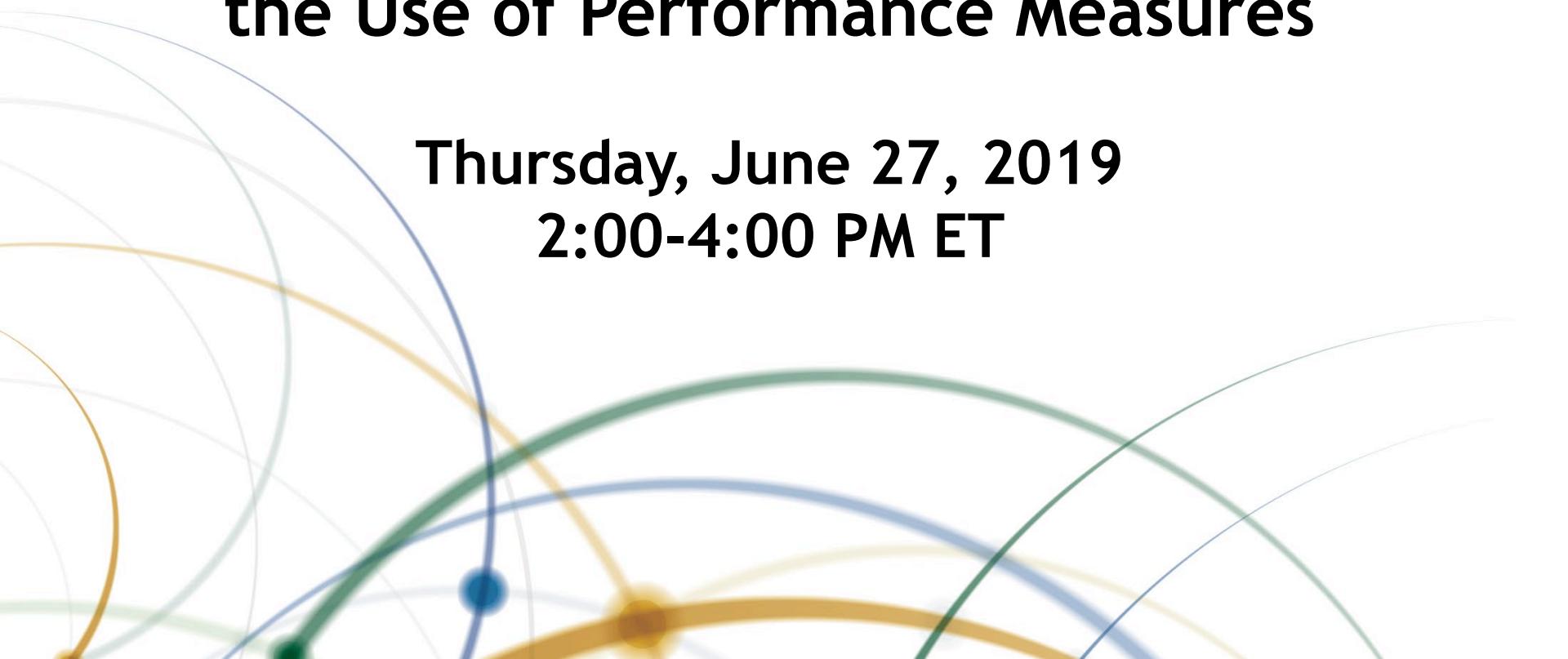


TRANSPORTATION RESEARCH BOARD

How Agency Culture is Transforming with the Use of Performance Measures



Thursday, June 27, 2019
2:00-4:00 PM ET

The Transportation Research Board has met the standards and requirements of the Registered Continuing Education Providers Program. Credit earned on completion of this program will be reported to RCEP. A certificate of completion will be issued to participants that have registered and attended the entire session. As such, it does not include content that may be deemed or construed to be an approval or endorsement by RCEP.



REGISTERED CONTINUING EDUCATION PROGRAM

Purpose

To discuss how transportation agencies are heading toward performance management practices as part of agency culture.

Learning Objectives

At the end of this webinar, you will be able to:

- Identify sustainable performance management practices
 - Describe the steps agencies are taking to apply performance measures to cultural frameworks
 - Describe the steps agencies are taking to apply performance measures to governance
 - Describe the steps agencies are taking to apply performance measures to implementation processes
- 

Telling NDDOT's Story: Sharing Meaningful Data



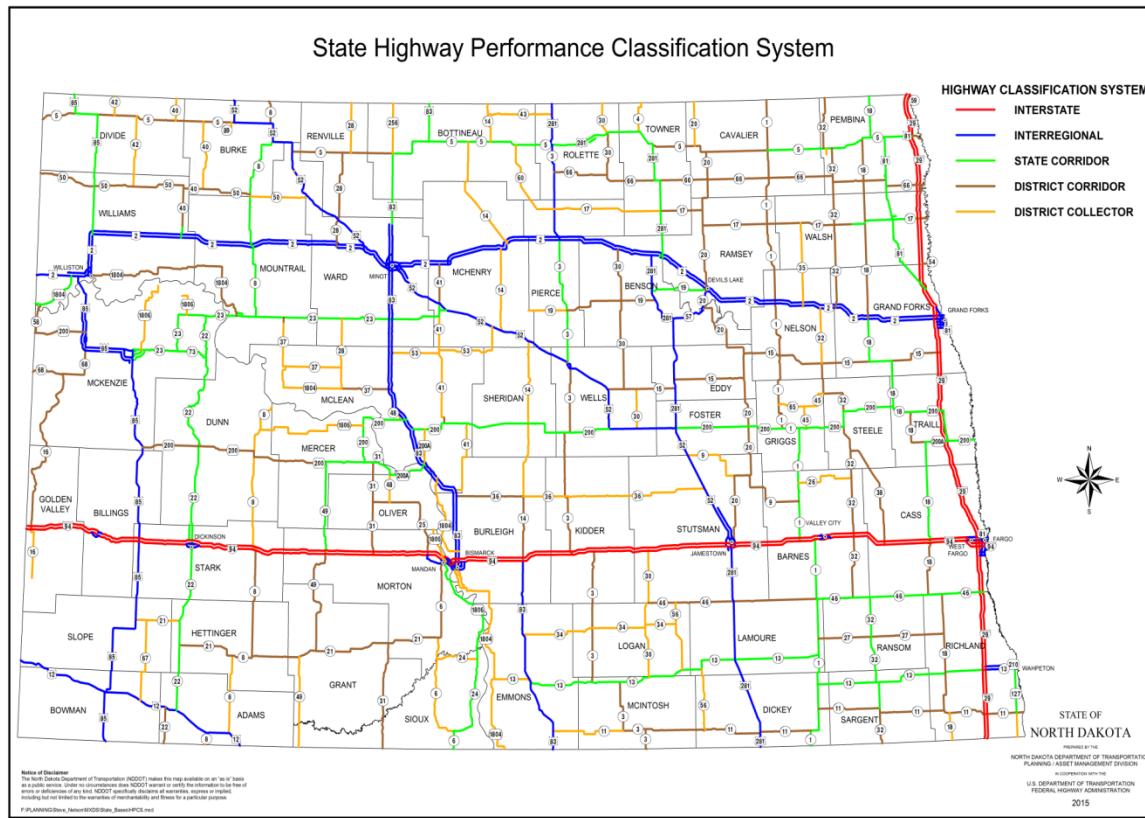
Rebecca Geyer, Planning/Asset Management Division
TRB Webinar: How Agency Culture is Transforming
with the Use of Performance Measures – June 2019

Our Story

- * NDDOT's Performance Management History
- * Successes and Lessons Learned
- * Aligning Services with Public Desires
- * Next Steps – Telling Our Story to Stakeholders



NDDOT's Performance Management History – HPCS Data



1990s – Performance Measures of minutia

2000s – HPCS

- Five-tiered Classification
- Not All Equal
- Well received Data
- Stringent Contracting Specs
- Smooth Roads

Successes and Lessons Learned

- * “What Gets Measured Gets Done”
- * Smooth Roads using HPCS data
- * Risk Analysis to identify and mitigate risks



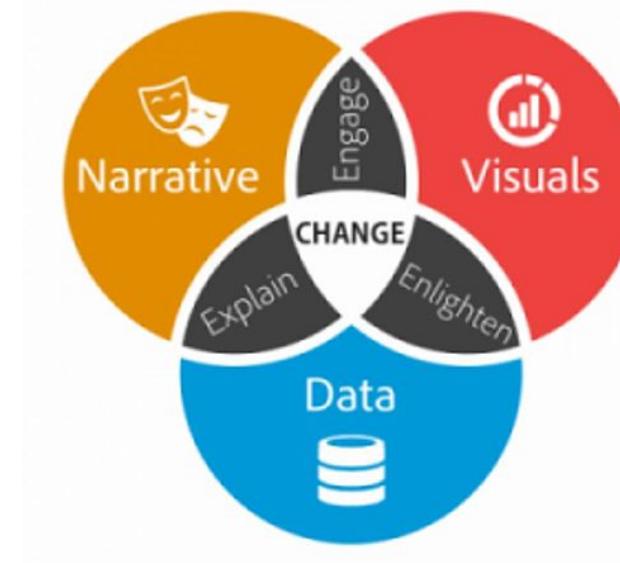
Aligning Services with Public Desires

- * Learn more about stakeholder “wants”
- * Vetting performance measures in upcoming LRTP Update
- * Make data widely available for analysis internally and externally



Next Steps – Telling Our Story to Stakeholders

- * Procuring Interactive Performance Measures Dashboard Software
- * Storytelling Feature



Any Questions?

