

JANUARY 28, 2022

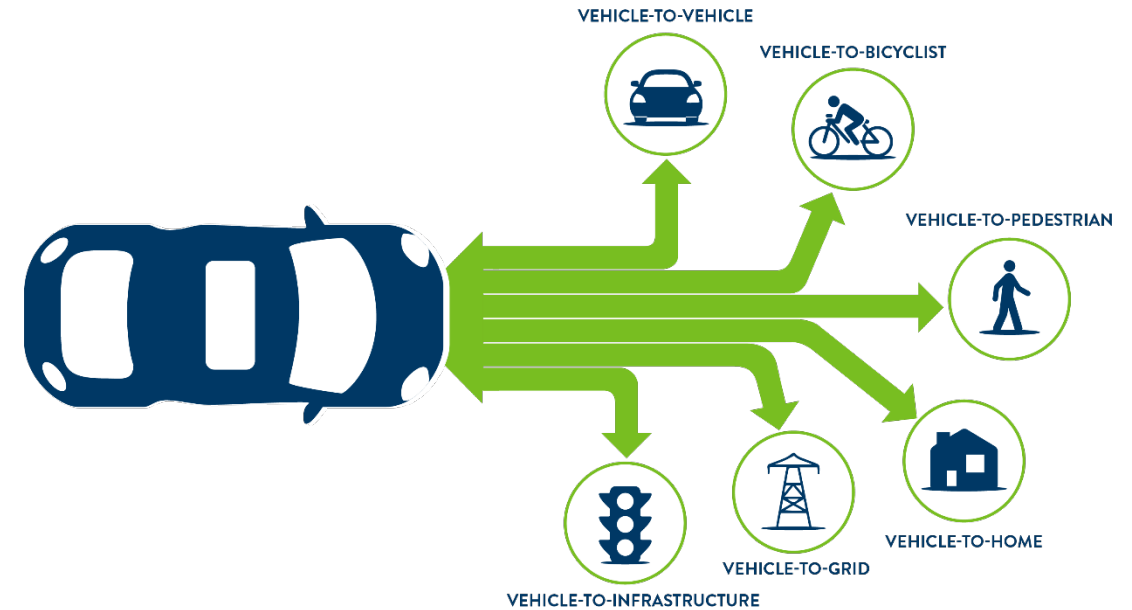
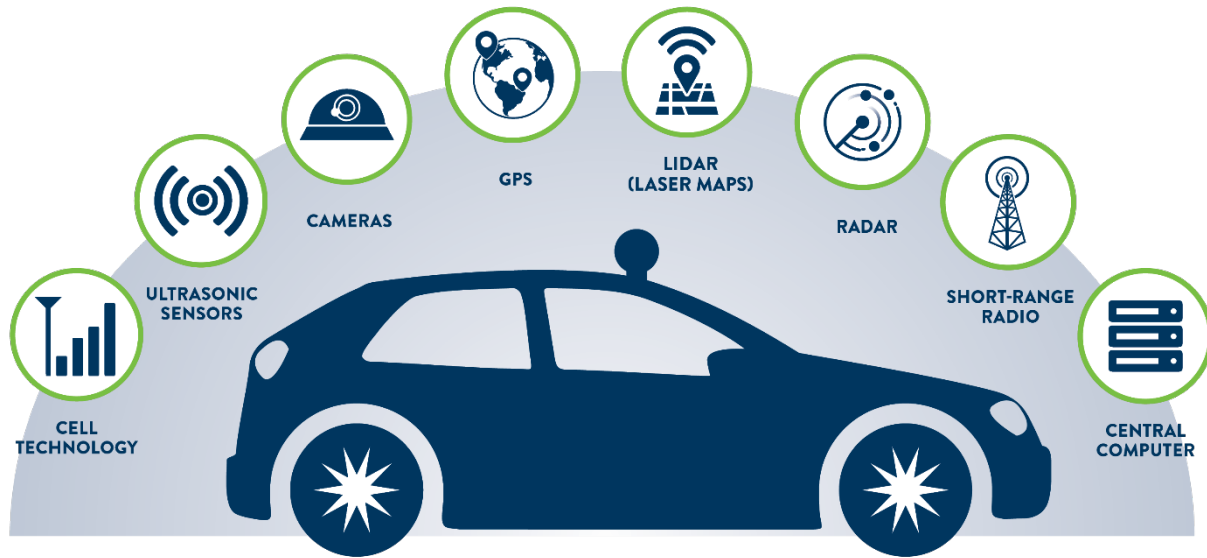
# PREPARING TODAY FOR TOMORROW'S TRANSPORTATION SYSTEM

