FHWA continues to conduct exploratory research to understand the impacts of automated vehicle technologies on the nation’s roadway system:

- Technical research on connected Level 1 automation applications (e.g. cooperative adaptive cruise control)
- Case studies of Connected-Automation on Urban Freeways (in partnership with CV-PFS)
- Eco-Approach/Eco-Departure (in partnership with CAMP)
- Exploratory research on truck platooning applications
- Evaluating the transportation planning process and policies for automated vehicles
Potential Implications on Roadway Infrastructure and Related Policies and Programs

**Physical Infrastructure**
- Unclear infrastructure requirements for AVs (signs, signals, markings)
- Possible need for adaptations to design standards, greater consistency
- Implications for maintenance and investment

**Roadway Operations**
- Short-term challenges of managing a mixed traffic environment (AVs, CVs, non-AVs, C/AVs)
- New challenges in harmonising traffic flow
- Potential travel demand changes
- Potential long-term efficiency, congestion benefits

**Digital Infrastructure**
- AVs as new sources of roadway data
- Data updates on construction and road closures
- Maintenance of digital infrastructure
Potential Implications on Roadway Infrastructure and Related Policies and Programs

- Accounting for AVs and potential land use impacts and uncertainty in long range planning process
- Implications of shared vehicle fleets and new mobility models on travel demand modeling/forecasting
- Revenue and budget implications

FHWA’s Role in an Automated Vehicle Future

How do automated vehicles impact FHWA’s areas of responsibility and programs?

How can FHWA support integration of automated vehicles onto the nation’s roadways?

How can FHWA support the needs of its stakeholders, including State and local DOTs, planning agencies, and road users?

FHWA Automated Vehicle Vision Initiative

GOALS:
- Develop a cohesive vision on automated vehicles (AV) that addresses FHWA’s role in road infrastructure and its supporting programs
- Conduct education and outreach on AVs for FHWA staff and its stakeholders
- Explore anticipated technology deployment and adoption scenarios for AVs to inform FHWA program plans and research needs
**FHWA Automated Vehicle Vision Development**

**VISION WILL:**

• Address FHWA's role in road infrastructure and the standards, funding mechanisms and programs that support the nation's roadways

• Complement the NHTSA Federal Automated Vehicles Policy

• Communicate the role of FHWA regarding automated vehicles across the agency and to its stakeholders

• Reflect collaborative input from internal and external stakeholders

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**Related U.S. DOT Activities**


• The policy statement and accompanying fact sheets are available at [www.transportation.gov/AV](http://www.transportation.gov/AV)

• FHWA Automated Vehicle Vision shall complement and be conducted in coordination with other modal agencies

• Resources on Connected Vehicles: [https://www.its.dot.gov/v2i/](https://www.its.dot.gov/v2i/)

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