Performance-Based Planning & Programming

Office of INTERMODAL Planning and Investment

VDOT Virginia Department of Transportation

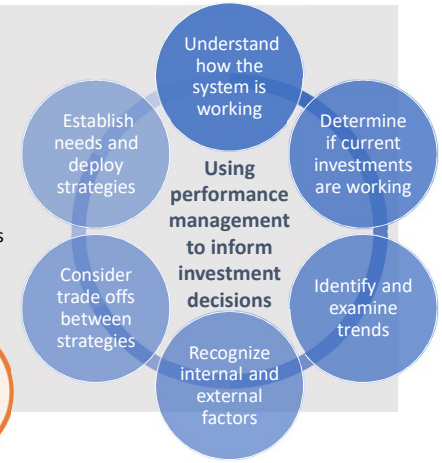
DRPT Virginia Department of Rail and Public Transportation

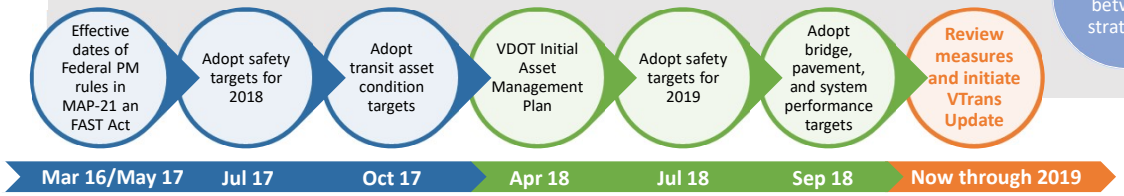
Performance Management is intended to create a data-driven process within transportation planning and programming, answering:

Where do we want to go,
How are we going to get there,
What will it take, and **How did we do**?

Performance Management (PM) is a strategic approach that uses transportation system performance data to inform investment and policy decisions to achieve Virginia's transportation performance goals. Two recent Federal transportation funding and authorization bills, **Moving Ahead for Progress in the 21st Century (MAP-21)** and the **Fixing America's Surface Transportation (FAST) Act,** established the Federal framework for PM, establishing the process and requirements for USDOT, State DOTs, transit providers, and metropolitan planning organizations (MPOs).

It is the responsibility of the Office of Intermodal Planning and Investment (OIPI) in cooperation with VDOT and DRPT to develop measures and targets related to the performance of Virginia's surface transportation network for the Commonwealth Transportation Board's (CTB) approval. These targets will be incorporated as goals and objectives into Virginia's long-range transportation plan, VTrans. OIPI, VDOT, and DRPT may also consider adopting additional VTrans measures or indicators that may be needed in support of federal measures.





Transit Asset Management

What do we measure?

Percentage of revenue vehicles by asset class that have met or exceed the useful life benchmark.

The **useful life benchmark** (ULB) indicates how many years a vehicle can be in service and still be in a state of good repair (typically 12 years for a bus and 4 years for a van).

DRPT works with each transit provider to track asset condition and support investment decisions through a decision support tool called TransAM.

What are our targets?

Tier 1 transit providers (> 100 vehicles) like VRE, WMATA, HRT develop their own targets and Transit Asset Management Plans. For Tier 2 providers (≤ 100 vehicles) DRPT develops a Group Plan and targets.

33 Tier 2 providers

1,156 revenue vehicles

11.5% at or past ULB

Group Plan 2019 Targets

Percent at or past ULB

Commuter Bus: 15%

Bus: 10%

Van: 25%

Bridge and Pavement Condition

58% of Interstate pavement and 35% of National Highway System bridge deck area were in good condition

What do we measure?

Percentage of pavement (lane miles) and bridges (deck area) in good, fair, and poor condition based on defined measurement standards.

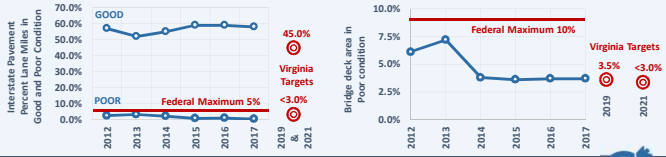
How do we measure it?

VDOT collects pavement and bridge condition data yearly.
FHWA has established Good and Poor performance rating thresholds.

- Continuous digital imaging, detailed sensor data, and automated crack detection technology are used to collect pavement condition.
- Based on National Bridge Inspection Standards, VDOT conducts regular inspections at least every two years to determine bridge deck, superstructure, and substructure rating.

What do the trends tell us?

Pavement and bridge show trends of improved conditions in the last five years.



What are our targets?

- Increase the lane miles of pavement in good condition and decrease lane miles in poor condition.
- Increase bridge deck area in good condition and decrease bridge deck area in poor condition.

How will we get there?

Performance, Condition Forecasts, Gap Analysis + Asset Management Principles and Funding Sources = Investments

System Performance

83% of Interstate person-miles traveled were reliable

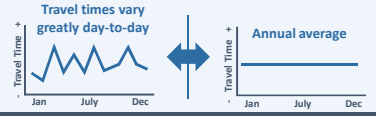
What do we measure?

Travel time reliability is the ratio of person-miles traveled on reliable segments of the National Highway System (NHS) compared to all person-miles traveled on the NHS. **Truck reliability** uses real truck speeds to report reliability for trucks on the Interstate system.

How do we measure it?

- The measure considers four different time periods for each road segment.
- A road segment is determined to be unreliable if one would need to budget 50% more time compared to a typical trip to arrive on time 80% of the time.

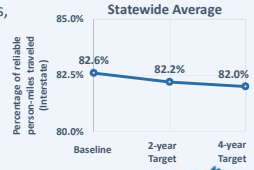
What travelers experience



How traffic conditions have been communicated

What do the trends tell us?

- Reliability is impacted by traffic incidents and events, weather, work zones, and congestion.
- Targets assume a linear growth of total person-miles traveled in future years.
- The 2 and 4-year targets account for planned and programmed strategies aimed at minimizing reliability deterioration.



What are our targets?

- Improve reliability for all passenger modes and trucks, even as miles traveled continue to increase.
- Reduce the number and severity of truck freight bottlenecks.

How will we get there?

A key factor in SMART SCALE scoring is the potential of a project to improve reliability.

SMART SCALE — Funding the Right Transportation Projects in Virginia

The objective of the STARS Program is to develop innovative solutions to relieve bottlenecks and solve safety challenges.

STARS — STATEWIDE TARGETED AND ATTAINABLE ROADWAY SOLUTIONS

VDOT is leading planning efforts and deploying projects to preserve mobility on Virginia's critical statewide corridors.

ARTERIAL PRESERVATION PROGRAM

The VDOT Operations Program is customer focused to maximize system reliability, maintain access, and ensure safe travel.

511 Virginia Traffic Information