

Wyoming Department of Transportation Autonomous Vehicle Program



**Joint Transportation, Highways,
and Military Affairs Committee
September 21, 2020**

- Autonomous Vehicle Working Group
 - Problem Statement and End State
 - Program Goal
 - Members
 - Organization and Process
 - Program Development Phases
- Sub-Working Groups
 - Legal and Vehicle
 - Infrastructure and Technology
 - Safety and Training
- Program Timeline
- Questions and Guidance

Problem Statement: Wyoming will safely manage the integration of autonomous vehicles (AV) into transportation systems to enhance the efficiency and effectiveness of the state's transportation networks

Autonomous Vehicle Program End State: Wyoming has the legal authorities, safety procedures, and highway infrastructure in place to incorporate AVs into traffic flows and passes management of the WYDOT program to the WYDOT division responsible for implementing and monitoring program execution.



Create the conditions or behaviors required to safely and efficiently integrate Autonomous Vehicles into Wyoming's Transportation Systems

Autonomous Vehicle Working Group



Members

- Senator Michael Von Flatern
- Representative John Eklund
- Representative David Miller
- Mohamed Ahmed, University of Wyoming
- Rachelle Celebrezze, Cruise
- Monika Darwish, Embark Trucks
- Sheila Foertsch, Wyoming Trucking Association
- Joseph Holmes, EasyMile
- Marianne Shanor, Hathaway and Kunz Law
- Katharine Wilkinson, KKW Consulting
- Ariel Wolf, Self-Driving Coalition for Safer Streets
- WYDOT Executive Staff and Program Managers



- Main Working Group meets every other month
 - Receives information from stakeholders and other subject matter experts
 - Reviews progress on identified tasks
 - Synchronizes and coordinates efforts on tasks that apply to more than one area
- Three Sub Working Groups meet as necessary to accomplish assigned tasks or conduct required research
 - Legal and Vehicle – Mike Kahler / Ryan Thompson (AG Office) / Taylor Rossetti (WYDOT Support Services Administrator)
 - Infrastructure and Technology – Michelle Edwards (Engineering) / Troy Babbitt (WYDOT Chief Technology Officer)
 - Safety and Training – Major Joshua Walther (Wyoming Highway Patrol)



- Broken into 3 phases which may overlap
 - Phase I – Education and Research
 - Phase II – Recommendation and Budget
 - Phase III – Implementation and Transfer
- Phase I – Education and Research
 - Continue to add Working Group Members
 - Conduct mutual information exchange – stakeholder input
 - Identify legal, infrastructure, safety, training, testing, and procedural challenges – workshop and video teleconference attendance
 - Review best practices from other states
 - Identify and work on tasks that must be accomplished
 - Identify initial resource requirements

Program Development Phases

- Phase II – Recommendation and Budget
 - Recommend changes or additions to policy, statute, and procedure required to integrate AV
 - Conduct infrastructure and technology survey to determine resource requirements
 - Conduct studies as required
 - Implement testing if necessary
 - Refine other resource requirements and budget as required
- Phase III – Implementation and Transfer
 - Implement policy, procedural, training, safety, and statutory changes required to facilitate AV integration
 - Upgrade / update infrastructure and technology required for AV to safely operate statewide
 - Continue to review and revise procedures to adapt to technological changes
 - Transfer management of AV program to permanent authority / department

Responsibilities

- Policy
- Legislation
- Law Enforcement
- Insurance and Liability
- Traffic Law
- Cross-state coordination
- Permitting and testing application procedures and processing
- Registration
- Licensing
- Vehicle identification

Challenges

- Terminology / Definitions
- Update procedures and policies to implement legal framework
- Update / create new administrative section
- Cross jurisdictional concerns
- Access to and retention of “black box-like” information
- Out-dated registration and licensing software

Responsibilities

- Striping and signs
- Communications
- Temporary work zones and other than normal operations (stop, detour, road closure) automation
- Change communication (Variable Digital Signs, Highway Advisory Radios, Wyoming 511, stop, detour, road closure)
- Sensor placement, maintenance, replacement
- Vehicle spacing and sequencing automation
- Airfield and aviation operations automation
- Connectivity between vehicles and infrastructure
- Vehicle automation technology
- Cyber security

Challenges

- Lack of governmental standardization
- Lack of industry and technological standardization
- Geography and environment
- Funding to update infrastructure (when standards are determined)

