



VT AUTOMATED VEHICLE TESTING UPDATE

House Transportation Committee

Joe Segale, P.E./PTP
Mike Obuchowski
VTrans

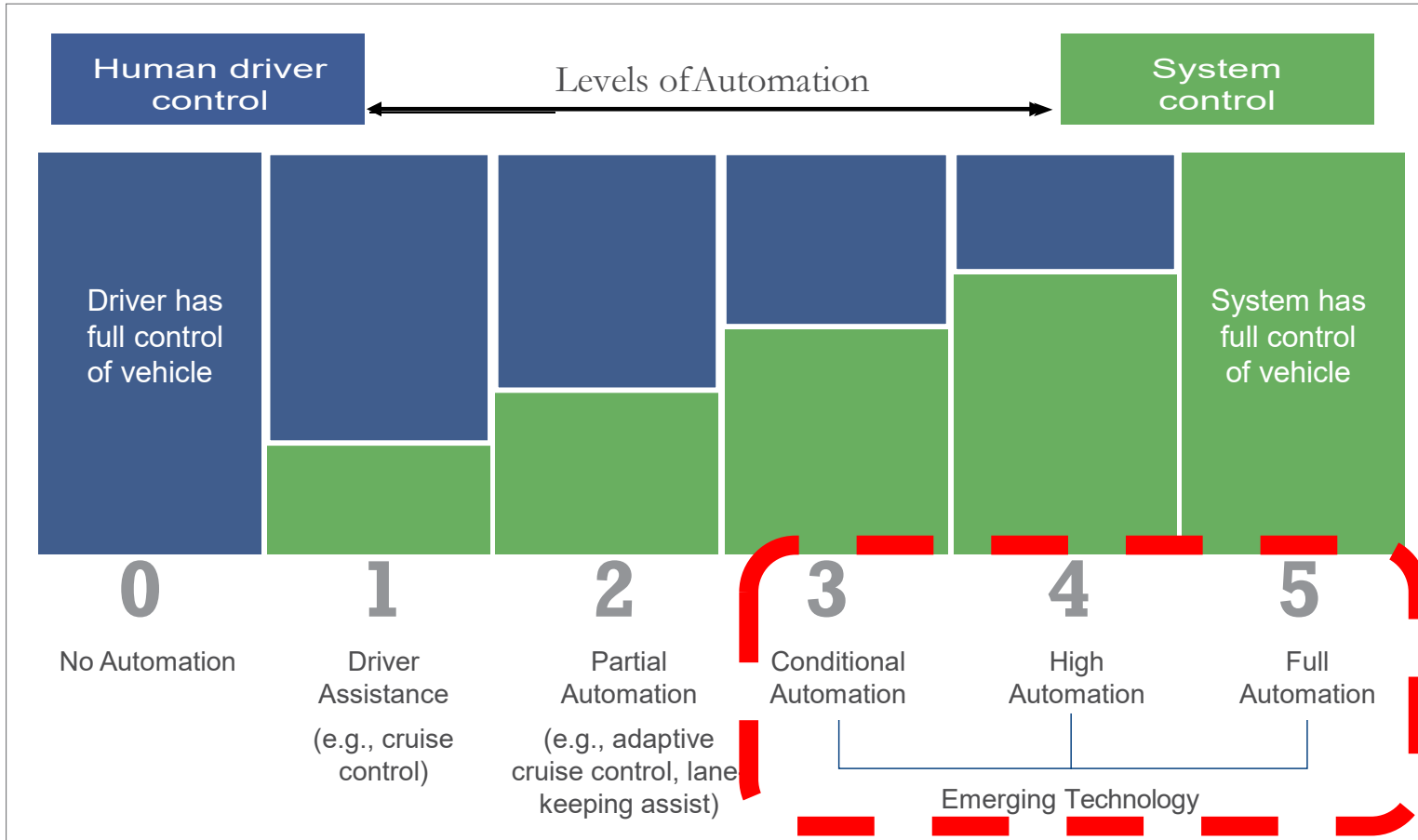
February 16, 2021

PRESENTATION

- Overview of Automated Vehicles
- Permitting Process
- Risk Management
- Going Forward



AUTOMATION LEVELS



VT LAW REQUIRES AV TEST PERMIT FOR VEHICLES WITH LEVEL 3-5 AUTOMATED DRIVING SYSTEMS

SOURCE: Liberty Mutual "Automated Vehicles: Changing Role of the Driver"

AUTOMATED VEHICLE BENEFITS



- Safety
- Mobility independence
- Reduced household transportation costs
- Improved productivity
- Reduced public transit costs
- Reduced parking and related impacts
- Redevelopment opportunities



WHAT WOULD A TEST LOOK LIKE?