Rebecca Geyer, AICP, PMP
North Dakota DOT
Planning/Asset Management Division
701.328.2675 rgeyer@nd.gov

How Agency Culture Is Transforming with the Use of Performance Measures

*Key Questions &
Current Conversations
at Iowa DOT*

David J. Putz, Ph.D. – Iowa DOT

david.putz@iowadot.us

Presented June 27, 2019

Originally Presented at TRB 98th Annual Meeting – Jan 2019

Organizational Performance Management

Not again! We already have:

- Transportation performance management
- Asset management
- Project management
- Change management
- Workforce management
- Knowledge management

KEY QUESTION

WHAT DOES ORGANIZATIONAL PERFORMANCE MANAGEMENT “MEAN”?

Organizational Performance Management

Simple, Practical Definition:

*Using information to
understand and improve your work*

KEY QUESTION

HOW CAN WE
BETTER SEE
AND
UNDERSTAND
THE DOT?



Use of “Models”

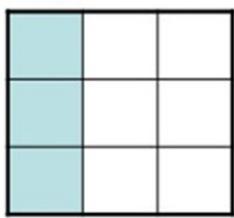
- Models are used to “represent” something
- If you “understand” an organizational model it should help you understand an organization
- “All models are wrong, but some are useful” - George Box, statistician

Translation – *Models can be useful, but no one of them is perfect.*

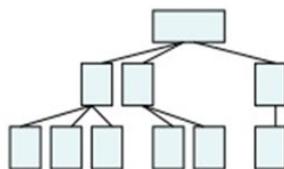
Many Ways to Display

Ways how to depict the Results chain

Logframe



Results Tree



Narrative

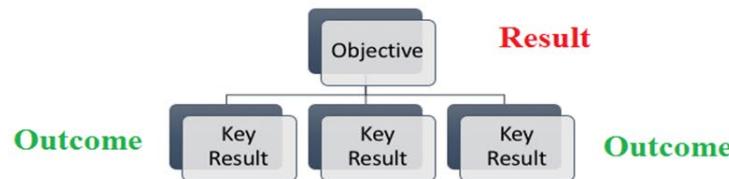
IMPACT
A. XXXXXXXX
OUTCOME
A.1. XXXXXXXX
A.2. XXXXXXX XXX
OUTPUTS
A.1.1.XXX XXX XXXX
A.1.2. XXXXXX
A.2.1. XXXXXXX

Results Pyramid



Generic “Tree”

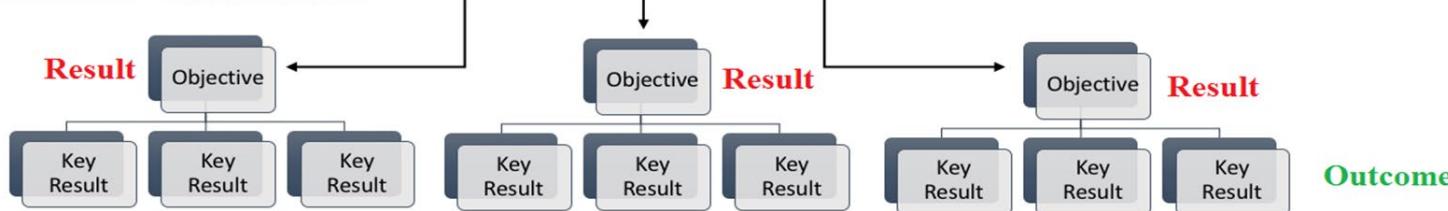
Organisation **Department**



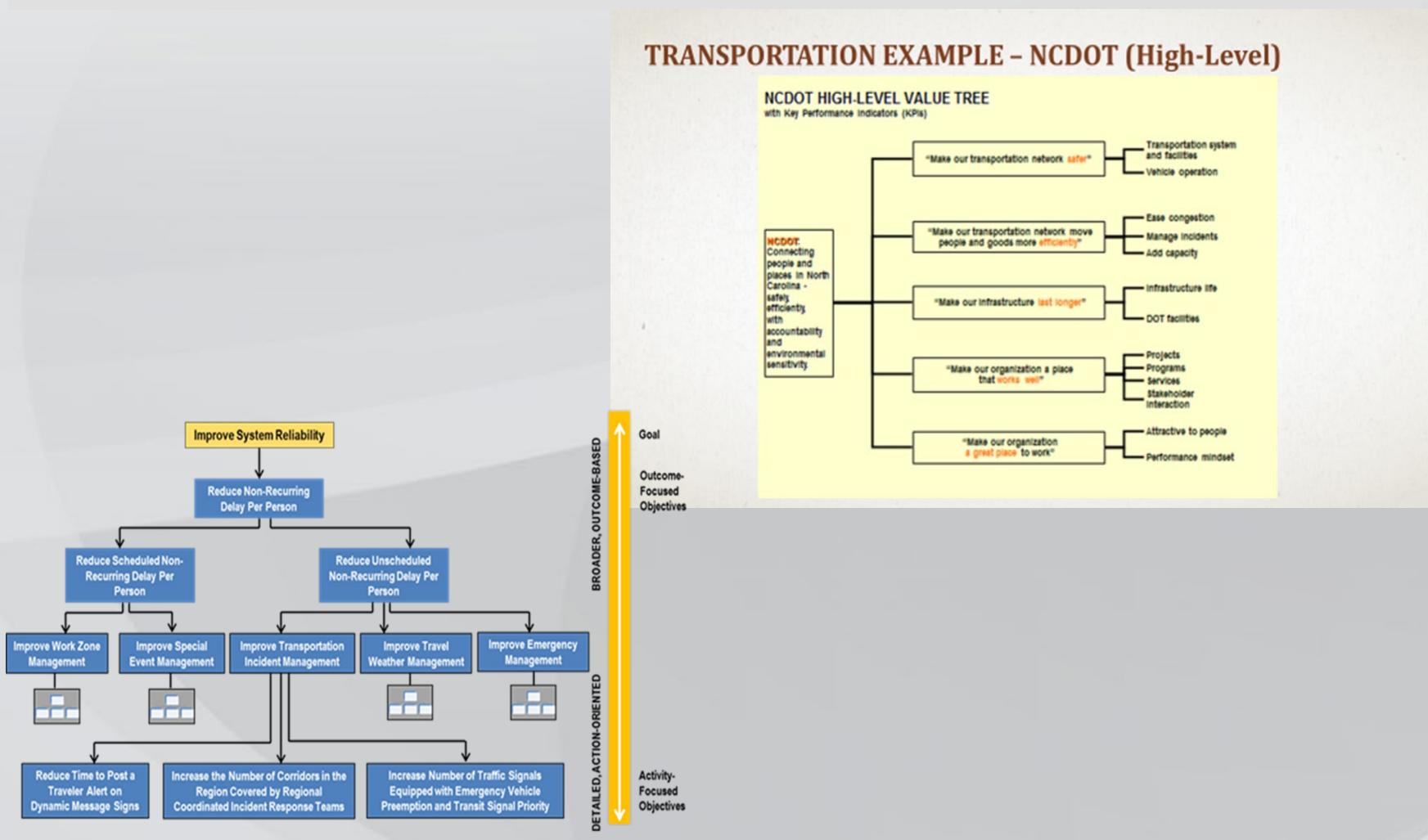
Team **Division**



Individual **Bureau/Office**



Transportation Examples



KEY QUESTION

HOW SHOULD WE DISPLAY
THE INFORMATION?

