Projected Impacts of Connected and Automated Vehicle (CAV) Technology

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Statewide Planning Partner Meeting

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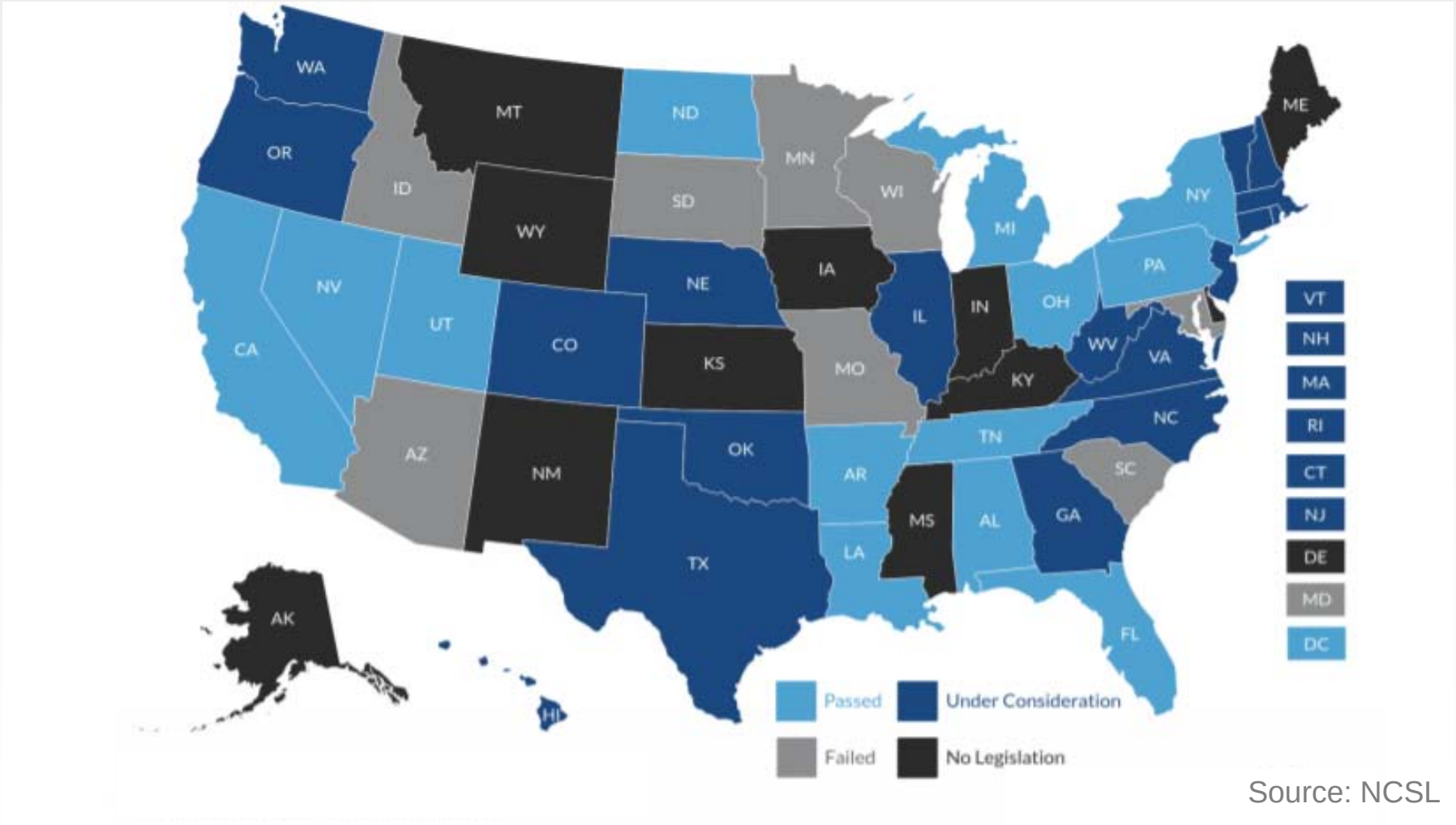
Status of CAV legislation, 2017



