

NCOE PEER EXCHANGE | Autonomous Vehicles

The Iowa DOT recognizes that autonomous technologies are going to continually change the way transportation agencies do business as well the cultural landscape for the next several decades. The increase in safety and mobility these technologies will bring about will have enormous benefits for the state of Iowa. We need to take a proactive approach to preparing for increasing levels of vehicle automation. However, figuring out the role a transportation agency should take is difficult as we are not the ones directly developing the technologies.

The Iowa DOT has partnered with two state universities and HERE of North America to develop a variety of reliable and clean data streams that will be open to entities to create an AV-ready driving environment that could ultimately deliver a safer, more reliable and efficient transportation system. The data infrastructure we are building will first focus on assisting drivers to be able to operate more effectively and gradually move to facilitate highly automated driving as it becomes available.

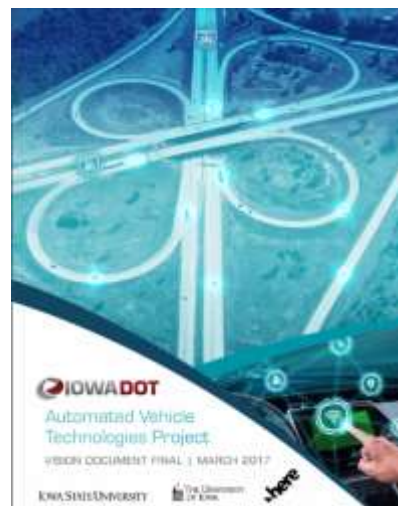
Communications Planning

Communicating about creation of a data structure is a challenge. There is not a lot concrete that people can physically see. What they can see are communication and warning systems that are still in development and aren't near as sexy as the "self-driving car" scenario that media and the public want to automatically jump to. As a department we have had a struggle internally on how we should communicate. We understand the power AV has to change the transportation world as we know it however there is nothing concrete to show.

Our focus has been getting internal audiences to understand the move to AV and considerations it will have for how we do business. We have done very little to encourage external communication at this time.

Organizational Integration

- Monthly AV Project updates help key staff see the progression of the project
- Meetings and all communication use consistent sets of terms that are important to Iowa
 - AV vs AV/CV, data infrastructure, advanced vehicle technologies
- Involvement of key groups to help develop and disseminate key project documents. (Executive Management, Traffic and Systems Operations, Traffic Safety, Communications)
- Consistently working with key groups to discuss how these technologies will impact roadway design, right of way needs, traffic operations, traffic safety considerations, etc...



- Consistently working with partners to develop systems to help the department visualize and utilize data
- Tying AV concepts as a part of TSMO

Communications Implementation

- Announced designation of I-380 corridor as AV proving ground by U.S. DOT
- Media inquiries pushed to universities to demonstrate use of data through systems they are developing
 - Support media inquiries to explain why it's important for the Iowa DOT to be involved – increased safety and mobility
- Continually push message that AV will be a gradual transition
- State Fair booth introduced AV technologies (using the term driver assisted technologies) already implemented in cars and used an interactive poll to gauge attitudes toward these technologies.

SAMPLE STATE FAIR QUIZ QUESTIONS

What are you most excited about of the car of the future?

- More standard safety features included in all models
- Less chance for human error = safer roads
- You don't have to own a vehicle – you can receive rides on demand
- My car taking me wherever I want to go and I don't have to drive
- Not sure but the possibilities are exciting

What is the biggest benefit that driver assisted technology provides?

- Less crashes/fatalities
- Reduce traffic back-ups
- Protection against other drivers' poor driving choices
- The benefits are countless
- Something else

What future transportation technologies would you embrace?

- Driverless vehicles
- Digital driver's license or ID card
- Vehicle-provided traffic and road condition alerts
- All of them – the possibilities are exciting!

What driver assisted technology would you like on your next car?

- Automatic parallel parking
- Automatic emergency braking
- Blind spot monitoring
- All of them – You can't be too safe!
- Something else