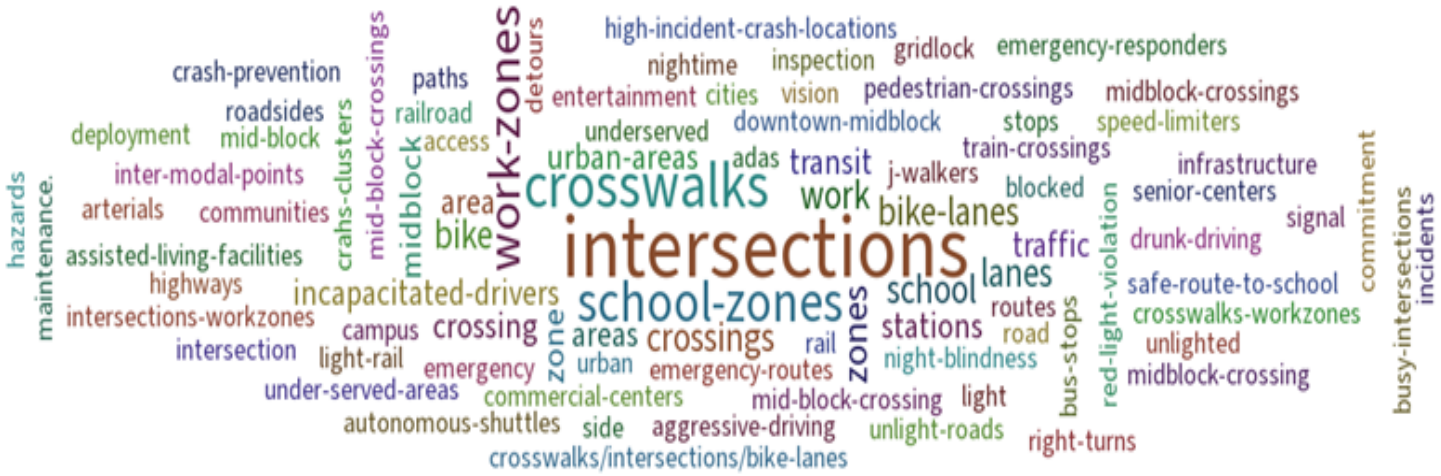
Maryland CAV Working Group

Virtual Workshop – Enhancing Safety for Vulnerable Road Users (VRUs) with CAV Tech

June 5, 2023

Responses to Discussion Poll

Question #1: What are the most important use cases for vulnerable road users in MD where CAV technology could be considered as a tool to enhance safety?

