

TRANSPORTATION PERFORMANCE MANAGEMENT AT MASSDOT

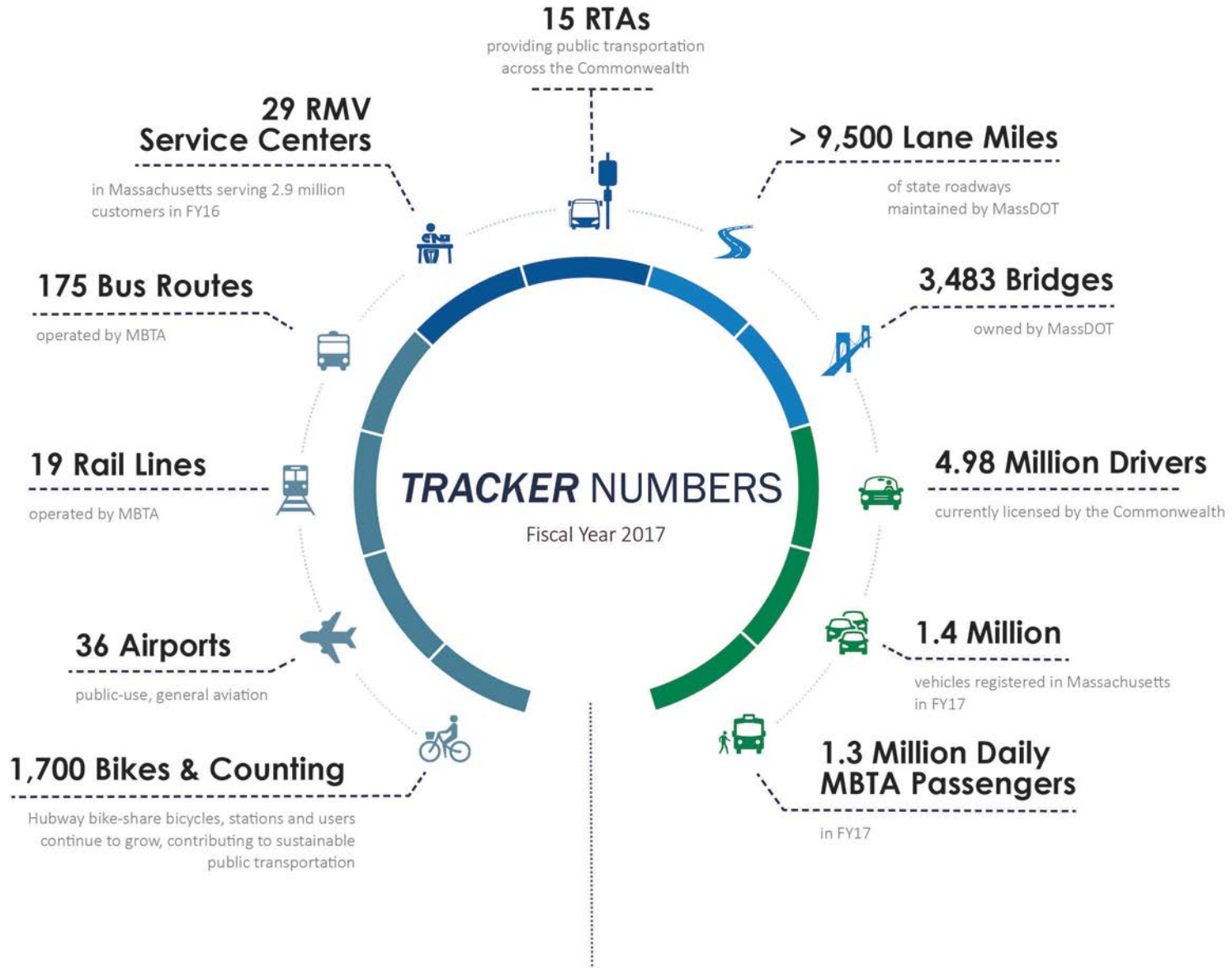
September 26, 2017

Connecticut Department of Transportation

Rachel Bain, Assistant Secretary –
Office of Performance Management and Innovation

INTRODUCTION

- MassDOT
- The Office of Performance Management and Innovation



Moving Massachusetts Forward.
massDOT



- MassDOT is led by the Secretary of Transportation.
- The Secretary is a cabinet position of the Governor and the chair of the MassDOT Board of Directors.

