

Level VIII Inspection Program



U.S. Department
of Transportation

Federal Motor
Carrier Safety
Administration

MCSAP-ITD-PRISM Meeting, St. Louis, MO

Save the planet, while saving time, money, and lives.

***One more road
to zero fatalities.***




What's the big idea?

In collaboration with CVSA and State Partners, FMCSA will **design and implement a Level VIII Inspection Program operational test** to measure the feasibility and impact of nationwide adoption.



What are Level VIII inspections?

Inspection conducted electronically or wirelessly while a commercial motor vehicle is in motion without direct interaction with a roadside inspector.

A semi-truck is driving on a highway. Above the road, there is a gantry structure with two horizontal bars. The upper bar has a sensor or camera mounted on it. The lower bar has two sensors or cameras. The sky is clear and blue. The truck is moving from left to right.

CVSA defined Level VIII Inspection criteria in 2017

- Descriptive locations, GPS coordinates
- Electronic validation of the operator
- **Driver's license class/endorsement(s)**
- **License status**
- Medical Examiner's Certificate
- Skill Performance Evaluation (SPE) Certificate
- **Hours-of-service compliance**
- **Driver's record of duty status**
- USDOT or (Canada) NSC number
- Power unit registration
- Operating authority
- Unified Carrier Registration (UCR) compliance
- Federal out-of-service orders

The road to Level VIII Inspections

What's already being tested

- Ability to collect limited data through existing ELD device when vehicle is in motion if carrier is subscribed to a bypass service
- Use data to pre-populate inspection report, reducing time and potential manual entry errors when the vehicle is stopped for inspection
- **Prioritized CMVs still must stop for a physical inspection, but it takes less time**



Where we are headed

- **Collect all Level VIII Inspection data while vehicle is in motion**
- Vehicles with better compliance will bypass, **and in-motion inspection may “count” on carrier’s safety record**
- Carriers identified as higher risk will be required to stop for traditional inspection, but **data will be available to inspector in pre-filled inspection report**
- **All carriers can participate using existing mobile-connected devices (no new hardware)**

Benefits of Level VIII Inspections



CLIMATE

- Minimize # of CMVs stopping for inspections (acceleration/ deceleration, idling)
- Decrease fuel use
- Develop federal source documentation of climate impacts



SAFETY

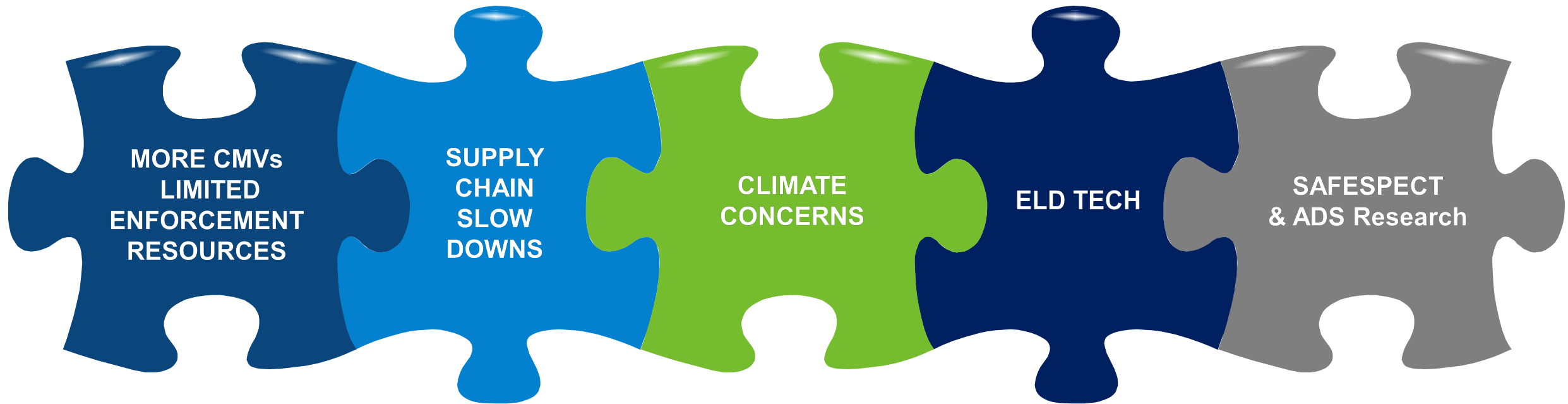
- Collect data on more carriers
- Enables better decisions about which carriers to prioritize
- Frees enforcement resources to address unsafe carrier behavior sooner



