

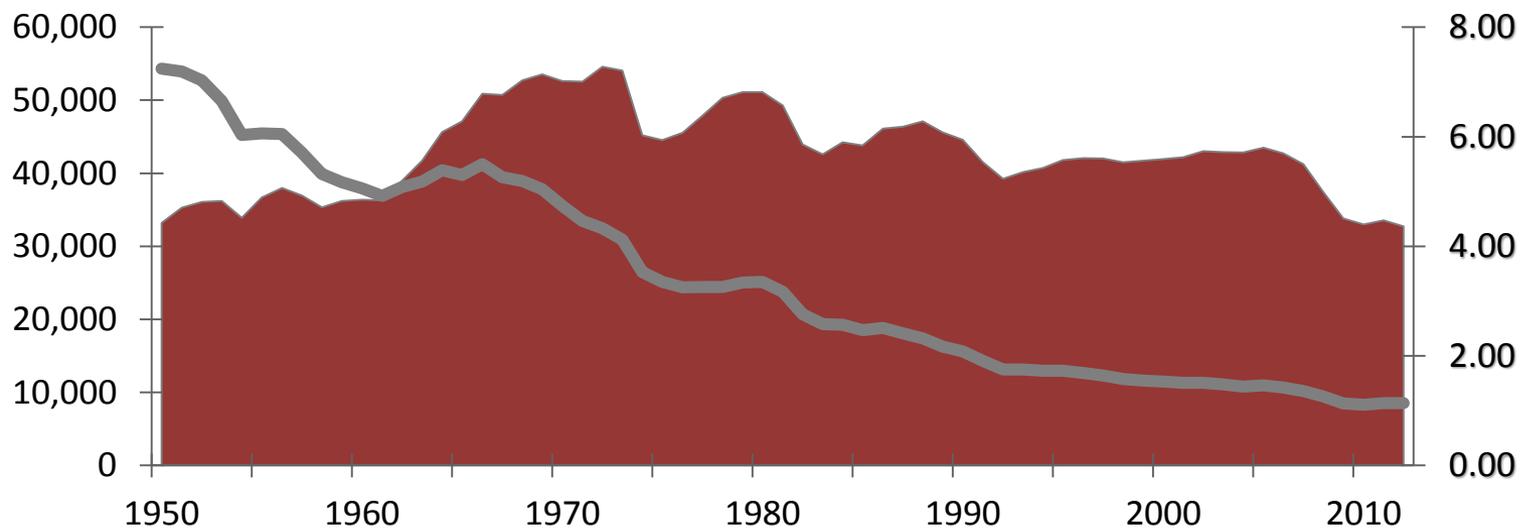
Federal Automated Vehicles Policy

Accelerating the Next
Revolution in Roadway
Safety



Safety Opportunity for Automated Vehicles

- 35,092 people died in motor vehicle crashes in 2015
- 7.2% increase over 2014
- 10.4% increase in first six months of 2016
- 94% of tow-away crashes are caused by human choice or error



Historic Release: Federal Automated Vehicles (FAV) Policy

- Released September 20, 2016
- Unprecedented initiative to support the safe testing and deployment
- Establish early guidance to protect traveling public and improve safety
- Not final word - rather a foundation and framework for continued action

FACT SHEET: Encouraging the Safe and Responsible Deployment of Automated Vehicles