- The MBTA is led by the General Manager (who is hired by the Secretary) and answers to the Fiscal Management and Control Board
- Three FMCB members are also MassDOT board members

Legislative Mandate – Acts of 2009

The Secretary shall:

Establish performance management system for the Divisions

Establish program goals

Report publicly on progress to improve the effectiveness of transportation design and construction, service delivery and policy decision management

The Office of Performance Management & Innovation (OPMI)

Charged with working with Divisions to:

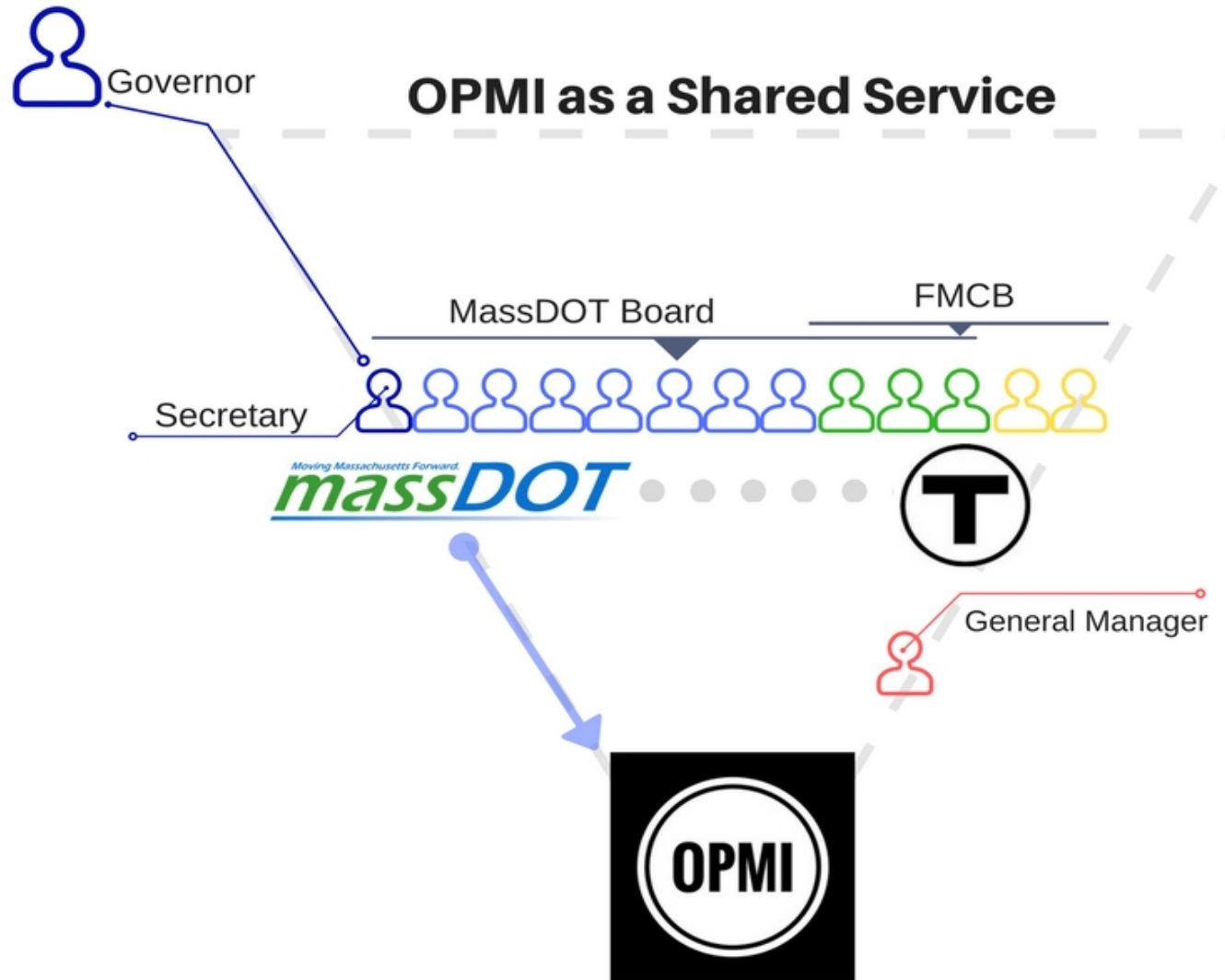
Set goals

Establish performance measures to improve the department and the divisions' operation and the delivery of transportation services and projects in the Commonwealth

