

Tier 2 Group Transit Asset Management Plan:

Lessons Learned in Coordinating with
Small Transit Operators

Presented by

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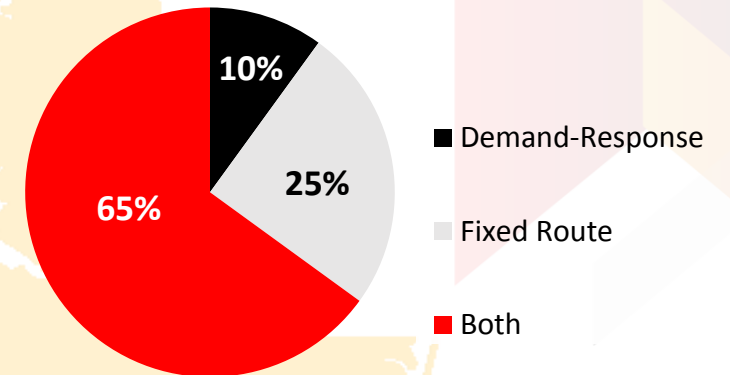
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MARYLAND TRANSIT ADMINISTRATION

MDOT MTA

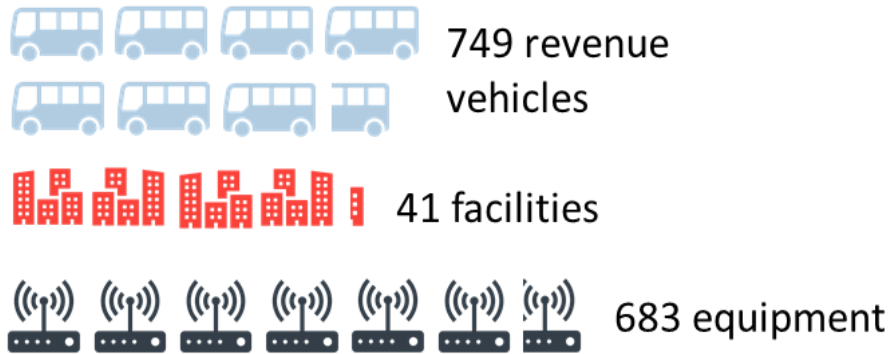
Office of Local Transit Support

- MDOT MTA is a **Tier 1 agency** and Maryland's direct recipient of Federal Funds
- Overseeing asset management for 22 sub-recipients, Locally Operated Transit Systems (LOTS) (Two Tier-1, **20 Tier-2 agencies**)
- Developing a single group TAMP for all LOTS and easing the process for inventory maintenance, facility condition assessment, and NTD reporting
- Focusing on the nexus between Safety & Asset Management Systems
- Educating accountable executives and key staff across LOTS in asset management and safety management through regular workshops