Simplistic Dashboard

IMPACTS – TRANSPORTATION & STATE

Core Functions

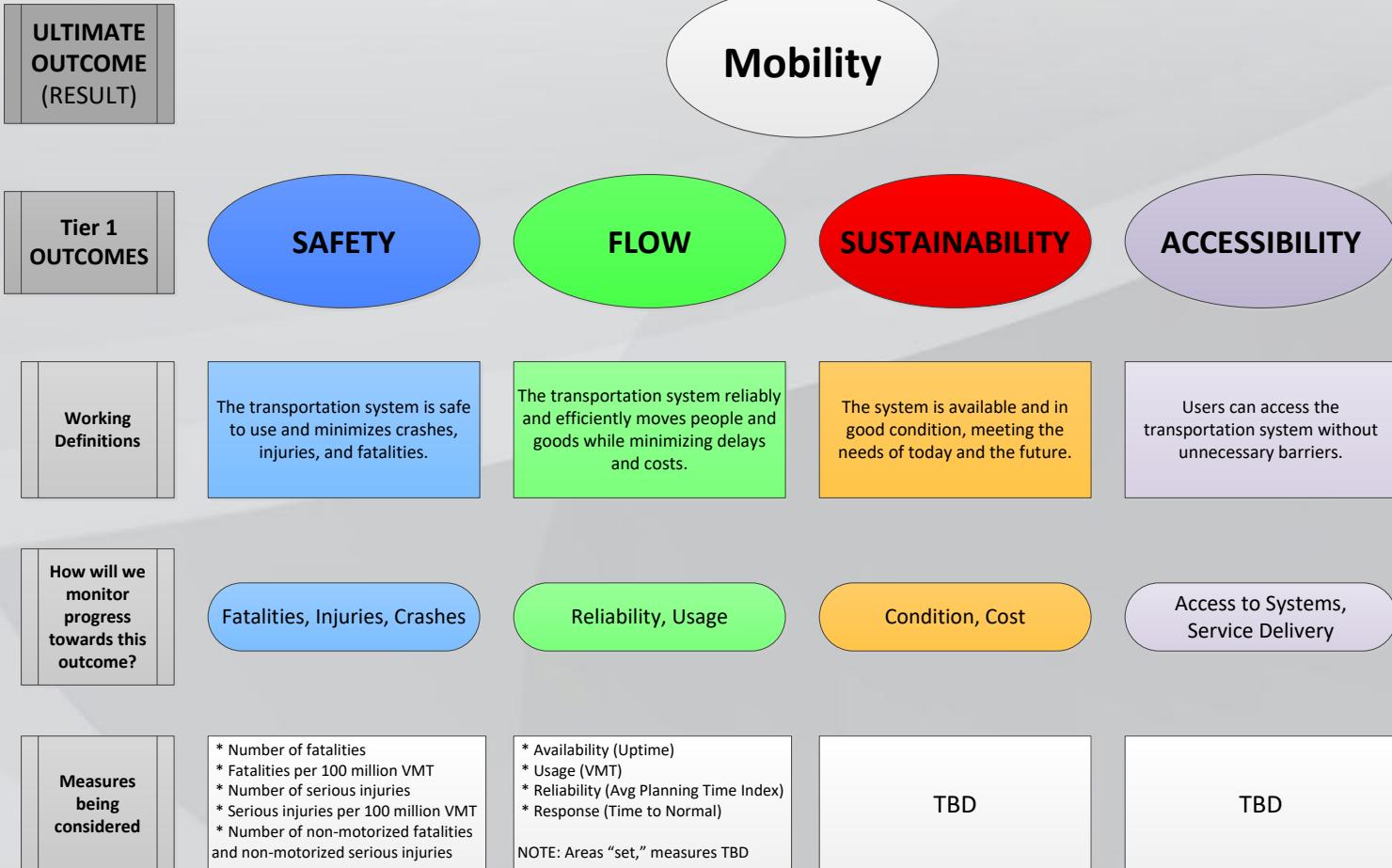
Products and Services

Support Functions

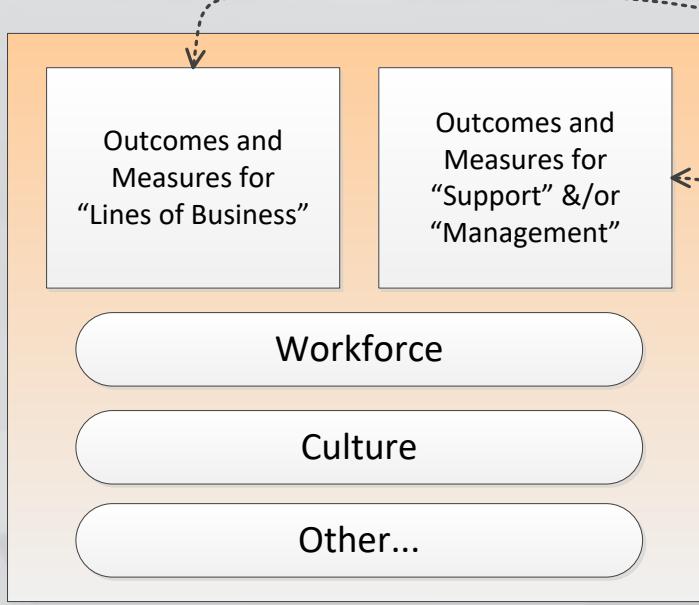
Products and Services

Work Force & Work Environment

Outcomes - “Proof of Concept”

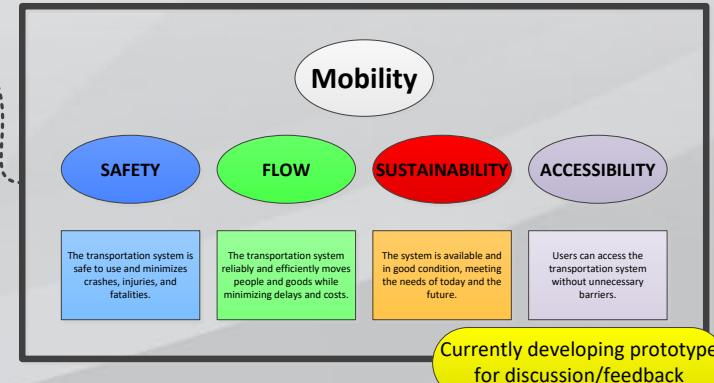


Use of Outcomes

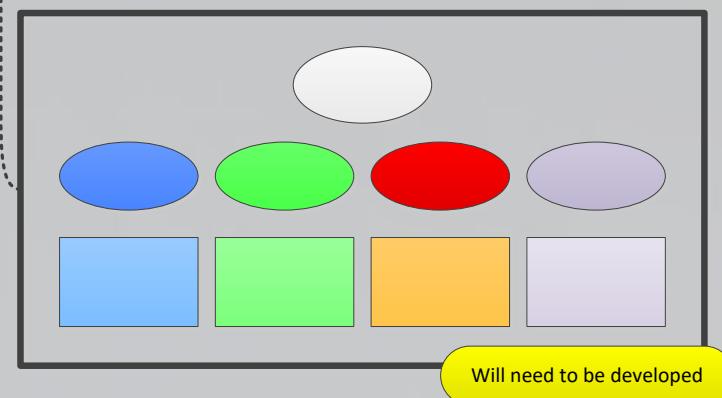


Management Team “Dashboard”
Outcomes and Measures Management Team Chooses to Monitor
Created, in part, from outcomes and measures developed in results trees