Source: NCSL

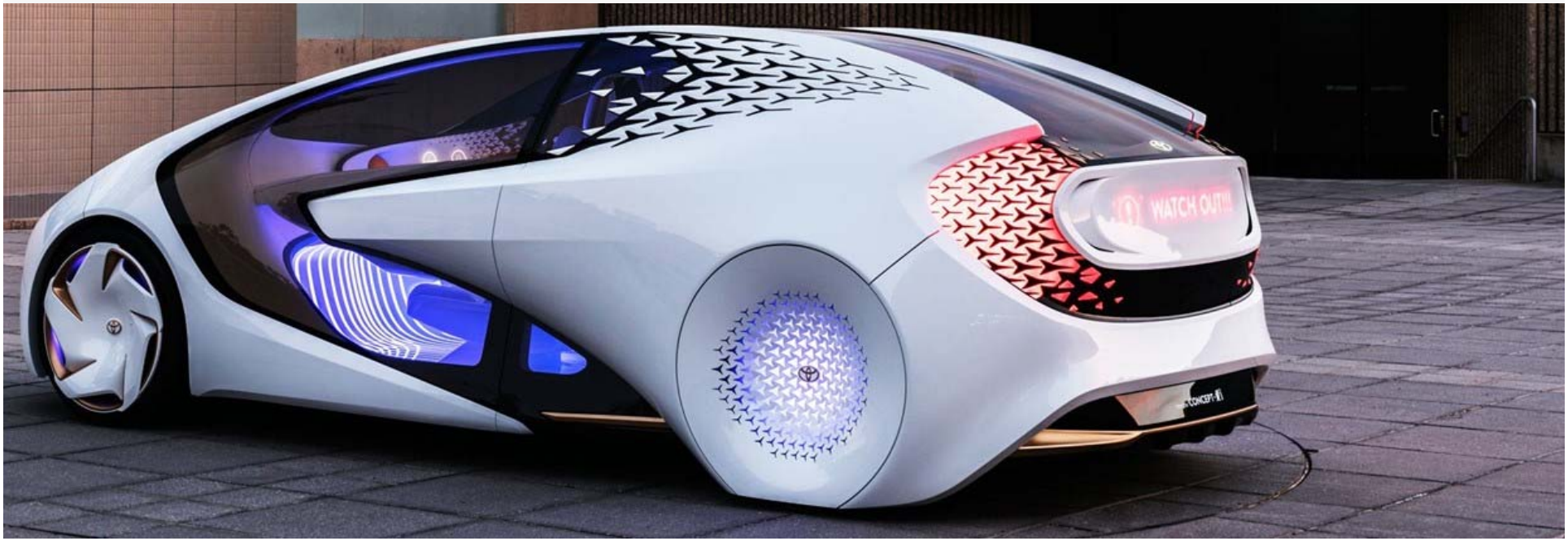
Defined Levels of Autonomy

- **National Highway Traffic Safety Administration (NHTSA)**
  - Level 0 – Standard automobile with no CAV features
  - Level 1 – Driver Assistance
  - Level 2 – Partial Automation (available today)
  - Level 3 – Conditional Automation (available 2023 – 2028)
  - Level 4 – High Automation (available 2023 – 2028)
  - Level 5 – Full Automation (available by 2030)

Market forecasts by Burns and McDonnell, 2017

Market Readiness Varies by Manufacturer and Price Point

- Tesla: 2018
- Ford, Toyota, Hyundai, and Nissan: 2020
- General Motors, Chrysler, BMW, and Volvo: 2021
- Kia: 2030



Workshop Results

- **Would you accept a longer commute in a CAV?**
  - 43% -- Yes, up to 15 minutes longer
  - 25% -- Yes, up to 5 minutes longer
  - 23% -- No
  - 10% -- Yes, up to 30 minutes longer

- **Would you ride in a CAV at highway speeds?**
  - 78% -- Yes
  - 22% -- No

Workshop Results

- **Would you allow your child to ride in a CAV?**
  - 54% -- Yes, at a low speed
  - 29% -- Yes, at both low and high speeds
  - 10% -- No
  - 7% -- Yes, at a high speed