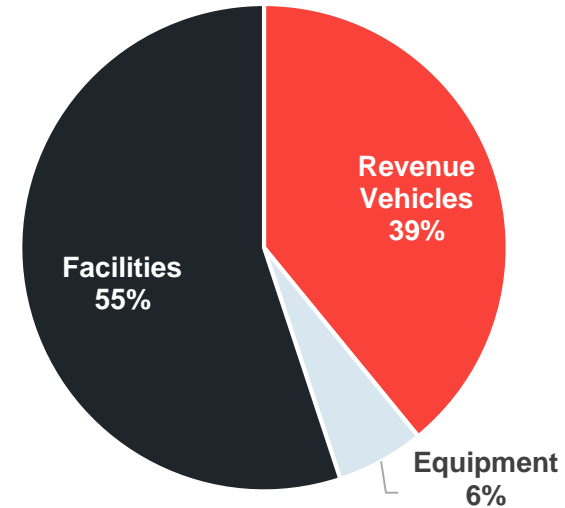
Tier 2 Service Provided



LOTS (Tier 2) Asset Portfolio



Asset Inventory Summary

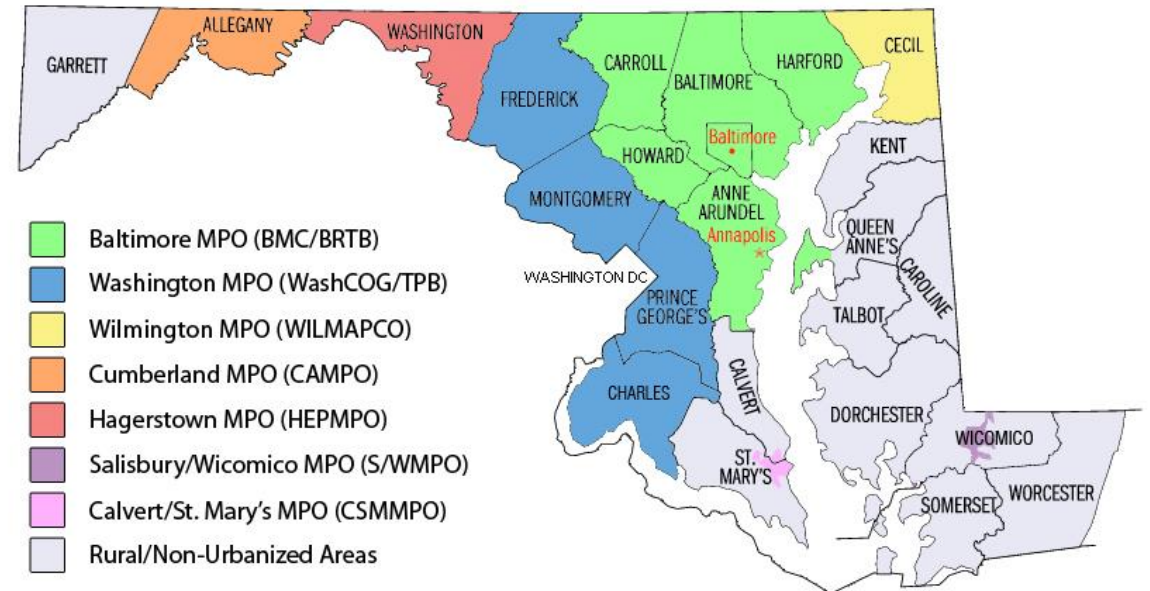


Asset Portfolio Composition by Cost

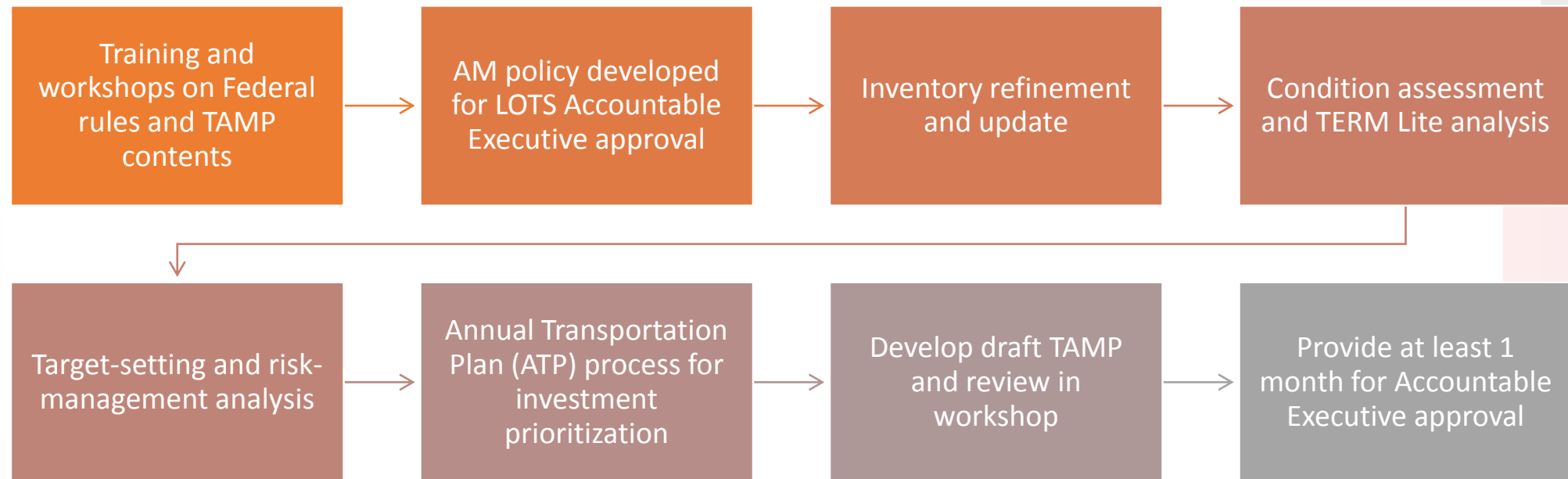
Asset Value: \$327,537,533

Establishing Tier 2 Group(s)