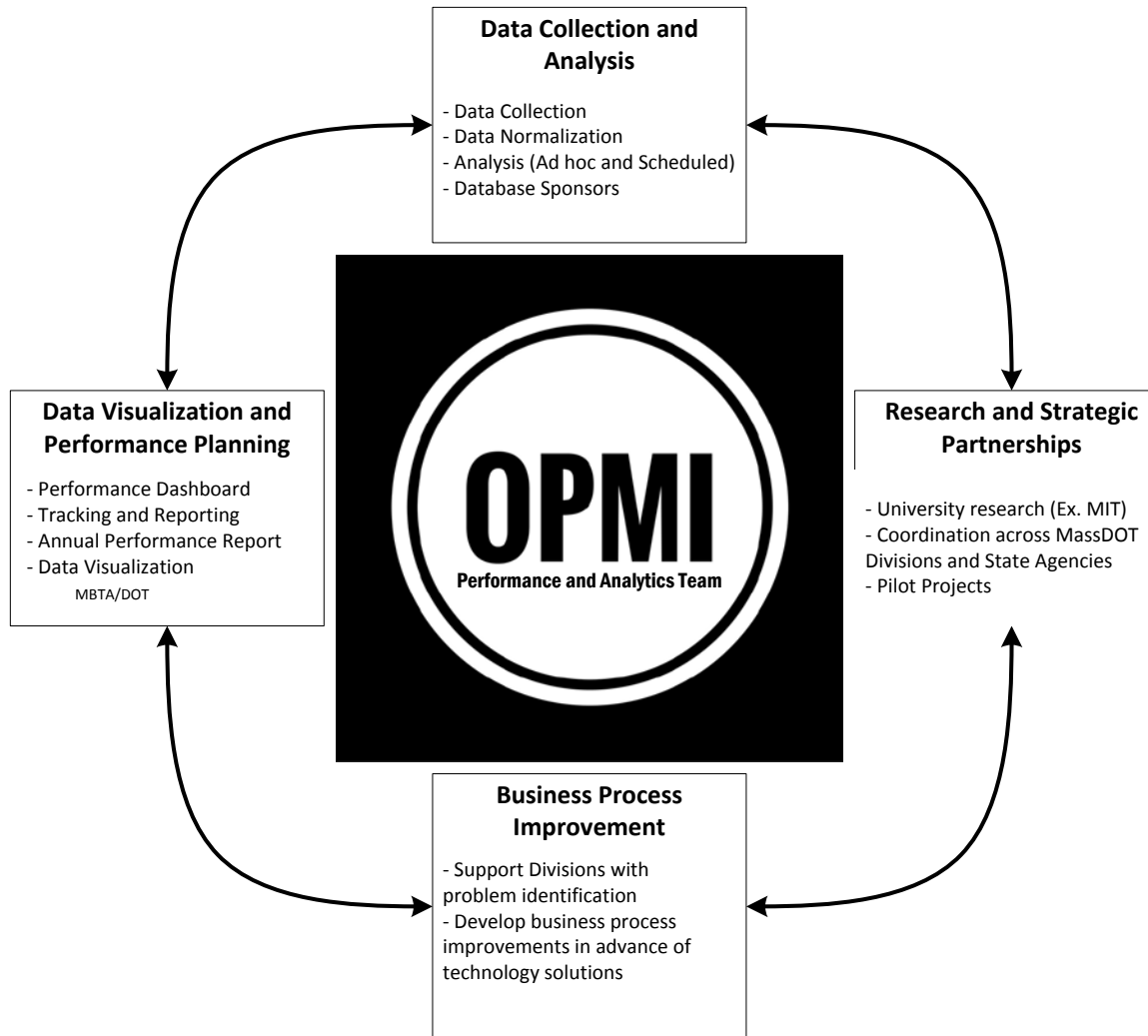
Measure program performance against goals

