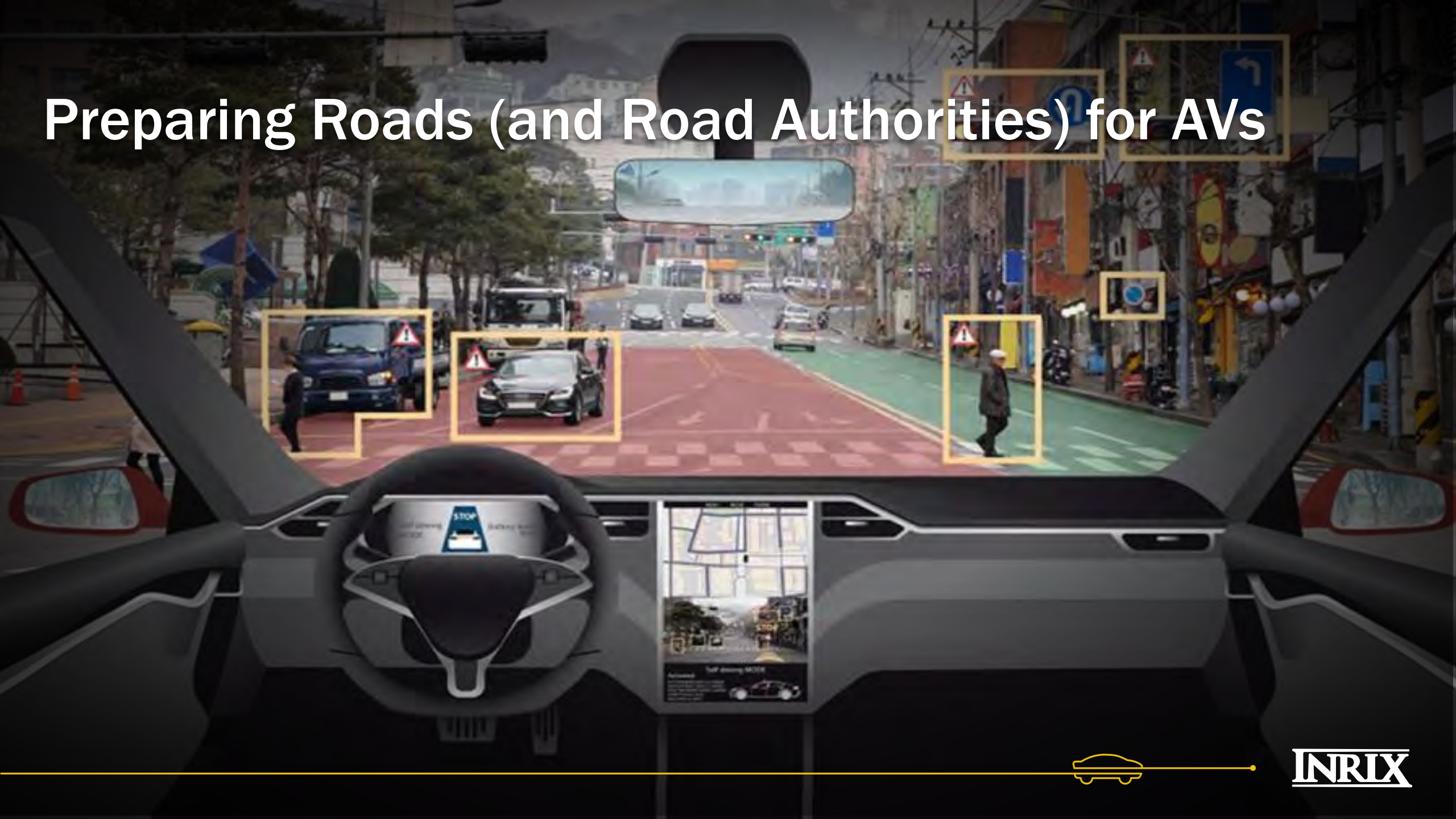
Preparing Roads (and Road Authorities) for AVs