- Maryland has seven (7) MPOs
- For initial TAMP, MDOT MTA decided to assemble a single, all-inclusive Tier 2 group
- This drove MDOT MTA to share a unified **statewide** set of performance targets with each MPO
- While all MPOs accepted the unified group targets, some wanted raw data to analyze impacts in their specific jurisdiction



Group TAMP Development Process



Group TAM Training

2015 Workshops

- Asset Management 101 and Proposed Federal AM Requirements (9/29/2015)

2016 Workshops

- Facility Maintenance Plans and Facility Condition Assessment (5/16/2016)
- Transit System Hazard and Risk Management 101 (11/17/2016)
- Setting Transit Asset Management Performance Targets (11/18/2016)

2017 Workshops

- SMS Component Framework and Safety Documents Webinar (3/6/2017)
- Joint Safety & Transit Asset Management Workshop (4/6/2017)
- Safety Risk Management Webinar (6/29/2017)
- Asset Management Factsheet Webinar (8/2/2017)
- Tier II LOTS Group Asset Management Plan Webinar (8/15/2017)
- Joint Safety & Transit Asset Management Workshop (9/29/2017)

2018 Workshops

- Targets, Risk & Prioritization Workshop (1/11-12/2018)
- Draft Group TAMP Review (5/10/2018)

Support Resources Provided

MTA Asset Management (AM) Factsheet for LOTS

AM & Decision Making

- How will AM inform capital investment decisions? Is this a replacement for the existing ATP process?
- The AMP and the AM planning process is not a replacement for existing capital investment processes.
 - AM provides an additional data point for OLTS to consider to make more informed investment decisions;
 - The existing ATP process will remain unchanged

Asset Inventory

What assets should we include in our Asset Management Plan (AMP)?

Per MTA Policy, the capital asset inventory includes all assets used in the provision of public transportation, with or without federal funds, including:

- All Revenue Vehicles;
- All Facilities (including all building components);
- Equipment
 - o Non-revenue vehicles regardless of unit value;
 - o All IT-related equipment regardless of unit value;
 - o Maintenance and other equipment or passenger amenities integral to the public transportation system or network valued over \$15,000.

To what extent should third-party assets or shared resources be included in our AMP?

- For the capital asset inventory:
 - o All revenue vehicles and facilities (leased, operated under contract, assets you have responsibility for managing even if owned by a third-party, or only partially used for transit purposes);
 - o No third-party owned equipment;
- For the asset condition assessment:
 - o Only assets for which you have direct capital responsibility.

Useful Life vs. ULB

What is the useful life of an asset?

- Defines the minimum eligibility for replacement or disposal of an asset for grant making purposes;
- Authorization to replace/dispose of an asset is at the discretion of MTA, typically determined through the MTA disposal process.

What is the useful life benchmark (ULB)?

- The realistic projection for when an asset would be replaced (after useful life criteria has been met, an order has been placed with the vendor, and the new replacement asset has been delivered), based on procurement timelines;
- ULBs are tracked by age in years (for all assets).

Asset Class Crosswalk

How do MTA asset classes relate to the FTA/NTD asset classes?

MTA/LOTS Asset Class	FTA/NTD Equivalent
Accessible Car	Automobile (AO)
Accessible Van	Van (VN)
Heavy Duty Bus	Bus (BU)
Medium Duty Bus	Bus (BU)
Light Duty Bus	Cutaway Bus (CU)
Administrative Building	Administrative Facility
Maintenance Building	Maintenance Facility
Administrative/Maintenance Building	Combined Administrative and Maintenance Facility
Stations	Passenger/Parking Facility

Performance Measures/Targets

How do we set performance targets?

- Tier I operators are required to set their own targets; Tier II operators share a single set of performance targets;
- Performance targets are set for all participants in the Group Plan on an annual basis;
- Targets are based on the snapshot of asset inventory and condition data as part of the ATP process;
- There is no penalty for missing targets at the end of the one-year period.
- Success or failure in meeting targets has no bearing on the grant making process.

