



► **GET INVOLVED** To learn more about partnering or how to take advantage of the expertise of the Wisconsin Automated Vehicle Proving Grounds partners and our world-class facilities, please contact Peter Rafferty, (608) 890-1218, Contact@WiscAV.org.



MADISON, WISCONSIN



WISCONSIN AUTOMATED VEHICLE PROVING GROUNDS

WiscAV.org

► OUR PARTNERS



College of Engineering
UNIVERSITY OF WISCONSIN-MADISON

City of Madison

Epic Systems

GTiMA

Mandli Communications

MGA Research Corp.

Road America

UW-Madison Transportation Services

Self-driving cars and other automated vehicles are reshaping not only the auto industry, but also safety and mobility worldwide.

As a U.S. Department of Transportation designated AV Proving Grounds, Wisconsin intends to remain at the forefront of these transformative technologies, and the R&D we do contributes to revolutionizing how the world uses transportation.

Our aim is to safely and rapidly advance automated vehicle development and deployment by providing a full suite of test environments, coupled with research, open data, and stakeholder communication.

With expertise in areas including vehicle systems, robotics, hardware and software, and infrastructure, UW-Madison engineering researchers are nationally and internationally recognized leaders in this emerging field. In addition, the Wisconsin Proving Grounds is a natural choice for this R&D because of its existing infrastructure, which enables us to work with you to study and test a vast array of automated technologies.

► **OUR CAPABILITIES** Our team includes existing test track owners and industry partners. We bring diverse technical expertise in evaluation and assessment, mechanical engineering, electrical engineering, systems engineering, computer science, big data, sensing systems, simulation, and modeling. Our proving grounds stands alone in its ability to assess all of NHTSA's 15-point safety assessment, including crash testing, human interfaces, and cybersecurity. Local partners such as Mandli Communications contribute expertise in data collection equipment such as LiDAR and geospatial data collection.

CAPABILITIES INCLUDE:

 **Data and sensing**—including LIDAR, GPS, cameras, communications, and other sensors.

 **Vehicle operations**—including speed, acceleration and deceleration, performance on grades and curves, and electric vehicle range and charging time.

 **Inclement weather operations**—including snow, ice, fog, and high winds.

 **Human-machine interfaces**—such as sensors, communications, and responses.

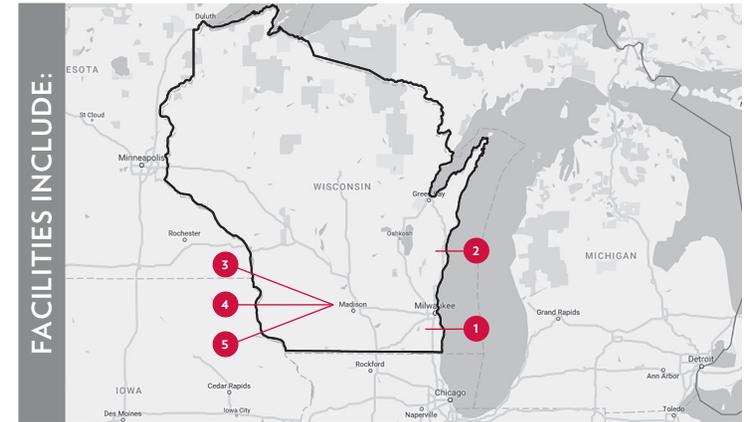
 **Interaction with surroundings**—including pedestrians, bicycles, mopeds, cars, and traffic control devices.

 **User acceptance**—Passenger comfort, public perception, safety, and ethics.

 **System resilience**—Advancing standards, safety protocols, and security.

 **Shared mobility**—Automated vehicle microtransit developments, enhancements, and testing.

► **OUR FACILITIES** Together, our partners offer a unique suite of public and private proving grounds, providing access to unparalleled simulated, closed-course and real-world testing environments that provide a competitive edge. UW-Madison engineering researchers manage and oversee all aspects of the AV proving grounds work, as well as provide research, development and data stewardship.



 **1 MGA Research**—a 400-acre private closed-loop automotive proving grounds that is located outside of Milwaukee in Burlington, Wisconsin.

- Closed Track
- Crash Testing
- Durability
- Low Speed
- Safety
- Transit

 **2 Road America**—a challenging 4-mile, 14-turn road circuit, and a combination paved-dirt track, off-road track, access roads, located an hour north of Milwaukee on 640 acres of parklike grounds.

- Freight
- Interactions
- Long Distance
- Mobility
- Transit
- Variable Speeds

 **3 The University of Wisconsin-Madison campus**—located downtown in Madison, the UW-Madison campus streets offer a real-world testing location.

- Campus
- Human Factors
- Low Speed
- Safety
- Transit

 **4 Epic Systems**—the private campus of the Midwest's largest private employer. Epic Systems is located just southwest of Madison in Verona, Wisconsin.

- Campus
- Durability
- Low Speed
- Safety
- Transit

 **5 City of Madison**—Madison is the state of Wisconsin's second-largest city and, as such, offers real-world urban traffic situations.

- Durability
- Low Speed
- Mobility
- Public Roads
- Safety
- Transit