INRIX

3
31
7
15
32
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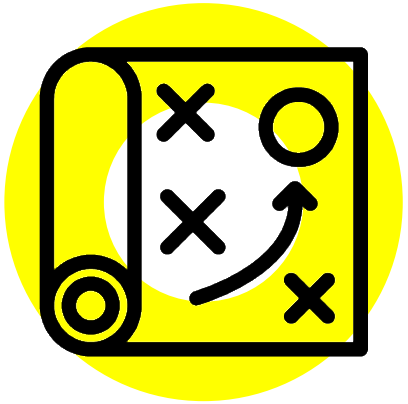
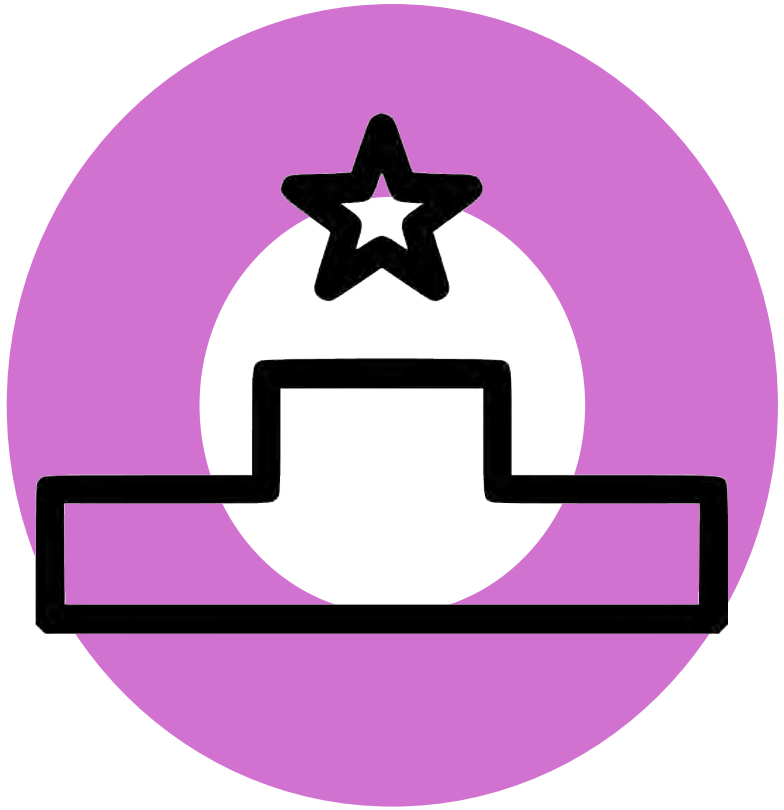
Big Questions from the Public Sector



HOW DO I PREPARE FOR AVs?

