



CAMBRIDGE
SYSTEMATICS

Think  Forward

Transportation Performance Management Practical Considerations for MPOs

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Outline



LEARNING TO FLY

James Cooper Artist & Illustrator from Sydney, Australia.

Application of Measures and Targets

75% of MPOs used performance measures in some fashion in their most recent LRTP

30% use performance measures to evaluate projects for the TIP

- » Most use performance to evaluate current conditions, rather than to choose projects for funding

Source: T4 America Transportation Performance Measures Survey, 2017. 104 MPOs responding.

Most MPOs use project selection criteria in some form

- » LRTP, TIP, CMAQ, TA, etc.



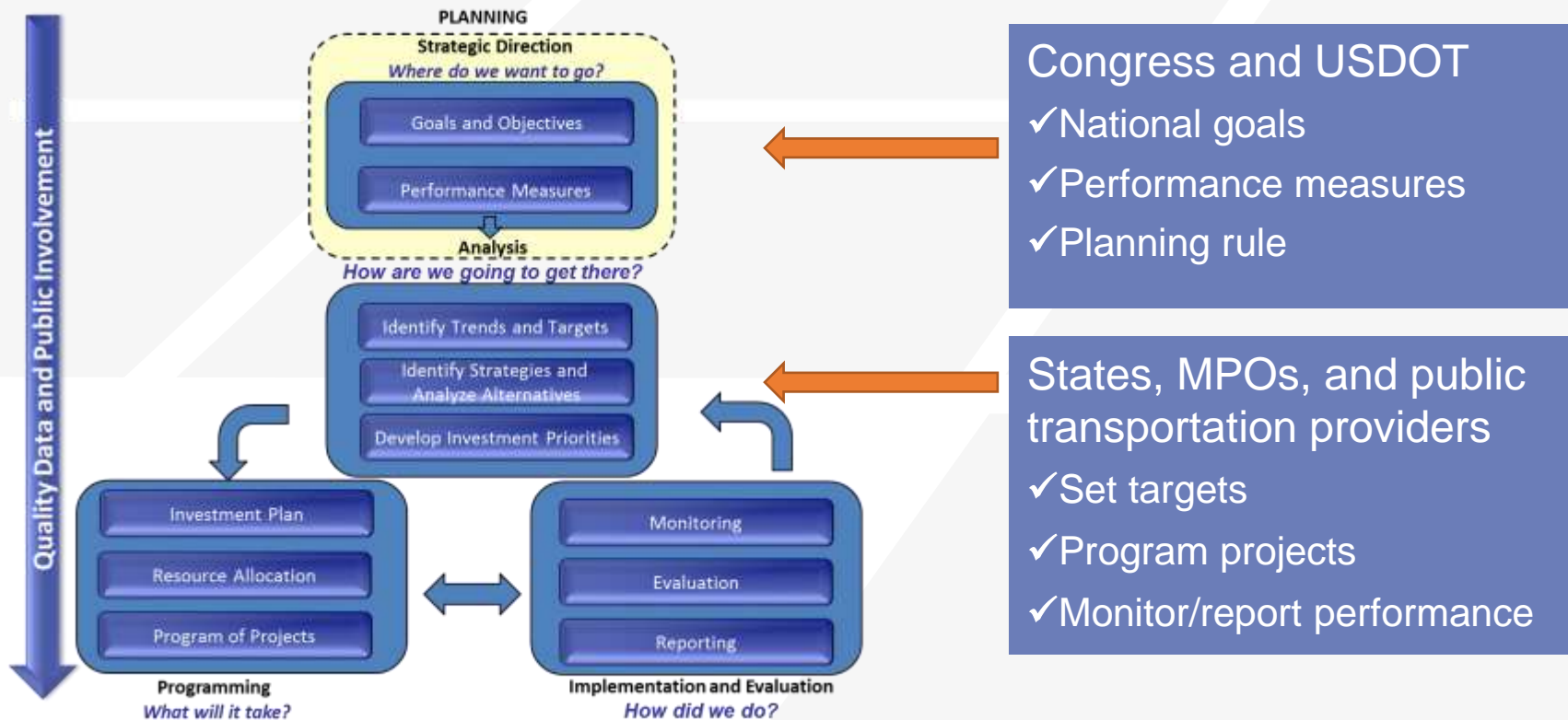
TPM is now Part of the Planning Process

- MPOs must develop LRTPs and TIPs through a performance-driven, outcome-based approach
- The MPO process must provide for the establishment and use of a performance-based approach to transportation decision-making to support the national goals

What's Different for MPOs?

- Set targets for each performance measure
- Report performance, targets, and progress towards achieving targets to state DOTs
- Incorporate national goals, performance measures and targets into LRTPs and TIPs
 - » MPOs must design the TIP such that once implemented, it makes progress toward achieving the MPO's performance targets

Federal TPM PBPP Framework



MPO Target Setting Considerations

Support the state targets or set my own?

