agency's potential issues with the traditional RFP process for connected and automated vehicle (CAV) technology:

- The RFP process could take up to six months to develop while technology moves fast. MnDOT wanted to be able to plan and prepare for the future of transportation, while driving innovation in areas unique to Minnesota.
- Technological advances happen quickly; the traditional RFP would leave MnDOT with only a specified window of time to receive proposals, potentially missing out on new technological advances occurring outside of that window.
- MnDOT wanted to be open to a wide variety of CAV solutions, with the ability to contract with multiple suppliers who could specifically meet MnDOT's goals.
- MnDOT wanted built-in dialogue with suppliers, including a standardized opportunity for a pre-proposal meeting and no revealing of trade secrets in proposals.



"This tech develops and changes quickly. We are at a totally different place now, than we were 3 years ago with the technology. If you're going to take six months to go through the RFP process, that's a decade in automated vehicle technology. They came to us with their challenge and we worked together to solve it."

—Rachel Dougherty, Enterprise Contracts Counsel, Minnesota Office of State Procurement

Enterprise Contracts Counsel for OSP, Rachel Dougherty, recapped OSP's needs going into that first meeting during a [webinar](#) presented in 2020. While not necessarily competing with MnDOT concerns, some principles needed to be honored, including:

- Fair and open competition
- Consistent requirements against which all suppliers are evaluated
- Clear parameters and guidelines for suppliers to operate within
- Subjective and objective criteria
- A systematic approach to supplier selection

Using this conversation as a foundation, OSP partnered with MnDOT to overcome the potential issues that were identified and deliver a modern look at procurement in the form of a challenge-based RFP. In a challenge-based RFP, the government allows for the market to respond with how their company would choose to solve the proposed *challenge*, giving the government a menu of potential solutions to choose from.<sup>1</sup> *The Connected and Automated Vehicle (CAV) Challenge* was launched in September 2018, and won the [George Cronin Award for Procurement Excellence, Bronze](#) in 2019 and is still currently open for proposals at the release of this case study. The success of this innovative take on procurement can be grouped into three over-arching elements:

- Early interagency collaboration
- Depth and breadth of statutory knowledge
- Willingness to innovate

## Early Interagency Collaboration

Interagency collaboration is a hallmark of government; from localities to the federal level, agencies support each other to carry out their individual missions and goals. Strained relationships can produce strained RFPs, but the *CAV Challenge* avoided that risk. MnDOT knew they needed assistance to accomplish their overall mission of being a state leader in CAV technology, and they knew the constraints of working with the traditional RFP.



“...The risk we take going into these meetings that normally, is, [the agency] asking: what kind of special exceptions can you give us? What kind of statutes can we change specific for our program? And we don't like to do that because everyone really is special, truly, you know?”

—Rachel Dougherty, Enterprise Contracts Counsel, Minnesota Office of State Procurement

Despite what you may have heard about procurement professionals, they don't enjoy saying, “No.” OSP approached MnDOT's meeting open and willing to listen to their concerns. That first meeting set the tone for the success of the *CAV Challenge*. MnDOT presented the concerns the traditional RFP held for procuring timely CAV technology. OSP listened, asked questions about the agency's goals, explained OSP's statutory and legal requirements, and stayed solution-focused. This dialogue led to both agencies understanding their needs and set clear expectations for collaborating on the program.

<sup>1</sup>Jason Farra (2018, November 5) Code for Canada. <https://medium.com/code-for-canada/working-within-the-box-innovation-in-government-procurement-203ac70b9088>

By engaging and collaborating with OSP early, MnDOT saved time and effort by avoiding a procurement methodology that could have impeded their goals. Often, an agency does not contact central procurement until the agency has already exhausted its resources; leaving time, effort and employee morale drained MnDOT and OSP's early interagency collaboration allowed the two agencies to work in sync with respect to each other, cancelling out duplicated efforts. The collaborative and early efforts of MnDOT and OSP formed a partnership working towards a never-before-seen solution in the state of Minnesota.

## Depth and Breadth of Statutory Knowledge

The *CAV Challenge* development relied heavily on analysis and innovation within the Minnesota procurement statutes. OSP looked at the *CAV Challenge* as an opportunity to adapt the procurement process, creating an effective way to acquire the new and emerging CAV technology.



“Every program has their unique challenges and the things that make them different from another program and you don't you want to limit the exceptions as much as you can because it's a lot to manage - it's a lot to remember. So we're always looking to see how we can work within our current statutory framework.”

—Rachel Dougherty, Enterprise Contracts Counsel, Minnesota Office of State Procurement

The key to this adaptation was identifying opportunities using knowledge of the [Minnesota's State Procurement Statutes](#), including a noteworthy component within the statutes for MnDOT's [best value procurement principles](#). These principles allow Minnesota to award a contract not only based on price but key factors such as technical proposal, supplier quality, and additional criteria as a justification to recommend contract award.

