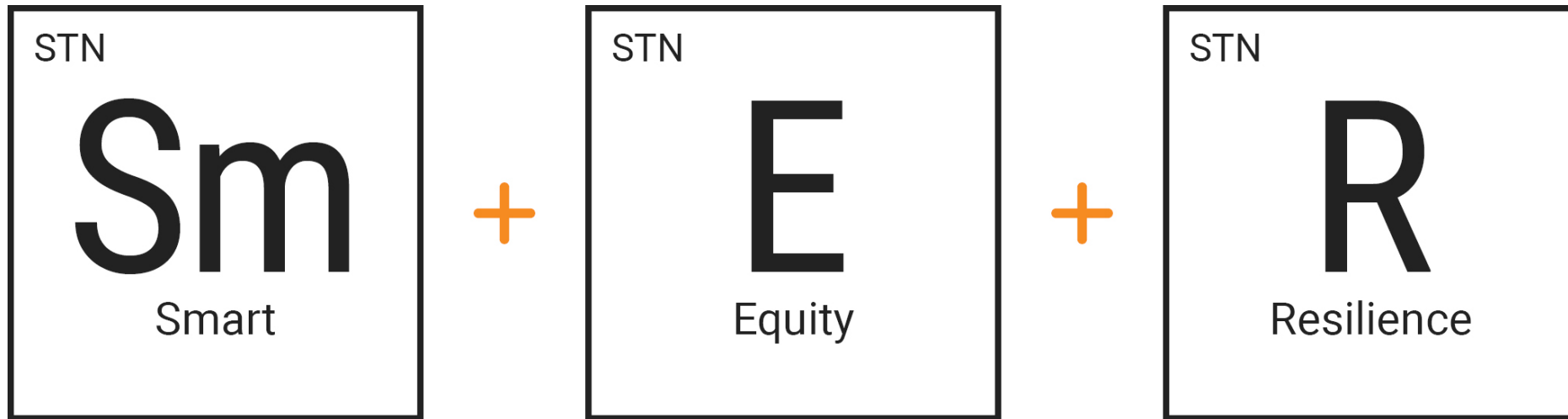


Maryland Connected and Automated
Vehicles Working Group

Risk, Liability, and
Insurance – What is
the right approach?





Smart(ER) Mobility

Issues Identified

- Connected vs. Autonomous
- Use cases
- Level of automation
- Operational domain
- Fleet vs. Individual
- Product liability