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CITY ENGINEERS ASSOCIATION OF  
MINNESOTA ANNUAL CONFERENCE



# AUTOMATED VS. CONNECTED VEHICLES



# LEVELS OF AUTOMATION

← REQUIRES A HUMAN DRIVER

SELF-DRIVING →



LEVEL 0

LEVEL 1

LEVEL 2

LEVEL 3

LEVEL 4

LEVEL 5

No Automation  
Human operates everything

Driver Assist  
Cars can handle 1 task at a time, like braking  
Ford Jeep Compass

Partial Automation  
2+ automated features  
Tesla "Autopilot"

Conditional Automation  
"Dynamic driving tasks" with human monitoring  
Audi A8

High Automation  
Driverless in certain areas at certain speeds  
Easy Mile Shuttle

Full Automation  
No human driver



# ARE THEY LEGAL IN MN?

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MS 169.0 11 Subd. 24. **Driver.** Every person, who drives or is in **actual physical control** of a motor vehicle.

MS 169.0 11 Subd. 54. **Person.** Every natural person, **firm, copartnership, association, or corporation.**

# HOW WILL CAV IMPACT SOCIETY?

INFRASTRUCTURE

CYBER  
SECURITY &  
DATA PRIVACY

PLANNING  
AND  
LAND USE

SAFETY

ACCESSIBILITY

INSURANCE &  
LIABILITY

EQUITY &  
MOBILITY

VEHICLE  
REGISTRATION,  
LICENSING AND  
TRAINING

JOBS &  
ECONOMY

TRAFFIC LAWS,  
SPEEDING &  
RULES OF THE  
ROAD

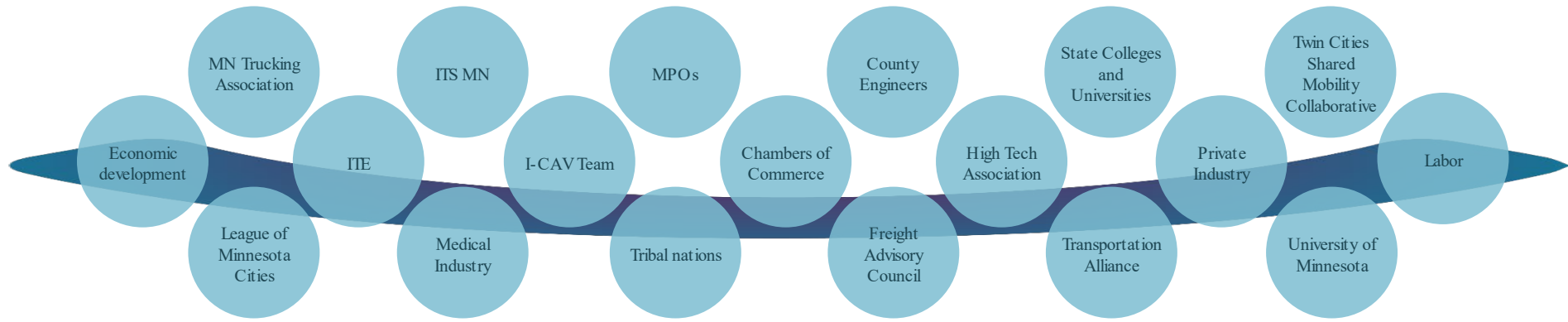


# STATEWIDE COORDINATION



GOV ADVISORY COUNCIL  
&  
INTERAGENCY CAV TEAM

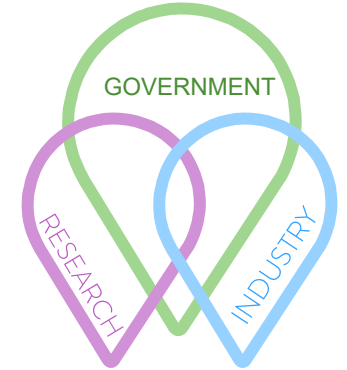
STATEWIDE  
INNOVATION  
ALLIANCE



COMMITTEES



# INNOVATION ALLIANCE



Safety



Labor &  
Workforce  
Development



Connectivity  
& Data



Infrastructure  
Investment



Education &  
Outreach

# INDUSTRY PARTNERSHIPS

MINNESOTA CAV CHALLENGE





# PROJECTS

State Fair Demo



CAV Camp



Snowplow Lane-Keeping Assist



Automated Truck Mounted Attenuator



Automated Vehicles:  
What Should  
Agencies Expect



Twin Cities Startup Week



Smart Snelling  
Connected  
Vehicle  
App



Rochester AV Shuttle  
Project



# CAV MESSAGING AND ENGAGEMENT GUIDANCE

- Terminology
- Experience and exposure
- Connected
- Perceptions differ





# WHAT WE KNOW

- CAV is new, CAV is different, CAV is here
- We want Minnesotans to have a say in how we plan for the future
- Public agencies need to collaborate with communities, private companies and many other stakeholders
- If we don't get involved now, private industry and the markets will determine our future

# THANK YOU

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