EFFICIENCY

- In-motion inspections eliminate delays
- Save time for enforcement and carriers
- Minimize supply-chain disruptions

Why now is the right time



**Leverage tech to efficiently
address growing market**

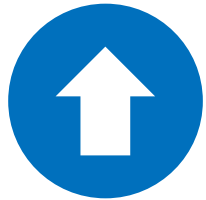
**DOT Climate
Action Plan
prioritizes
initiative**

**Leverage
existing
carrier tech**

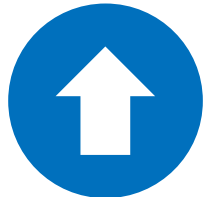
**Easily adjust
systems to
accommodate
data**

Envision a future with Level VII Inspections

Potential to increase inspections
3M → **30M** per year



carriers with sufficient data to determine safety performance



data to better identify unsafe carriers/drivers & intervene sooner



How we plan to get there: Level VIII Inspection Test

Design and Develop

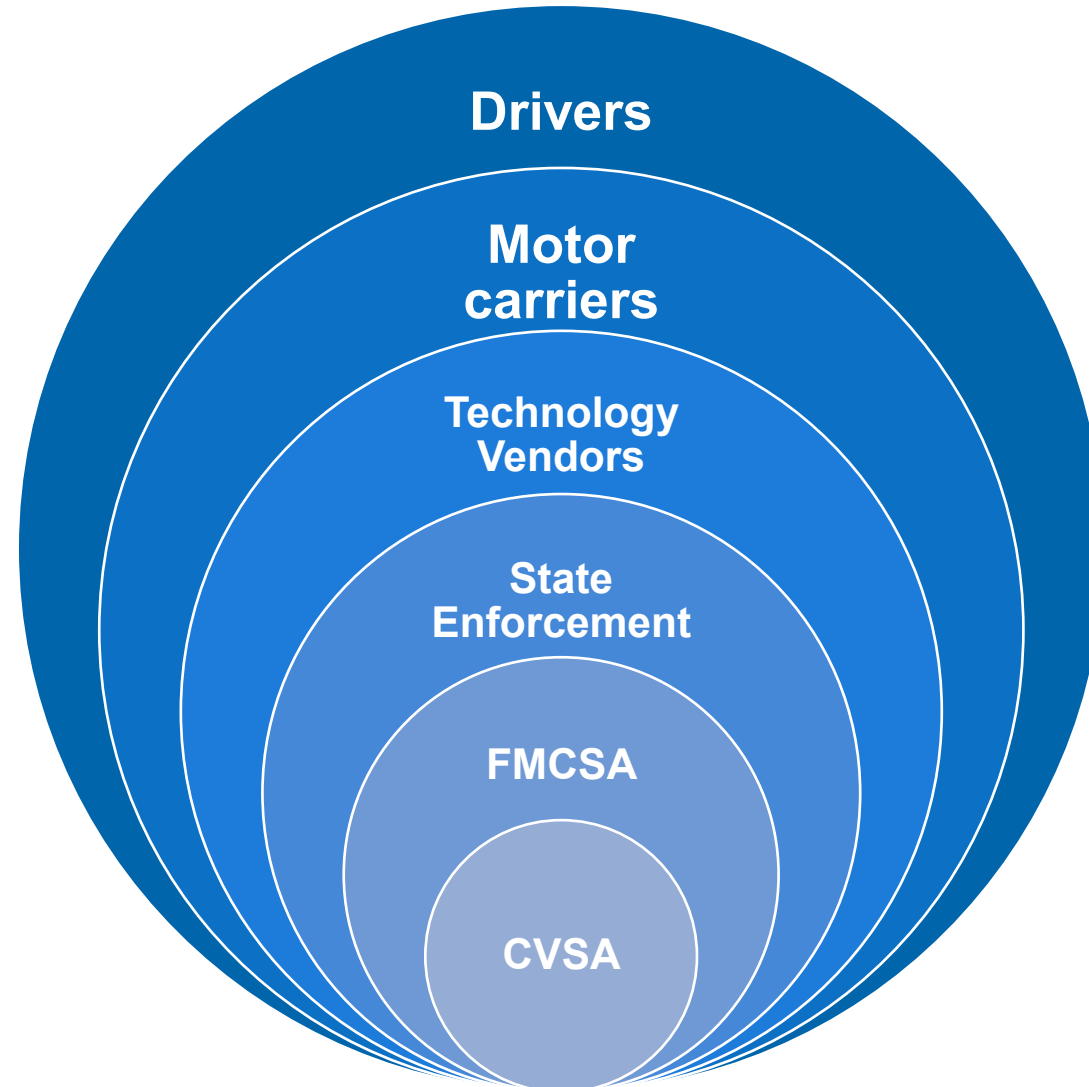
- The ability to accept Level VIII Inspections into FMCSA's operational model
- An IT component (e.g., specification/API) that supports secure collection, storage, access to relevant data
- Enhancements to safety measurement systems to incorporate Level VIII inspection results