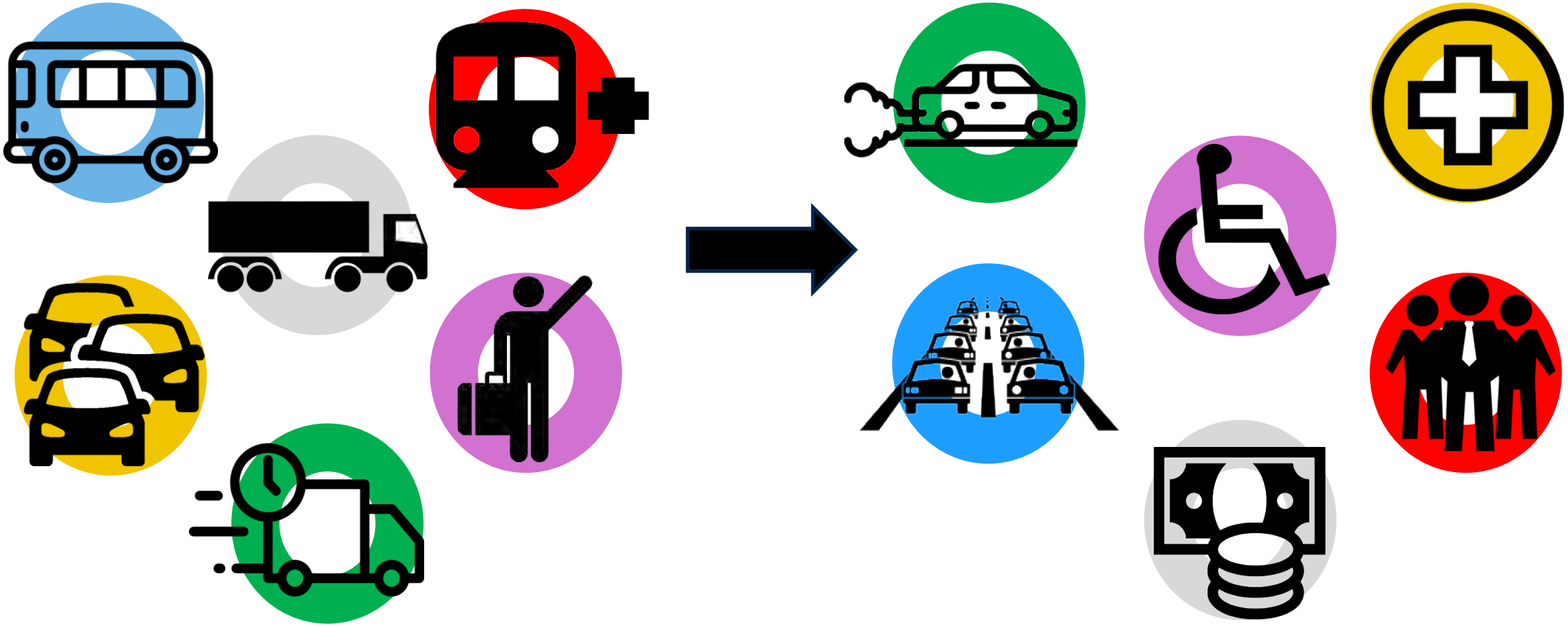
HOW DO I INTERACT WITH AVs?

Reframing the Challenge

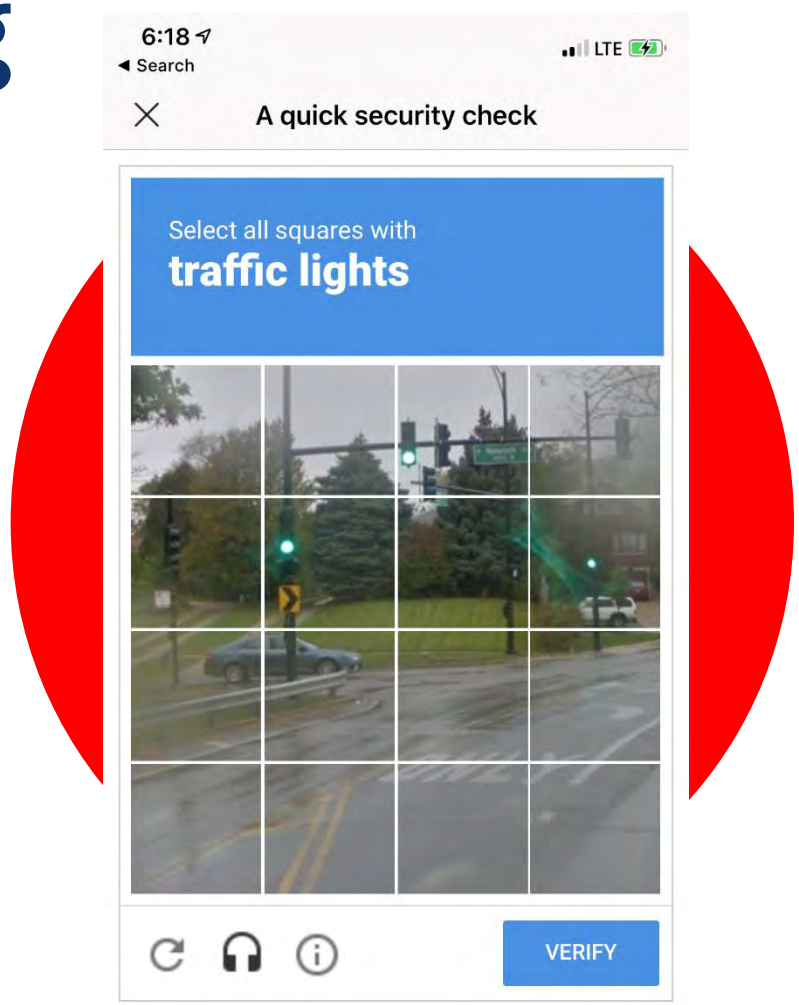


VS.