Federal Compliance

What are our options for meeting FTA regulations?

- Per FTA regulations, MTA is sponsoring one group plan for all subrecipients in the state of Maryland;
- All LOTS must designate an Accountable Executive for their agency who will sign off on the AMP;

What is the MPO's role in meeting FTA regulations?

- MPOs are solely responsible for setting their own performance targets.
- MPOs are unable to sponsor a Group Plan for any LOTS.

For additional information, contact your Regional Planner at the MTA Office of Local Transit Support (see LOTS Manual Appendix B for contact information).



MTA Asset Management (AM) Regional Planner Checklist

LOTS:

This checklist includes documents that should be provided to Regional Planners, if available, as inputs to the MTA LOTS Group AM Plan. *FTA required items

Date Completed

* General Information Ref: LOTS Manual p. 2-12

☐ An Accountable Executive (AE) has been identified. Name of AE: _____

* Asset Inventory Information Ref: LOTS Manual p. 2-15

☐ All vehicle assets captured in Form 6;

☐ All facilities assets captured in Form 6A;

☐ All equipment assets captured in Form 6B;

☐ No blank fields or missing information in all forms;

☐ Third-party vehicle and facility assets captured in inventory including the following:

☐ Leased assets;

☐ Assets operated under contract;

☐ Assets you have responsibility for managing (even if owned by a third-party, or only partially used for transit purposes).

* Asset Condition Information Ref: LOTS Manual p. 2-16

☐ Physical condition assessment of revenue vehicles, equipment, and facilities included in the current year's selection;

☐ Documented assessment of the condition of each asset using the established performance measures:

☐ Revenue vehicle age (years and mileage);

☐ Equipment age (years and mileage for non-revenue vehicles);

☐ Facilities Transit Economic Requirements Model (TERM) Rating. (Ref: LOTS Manual p. 2-14)

Asset Manufacturer Information

☐ Documented information from the manufacturers of assets and asset parts that can be used to diagnose and repair those assets (e.g. Original Equipment Manufacturer Manual);

☐ Documented asset warranty information.

Asset Maintenance Information

☐ Checklists used during routine asset inspections and other regular maintenance activities;

☐ Facility and Equipment Maintenance Plan (FEMP) annual review/update

☐ Documentation of fleet analyses with plans of action for asset lifecycle activities and defects (e.g. fleet management plan);

☐ Documents showing how maintenance activities are prioritized and the schedules for recurring activities (e.g. preventive maintenance schedules or reports);

☐ Documentation of how unplanned maintenance needs are addressed (e.g. asset defect or trouble ticket log);

☐ Standard procedures for maintenance and work management and other asset lifecycle activities (e.g. asset handover policies).