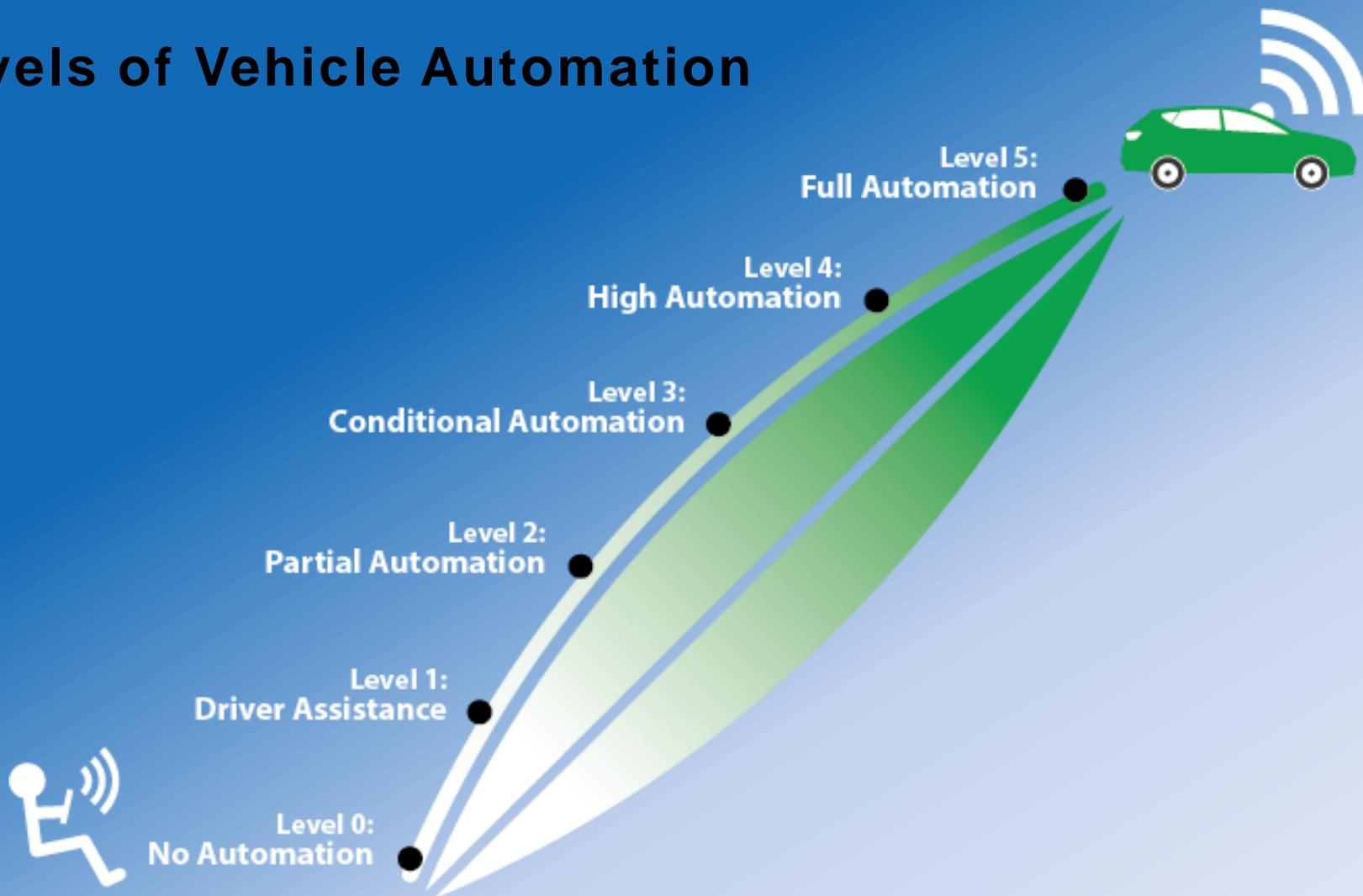




FAV Policy Objectives:

- Work collaboratively with entities looking to test and deploy
- Stay abreast of rapidly changing technology
- Work with States to develop appropriate policy to support testing and deployment
- Bring interested parties together in a shared environment
- Explore current and new tools and authorities for NHTSA to support pace of technology change
- Support safety culture change within the industry amidst emerging technologies

Levels of Vehicle Automation





Policy Facilitates Safe Introduction and Deployment

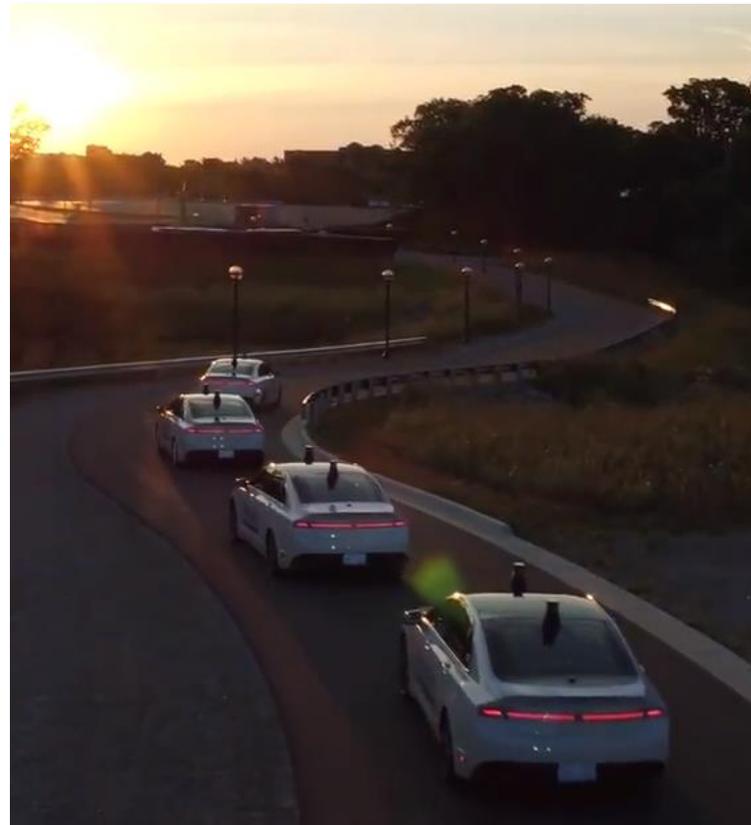
- Section I: Vehicle Performance Guidance for Automated Vehicles
- Section II: Model State Policy
- Section III: NHTSA's Current Regulatory Tools
- Section IV: Modern Regulatory Tools