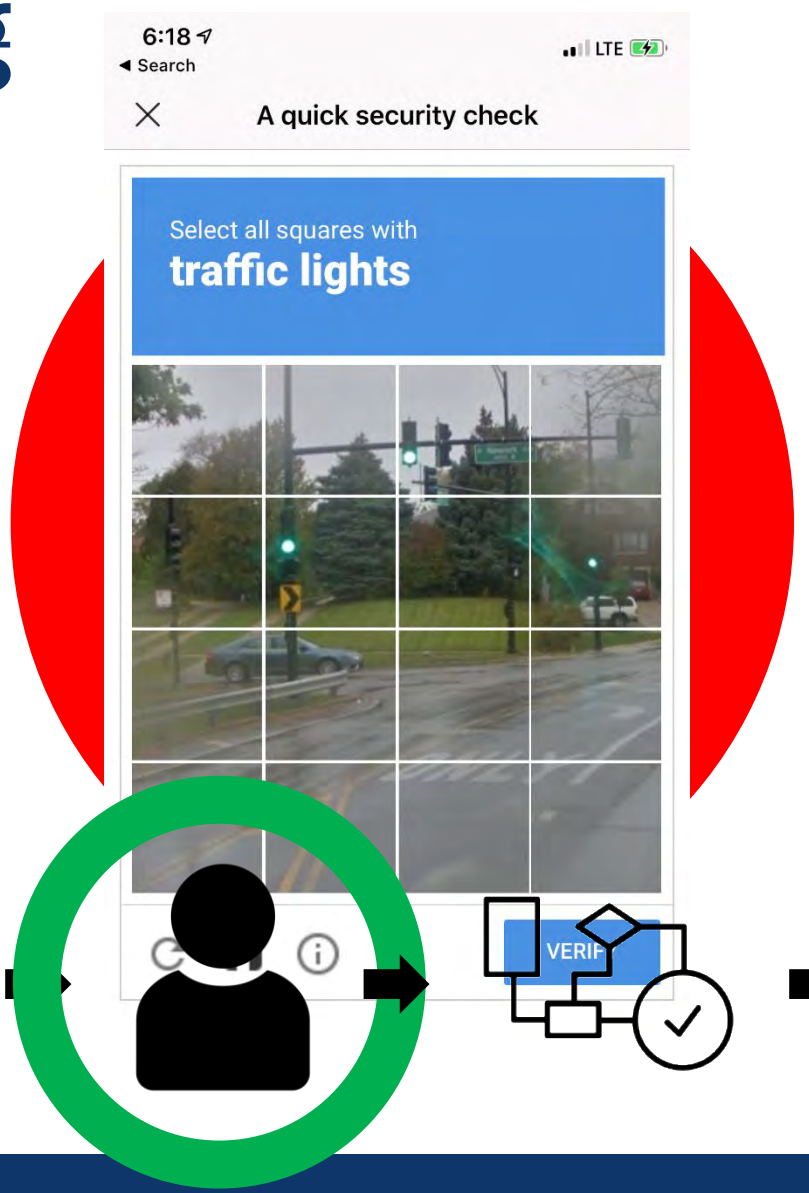
Matching Use Cases to Goals



Machine Learning

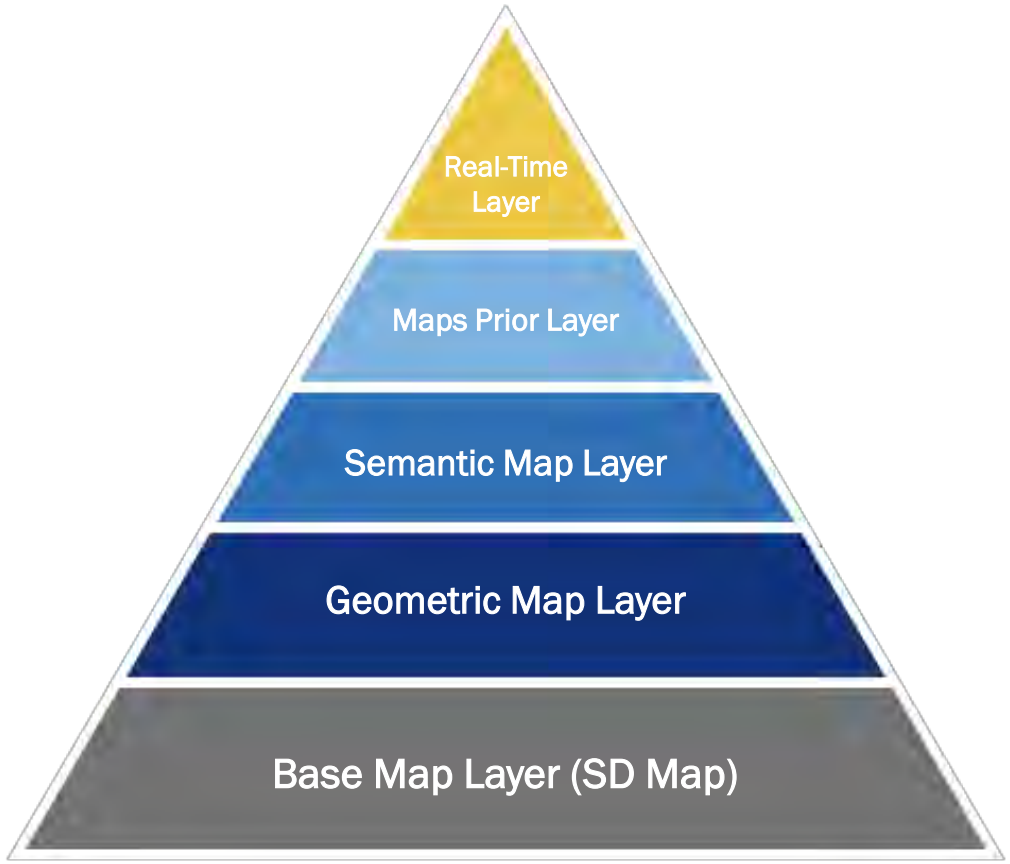


~~Machine Learning~~
Human Training



AVs Require HD Maps With a Variety of Data Layers