TuSimple Expands Autonomous Trucking Program With UPS



TuSimple



WHY ALLOW TESTING IN VERMONT?

- Facilitate AV deployment in VT so our citizens benefit ASAP
- Build public confidence
- Be a proactive partner
- Provide transparency
- Create Economic Opportunity
- Provide for the mobility needs, celebrate/support people's independence



VT AV TESTING PERMIT GUIDANCE & APPLICATION

Vermont Automated Vehicle Testing Permit

GUIDANCE AND APPLICATION

Vermont Agency of Transportation
Policy, Planning, and Intermodal Development Division

219 North Main Street
Barre, VT 05641
802-828-2784
www.vtrans.vermont.gov

Approved by the Vermont Traffic Committee
October 15, 2020



- Process to Acquire, Modify and Suspend a Permit
- State and Municipal Roles
- Information about Applicant, Vehicles and Safety Drivers
- Automated Driving System Information
- Testing Plan
- Safety and Risk Management Plan
- First Responder Interaction Plan
- Operational Demonstration
- Modifications to State and Town Highways
- Confidential Information
- Insurance

<https://vtrans.vermont.gov/planning/av-testing>

PERMIT PROCESS – STATE ROLE

- **Traffic Committee**

- Secretary of Transportation, DMV Commissioner, Public Safety Commissioner
- Has sole authority to issue permits for AV testing
- Can approve testing on all state highways and Class 1 Town Highways
- *Can approve testing on other Town Highways only with municipal pre-approval*

- Supported by VTrans, VT DMV and VT State Police

PERMIT PROCESS - MUNICIPAL ROLE

- Municipal approval required if testing involves Class 2, 3 and 4 Town Highways
- Municipalities will be asked to pre-approve testing by passage of resolution
- Municipalities can withdraw approval at any time
- Municipal approval of specific testing permits not required
- Only the Traffic Committee is authorized to approve a permit.
- Municipalities are not responsible for modifying roadways or other infrastructure to accommodate a test, or for any costs related to conducting the test.

APPLICANT REQUIREMENT HIGHLIGHTS

- **Human operator required in driver seat and must be able and prepared to take physical control of the vehicle**
 - Operator must be at least 21 years old
 - Operator must pass a background check
 - Blood alcohol content less 0.02
- **\$5 Million Liability Insurance**
- **Vehicle must be able to comply with all state and local traffic laws including operation and equipment**
- **AV Testing Vehicle must be clearly identifiable**

RISK MANAGEMENT

Risk Area	Risk Mitigation
Safety	<ul style="list-style-type: none"> • Human driver always required • Testing and Safety & Risk Management Plan • First Responder Interaction Plan • Crash notification requirements • Processes to Temporarily and Permanently Suspend Testing • Maximum permit duration of 2 years
Local Control	<ul style="list-style-type: none"> • Municipal pre-approval required for class 2, 3 and 4 THs • 60-day notice for permit hearing • Municipality can condition pre-approval • Municipality can withdraw approval at any time

Risk Area	Risk Mitigation
Public Involvement & Transparency	<ul style="list-style-type: none"> • Traffic Committee must hold public hearing for permit approval • Applications available to the public • Test vehicles identified • Testing reports required and available to the public
Insurance and Legal Exposure	<ul style="list-style-type: none"> • \$5 Million Liability Insurance required • All other typical insurance required • Applicant must defend the state, municipalities and employees against third party claims or suits

GOING FORWARD

A promotional poster for the Vermont AV-Xchange Forum. The background is a photograph of a snowy street at night with buildings and cars. The text is overlaid on the top left. The title 'Vermont AV-Xchange Forum' is in large white letters. Below it is the tagline 'Partnering for a safer, prosperous, and inclusive mobility future' in smaller white letters. The date and time 'FEBRUARY 8, 2021 1:00-2:30PM EST' are in orange. Below that is the description 'Join a discussion focused on promoting the testing of Automated Vehicles' in white. The Vermont Agency of Transportation logo is in the bottom left, and the Stantec logo is in the bottom right.

Vermont AV-Xchange Forum
Partnering for a safer, prosperous, and inclusive mobility future

FEBRUARY 8, 2021 1:00-2:30PM EST

Join a discussion focused on promoting the testing of Automated Vehicles

 VERMONT
AGENCY OF TRANSPORTATION

SUPPORTED BY STANTEC 

- VT AV Xchange
- Assisting Bellows Falls and Rockingham with Testing Approval
- Municipal Outreach
- New England AV Legal and Regulatory Review
- AV Deployment Legislation – 2022?