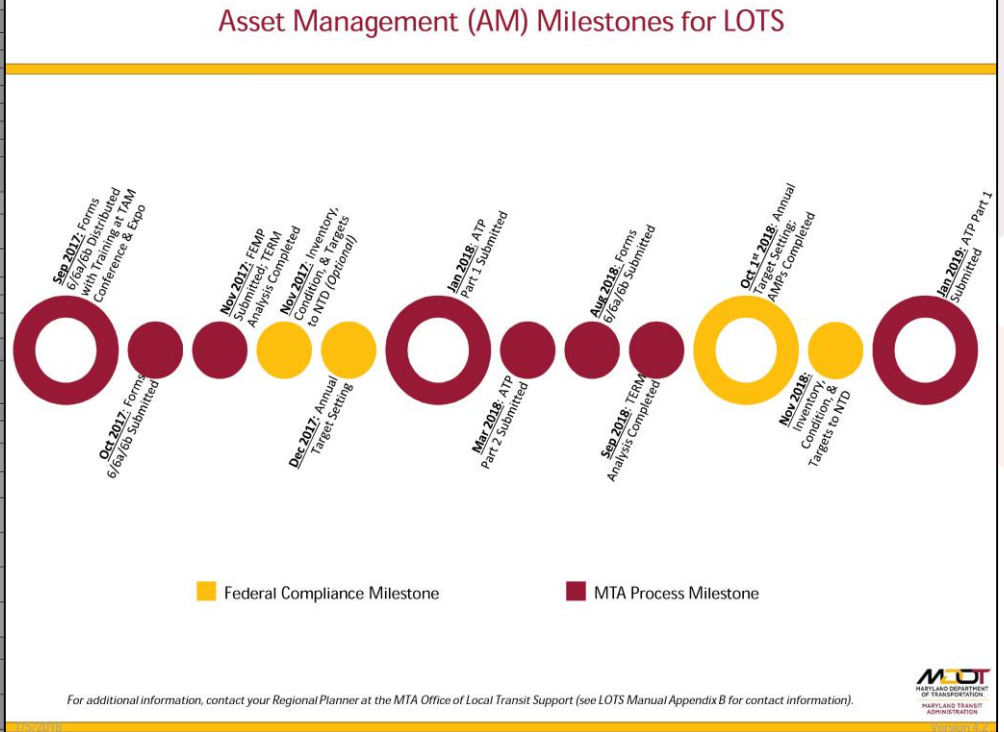
Other Documentation

☐ Documents describing how risks (particularly safety-related risks) are identified and the planned mitigation strategies or plans to manage those risks;

☐ Descriptions of processes and tools that support decisions related to asset lifecycle activities and other investments (e.g. capital investment); Ref: LOTS Manual p. 2-18

☐ Prioritized and ranked asset management project-based investment requests. Ref: LOTS Manual p. 2-18

For additional information, contact your Regional Planner at the MTA Office of Local Transit Support (see LOTS Manual Appendix B for contact information).



MARYLAND DEPARTMENT OF TRANSPORTATION
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Group Transit Asset Management Policy



November 14, 2017

LOTS ASSET MANAGEMENT POLICY

Whereas the Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) is the designated recipient of federal transit funding in the State of Maryland, and provides technical assistance to the Locally Operating Transit Systems (LOTS) throughout the state, this policy provides guidelines for MDOT MTA and each LOTS' overall asset management approach in a manner consistent with current federal regulations (49 U.S.C. 5326).

The following LOTS are subject to this policy:

- Allegany County (Allegany County Transit)
- Anne Arundel County
- Baltimore City (Charm City Circulator)
- Baltimore County (CountyRide)
- Calvert County (Calvert County Transportation)
- Carroll County (Carroll Transit)
- Cecil County (Cecil Transit)
- Charles County (VanGo)
- City of Annapolis (Annapolis Transit)
- Dorchester County (Delmarva Community Transit)
- Frederick County (TransIT Services)
- Garrett County (Garrett Transit Services)
- Harford County (Harford Transit LINK)
- Howard County (Regional Transportation Agency)
- Queen Anne's County (County Ride)
- St. Mary's County (St. Mary's Transit)
- Talbot, Caroline, and Kent Counties (Community Transit)
- Town of Ocean City (The Bus)
- Tri County Council for Lower Eastern Shore (Somerset, Wicomico, and Worcester Transit)
- Washington County (County Commuter)

It is the policy of MDOT MTA and the aforementioned LOTS to effectively manage all capital assets of each of their respective transit systems in a state of good repair (SGR). This policy sets the direction for asset management strategies and plans that are achievable with available funds.

MDOT MTA and all LOTS commit to:

- ✓ Maintain an Asset Inventory that includes all vehicles, facilities, and equipment used in transit service;
- ✓ Identify all Safety-Critical assets within the Asset Inventory and prioritize efforts to maintain those Safety-Critical assets in a SGR;
- ✓ Clearly define ownership, control, accountability, and reporting requirements for leased and third-party assets;
- ✓ Set annual asset performance targets and measure, monitor, and report on progress towards those targets;
- ✓ Consider asset criticality, condition, performance, available funding, safety considerations, and the evaluation of alternatives that consider full lifecycle benefits, costs, and risks in capital project prioritization and other asset management decisions; and
- ✓ Maintain an agency-wide asset management plan, in coordination with MDOT MTA policies and plans, as a means of delivering this policy.

Each LOTS' asset management program applies to all modes of service and will be monitored by the Office of Local Transit Support (OLTS). It is the responsibility of each MDOT MTA and LOTS employee to support the achievement of the goals and objectives established by this policy.