Mapping & self-driving companies have been creating HD maps but some serious gaps exist



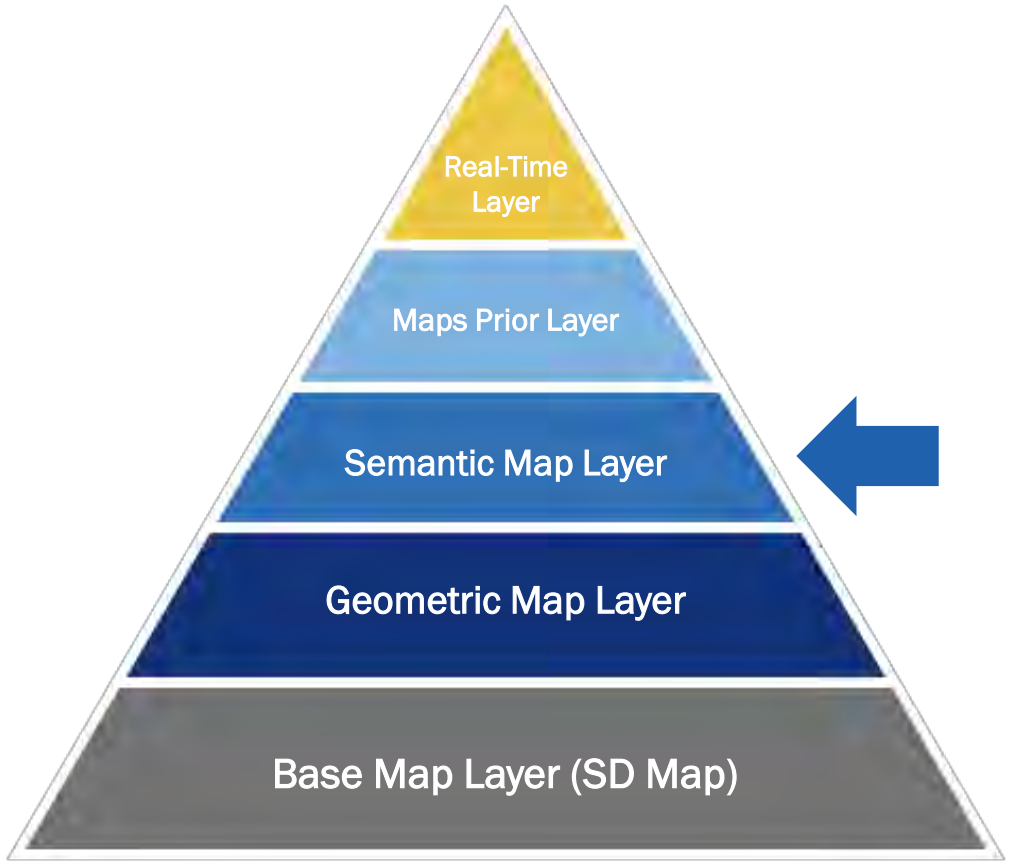
Level 5 HAVs Rely on Multiple Map Layers