LINES OF BUSINESS RESULTS TREE



SUPPORT/MANAGEMENT RESULTS TREE



KEY QUESTION

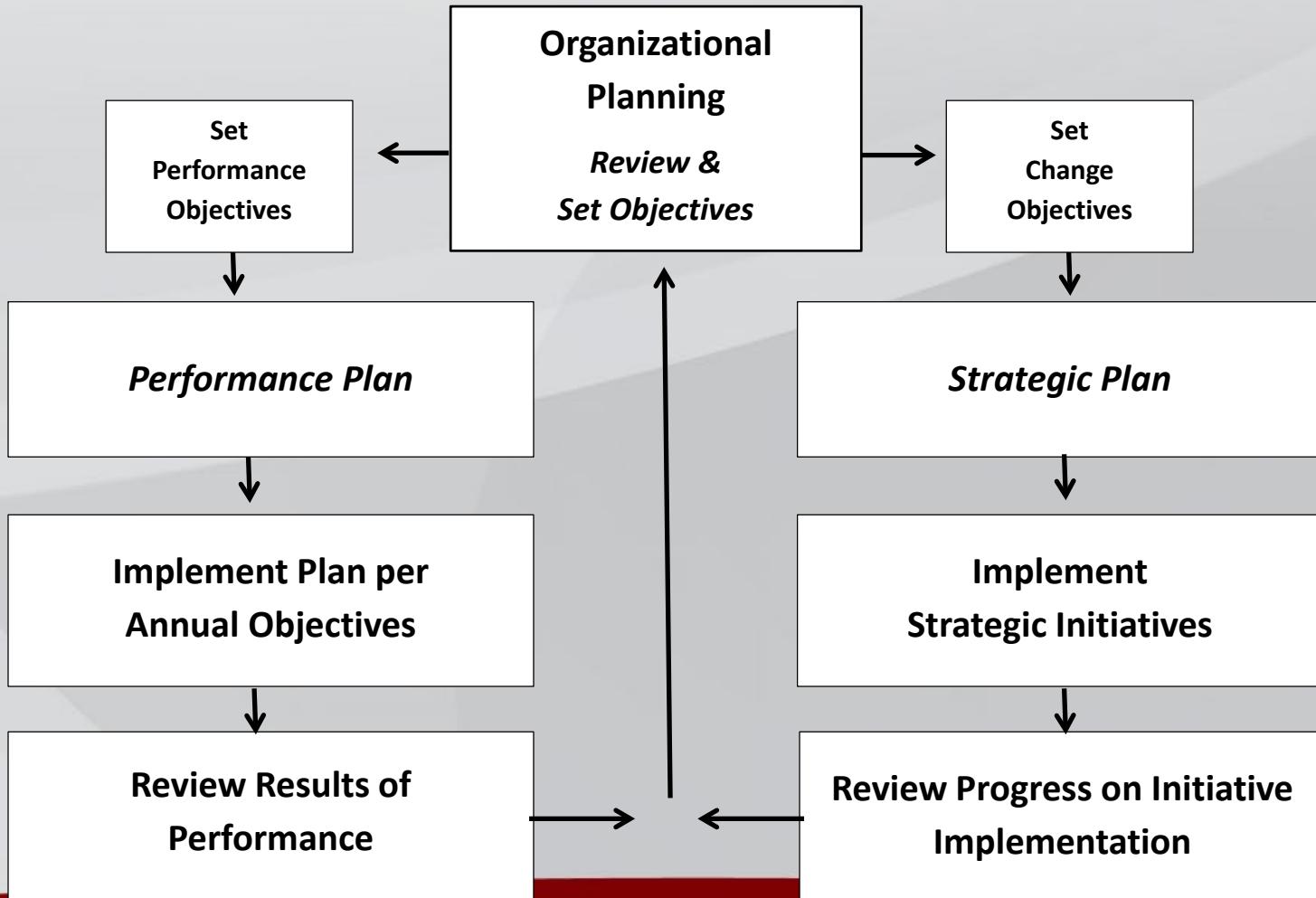
WHAT
PERFORMANCE
MEASURES
DO WE NEED?

(Better) KEY QUESTION

WHAT PERFORMANCE
INFORMATION DO
WE NEED?

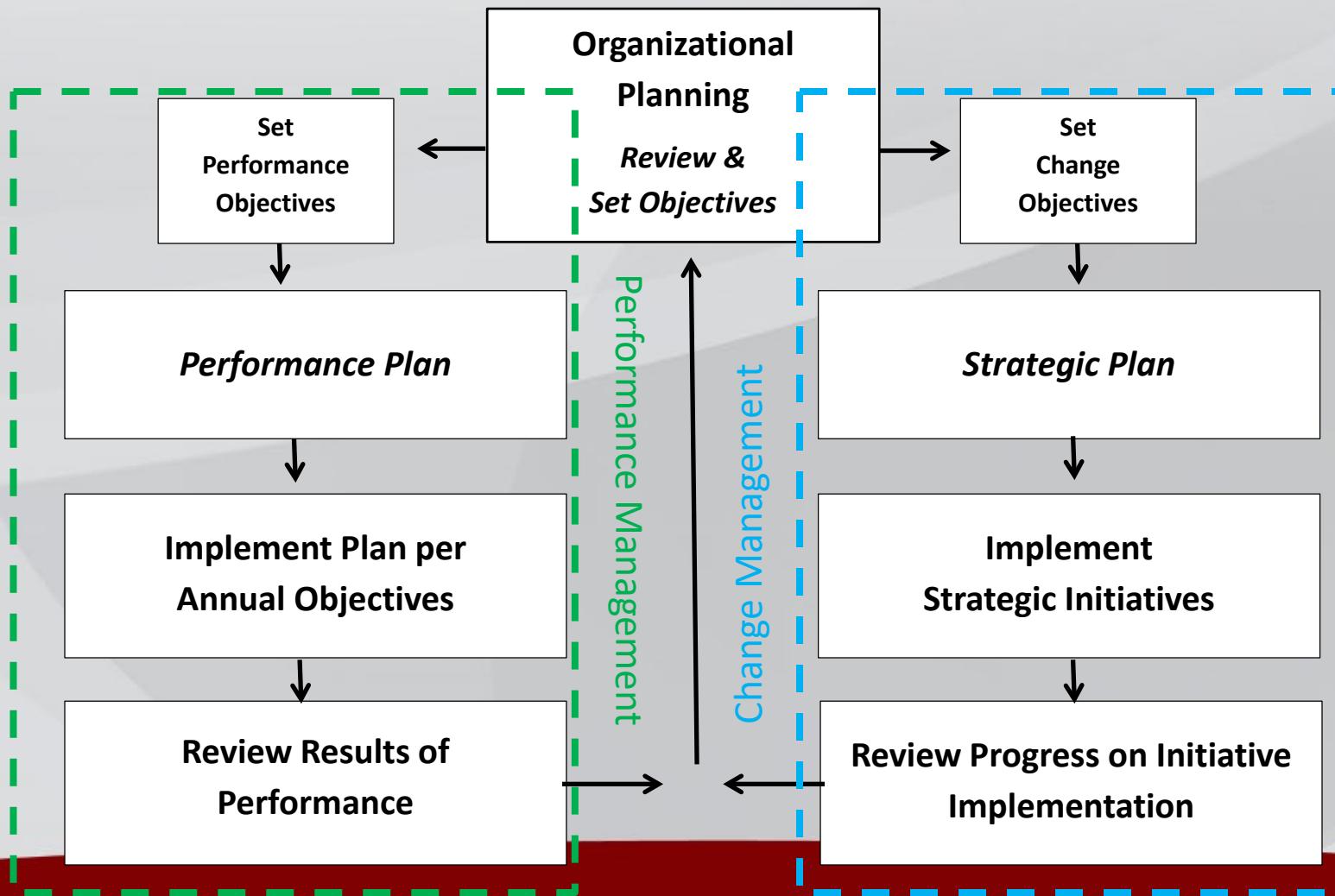
ORGANIZATIONAL PLANNING – Basic Model

Adopting a PDCA approach and the need to identify both operational focus and change efforts, we get:



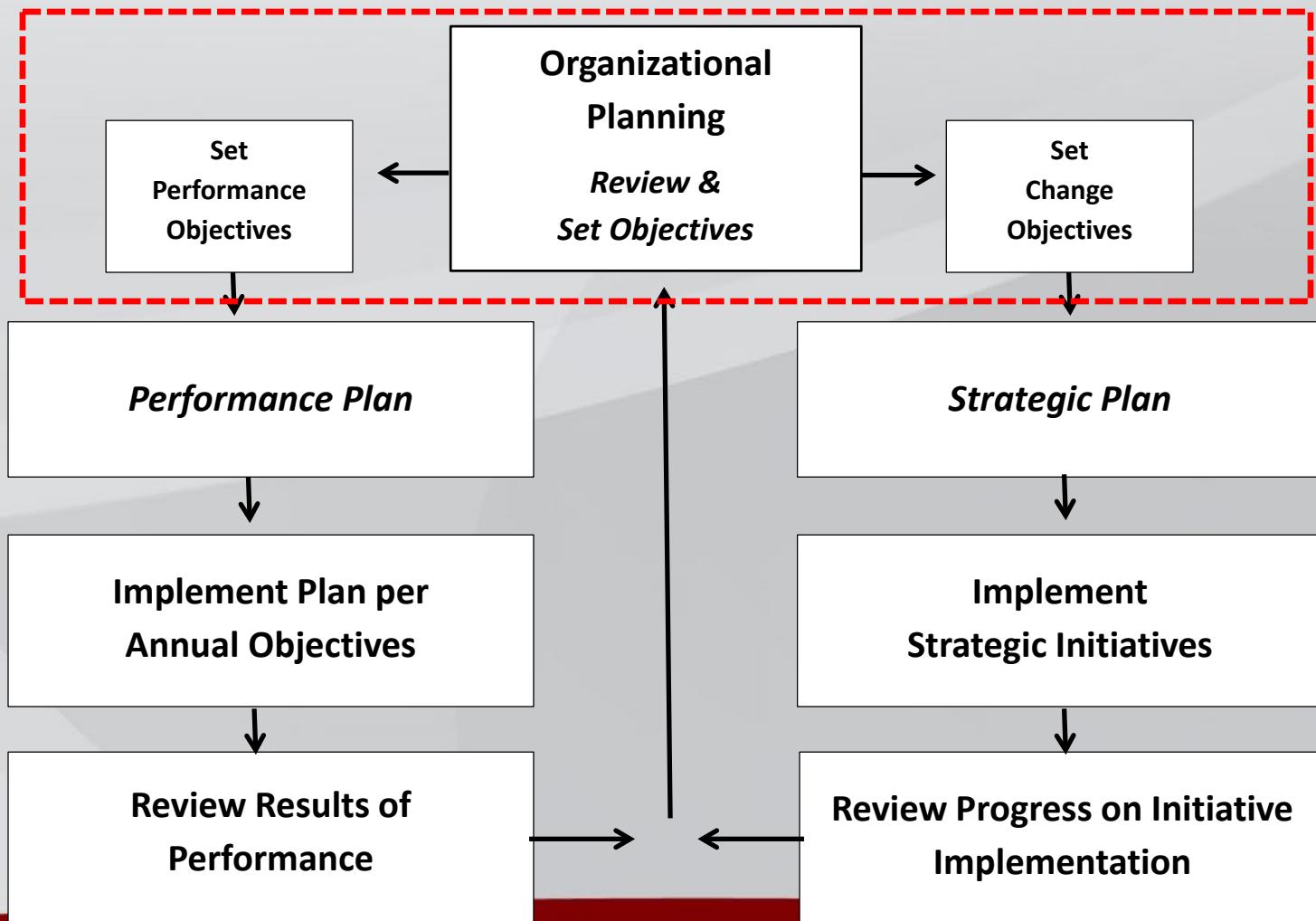
ORGANIZATIONAL PLANNING – Basic Model

The cycles, when taken together allow for management of performance AND change.



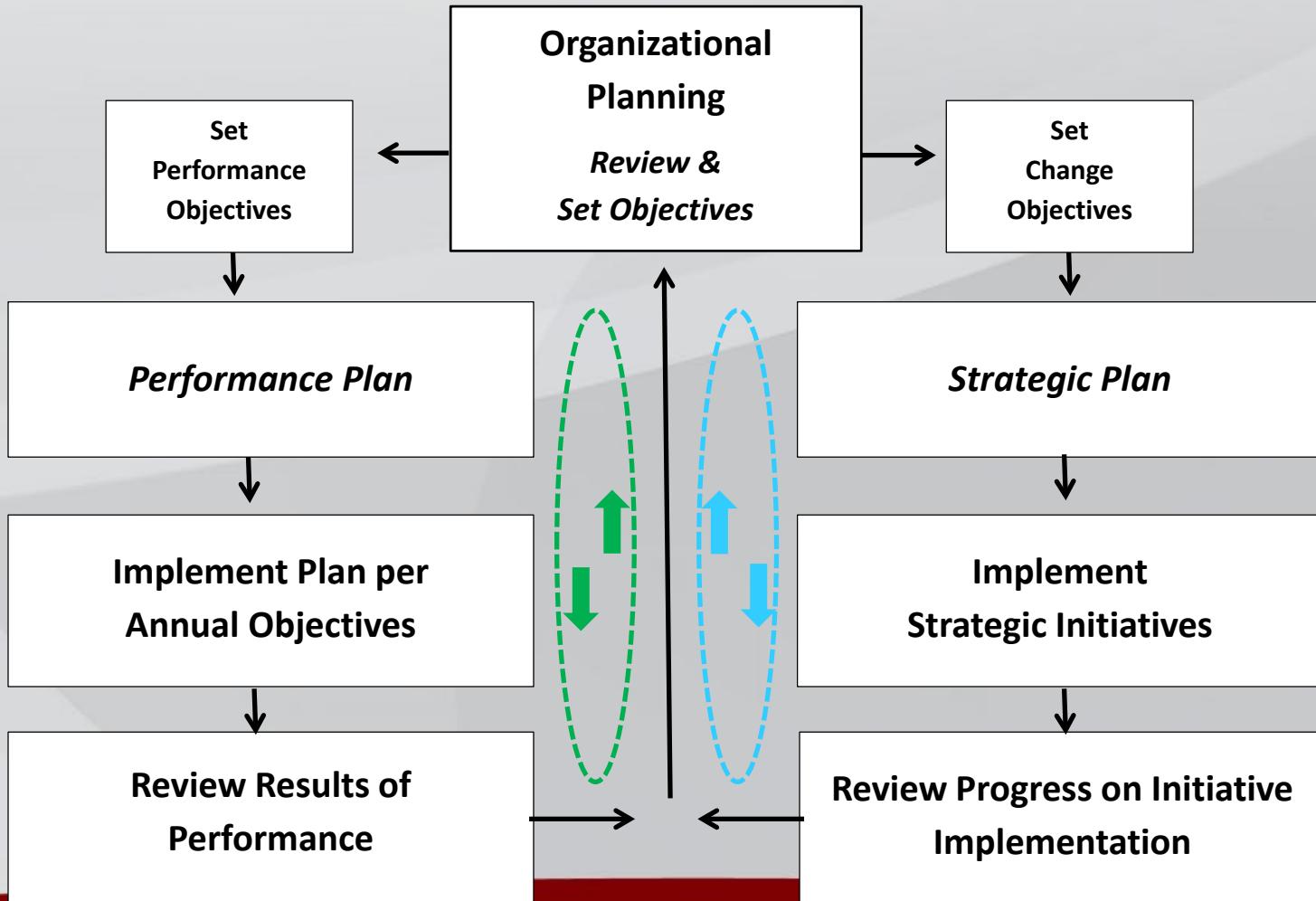
ORGANIZATIONAL PLANNING – Basic Model

Organizational planning consists of reviewing performance & progress and setting objectives.



ORGANIZATIONAL PLANNING – Basic Model

Both cycles are on-going, providing information on the “health” of the organization.



