



# State of Illinois Connected and Automated Vehicles (CAVs)

## Overview: Vision and Working Group Efforts

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**Vision Statement:** Where We Want to Be in the Next 5-10 Years

Illinois will foster a safe, innovative environment for the seamless deployment of connected and automated transportation technologies.

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### Rationale

Evolving CAV technologies are being deployed in passenger and commercial vehicles on our roads today. While debate remains on how rapidly this technology may advance and how quickly it may be accessible to the majority of consumers and businesses, Illinois must act now to prepare a safe environment for these emerging technologies.

State agencies have direct accountability for the following roles related to automated vehicles:

- Regulate vehicle licensing and registration.
- Establish and enforce traffic laws.
- Maintain and improve state roads, bridges and toll roads.
- Oversee and regulate vehicle insurance and liability policies.
- Provide economic opportunities for businesses, entrepreneurs and residents.
- Provide information technology and telecommunication services for state agencies.
- Coordinate with federal, state and local public agencies as well as academia and the private sector.

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### Examples of Achieved Vision in Practice

- Passenger and commercial vehicles with various degrees of automated capacity can travel safely throughout the state, side by side with non-automated vehicles.
  - State infrastructure and agencies provide amenities needed by CAVs – clear lane striping; work zone and other mapping information; emergency notifications; secure platforms

for data exchange; and connected vehicle-to-vehicle and vehicle-to-infrastructure communications.

- Law enforcement are educated and prepared to interact with CAVs and their “drivers.”
- Fatalities and serious injuries decrease as dangerous driver behavior and associated risks are mitigated.
- CAV technology companies proactively come to Illinois to develop, test and bring their products to market due to the supportive regulatory environment and active promotion of Illinois’ world-class ecosystem for connected and automated vehicles.
  - Private entities and academia have a clear process to follow with the state for testing emerging CAV technologies safely on public roads.
  - Tech firms and automotive companies large and small have an equal playing field to develop new technologies and innovate in this space.
  - Existing public, private and academic resources in transportation, distribution and logistics are leveraged to foster this environment.
- Changing workforce needs from the deployment of these technologies are anticipated and prepared for with technical training programs and related needs.
  - If the automated ridesharing sector grows, for example, training programs are preparing displaced workers for their next careers.
  - More firms in the CAV and tech space are encouraged to locate in Illinois because of the state’s trained workforce and desirable quality of life for residents.
- Illinois operates and delivers services more effectively and efficiently through the utilization of CAV technologies.
  - Transit agencies partner with automated ridesharing companies to solve first- and last-mile challenges, helping grow ridership.
  - The state’s vehicle fleet includes more CAVs, allowing state employees to travel more safely and productively.
- Goods travel more efficiently and safely through Illinois due to the proactive deployment of CAV technologies in commercial vehicles, allowing the state to maintain its economic advantage as the hub of the North American freight network.

- A cohesive regulatory environment allows automated vehicles to travel into and out of the state seamlessly thanks to coordination at federal, state and local levels of government.
  - Illinois will actively promote policies that make sense at the federal level, while collaborating with other states to avoid a patchwork regulatory environment.

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## Autonomous Illinois Initiative Agency Collaboration

State agencies must work together and coordinate with other relevant entities, to accomplish this vision. These agencies include:

- Illinois Department of Transportation
- Illinois State Police
- Illinois Department of Innovation and Technology
- Illinois Department of Insurance
- Illinois Department of Commerce and Economic Opportunity
- Illinois State Toll Highway Authority

The Autonomous Illinois Initiative has been established to accomplish this vision. Each agency plays a unique role in this space, and coordination will be paramount. These agencies have been meeting since 2017 and have initiated work in the following areas:

- **Monitor Federal and State Legislative Activities:** The federal government plays an important role in setting vehicle safety performance standards, which includes automated technologies. Congress also has the ability to set federal standards for self-driving cars, including industry regulations and reducing obstacles for the safe testing and development of CAVs. It is important to monitor federal activities, as they can pre-empt state laws and policies. The federal focus is likely to be on safety, testing and development of this technology. Regulations regarding registration, licensing, insurance and traffic laws will remain at the state level. Federal funding may also become available to pursue initiatives at the state level – these opportunities should be monitored on an on-going basis. Additionally, it is expected that CAV legislation will be reintroduced at the state level next year and beyond. This activity will include the evaluation of proposed legislation.
- **Create a Safe Regulatory Environment:** There are many components to ensuring Illinois establishes the appropriate regulatory environment for safe deployment of CAVs on state

and local roads that encourages innovation. This area is broken into five individual projects: evaluating best practices from other states and municipalities; inventorying existing regulations and laws; developing a testing framework; developing a platooning framework; and developing and implementing new regulatory and statutory changes/proposals as needed for full testing and deployment.

- **External Partner Engagement:** There are a range of other partners – private, public and academic – who should be engaged in implementing this vision. This can be done on two tracks – informal engagement, as well as (potentially) via a task force.
- **Education:** There are various levels of education that will be important to this effort – from educating the interagency working group, to future education of relevant partners on new regulations and policies at the state and federal level. Externally oriented education, both on the state’s efforts and on CAVs in general, should also be considered.

These areas will continue to be a focus for state agencies.

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## Additional Projects

Additional projects have been identified to help the state meet its CAV vision for the next five to 10 years. The Autonomous Illinois Initiative will prioritize and initiate these various efforts based on input from industry, local government, academic and other CAV stakeholders.

- **Carving out a Freight Niche:** It is important that Illinois maintains its competitive advantage in the national freight network and build on its strengths relevant to the CAV space. This project will look at how Illinois can carve out a freight niche and sustain its position as the freight hub of North America.
- **Anticipating Insurance Implications:** This project will explore the insurance implications of the promulgation of CAVs and evaluate what role the state needs to play in preparing for these changing dynamics.
- **Addressing Physical and Technological Challenges to Deployment:** Proper upkeep and maintenance of existing physical infrastructure will be essential, especially in the early stages of CAV testing and deployment. Additionally, proper digital infrastructure will continue to grow in importance. This project will explore the state’s physical and technological infrastructure challenges to the safe deployment of CAVs.
- **Preparing for a Changing Workforce:** Emerging CAV technologies are expected to affect a variety of fields, including insurance, environment, logistics, land-use planning, public

transit and more. As a result, demands on the workforce will change as well. This project will look to identify ways to proactively prepare for this workforce transition.

- **Attracting New Companies and Facilitating Innovation:** It is critical for the State to continue to attract new companies and provide a welcoming business environment to the wide-range of entities innovating in this space. In addition to identifying new avenues for growth, this project will look to leverage ongoing initiatives related to the Smart State and Digital Economy to assist with these efforts.