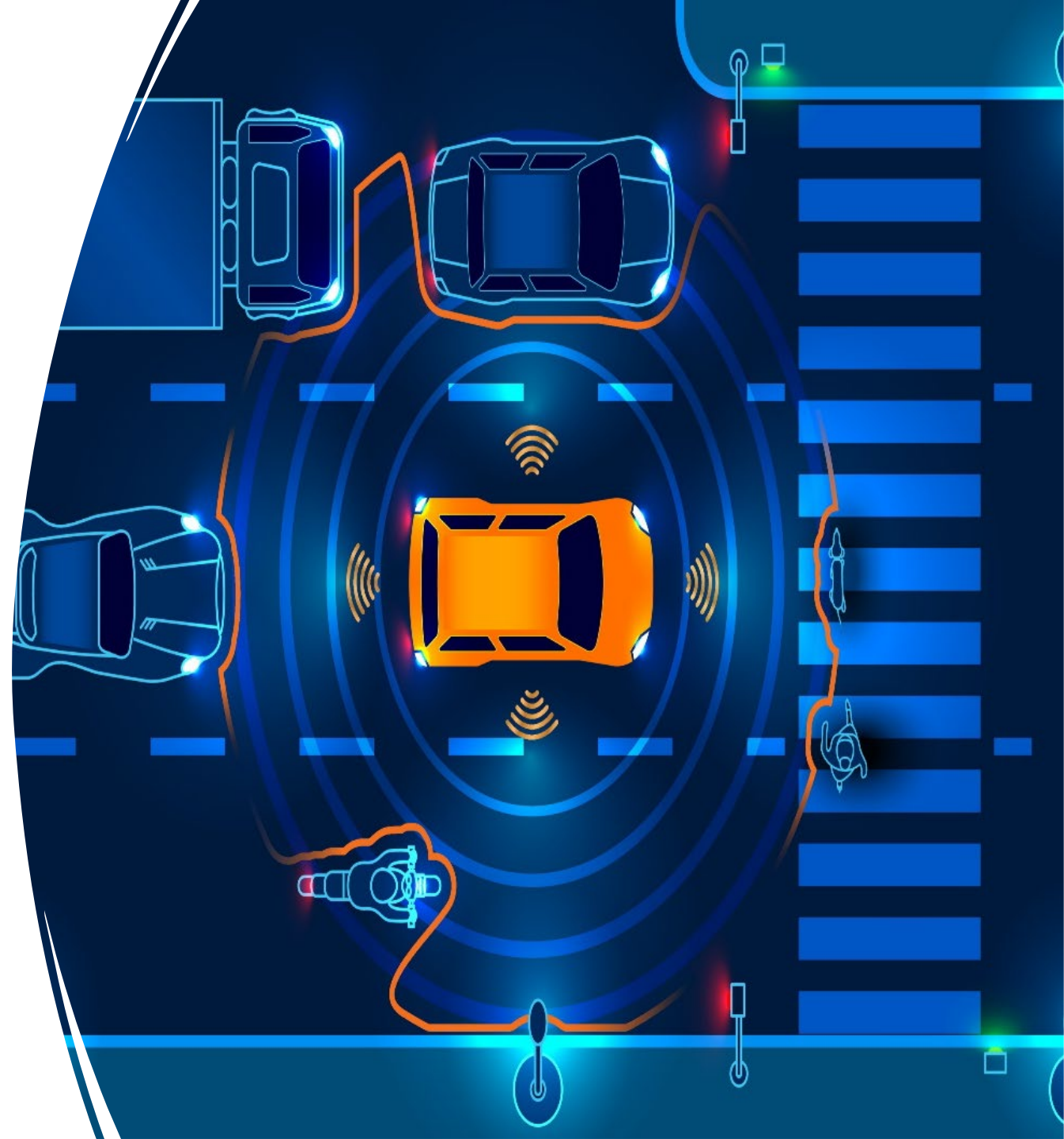


Approach to Analysis Example

1	Liability and Mitigation Assessment Matrix										
2											
3	Category	Landside or Airside?	Mobility or Operation?	Identified Use Case	Level of Automation	Anticipated Operational Characteristics	Liability Considerations	Liability Mitigation Opportunities	Liability Assessment	Insurance Considerations	Potential Applicable Jurisdictions
8	Goods movement (External to airside warehouse)	Airside and Landside	Mobility	Autonomous cargo and goods movement tractor trailer (i.e. Amazon or FedEx)	Levels 3-5	Mapped route; potential transponders at key geographic locations; critically restricted areas, controlled/uncontrolled areas, secured areas; remote monitoring	<ul style="list-style-type: none"> *Workers on ground *Anticipated low-speed operations *Aircraft moving to and from gate, but minimal given location of operations *Ground equipment *Close proximity to aircraft, but owned by operator *Aircraft engine ingestion/exhaust plumes *Vehicle size and weight *Day vs. Night Operations *Weather 	<ul style="list-style-type: none"> *Verify wireless communications not interfering with aircraft navigation *Low-speed operations *Minimize nearby fueling trucks *Additional airside worker training focused on interaction with autonomous vehicles *Safety operational verifications from operator 		Given size of vehicles and operational nature of airport, including cost of equipment and planes, higher insurance requirements than human operated vehicles recommended for time being. However, this use case warrants discussions with operators since potential damages would be to operator's own equipment. There is still liability for airport safety and operations of other carriers, but ability to limit geographic footprint of routes may create less liability.	TCAA, airport operations and NAVCanada, air traffic control
9	Airport maintenance operations (after hours)	Airside	Mobility	Autonomous security and inspection	Levels 4-5	Primarily fixed route with lane markings and geofencing; potential transponders at key geographic locations; remote monitoring	<ul style="list-style-type: none"> *Workers on ground *Anticipated low-speed operations *Potential rebalancing of aircraft, but minimal given location of operations *Day vs. Night Operations 	<ul style="list-style-type: none"> *Low-speed operations *Additional airside worker training focused on interaction with autonomous vehicles *Safety operational verifications from operator 		Consider higher insurance requirements for initial testing and operations which can be lowered upon demonstration of safe operation based on incident assessment, if any	TCAA, airport operations

Takeaways

- Like deployment, short-term has most grey areas
- Data sharing standard needed for crash investigations and determination of liability
- Application of immunities for DOTs and public agencies not certain
- Chance for new insurance products that share risk and promote innovation
- Industry wide education continues to be important opportunity



Food for Thought

What makes CAVs different from an insurance perspective?

How does the integration of CAVs impact contractual relationships?

What pushback can be expected if more liability placed on companies seeking to deploy?

What level of risk are DOTs comfortable with? Is “none” reasonable?

How to approach and mitigate risks and liabilities that CAVs present?



Resources:

- [20-4 Coordinating State Policies, Laws and Regulations for Automated Driving Systems Across New England](#)
- <https://www.rand.org/topics/autonomous-vehicles.html>
- <https://cdlresources.org/>





Greg Rodriguez

Mobility Policy Principal, Stantec

Greg.Rodriguez@stantec.com