Include all modes, for current year and five previous years

- OPMI reports to the Secretary of Transportation
- Strategic Shared Service of MassDOT and the MBTA
- Blended staff – 50% T and 50% MassDOT
- Cross-pollinate analysis, tools, lessons-learned across all divisions



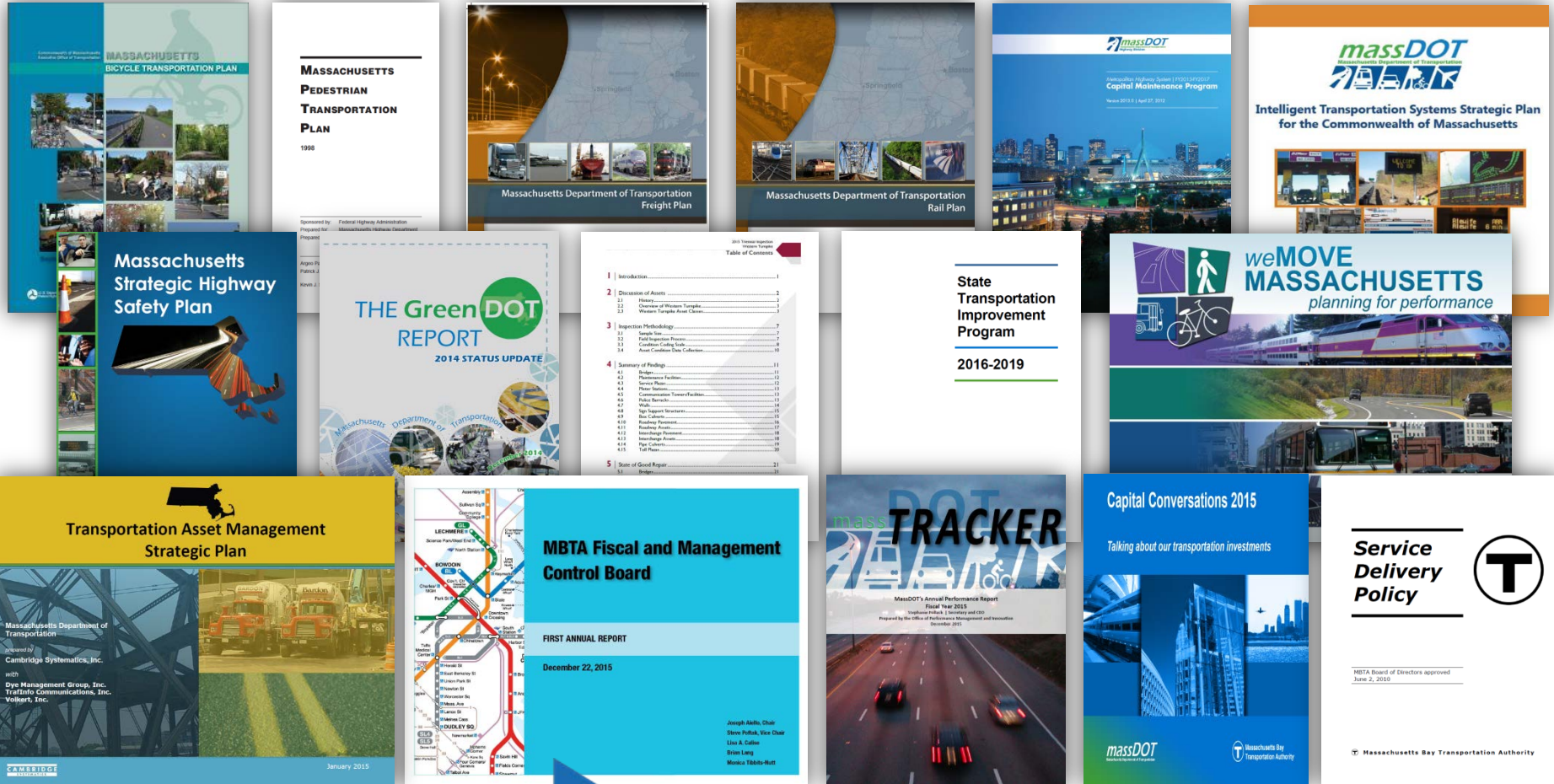
The Office of Performance Management & Innovation