Current Issues Facing AVs & HD Maps:

- HD maps built using computer vision, sensor fusion, machine learning and 3rd party data sets
- Increasingly good at precise localization, recording and predicting behavior
- Not good at establishing ground-truth understanding of local traffic rules and allowable maneuvers set by public sector
- Current data sets are established on confidence interval and corrected manually
- Regulators increasingly requiring operators to outline how they account for and comply with local traffic rules

INRIX is Focused on the Semantic Layer, A Critical Map Component

Current HD maps have struggled to establish this data but INRIX is bridging the data gap

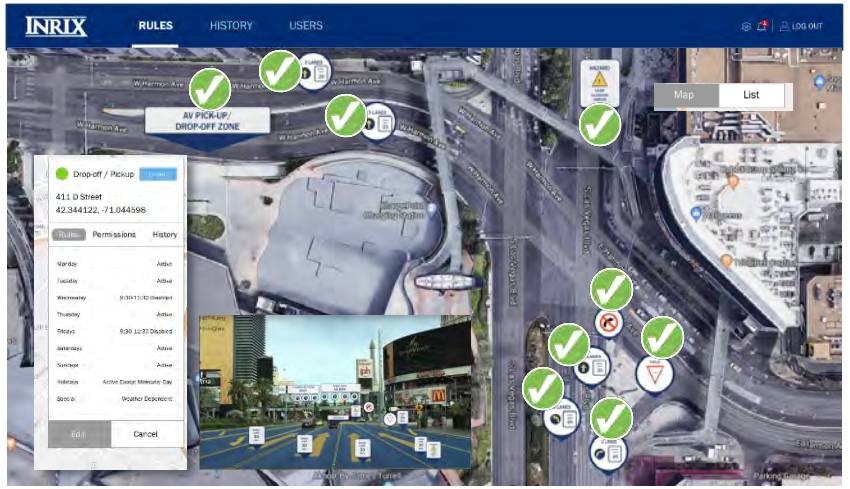


INRIX is working with the public sector to improve the semantic map layer:

INRIX AV Road Rules:
A Platform To Remove The Guess Work

INRIX provides a platform to bridge the data gap between HAV operators and road authorities

INRIX Provides A Base Layer With Confidence Intervals



Road Authorities Can Verify & Approve Data With Ease

Rules included at launch:

Stop Sign
Road type
Crosswalk
Yield
Speed limit
Traffic signal
School Zone
One-way
Road closure
Turn Restriction
Lane closure
Lane count
Merge lanes/fork lanes
Bike lane present
HAV access
HAV/TNC pickup/drop-off
HOV access
Bus access
Bus stop
Height/length restrictions
Weight restrictions

Information shared to road authority:

Pothole
Worn lane striping
Inadequate signage

Win-Win Solution

Cities/Road Authorities

- Provides cities/agencies with necessary tool to preserve role of establishing and communicating rules or the road
- Immediate action to prepare for and support safe operation of HAVs
- Addresses key consumer concerns about safe HAV operation
- Makes jurisdiction more attractive market for testing/deployment of HAVs
- Provides new data stream re: road health and infrastructure needs

HAV Operators

- Fills existing data gap for validated, ground-truth traffic rules and restrictions
- Answers questions posed by regulators of how HAVs will understand local rules
- Demonstrates HAV operator commitment to safe operation in accordance with local rules
- Provides valuable action cities/agencies can take to prepare for HAVs
- Promotes HAVs as improving road safety and quality for all road users

INRIX AV Road Rules Status

may mobility

JAGUAR

LAND ROVER

nuTonomy

APTIV

RENOVO

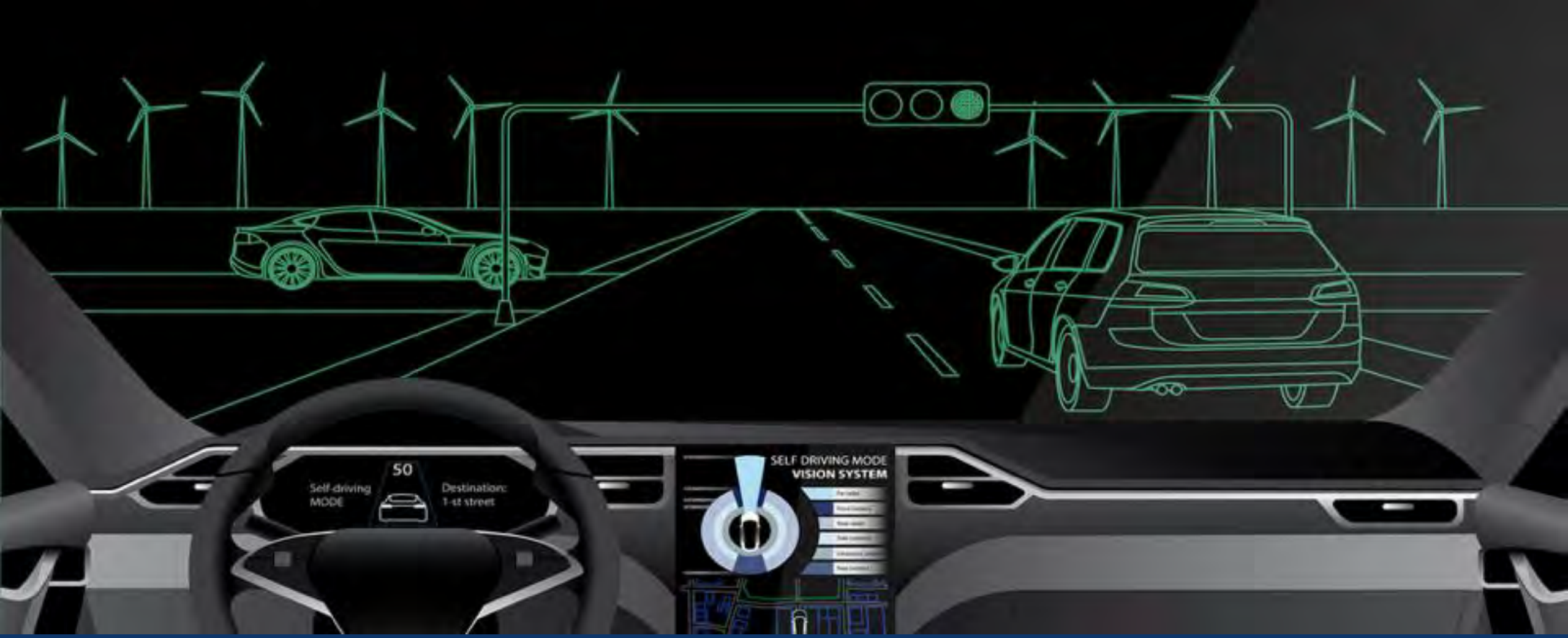
INRIX

Education

Lawmakers, Consumers and Industry

PAVE

PARTNERS FOR AUTOMATED VEHICLE EDUCATION



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