IDOT PERFORMANCE BASED PROJECT METRICS

February 2018



What is Performance Management?

Performance Management of the Federal Highway
 Program is a systematic approach to making
 investment and strategic decisions using information
 about the condition and performance of the system and
 developing an approach to achieve a desired set of
 national goals.















Why Performance Management?

- Provide link between goals and specific actions
- Guide decisions on best use of available resources
- Evaluate the effectiveness of policies, plans, programs and projects
- Track system performance over time
- Clearly communicate results to internal and external audiences
- Strengthen accountability to taxpayers



What is IDOT's Role?

- Asset Management
 - Taking care of what we have
- Performance Based Project Evaluation
 - Evaluating expansion projects for ROI



Asset Management

• Asset management is a strategic and systematic process of operating, maintaining, and improving physical assets, with a focus on engineering and economic analysis based upon quality information, to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good repair over the lifecycle of the assets at minimum practicable cost. (23 U.S.C. 101(a)(2), MAP-21 § 1103)



Transportation Asset Management Plan (TAMP)

- All states are required to develop a Transportation Asset Management Plan (TAMP)
- The Plan will include:
 - NHS pavement and bridge inventory
 - Objectives and measures
 - Performance gap identification
 - Life-cycle cost and risk management analysis
 - Financial plan
 - Investment strategies
- Interim TAMP due April 30th 2018
- Final TAMP before June 30th 2019



Setting Performance Measures

- Essential requirements for a measure to support asset management
- Help agency make better decisions about where to invest resources



Performance Management vs. Asset Management – MAP 21 View

Performance Management

- National goals and performance management measures – §150
- §150 (b) National Goal of Infrastructure condition
- §150(c)(3)(A) NHPP performance requirements
- §150 (d) Target Establishment
- §Section 150 (e) Target reporting

Asset Management Plan

- A performance driven plan Section 119(e)(2)
- Strategies leading towards the achievement of targets for asset condition and performance
- Support progress towards achievement of national goals

Illinois Department of Transportation

Policy Goals and Objectives

Performance Measures and Targets

Managing, Preserving Physical Assets	Safety	Reliability	Capacity	Environment
TAM provides the long-term strategy and philosophy as well as the technical tools to manage physical assets for the lowest feasible cost and the highest levels of service for their entire lifecycle. TAM is the performance management system for phyiscal assets.	TAM influences many aspects of highway safety such as keeping pavement friction high, sustaining safety appurtenances, and ensuring traffic control devices are sound. However, most area of safety are driven by performance management such as prioritizing high-crash locations, changing driver behavior, or controlling speed.	TAM indirectly influences reliability by reducing maintenance and repair disruption to travel lane. It also is a means to ensure the reliability of ITS equipment, traffic control devices, and other hardware needed for reliable traffic operations.	TAM should be a strong influence in the design of new capacity facilities. The whole-life cost of managing and maintaining the new capacity should be addressed in the planning, design, and construction of facilities.	Environmental compliance with water-quality regulations is dependent on the performance of drainage facilities, wetlands, and other components of water-quality structures. These features require sound asset management practices to perform indefinitely.

Resource Allocation Decisions Financial Infrastructure Staff Equipment Other

Program and Service Delivery

System Conditions and Service Levels



What about new capacity projects?

- TAMP covers existing assets
- States are responsible for adding measures that reflect state and local priorities
- Need to evaluate major expansion projects statewide
 - Demonstrate the value infrastructure provides
 - Good stewards of public dollars
 - Easy-to-understand scoring criteria
 - No "one size fits all" answer



What about new capacity projects?

- We have limited resources for expansion projects
- Implementing performance measures will allow us to:
 - Identify and compare benefits of projects across the state
 - Improve accountability and transparency
 - Prepare for new state or federal revenues
 - Make the case for more funding



Performance Based Project Evaluation

"The current state of our infrastructure is not acceptable."

"Greater investment that results in a bigger bang for your buck."

"Infrastructure concerns are multimodal."