- ➔ How well do MPO priorities align with National Goals and performance measures?
- ➔ How well do we understand the metrics for each measure and influences of multiple factors??
- ➔ Does performance in your MPO differ widely from statewide?
- ➔ How much funding do you have to program?

Understanding the Federal Measures

➤ How well do we understand:

» The measure?

- Does reliable mean no congestion?
- Why does that city have higher reliability than this one?

» The data?

» The influencing factors?

- Truck crashes, weigh stations, work zones, temperatures
- How many roadway segments are just below the threshold for reliability? How many time segments are unreliable?

NBI Rating Scale <i>(from 0 – 9)</i>		9 8 7	6 5	4 3 2 1 0
		Good	Fair	Poor
Bridge	Deck <i>(Item 58)</i>	≥7	5 or 6	≤4
	Superstructure <i>(Item 59)</i>	≥7	5 or 6	≤4
	Substructure <i>(Item 60)</i>	≥7	5 or 6	≤4
	Culvert <i>(Item 62)</i>	≥7	5 or 6	≤4

Rating	Good	Fair	Poor
IRI <i>(Inches/mile)</i>	<95	95-170	>170
PSR* <i>(0.0-5.0 value)</i>	≥4.0	2.0-4.0	≤2.0
Cracking Percent <i>(%)</i>	<5	CRCP: 5-10 Jointed: 5-15 Asphalt: 5-20	>10 >15 >20
Rutting <i>(Inches)</i>	<0.20	0.20-0.40	>0.40
Faulting <i>(Inches)</i>	<0.10	0.10-0.15	>0.15

*PSR may be used only on routes with posted speed limit < 40mph.



MPO Performance Compared to the Rest of the State

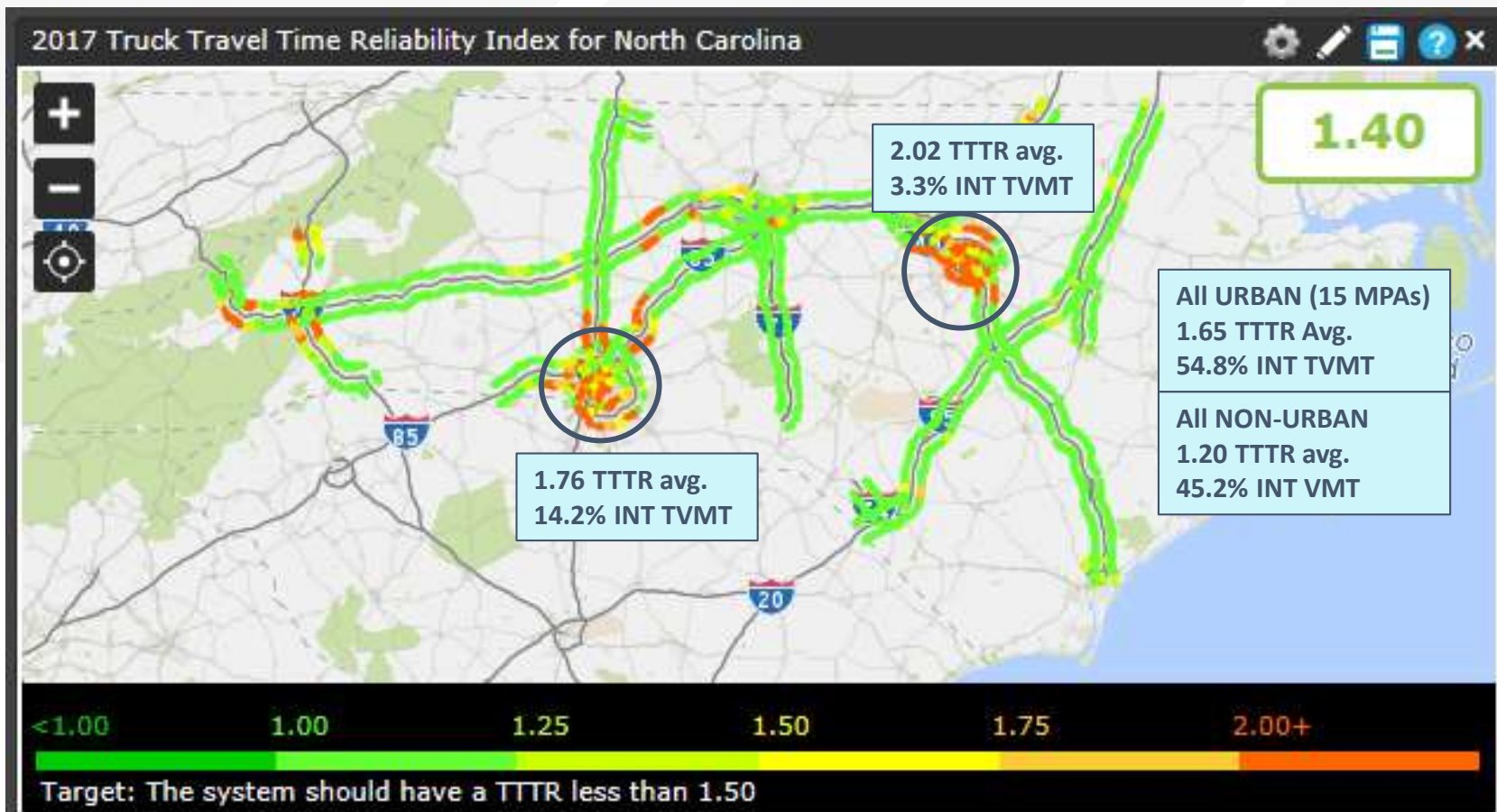
Performance in your MPO relative to the rest of the state