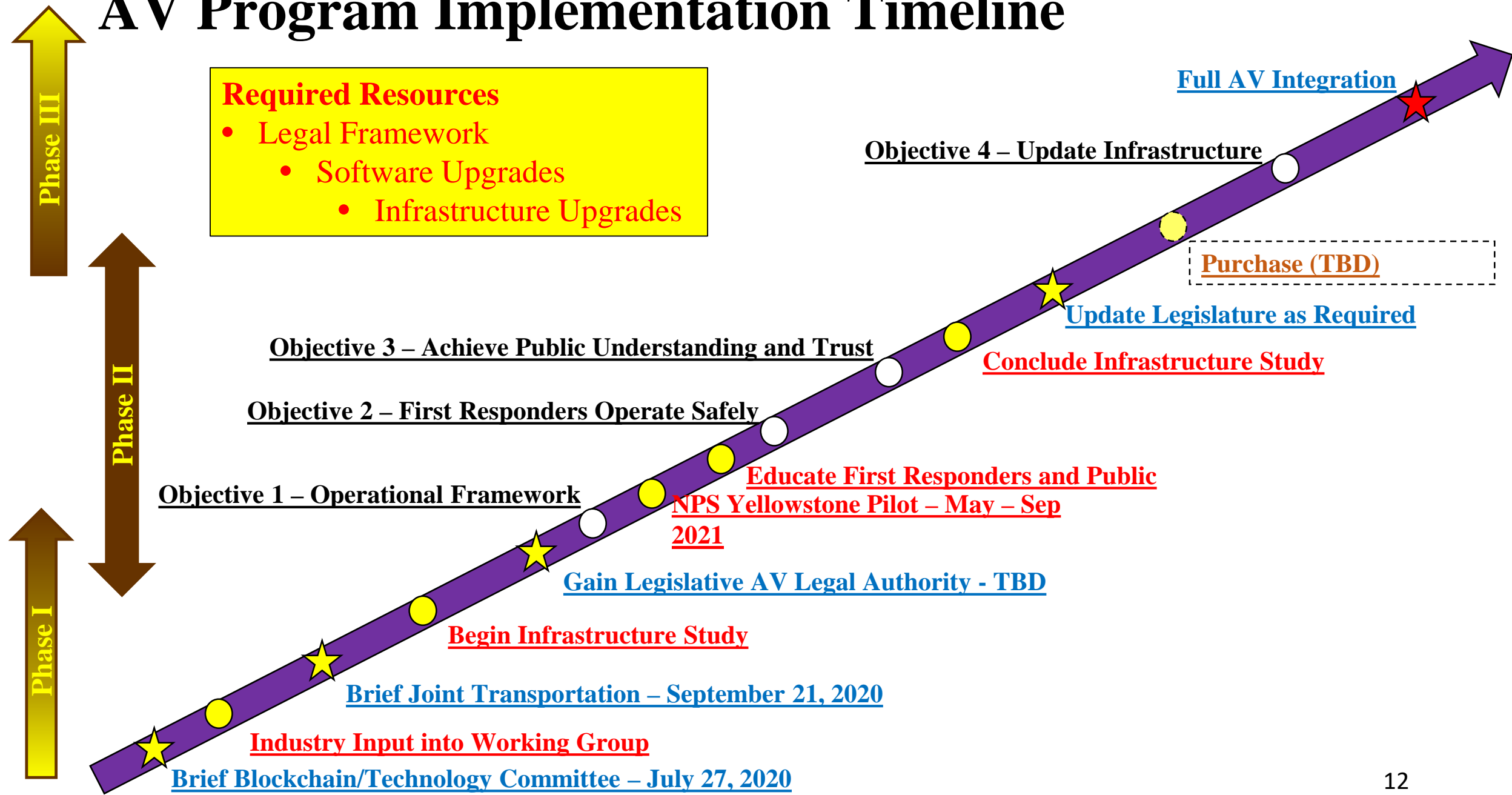
Responsibilities

- Technical workforce recruitment and adaptation
- Current workforce training
- Public education and information (Public Affairs)
- Workforce safety
- Public safety
- Vehicle safety
- Traffic safety
- Testing safety
- Law enforcement officer safety

Challenges

- Public trust
- First responder safety
- Cross jurisdictional integration
- Access to “black box” data

AV Program Implementation Timeline



Questions and Guidance