Minnesota statute requires the agency to clearly define what good or service will be awarded. OSP uses the same criteria as all other RFP procurements as for the *CAV Challenge*:

- Concept definition
- Alignment with stated Minnesota goals and priorities
- Work plan
- Risk assessment/strategy
- Experience
- Quality assurance/quality control

The difficulty with the *CAV Challenge* is the wide variety of new technologies in which MnDOT was interested. Following best value principles, the *CAV Challenge* RFP was advertised and opened for proposals indefinitely. Approximately every two months, there is a reviewing period of all proposals submitted, with the supplier community submitting standalone, independent solutions instead of responding to prescriptive requirements found in the traditional RFP. The solution-focused proposals provide a glimpse into the market's evolving options and allows MnDOT the autonomy to award the proposal with the most applicable use of technology.

The solutions proposed to MnDOT through the *CAV Challenge* respond to a set of goals, with the overall goal of MnDOT to be a national leader in CAV technology.

# Willingness to Innovate

Innovation in public procurement naturally presents obstacles due to procurement's often rigid and complex statutory restrictions. Though no easy undertaking, OSP has achieved a working model to allow for that innovation, starting with a willingness to listen and forge relationships. Early engagement to establish expectations and form a solution within regulations and statutes played a vital role.



“Agreeing with them doesn’t mean they are going to get what they want, but not saying no is key.”

—Rachel Dougherty, Enterprise Contracts Counsel, Minnesota Office of State Procurement

Innovation means getting away from tight prescriptive requirements and focusing on establishing broad goals to which suppliers can respond. Supplier communication advances the *CAV Challenge* by allowing suppliers opportunities to have direct conversations through pre-and-post proposal briefings. Pre-proposal discussions are essential for suppliers to understand the expectations and goals of the scope of work. In some cases, suppliers realize that this is not the service or product they can provide and opt not to submit a proposal, saving time for all parties. Post-proposal-briefs provide the opportunity for suppliers to understand from the stakeholders what they could improve upon. Suppliers can go back, improve their proposal, and resubmit, giving them another “bite at the apple.” It is worth noting that not one protest has been filed since the inception of the *CAV Challenge*.

Innovation benefits the state financially as well. At the time of publication, the *CAV Challenge* team estimates a current savings of \$30,000 per award based on the following:<sup>2</sup>

- Emerging technology projects using the traditional process typically take around 300-400 staff hours for RFP development and 12-24 months from conception to award.
- The challenge-based RFP allows the CAV team to solicit multiple emerging technology projects through one RFP, calling on subject matter experts as needed for specific proposals.
- The *CAV Challenge* reduces evaluation time per award.

Time reduction and savings on administrative costs are key factors to the success of the *CAV Challenge*.

Supplier engagement is a real benefit to the program. Suppliers are enthusiastic about providing solutions that are out of the box, and this procurement method allows more freedom to offer those solutions. It creates a deeper connection in which suppliers are more comfortable working with the state, which in turn creates a larger bidding pool. Through this method, suppliers who may have not done business with the state, have been exposed to the process and engaged in public procurement, in turn supporting the supplier community.

<sup>2</sup> Rachel Dougherty (2019) 2019 George Cronin Awards for Procurement Excellence - Innovation Begets Innovation. <https://www.naspo.org/wp-content/uploads/2020/07/MN-How-Challenge-Based-RFPs-Have-Been-a-Winning-Solution-for-MN-SUBMISSION.pdf>

# Challenge Your State with the Challenge-Based RFP!

If a state would like to incorporate some of the components that the *CAV Challenge* uses, Dougherty suggests the following factors to consider:

**When picking appropriate projects for a challenge-based RFP, states should consider projects with:**

- **A non-critical need for the state**
- **Proposal of broad goals**
- **Unknown, hard-to-define, and rapidly changing requirements**

The *CAV Challenge* highlights a successful application of innovation in the public sector. The importance of early interagency collaboration cannot be understated. This early interagency collaboration established the foundation on which the *CAV Challenge* was built. OSP and MnDOT leveraged best value procurement to acquire emerging technology while still meeting their legal requirements.

State procurement officials should be prepared to meet those demands by developing procedures to more appropriately evaluate and award emerging technology to achieve best value.



## QUESTIONS TO CONSIDER:

- **What elements of the Minnesota approach could your office incorporate into its RFP process?**
  - What goods or services are you currently managing that are prime for a challenge-based RFP?
- **When typically does the user agency contact central procurement?**
  - What processes can be updated in your office to encourage proactive communication with both user agencies and suppliers?
- **When was the last comprehensive review of your office's statutes?**
  - Did you identify any opportunities for innovation?
- **How do you receive supplier feedback?**
  - Can you leverage both pre-and-post proposal meetings to strengthen the relationship with suppliers?

The *CAV Challenge* highlights a successful application of innovation in the public sector. By MnDOT engaging OSP early, they laid the groundwork for a solution focused team. OSP leveraged its statutory depth and breadth to identify a previously unused procurement methodology in the state of Minnesota to produce an award-winning solution, recognized on the national stage.