MPA	LOTTR-INT
CAMPO	69.3%
CRTPO	74.8%
CRMPO	81.8%
GCLMPO	85.5%
DCHCMPO	87.2%
NC	87.9%
FBRMPO	95.8%
GUAMPO	98.9%
GHMPO	100.0%
BGMPO	100.0%
FAMPO	100.0%
HPMPO	100.0%
WSMPO	100.0%
NBMPO	N/A
GVMPO	N/A
RMMPO	100.0%
WMPO	100.0%
GBMPO	100.0%
GSATS	N/A
JUMPO	N/A

MPA	LOTTR-NHS
CRTPO	70.5%
DCHCMPO	75.2%
CAMPO	81.3%
WSMPO	87.2%
HPMPO	87.4%
NC	88.4%
GCLMPO	88.8%
FBRMPO	90.3%
CRMPO	91.1%
GUAMPO	91.4%
BGMPO	92.7%
WMPO	93.2%
FAMPO	97.8%
GHMPO	91.0%
NBMPO	N/A
GVMPO	N/A
RMMPO	92.6%
GBMPO	95.1%
GSATS	N/A
JUMPO	90.7%

MPO Performance Compared to the Rest of the State

Truck Travel Time Reliability statewide vs. MPO area



How Much Funding Does it Take to Impact Performance

- Targets are set for 1, 2, or 4 years
- Is the TIP radically different than previous TIPs?
 - » New project selection criteria?
 - » Additional funding?
- Are socioeconomic trends changing?

How much can we move the performance needle in the short term?



