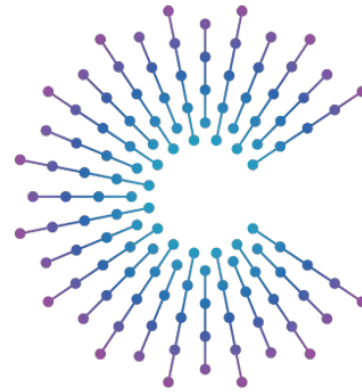


Connected Safety Birds of a Feather Working Group

Kick-off Meeting
December 6, 2023



COVESA

Accelerating the future of connected vehicles

Hosted by:



Tim VanGoethem

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Today's Agenda

- Introductions
- BoF Overview
- Q&A / Discussion
- Next Steps

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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

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Connected Safety BoaF Result

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

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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

Journey Map Example (1 of 2)

Imagery

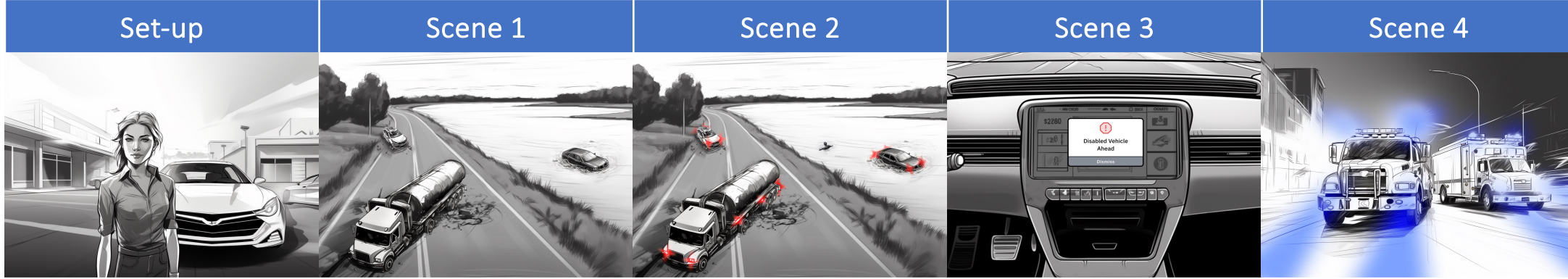
Cartoons, animated presentations, or demonstrations that bring storyline to life

Storyline

Overall story that we're bringing to life

Value Proposition

The value that each company and technology brings to this story



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

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.

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.

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

- 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.

- 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.

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

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.

Journey Map Example (1 of 2)



Imagery
Cartoons, animated presentations, or demonstrations that bring storyline to life

Storyline
Overall story that we're bringing to life

Value Proposition
The value that each company and technology brings to this story

The E911 Dispatcher sees that the tanker truck has leaked potentially hazardous materials onto the road.

Fire responders are provided a VIN-specific extrication guide for Sophia's EV.

Sophia sees a map indicating her location with icons for the responding vehicle location and their projected ETA.

Responders arrive on scene and safely remove Sophia from her vehicle.

Sophia seems OK but is taken to the hospital for further medical evaluation.

- LiDAR/radar/camera 3D point cloud lets E911 Dispatcher assess scene and better inform emergency & incident responders what to expect
- Point Cloud image protects privacy since no identifying information is visible.

- 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 environment.

- Piece of mind that someone is on their way and when they will arrive.
- Awareness that a loved one is in danger, but help is on the way.

- Reduced response time decreases risk of secondary collision.
- Proper on-scene care minimizes complications.

- Sophia is safe and can focus on recovery.
- Sophia's family knows that she's OK and where to meet her.

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Questions & Discussion

- Does this make sense?
- What else should we do?
- What should we avoid?
- Others?

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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