TARGET SETTING

- Finding a frequency in the noise
- Finding common language
- MassDOT Goals
- 2016 – setting the targets
- Reconciling the Federal mandate w/ organizational priorities

Agency-wide efforts



FOCUS 4T

The 2040 Investment Plan for the MBTA

These efforts list a variety of goals, priorities, and objectives

Innovation Reduced project delivery delays Balanced budget **Economic impact**
Accountability **State of good repair** Economic development
Planning and prioritizing investments Service delivery **Reduce GHG emissions**
Promote healthy transportation modes Cost/benefit **Sustainability**
Cost effectiveness Infrastructure condition **Safety** System reliability
Support smart growth development Long term fiscal strategy Reduce costs
Freight movement Access Business IT **Policy support** **Stewardship**
Customer service Quality of life Economic vitality **Mobility**
Data **Build and preserve** System preservation Congestion reduction
Social equity and fairness **Efficiency** Future trends **Operations**
Long range planning Legal commitments **Health and environment**
Systems Comfortable Maintained infrastructure Convenient Continuous

Common language

EXPLANATION	LINGO	EXAMPLE
There's a thing I want to do	This is my goal	I want to run faster in a marathon
I am going to need to make some changes in my daily routine to do this	These changes are my objectives	I will: <ul style="list-style-type: none"> • Run consistently each week • Run faster on my training runs • Run farther on my training runs
Every day/week/month I will look at data I am collecting to see if I am getting closer to my goal	These are my measures	Measuring my objectives: <ul style="list-style-type: none"> • Run consistently each week – days/week running • Run faster on my training runs – average pace • Run farther on my training runs – average total miles per week
When I look at the data, I will want know if I am moving toward my goal	These are my targets	Targets for my measures: <ul style="list-style-type: none"> • Run 4 days/week • Average pace of 10 minutes per mile • Average total distance 25 miles per week

- OPMI has used the above language to describe this process so there will be a unified understanding of how MassDOT will be measuring performance across all operating Divisions.

MassDOT Goals

- **Safety:**

- Provide and support a multimodal transportation network that is safe for our workers and all users.

- **Customer Experience:**

- Provide reliable and accessible services to the MassDOT and MBTA customers and ensure that they are satisfied with the services provided.

- **Budget and Capital Performance:**

- Maximize MassDOT capital investment effectively and efficiently through dedication to programs and projects that produce the greatest benefits to the Commonwealth, its residents, and its visitors.