Org Planning – Another View

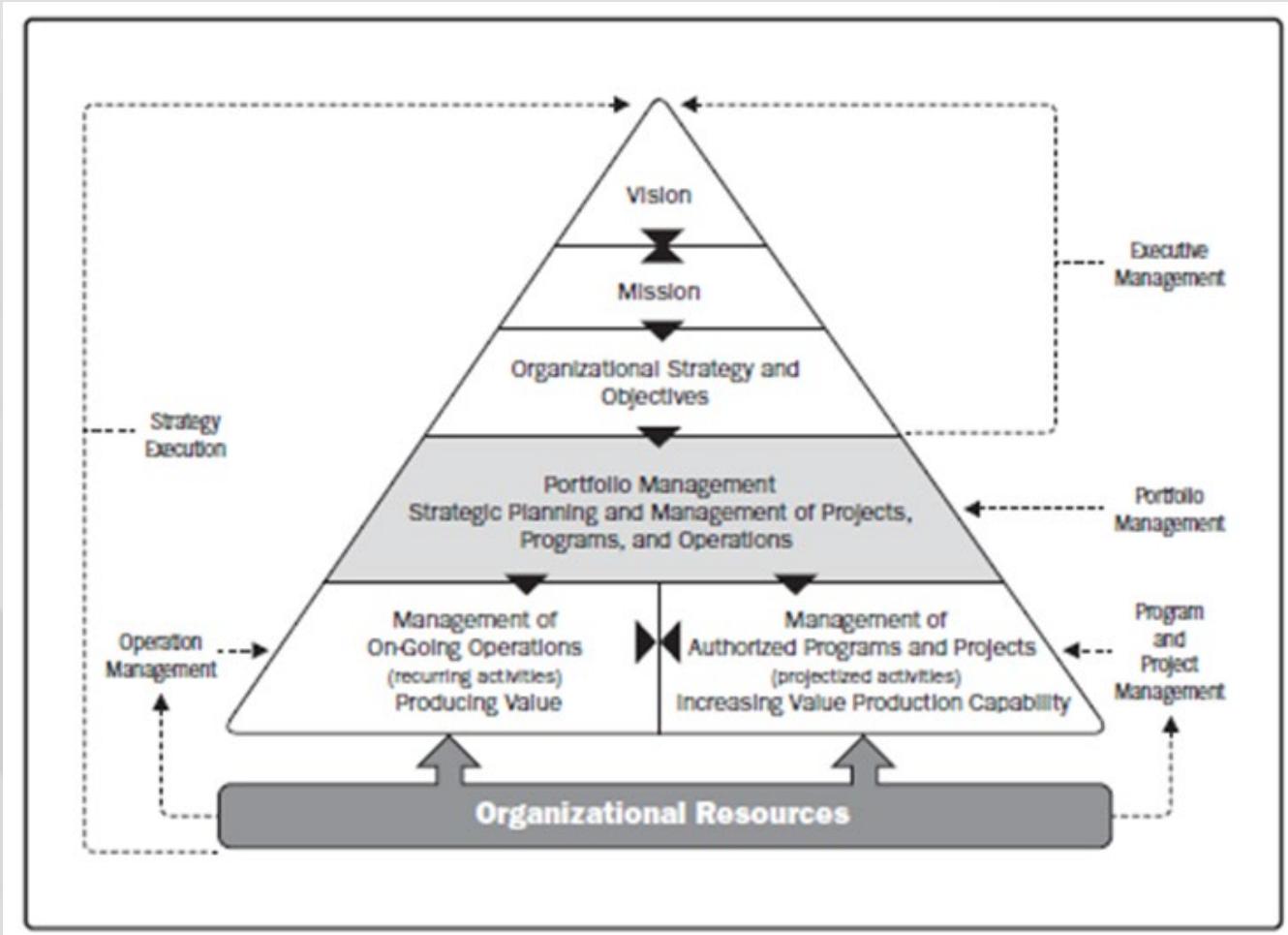
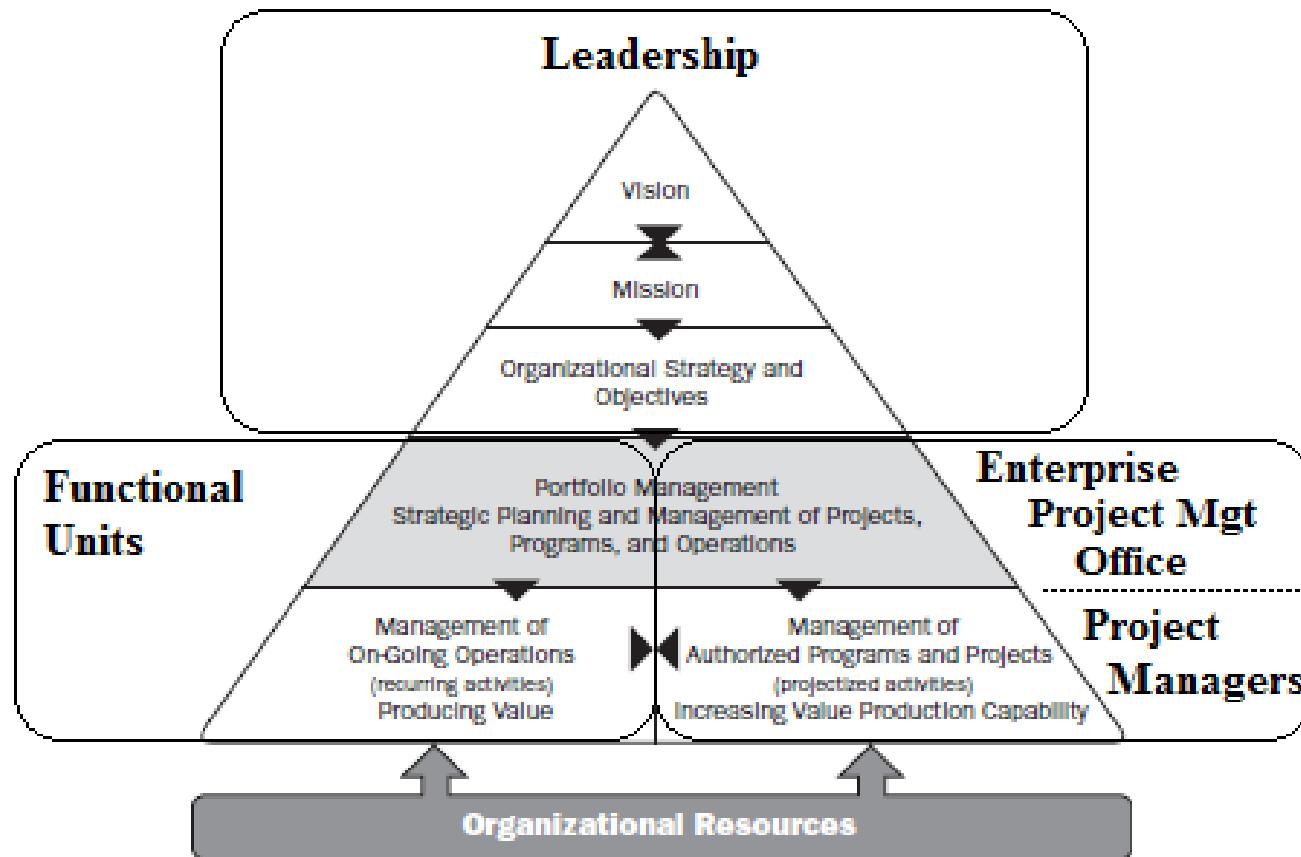


Figure 4-3. Organizational Context of Portfolio Management

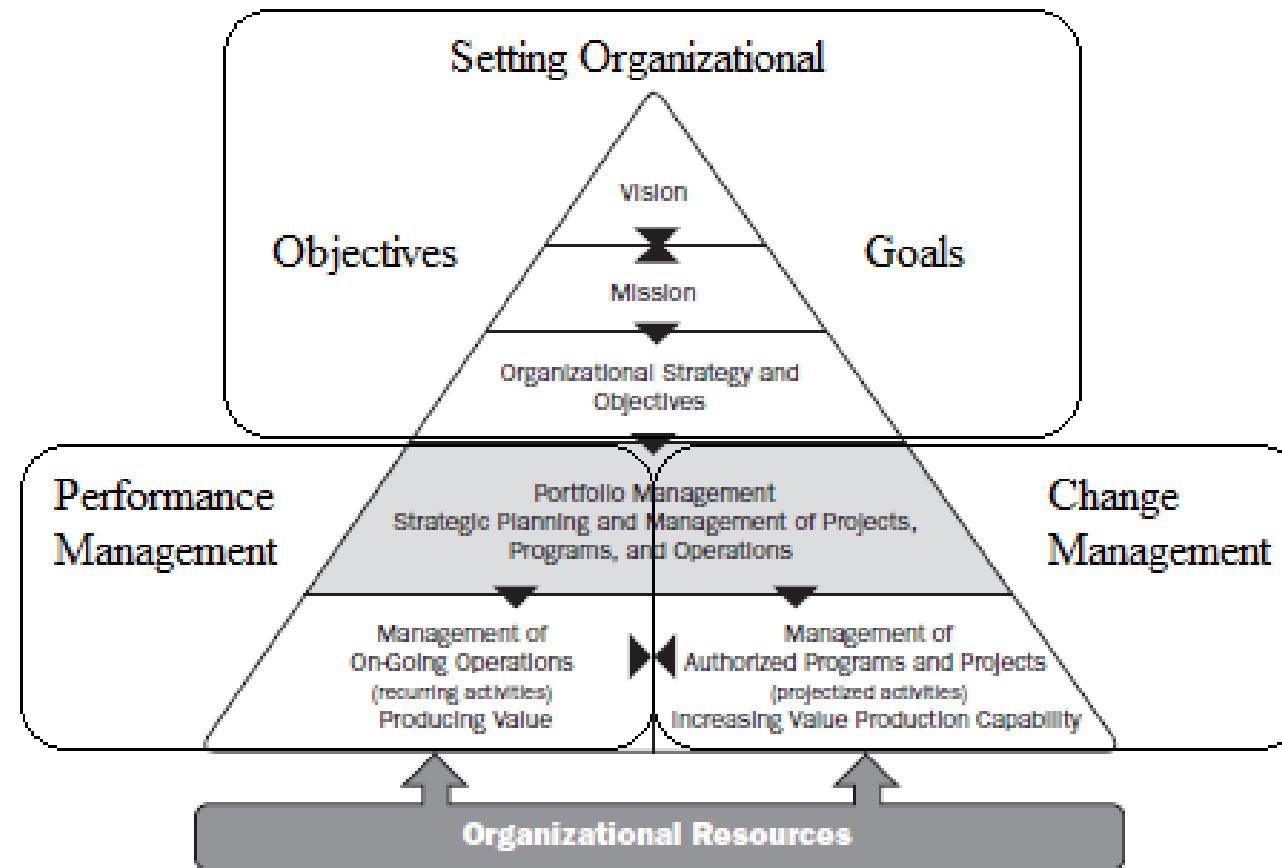
Org Planning - Responsibility

Planning Work - Areas of Responsibility



Org Planning – Focus of Work

Focus of Planning Work



KEY QUESTION

HOW DO WE
KEEP FOCUSED ON
WHAT'S IMPORTANT?