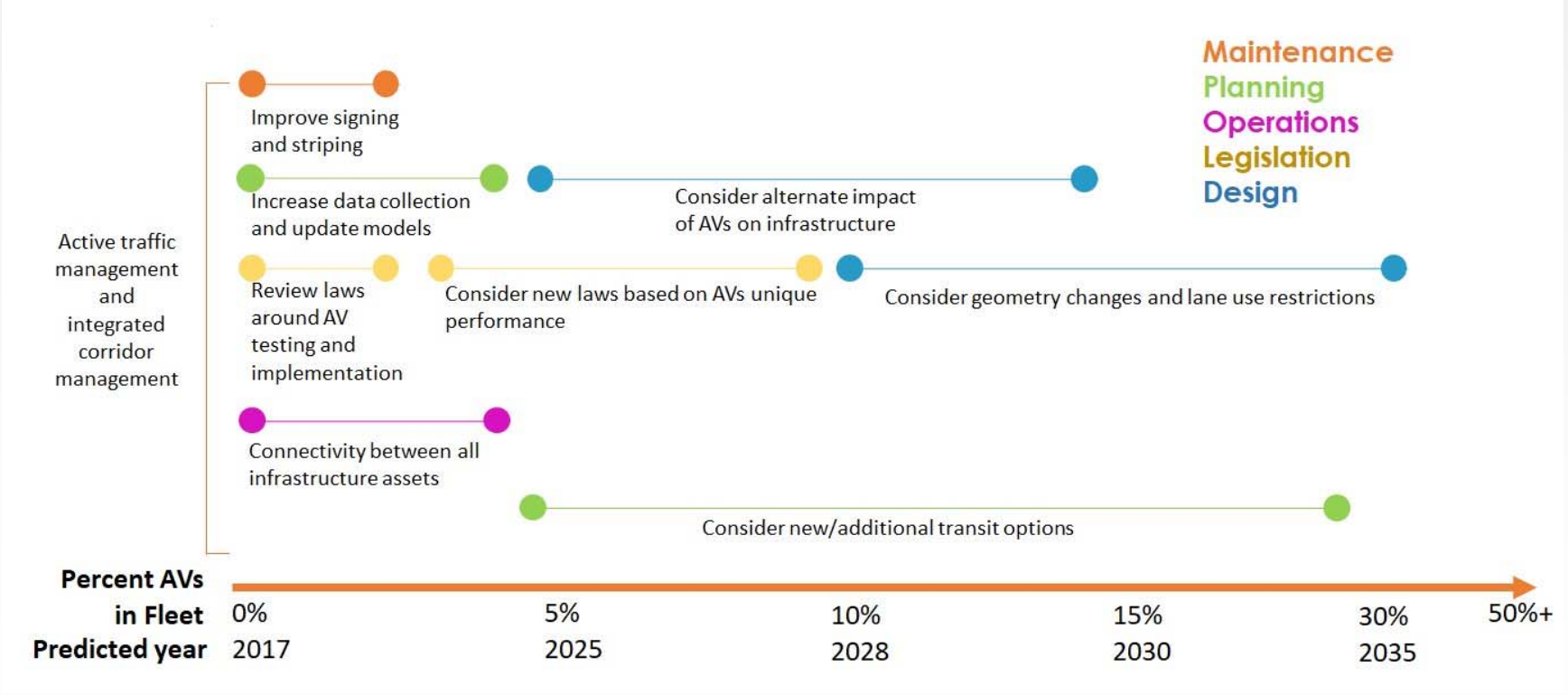
- **Would you ride in a CAV traveling less than 30 MPH?**
  - 95% -- Yes
  - 5% -- No

Workshop Results

- **Which aspect of CAV will yield the most benefit?**
  - 85% -- Safety
  - 12% -- Convenience and mobility
  - 3% -- Land use opportunities

- **Would you share a CAV through network companies?**
  - 55% -- Yes
  - 45% -- No

Scenario Planning is Ongoing Nationally



Scenario Planning is Ongoing Nationally

- Legislation will be required to address role of personal and fleet owners, insurance requirements, other factors
- Impacts upon highway capacity unknown
- MoDOT may also be impacted through changing demands upon urban operations and diminished revenue sources (motor vehicle sales, fuel, driver's licenses, other fees)

Workshop Results

- **Which is the biggest obstacle to CAV use?**