Signed: _____ Accountable Executive: _____
LOTS: _____ Date: _____

Signed by all Tier-2 Accountable Executives, January 2018

MDOT MTA and all LOTS commit to:

- ✓ Maintain an Asset Inventory that includes all vehicles, facilities, and equipment used in the delivery of transit service;
- ✓ Identify all Safety-Critical assets within the Asset Inventory and prioritize efforts to maintain those Safety-Critical assets in a SGR;
- ✓ Clearly define ownership, control, accountability, and reporting requirements for assets, including leased and third-party assets;
- ✓ Set annual asset performance targets and measure, monitor, and report on progress towards meeting those targets;
- ✓ Consider asset criticality, condition, performance, available funding, safety considerations, and the evaluation of alternatives that consider full lifecycle benefits, costs, and risks in capital project prioritization and other asset management decisions; and
- ✓ Maintain an agency-wide asset management plan, in coordination with MDOT MTA and LOTS safety policies and plans, as a means of delivering this policy.

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Developing Tools To Support TAM Processes

Inventory Submission Forms

- Contains all data necessary to support:
 - TERM Lite analysis
 - NTD Reporting
 - Annual Grant Making Process for the Tier 2 subrecipient
- Drop-down menus
- Data validation
- VBA User controls

Form 6: REVENUE VEHICLE INVENTORY
 Indicate all vehicles currently owned by the applicant organization, as well as vehicles requested in FY19 and those funded in previous years that are.

Route Type	Agency/Fleet Number	Vehicle Identification Number (VIN)	Current Status	Model Year	Make	Vehicle Type	Length (ft)	Seating Capacity	Standing Capacity	Fuel Type	Delivered Price	MTA Grant Number or Other Source	Funding Ratio (Fed/St/Local)	In-Service Date
?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
REVENUE VEHICLES: Add Rows Delete Selected Rows														
X														
X														
X														
X														
VEHICLES AWARDED BUT NOT RECEIVED (FY 18 awards and awards in previous years): Add Rows Delete Selected Rows														
X														
X														
X														
X														
REPLACEMENT VEHICLES REQUESTED IN FY 2019: Add Rows Delete Selected Rows														
X														
X														
X														
X														
EXPANSION VEHICLES REQUESTED IN FY 2019: Add Rows Delete Selected Rows														
X														
X														
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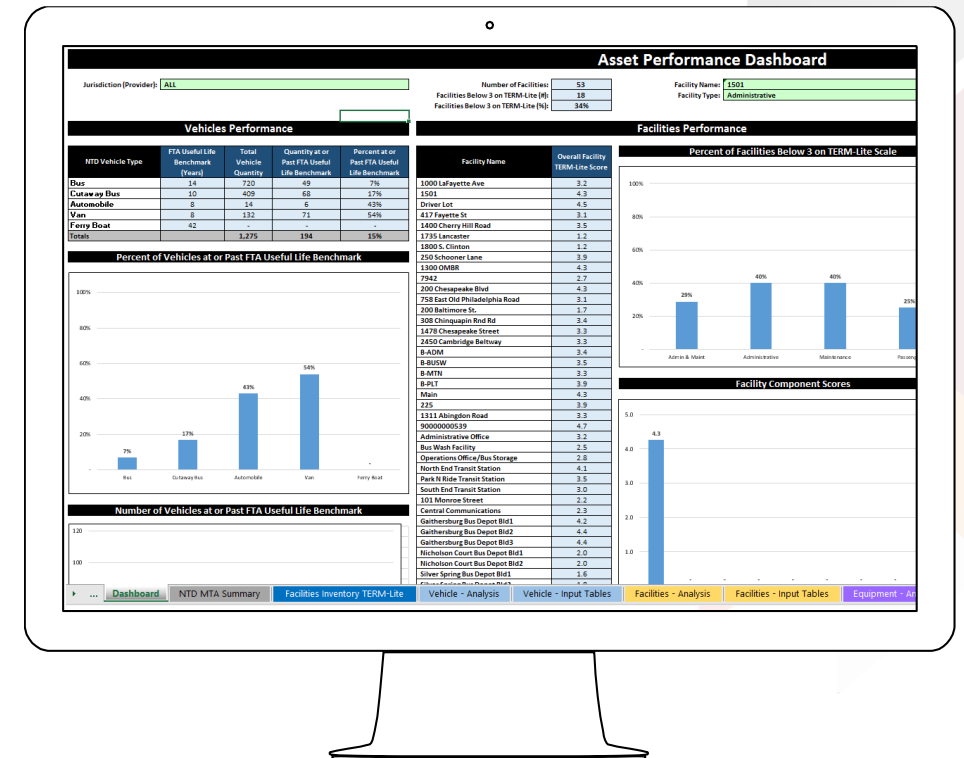
ALL VEHICLE **REPLACEMENT REQUESTS** REQUIRE PROPER JUSTIFICATION. VEHICLES COVERED BY EXTENDED WARRANTY IF YOU REQUEST **EXPANSION** VEHICLES YOU MUST INDICATE AS PART OF YOUR JUSTIFICATION HOW YOU INTEND TO FUND/PAID.