Test, Evaluate, and Refine



- Conduct an operational test of the Level VIII Inspection Program across the nation over a specified time period
- Track performance metrics to determine climate, safety, efficiency impacts
- Refine the Level VIII Inspection Program based on lessons learned

Critical Success Factor: Stakeholder Engagement



Stakeholder Roles



CVSA

- Participate in Working Group
- Define inspection criteria



TECH VENDORS

- Develop tech that meets specifications
- Participate in test
- Train users



CARRIERS

- Invest in tech
- Understand how data is used
- Train drivers
- Track time/cost savings



FMCSA

- Address data privacy
- Set tech requirements
- Provide grant funding
- Enhance systems/policies
- Measure impact



STATES

- Serve as test sites
- Collaborate with tech vendors
- Train staff and educate carriers



DRIVERS

- Understand how to participate and use tech
- Understand how data is used

Tapping the right people for input

Steering Committee

- Representatives from FMCSA program offices provide direction and oversight.
 - Chief Council, General Law
 - CTO, Cybersecurity and Privacy
 - CTO, Operations and Field Support
 - External Affairs, Office of Outreach and Education
 - Policy, Office of Bus and Trucks Standards and Operations
 - Safety, Office of Enforcement and Compliance
 - Safety, Office of Safety Programs
 - Safety, Field Operations
 - Research and Registration, Analysis Division
 - Research and Registration, Technology Division
- ~15 people, meeting 6-12 annually over the next 2 years

Federal State Working Group

- Leverage the CVSA committee structure
 - Clear delineation of activities
- <15 people, meeting monthly over the next 2 years
- Criteria/representation
 - States representing all Service Centers
 - FMCSA representation (e.g., HQ, Field)

Some items being considered as we get started

- **How to securely collect & store a massive amount of Level VIII Inspection data while addressing all privacy and security requirements**
- **How to leverage IT modernization/FMCSA systems effectively (ASPEN, ISS, SMS)**
 - How will data be used and distributed?
 - How do Level VIII Inspections “count?” How will they affect prioritization and interventions?
 - What new enforcement tools may be needed?
- **How to adopt Level VIII Inspection into policies and procedures**
 - Opt-in or mandatory? Will participants need to enroll in a bypass program?
 - What constitutes a “fail,” and upon failure, does the carrier pull in for a different level inspection?
 - How many Level VIII Inspections will “count” per carrier per day; per vehicle?
 - How can carriers’ question Level VIII Inspection results (DataQs)?
- **How to effectively measure climate impact**

What will the Level VIII Inspection Test Program deliver?



Measurable Climate Impact

Real-world data about the impact of reduced CMV emissions/fuel use.



Robust Technology

IT component for secure collection, storage, and access to safety data.



Clear Process

Level VIII Inspection process for all involved stakeholders.



Stakeholder Engagement

A proven strategy for keeping stakeholders informed and engaged.



Useful Data Analysis

Carrier and driver safety measurement systems that may:

- Weight Level VIII violations based on their link to crash causation.
- Identify specific unsafe behaviors.



Tested Rollout Approach

That can be implemented nationwide.

Project Status & Next Steps

- 1 Presented at CVSA meeting to 70+ attendees
- 2 Developing project charter
- 3 Standing up the Steering Committee
- 4 Standing up the Federal-State Working Group



*Save the planet
while saving time,
money, and lives!*

Mr. Thomas Kelly

Innovative Technology Deployment (ITD) Program Manager

FMCSA, Technology Division

202-480-5240

thomas.kelly@dot.gov