"IDOT has room to improve project delivery and collaboration with partners."

New project evaluation tool:

- Focus on maintenance and modernization of existing assets
- Be accountable and transparent in project selection
- Select projects that provide the greatest return on investment for taxpayers – maximizing our limited resources
- Incorporate regional goals



Performance Based Project Evaluation Tool Benefits

- Data-driven approach to investment decisions
- Prioritize projects based on performance measures to maximize resources
- Objectively analyze infrastructure projects
- Identify cost-effective projects that maintain and modernize the transportation network
- Find innovative ways to deliver critical safety elements
- Connect to statewide long range, multimodal planning initiatives



Long Range Transportation Plan















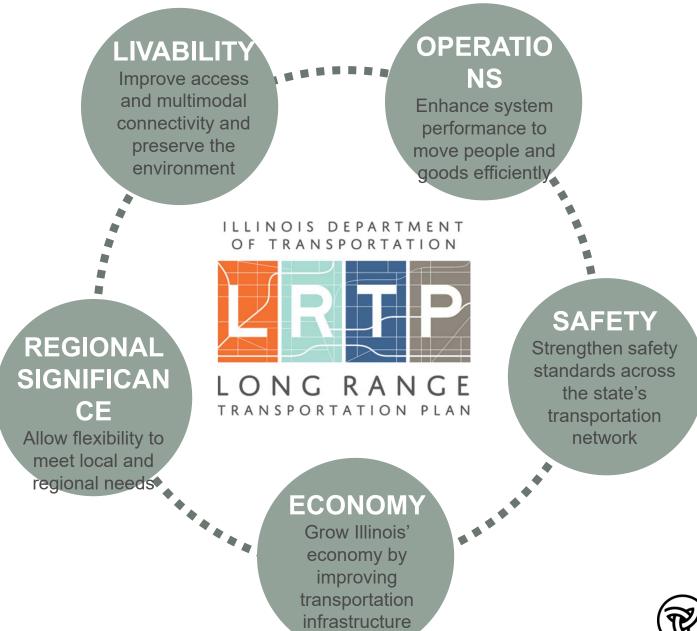














Freight Plan

- The FAST Act provides freight formula funds to states with an approved freight plan
- The Freight Plan will identify:
 - Trends, needs, bottlenecks, goals, and performance measures, and develop strategies for improving freight movement in Illinois
 - Projects slated to use these funds
 - Designate Illinois critical urban & rural freight corridors with input from the MPOs and others
- Slated for release in spring 2018
- Call for projects underway now
- Applications due April 6





THANK YOU

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MAP-21

- Safety To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition To maintain the highway infrastructure asset system in a state of good repair
- Congestion Reduction To achieve a significant reduction in congestion on the National Highway System
- System Reliability To improve the efficiency of the surface transportation system
- Freight Movement and Economic Vitality To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental Sustainability To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices



<u>Rule</u>	<u>Needs targets for:</u>	<u>Date</u>
Safety (PM1)	 # of fatalities # of Non-Motorized Fatalities and Non-Motorized Serious Injuries # of Serious Injuries Rate of Fatalities per 100 M VMT Rate of Serious Injuries per 100 M VMT 	August 31, 2017
Pavement and Bridges (PM2)	 % of Interstate Pavement in Good condition % of Interstate Pavements in Poor condition % of non-Interstate NHS pavements in Good condition % of non-interstate NHS pavements in Poor condition % of NHS bridges classified as in Good condition % of NHS bridge classified as in Poor condition 	May 20, 2018
System Performance (PM3)	 % of person-miles traveled on the Interstate that are reliable % of person-miles traveled on the non-Interstate NHS that are reliable Truck Travel Time Reliability Index Annual Hours of Peak house Excessive Delay per Capita Percent of Non-Single Occupancy vehicle (SOV) Travel Total Emission Reductions 	May 20, 2018
Final Planning Rule	Agreement with MPOs and transit agencies on how to share data and coordinate target setting.	May 27, 2018