Mode	TERM Type	Length	Combi	TERM	FTA Age	FTA Mil	MTA Age	MTA Miles	TERM Code	Safety Crit
DR	Accessible_Car	28	ssible_f	6	4	100,000	4	150,000	52301	
DR	Accessible_Car	27	ssible_f	6	4	100,000	4	150,000	52301	
DR	Accessible_Car	26	ssible_f	6	4	100,000	4	150,000	52301	
DR	Accessible_Car	25	ssible_f	6	4	100,000	4	150,000	52301	
DR	Accessible_Car	24	ssible_f	6	4	100,000	4	150,000	52301	
DR	Accessible_Car	23	ssible_f	6	4	100,000	4	150,000	52301	

Form 6 - Revenue Vehicles Form 6a - Facilities Form 6b - Non-Revenue and Other

Developing Tools To Support TAM Processes

- Facility Condition Assessment Guidebook
- Performance Dashboard



TERM Lite

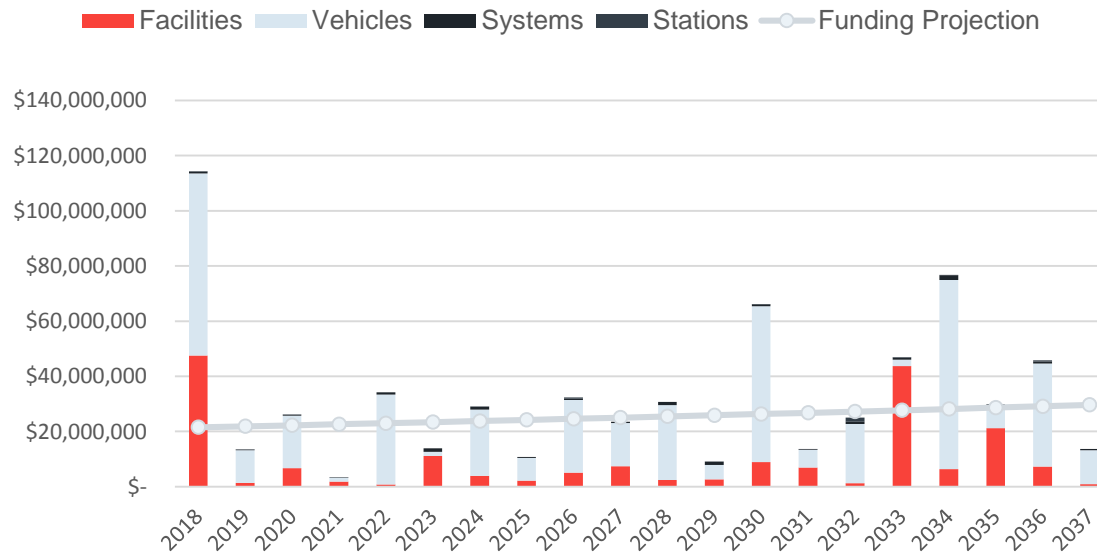
**Analyzes the
inventory data**

**Helps OLTS
Establish
Priorities for
Tier-2 Agencies**

Estimate

1. State of Good Repair (SGR) backlog
2. Level of annual investment to attain SGR or other investment objectives
3. Condition of all assets based on their age
4. 20 year capital needs
5. Impact of variations in funding on future asset conditions and SGR backlog
6. Investment priorities by mode and asset type

