



VT AUTOMATED VEHICLE TESTING UPDATE

House Transportation Committee

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

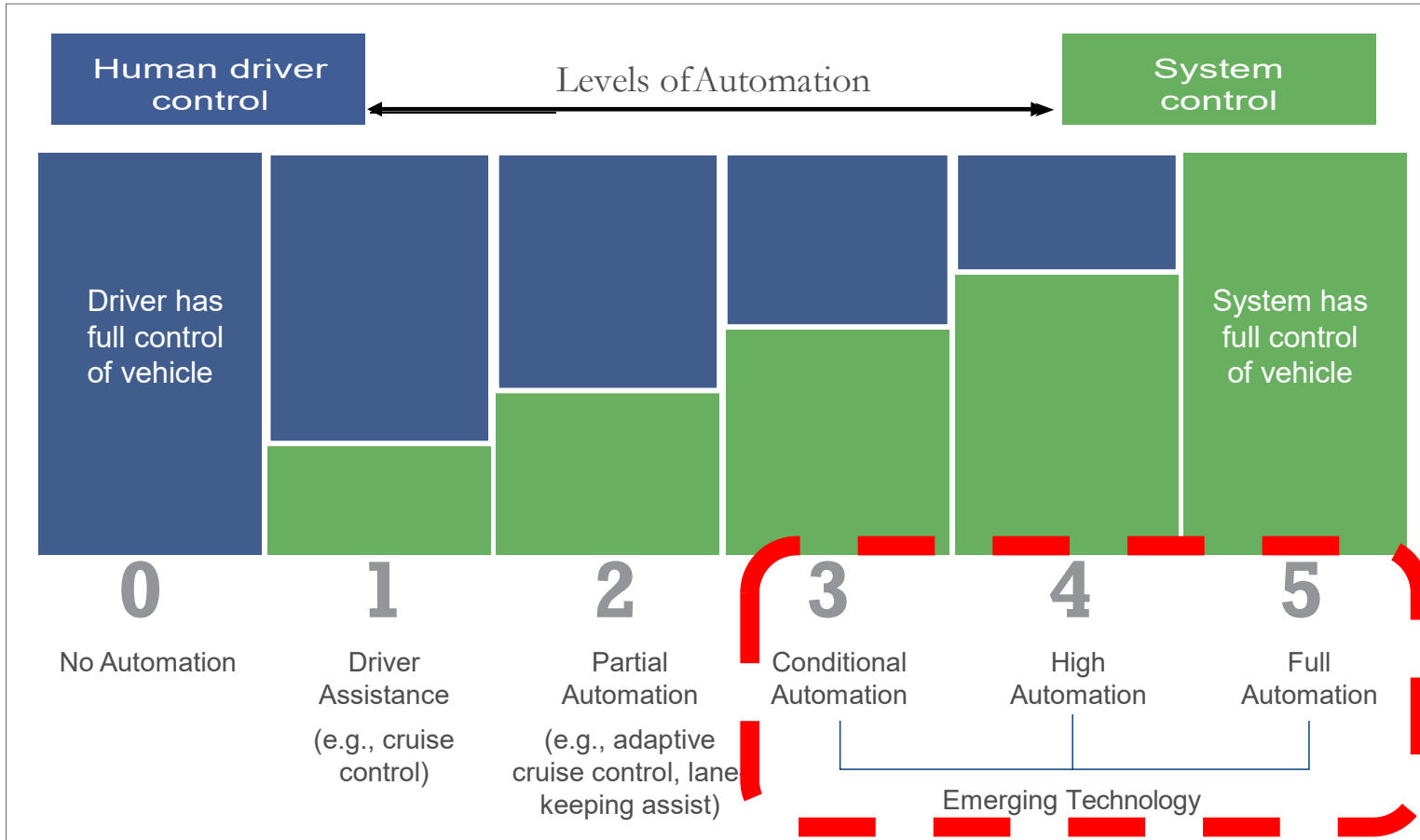
February 16, 2021

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



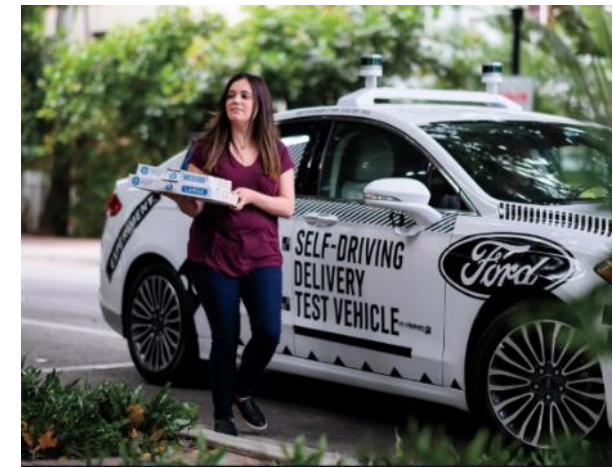
WHAT WOULD A TEST LOOK LIKE?



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 text 'Join a discussion focused on promoting the testing of Automated Vehicles' in white. At the bottom left is the Vermont Agency of Transportation logo. At the bottom right is a logo for Stantec with the text 'SUPPORTED BY STANTEC' and a circular logo.

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?