KEY CONCEPT – HORIZONTAL ALIGNMENT

NEED TO CONTINUALLY IMPROVE

We must improve how we deliver our products and services. To improve, or “change with a purpose,” clear expectations and outcomes must be set.

HORIZONTAL ALIGNMENT

BASIC PROCESS MODEL



WORK FOCUSED ON OUTCOME

KEY CONCEPT – VERTICAL ALIGNMENT

NEED TO FOCUS ON WHAT'S IMPORTANT

To ensure efforts mutually support each other, we must improve our evaluation of outcomes at, and between, all levels.

VERTICAL ALIGNMENT

OUTCOME/RESULT AT EACH LEVEL SUPPORTS THE DESIRED OUTCOME AT THE NEXT "HIGHER" LEVEL.



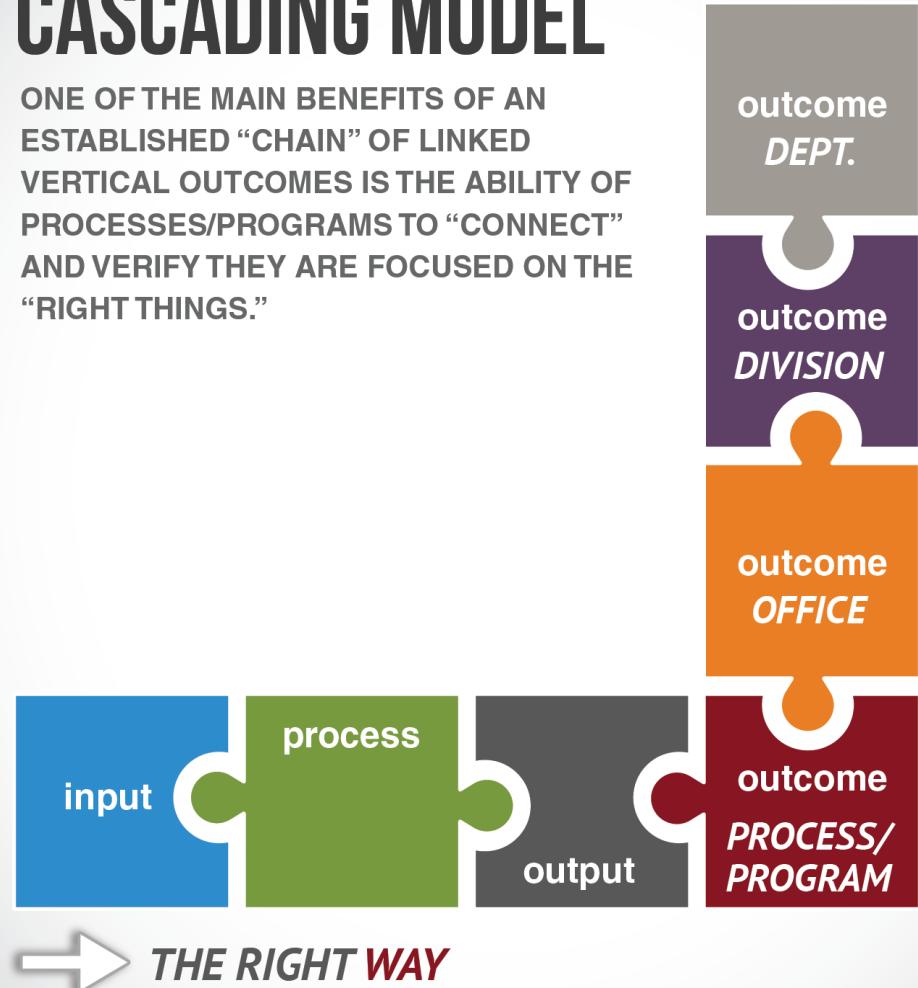
KEY CONCEPT – INTEGRATION

GOAL: INTEGRATION

Ultimately, our responsibility is to make sure efforts underway to improve performance are focused on those things we know are the most important.

CASCADING MODEL

ONE OF THE MAIN BENEFITS OF AN ESTABLISHED “CHAIN” OF LINKED VERTICAL OUTCOMES IS THE ABILITY OF PROCESSES/PROGRAMS TO “CONNECT” AND VERIFY THEY ARE FOCUSED ON THE “RIGHT THINGS.”



THE RIGHT THINGS

PERFORMANCE MANAGEMENT – CURRENT STATUS

The department is continuing conversations about organizational performance management – both in terms of information needs and practices

- **Work group tasked with “proof of concept”**
 - Result of past starts/stops at organizational level
 - Think: research and development
- **Current work of work group is two-fold**
 - Continued development of outcome framework
 - Developing RFP for assistance in implementation

In Summary

What does organizational performance management really mean? **DEFINE**

How can we better understand and “see” the department? **MODEL & COMMUNICATE**

What performance information do we need?
MANAGE PERFORMANCE & CHANGE

How do we maintain focus? **HA & VA**

Thank you!

David J. Putz, Ph.D. – Iowa DOT
david.putz@iowadot.us

Presented June 27, 2019

Originally Presented at TRB 98th Annual Meeting – Jan 2019



Minnesota DOT's Performance Management Journey

Deanna Belden

Office of Transportation System Management

TRB Webinar, June 27, 2019

Introduction to Minnesota



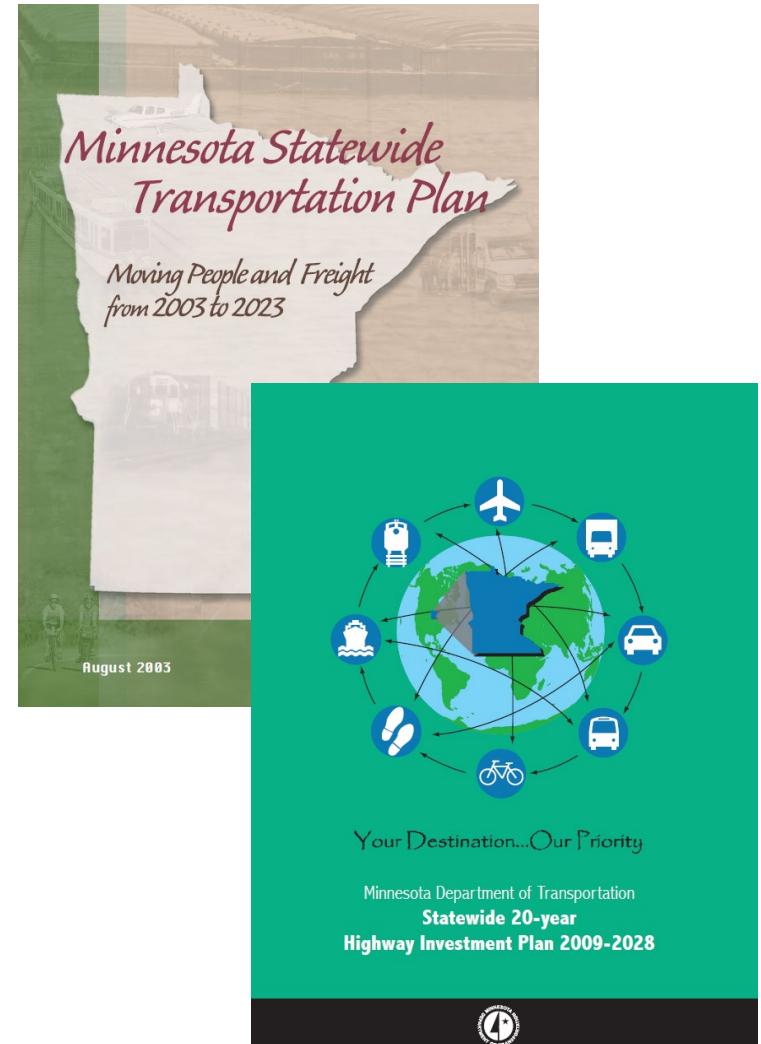
Transportation in Minnesota



- Over 142,000 centerline miles of public roads (5th largest roadway network)
- Over 12,000 miles of state highway
- Population 5.5 million (21st most populous state)
- Diverse economy translates to diverse transportation needs
- Pressure for continued capacity improvements
- Large active living community
- Recent pushes for additional transportation revenue

