Connected Safety
Birds of a Feather Working Group

Kick-off Meeting
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Hosted by:

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Today’s Agenda

• Introductions
• BoF Overview
• Q&A / Discussion
• Next Steps
**Connected Safety BoaF Goal & Strategies**

*Bring together public safety, automotive, commercial transportation, and government to make our roadways safer for everyone:*

- Define comprehensive stakeholder-based safety-related scenarios and value propositions
- Collaborate with COVESA members and others safety-related organizations to develop safety expertise and community within COVESA
- Develop integrated safety system prototypes and references implementations
- Publish white papers on key findings, best practices, and implementation recommendations
Accelerate delivery of connected technologies to benefit everyone that shares, protects, and maintains our roadways. Examples:

- Protect and give aid to vulnerable vehicles and occupants stranded along roadways
- Reduce response time and secondary collision risk for motorists involved in a crash
- Provide 911 Public Safety organizations with critical information so that they dispatch the right personnel and equipment to the scene
- Mitigate liability and lost productivity for commercial vehicles involved in roadway crashes
Connected Safety BoaF Approach

- Use storytelling (Journey Maps) to clarify end-user need and value created under specific scenarios
- Once represented end-user stories are captured, define end-to-end scope of connected safety-related solutions
- Define the technical interfaces and business models between eco-system members, leveraging other COVESA, industry experts, and industry standards where appropriate
- Develop and demonstrate solutions that can be packaged for the market
Sophia is a 24-year-old professional that is commuting to work in her new EV.

A tanker truck abruptly changes lanes, collides into Sophia's car, and forces the driver of a rental car to swerve into a nearby lake. The embedded vehicular emergency sensor triggers the submersion escape system in the rental car and instantaneous IP notification for emergency services in all vehicles.¹

- Automated submersion system enables rental car occupants to escape quickly.
- Instantaneous IP notification enables accurate and prompt implementation of rescue services and start of emergency response.

Recognizing that a collision has occurred, all three vehicles automatically flash hazard and other vehicle lights at a faster rate so that other drivers have more time to react, and Emergency Responders can see them.¹

- Conspicuous lighting protects scene, gives other motorists time to slow down and move over, and helps locate vehicles that has left the roadway.
- Digital alerts work in tandem with lighting alerts to protect the scene and give motorists time to slow down and move over.

In parallel, on-coming drivers receive an alert in their in-dash system so that they have even more time to react to the upcoming crash scene.

- Timely notification of vulnerable vehicle location reduces response time and further collision risk.

The nearby E911 center is notified and dispatches a police car, fire truck, and ambulance to the scene.

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¹ Separate Journey Maps can be used to capture the stories for the tanker truck and rental car occupants since they unlock different solutions and value propositions. The following scenes will focus on Sophia.
### Scene 5
- Imagery: The E911 Dispatcher sees that the tanker truck has leaked potentially hazardous materials onto the road.
- Storyline: The overall story that we’re bringing to life.
- Value Proposition: LiDAR/radar/camera 3D point cloud lets the E911 Dispatcher assess the scene and inform emergency & incident responders what to expect.
- **LiDAR/radar/camera 3D point cloud**: Let’s 911 Dispatcher assess scene and better inform emergency & incident responders what to expect.
- **Point Cloud image**: Protects privacy since no identifying information is visible.

### Scene 6
- Imagery: Fire responders are provided a VIN-specific extrication guide for Sophia’s EV.
- Storyline: Overall story that we’re bringing to life.
- Value Proposition: Emergency Responders can safely extract victims without compromising the vehicle’s power wiring or battery system that may lead to fire or hazardous materials being spilled into the environment.
- **Emergency Responders can safely extract victims without compromising the vehicle’s power wiring or battery system that may lead to fire or hazardous materials being spilled into the environment.**

### Scene 7
- Imagery: Sophia see a map indicating her location with icons for the responding vehicle location and their projected ETA.
- Storyline: Overall story that we’re bringing to life.
- Value Proposition: Piece of mind that someone is on their way and when they will arrive.
- **Piece of mind that someone is on their way and when they will arrive.**

### Scene 8
- Imagery: Responders arrive on scene and safely remove Sophia from her vehicle.
- Storyline: Overall story that we’re bringing to life.
- Value Proposition: Reduced response time decreases risk of secondary collision.
- **Reduced response time decreases risk of secondary collision.**

### Scene 9
- Imagery: Sophia seems OK but is taken to the hospital for further medical evaluation.
- Storyline: Overall story that we’re bringing to life.
- Value Proposition: Sophia is safe and can focus on recovery.
- **Sophia is safe and can focus on recovery.**
- **Sophia’s family knows that she’s OK and where to meet her.**
- **Proper on-scene care minimizes complications.**

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Questions & Discussion

• Does this make sense?
• What else should we do?
• What should we avoid?
• Others?
Next Steps

• Solicit volunteers to draft new Journey Map scenarios for:
  • 911 Public Safety
  • Commercial Fleet Vehicular Emergency (driver & fleet)
  • Submerged Vehicle
  • Driver Health Event
  • Rental Car Stolen Vehicle Public Safety Awareness
  • Driverless Robotaxi Public Safety Awareness
  • Others…

• Reconvene January 2024 to review ideas and align on initial solutions

• Define end-to-end scope of connected safety-related solutions