Section I: Vehicle Performance Guidance for Automated Vehicles

- Outlines best practices for the safe design, development, and testing of automated vehicles prior to commercial sale or operation on public roads
- What & Who does this apply to?
 - Refers primarily to Levels 3 through 5 of automated vehicles
 - Passenger cars, motorcycles, trucks, and buses
 - All entities looking to test and deploy automated vehicles
- Suggest principles/procedures to be used by entities while developing detailed validation testing
- Sets agency expectations of industry responsibilities and interactions

Section I: Vehicle Performance Guidance – Safety Assessment Letter (SAL)

- Identifies 15 key safety areas to be addressed prior to testing and deployment
- Requests that entities voluntarily submit SALs to NHTSA discussing how they have addressed each area
- Aids NHTSA in monitoring automated vehicles by encouraging a continuous dialogue between NHTSA and HAV entities



Section II: Model State Policy – Role Clarification

- Strongly encourages the establishment of a consistent national framework of laws and policy to govern automated vehicles and technology
- Reinforces division of regulatory responsibilities:

Federal

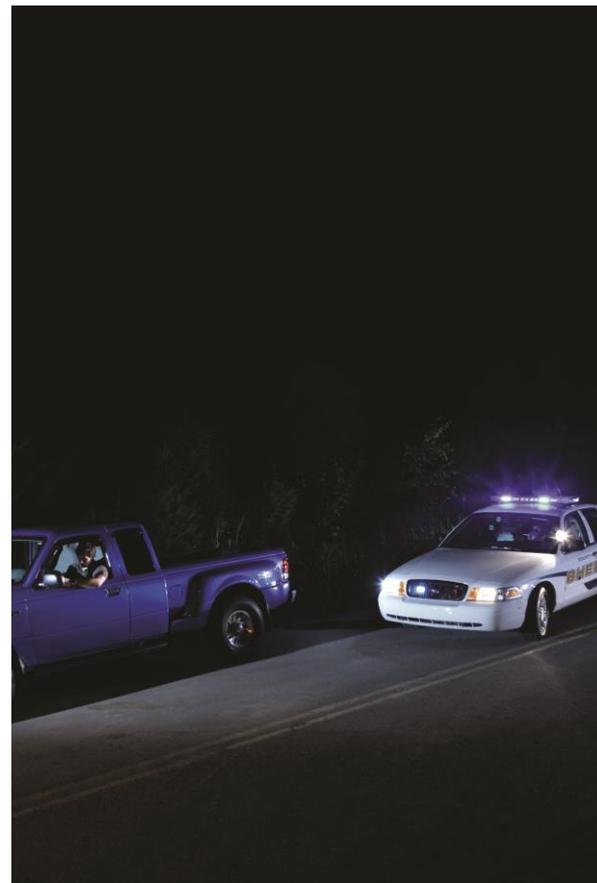
- Setting and Compliance with FMVSS
- Investigating and Managing Recalls & Remedies
- Communicating and Educating Public Regarding Vehicle Safety Issues
- Issuing Guidance for Vehicle and Equipment Manufacturers

State

- Licensing (human) Drivers and Vehicle Registration
- Enacting and Enforcing Traffic Laws & Regulations
- Conducting Safety Inspections
- Regulating Insurance and Liability

Section II: Model State Policy – Framework

1. Administrative (Structure and Processes)
2. Application for Manufacturers or Other Entities to Test on Public Roadways
3. Jurisdictional Permission to Test
4. Testing by the Manufacturer or Other Entity
5. Deployed Vehicles: Drivers
6. Deployed Vehicles: Registration and Titling
7. Law Enforcement Considerations
8. Liability and Insurance



Section III: NHTSA's Current Regulatory Tools

- Letters of Interpretation
- Exemptions from Existing Standards
- Rulemakings (amend or create new)
- Enforcement Authority to Address Defects



Section IV: Modern Regulatory Tools

- Identify new tools, authorities, and resources to aid the safe deployment by enabling DOT to be more flexible

New Authorities:

- Pre-market Approval
- Cease and Desist
- Expanded Exemptions
- Post-Sale Regulation of Software Changes

New Tools:

- Variable Test Procedures
- Functional and System Safety
- Regular Reviews of Testing Protocols
- Enhanced Data Collection



Moving Forward

- Review and Consider Public Comments and Other Input
- Conduct Various Public Meetings and Workshops
- Meet with the States and Other Stakeholders
- Examine Other Potential New Tools
- Implement Policy Next Steps (23 and growing)

Visit www.nhtsa.gov/AV for current activities and updates



NHTSA

QUESTIONS?

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