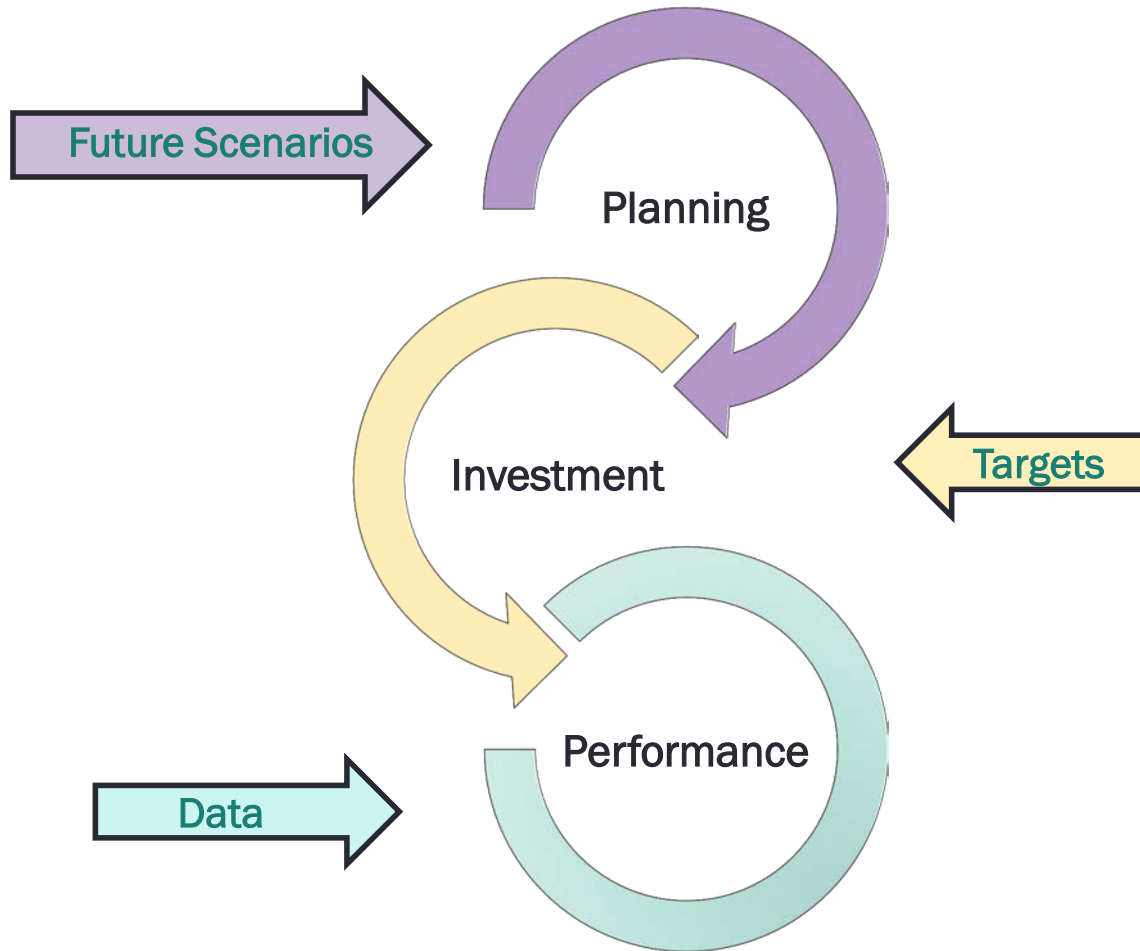
- **System Condition:**

- Ensure that the transportation system is well maintained and follows best practices for maintaining, preserving, and modernizing assets.

- **Healthy and Sustainable Transportation:**

- Invest in and support a transportation system that promotes and protects the health of all users and that natural environment.

Agency investments and actions build on a foundation of agency-wide goals



MassDOT Target-Setting Exercise Overview

- Set performance measures for each operating division
- Met periodically from April through June with division teams
- Selected measures based on best practices, MA and federal regulations, historical reporting, input from division staff, and available data
- Targets set for three horizons: 2-year, 4-year, long-term (align with MAP-21/FAST and CIP cycle)
- Some measures used as context-only, targets not appropriate
- Targets based on historical trend data
- Additional measures proposed as “in development,” for future years

Division Meetings

Goal: establish targets for key metrics

Background Work	Meeting Preparation	During Meeting	Follow-Up
<ul style="list-style-type: none">• Collect candidate metrics• Document previous targets• Research legislative requirements related to targets• Analyze trends• Produce metrics and targets memo	<ul style="list-style-type: none">• Review metrics and targets memo and analyses• Consider need for additional metrics	<ul style="list-style-type: none">• Discuss metrics• Discuss targets• Finalize draft list of metrics and targets	<ul style="list-style-type: none">• Summarize meeting discussion• Review draft metrics and targets in context with other Division outputs

Roles: OPM&I and Division
Division
OPM&I

HWY: Proposed Measures and Targets

Congestion/Operations

Performance Measure	Type of measure	Legislated Target	2 Year Target	4 Year Target	Long-Term/ Aspirational Target
Number of incidents that have caused delays or closures	Output		Context only - no targets		
Number of/rate of (per 100 million VMT) Serious Injuries (motorized and non-motorized)	Outcome	Reduction of the accident rate (on highways) by at least 10% for each rolling 5-year period	Reduction of the accident rate (on highways) by at least 10% for each rolling 5-year period	Reduction of the accident rate (on highways) by at least 10% for each rolling 5-year period	Move Towards Zero
Number/Rate of fatalities per 100 million VMT (FFY)	Outcome	Reduction of fatalities by at least 10% for each rolling 5-year period (MA)	Reduction of the accident rate (on highways) by at least 10% for each rolling 5 year period	Reduction of the accident rate (on highways) by at least 10% for each rolling 5-year period	Move Towards Zero
Fatalities in Roadway Work Zones	Outcome		Reduction of the number of fatalities in work zones by at least 10% for each rolling 5 year period	Reduction of the number of fatalities in work zones by at least 10% for each rolling 5 year period	Move Towards Zero
Fuel efficiency of MA vehicles	Output		Context only - no targets		
% of E-ZPass transactions versus total pay-by-plate transactions (Tobin only)	Input		90%	92%	95%
E-ZPass penetration rate	Output		90%	95%	98%
Daily vehicle miles traveled	Outcome		Context only - no targets		
Average commute time	Outcome	10% reduction in each region for each rolling 5-year period after adjusting for seasonal variations and changes in the economic activity in the region	Context only - no targets		
Highway congestion measures/NHS congestion levels	Output		TBD		