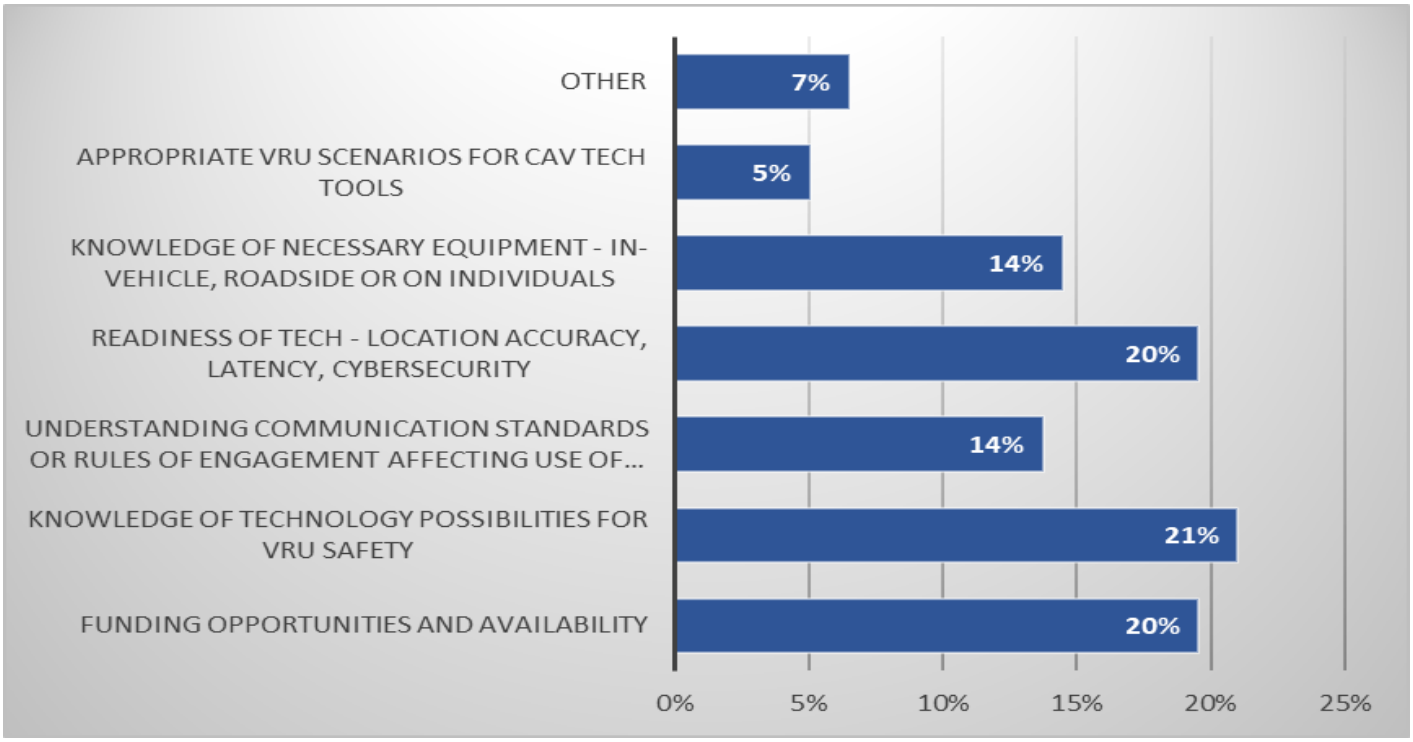


Question #2: What CAV technology could be tested and/or deployed for these types of use cases?

Automatic braking	Data-interoperability	Smart-Video
Audible-warning	Waze-google-maps	UWB
BSM	C-V2X	Safe-Sensor-Fusion
AEB	Lidar	automated-ped/bike-detection
smart/speed cameras	TIM-emergency responders	V2X
lidar	V2X	TIM
automated speed limiting	v2x	V2X
Waze	Waze	RLVW
driver error failsafe	v2x	

Question #3: How should we capture stakeholder input from VRUs – especially those outside the vehicle like pedestrians, bicyclists, emergency responders, work zone workers – to help understand their needs?

Question #4: What barriers exist at MDOT / at local governments / with industry to test or deploy CAV technology for enhancing VRU safety? (*other comments below***)**



- Time – so many things going on in local govt. Time is a very limiting factor.
- Need to make this a priority. Sell to upper management and elected officials. Highlight funding - needs to be allocated in a dedicated line item.
- Procurement is difficult for local agencies. Can do sole source. Typically not friendly for pilot projects. Needs to be streamlined.
- stakeholder collaboration still has silos.
- Development funding for longer range ultra-wideband and FCC waivers for power restriction for infrastructure anchors.
- Important to assess effectiveness of car based pedestrian detection and avoidance. The market penetration of these systems is rising rapidly. If this approach is good, infrastructure-based systems may not be necessary in some cases.
- Liability risks if the tech does not work as envisioned.
- ability of an agency to do a pilot project given lack of staff time, difficulty in procuring innovative equipment/services

Question #5: What can the CAV Workgroup do to support the development of CAV tech for VRUs?

Encourage collaboration among agency

Community-Outreach

Consider Data overload/user fatigue in warning sensitivity

Vehicle-Technology-Standardization

Identify high risk areas

Guidelines

Define-metrics

Education / outreach

Work with MDOT and localities to for pilot projects

Pilot-Procurement

Reevaluate-job-specifications

Solicit feedback from the public and industry.

Podcast

Guidance

Legal-Frameworks

Address-speeding

provide-public-transportation-options-to-rural-area-commuters

identify-demonstration-projects

Provide one-stop-shop website info on VRUs (knowledge, tools, funding sources, etc.)

purchasing

Vendor-Day

Safety benefits (qualitative data)

Data-Discovery

projects

Resource-base

Training

Assign-responsibility

Address speeding and its high impacts on VRUs

Workforce-training-resources

Streamline-procurement

Share best practices and innovations!

identify demonstration projects

procurement support / Streamline-Procurement

Central clearinghouse

Honest-lessons-learned/so-we-don't-repeat-mistakes

Facilitation

Liability-protection

Surveys

Vendor-Introductions

government outreach

collaboration

review-traffic-laws

Research

Projects

Regulation

automate calibration of micropositioning sensors

develop a dynamic data fusion system that fuses sensor data.

identify universal, plain-language for the various technologies that is consumer-friendly and can/should be used by all stakeholders.

meet the needs of equipped vehicles

parse through data to recognize events that are actually significant