20 year projected needs and funding

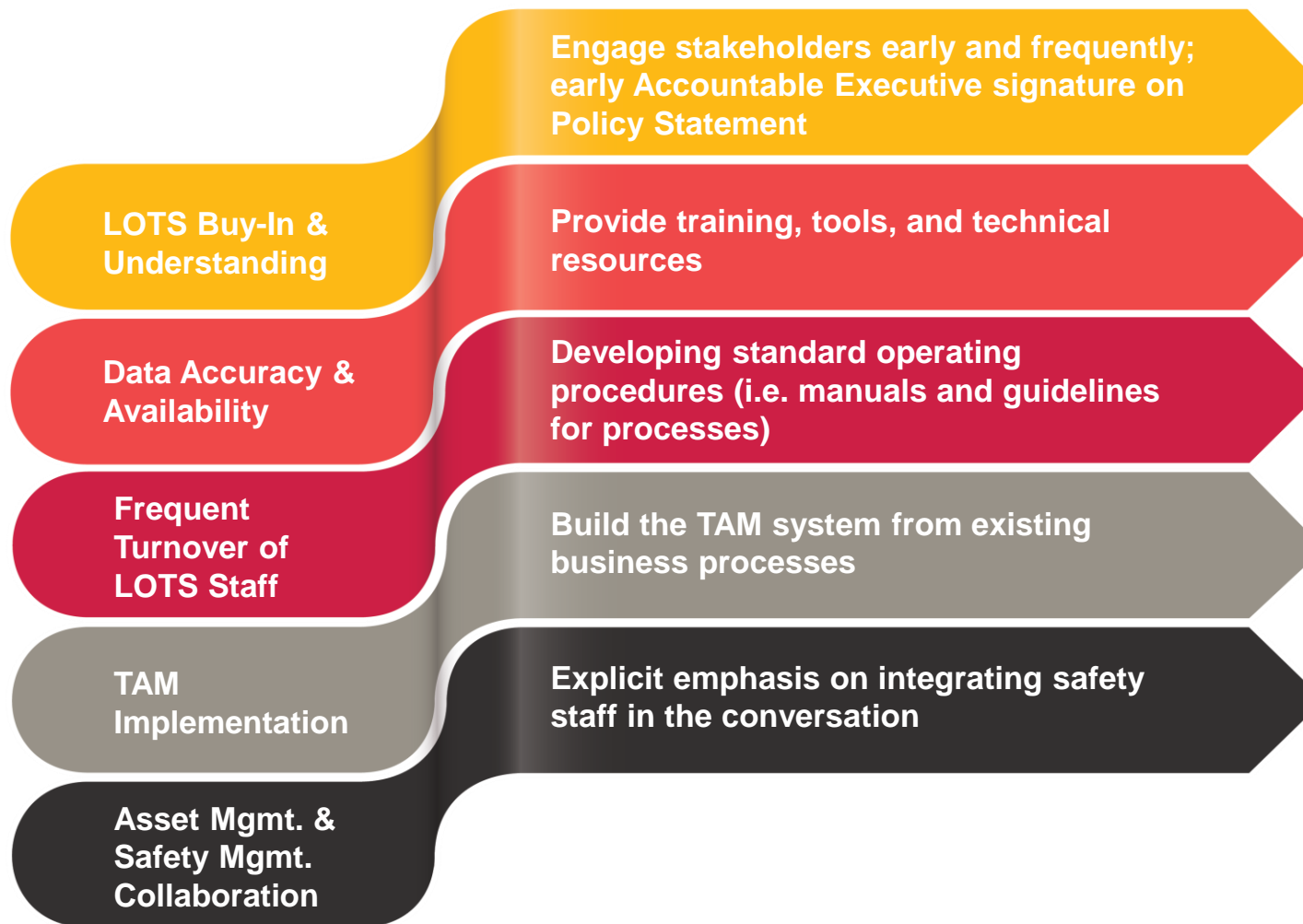


Tier 2 Group TAMP Contents

- ✓ Asset Management Policy (Directive)
- ✓ ***Asset Inventory***
- ✓ ***Asset Condition Assessments***
- ✓ ***Performance Measures and Targets***
- ✓ Asset Management Strategies
- ✓ ***Decision Support Tool & Processes***
- ✓ ***Prioritized SGR Capital Projects***
- ✓ Key Asset Management Activities (Improvement Projects)
- ✓ Implementation Resources (Money, Personnel, etc.)
- ✓ Continual Improvement Process



Challenges



Thank You

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