Reconciling conflicts with MAP-21

HIGHWAY DIVISION - 2016 SCORECARD

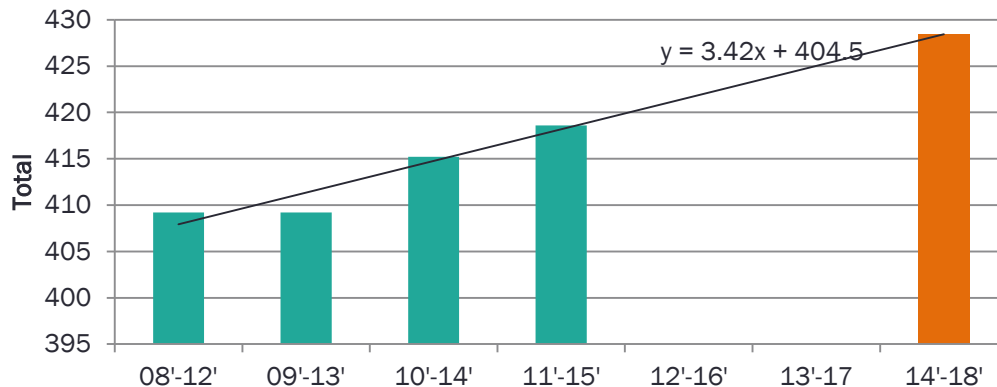
PURPOSE	PERFORMANCE MEASURE	CURRENT (FY16)	CHANGE FROM FY15	2-YEAR TARGET	4-YEAR TARGET	LONG-TERM TARGET
	Fatalities in roadway work zones	5 (CY10-CY14 rolling average)	-1 (from CY09-CY13 rolling average)			
	Number of fatalities ⁴	362 (CY10-CY14 rolling average)	+0.83% (+3 from CY09-CY13 rolling average)			
	Number of fatalities per 100 million VMT ⁴	0.65 (CY10-CY14 rolling average)	No change from CY09-CY13 rolling average			
	Number of non-motorized fatalities and serious injuries ⁴	923 (CY10-CY14 rolling average)	-2.3% (-22 from CY09-CY13 rolling average)			
	Number of serious injuries ⁴	4,397 (CY10-CY14 rolling average)	-3.3% (-151 from CY09-CY13 rolling average)	2% reduction from CY10-CY14 average	4% reduction from CY10-CY14 average	Move Towards Zero
	Number of serious injuries per 100 million VMT ⁴	7.89 (CY10-CY14 rolling average)	-4.6% (-0.35 from CY09-CY13 rolling average)			
	Number of pedestrian fatalities	74 (CY10-CY14 rolling average)	+7.3% (+5 from CY09-CY13 rolling average)			
	Number of bicycle fatalities	8 (CY10-CY14 rolling average)	No change from CY09-CY13 rolling average			
	Number of motorcycle fatalities	44 (CY10-CY14 rolling average)	-6.4% (-3 from CY09-CY13 rolling average)			



- Targets set through MassDOT process
- Based on review of historical trends & agency adoption of “Toward Zero Deaths” program

- MAP-21 guidance recommends relying on projections of trend data to establish targets
- Results in INCREASE in bike/ped injuries and fatalities
- MassDOT using Tracker to recognize trends, but explain intent to reverse the trend and maintain TARGET

Combined Cyclist and Ped (from 08')



CONCLUSION...AND OTHER THOUGHTS

- Pros/Cons of the legislative mandate
- Accountability without stagnation
- What to do when it stops working

QUESTIONS

Rachel.Bain@state.ma.us