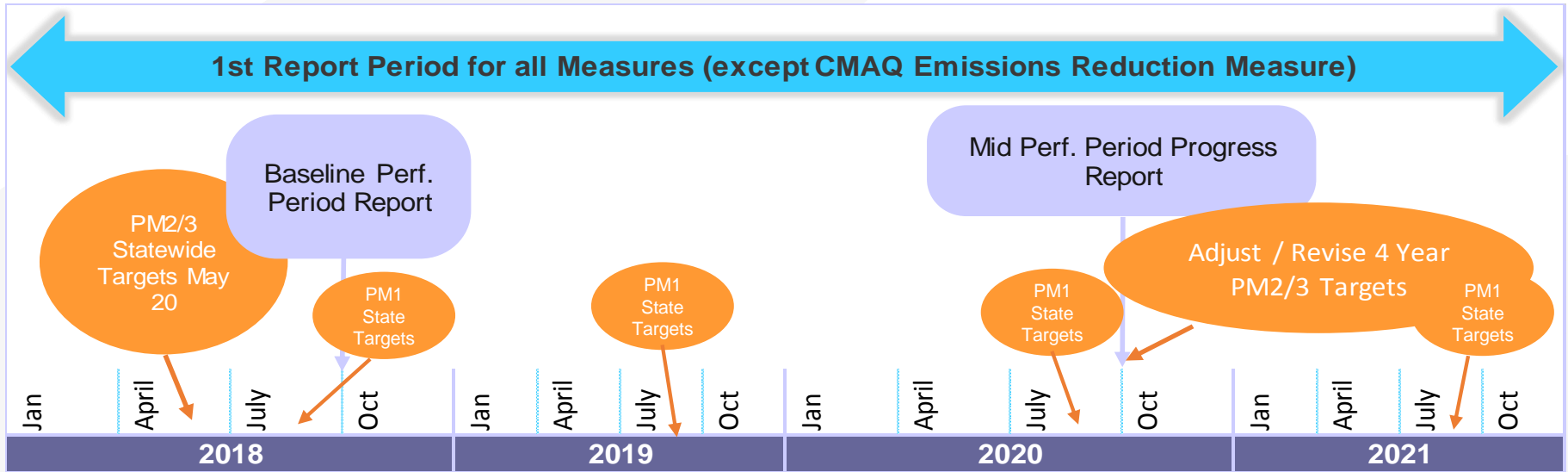
TPM in the MPO Planning Process

MPO Performance Reporting

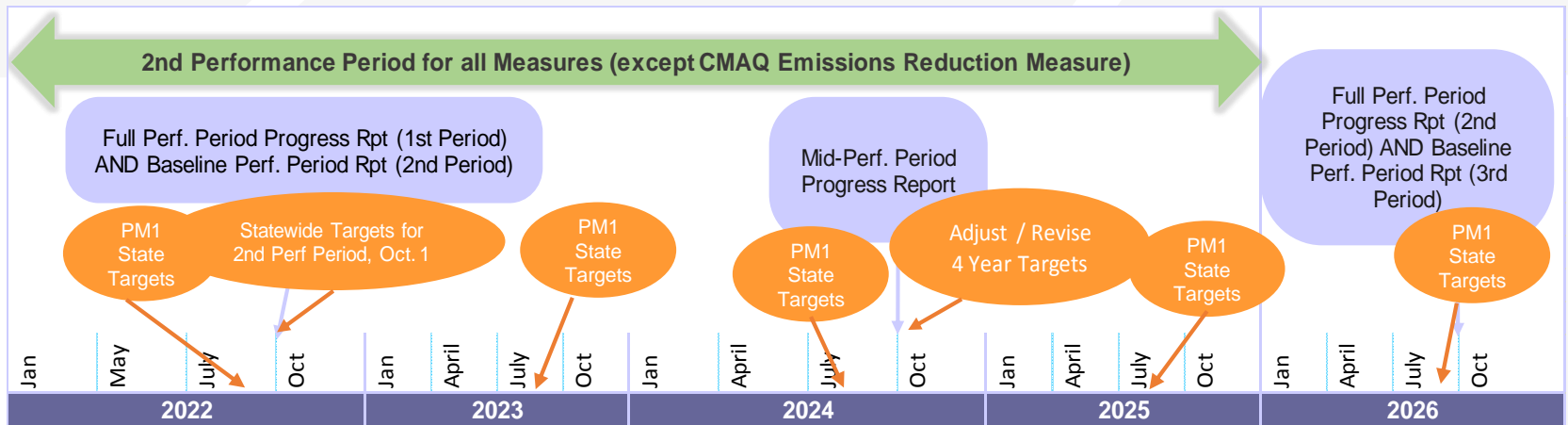
Planning Product	What Must be Reported
LRTP	<ul style="list-style-type: none">• A description of the performance measures and targets• System Performance Report evaluating condition and performance of the transportation system with respect to targets and progress achieved in meeting the targets
TIP	<ul style="list-style-type: none">• Discussion of the anticipated effect of the TIP toward meeting performance targets• Must link investment priorities to performance targets



TPM Periods and Reporting Schedule



Note: 1st Period for Emissions Reduction Measure is 10/2017 to 10/2021



Note: 2nd Period for Emissions Reduction Measure is 10/2021 to 10/2025

Source: USDOT - FHWA

Coordination Agreements

- States, MPOs, and public transportation providers must develop written agreements for cooperatively developing and sharing information related to:
 - » Transportation performance data
 - » Selection of targets
 - » Reporting of targets
 - » Reporting of performance to be used in tracking progress toward achieving targets
 - » Data collection for the NHS asset management plan

Coordination Agreements - Content

- Transportation performance data
 - » Who collects performance data – state, MPO, and transit provider(s)
 - » For what measures?
 - » How/when data will be shared
- Selecting targets
 - » How coordination will take place
 - » Opportunity for MPOs to comment on state or transit targets and vice versa
 - » Timeframes allowed for commenting
 - » When parties notify each other

Coordination Agreements – Content (cont)

➤ Reporting Targets

- » Role of each agency in reporting targets to each other and to FHWA/FTA
- » Who takes the lead for required state biennial performance reports
- » Performing the required reporting in LRTPs and STIP/TIPs

➤ Reporting Performance

- » Role of each agency in ongoing performance reporting
- » Who takes the lead for various required plans

➤ Who will collect data for state asset management plans

➤ Misc: type of notice required, timeframes

Closing Thoughts

- What does TPM mean for large, medium, and small MPOs?
- How will PBPP requirements change the way we do things?
 - » Project selection criteria / call for projects
 - » Maintain focus on existing priority areas? (e.g., equity, access to jobs, transit on time performance, etc.)
- How does an MPO coordinate targets across the required areas (pavement, bridge, safety, freight, congestion/mobility, reliability, emissions, transit assets and safety)?
 - » What policy and investment tradeoffs will be made?
- What do we need to do to evolve with the TPM approach?
 - » Existing projects in the TIP

So I started out for God
knows where. I guess I'll
know when I get there.

Tom Petty

Thank you!

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