Past performance-based planning

- First performance-based plan adopted in 2003
 - Funding was sufficient to meet targets for asset condition and statewide mobility
- Targets traditionally developed by functional office experts
- By 2009, asset condition need alone exceeded projected revenue
 - Did not plan to meet all performance targets



Current performance-based planning

Multimodal Plan



Supports Minnesota GO 50-year vision.
Establishes objectives & strategies to guide investment

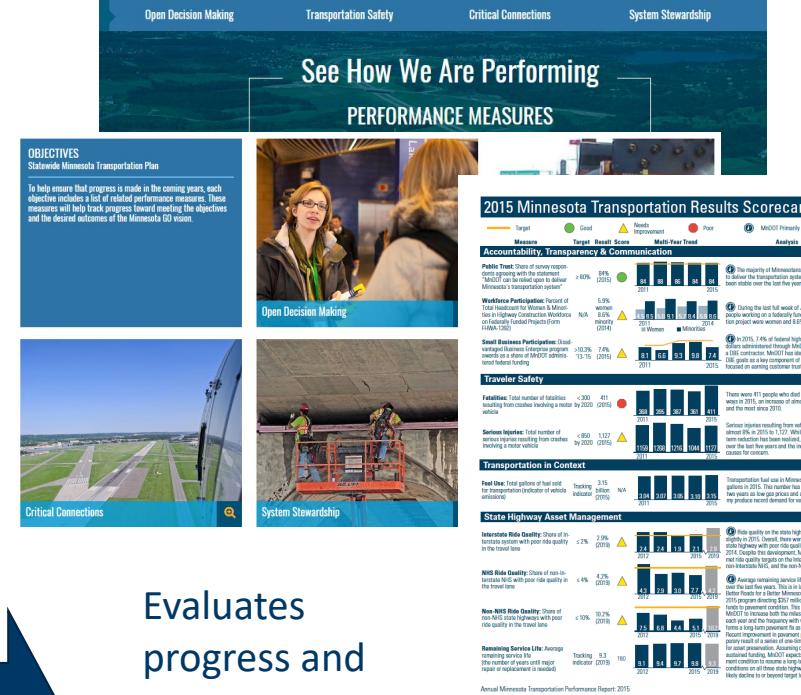
Investment Plans



Integrates performance planning & risk assessment to establish priorities for projected funding. Considers impact of investments on performance targets.

Performance Monitoring

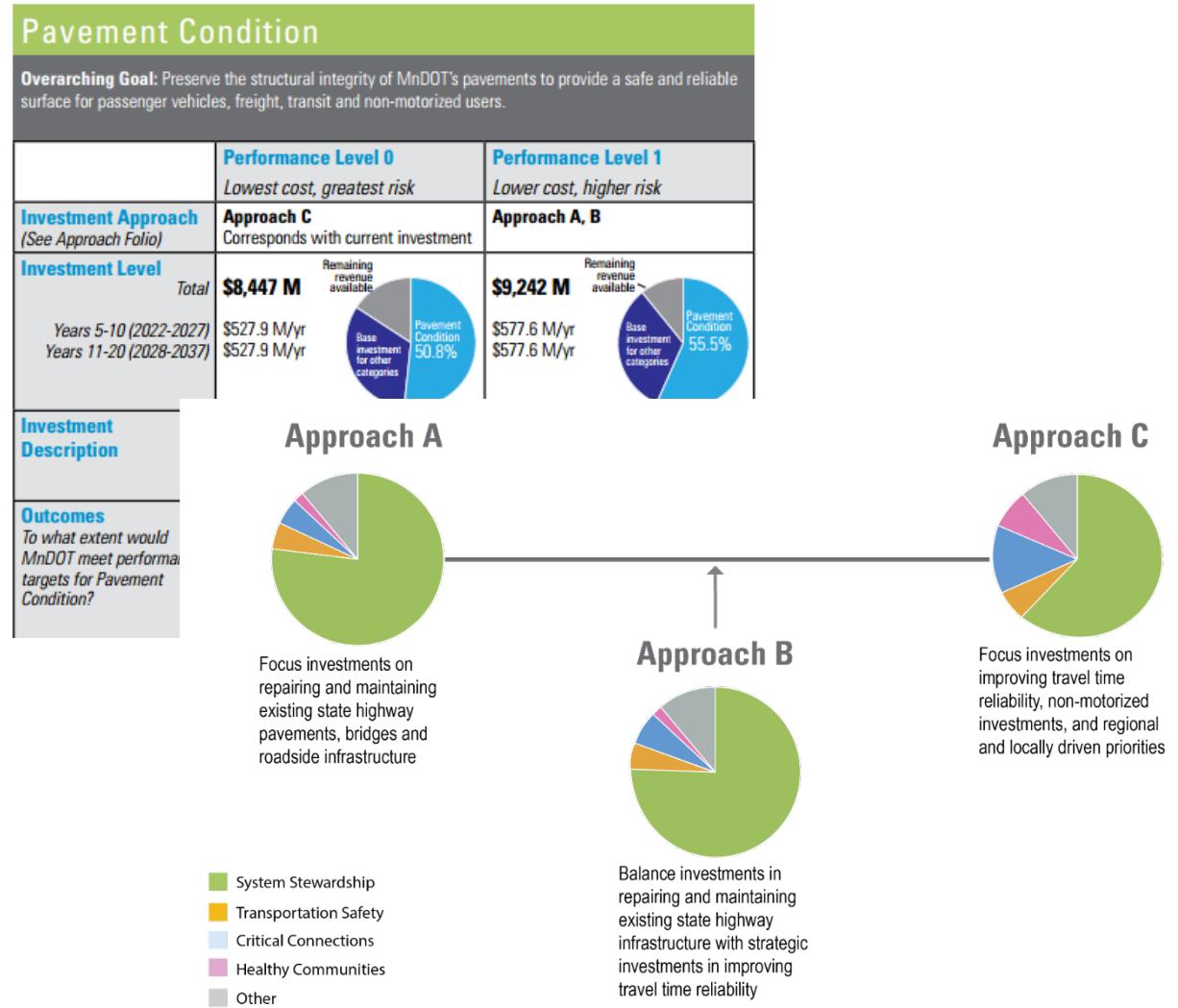
Performance Dashboard



Evaluates progress and reports performance to the public

Performance measures in Highway Investment Plan (MnSHIP)

- Establish investments needed to meet targets and other key system goals
- Create a range of “performance level” options within individual investment categories
- Facilitate evaluation and public discussion of alternative investment scenarios
- Develop and implement investment programs
 - Statewide Performance Program
 - District Risk Management Program



MnSHIP performance targets vs. projected outcomes vs. federal performance targets

MnSHIP performance targets

- Long term
- Previously described as “aspirational” or “desired”; now risk based
- Used to estimate investment need

Projected outcomes

- Fiscally constrained
- Set concurrently with resource allocation
- May or may not meet targets

Federal targets

- Short term; most are 2 and 4 year targets
- Given time frame, essentially are expected outcomes/estimate of where we think we'll be
- Expect over time we will understand how to better use this type of target

Strategic Operating Plan

- Focus on 5 year timeline
- Three Goal areas: Customer Trust; Operational Excellence; Workforce Excellence
- Key performance indicators are under development
- Working toward a scorecard for leadership to track progress on the SOP



The graphic is a presentation slide for the MnDOT Strategic Operating Plan 2018–2022. It features a dark blue header bar with the MnDOT logo and the title "Strategic Operating Plan 2018–2022". Below the header, there's a sub-section titled "MnDOT's Mission" with a brief description of the agency's role in maintaining a multimodal transportation system. The main content area is divided into three sections corresponding to the strategic goals: "Customer Trust", "Operational Excellence", and "Workforce Excellence". Each section contains a circular icon with a symbol (handshake for Customer Trust, gears for Operational Excellence, and people for Workforce Excellence) and a list of mission statements.

MnDOT's Mission

Plan, build, operate and maintain multimodal transportation system markets throughout the sta

Strategic Operating Goals

- We engage customers, listen to understand and balance the diverse needs of all to achieve the best possible outcomes
- We understand and communicate how our program, project and service delivery decisions impact people differently, and actively makes decisions to reduce disparities in Minnesota
- We cultivate a transportation sector in Minnesota that reflects the diverse communities we serve

- We plan, build, operate and maintain Minnesota's multimodal transportation system to get the most out of investments and optimize system performance
- We demonstrate effective and efficient stewardship of public resources
- We prepare for and adapt to the challenges and opportunities associated with change

- We achieve and maintain a diverse, safe and inclusive workplace that allows each employee to contribute their full potential
- We attract and retain a workforce with the knowledge, skills, abilities and experiences that MnDOT needs to be successful

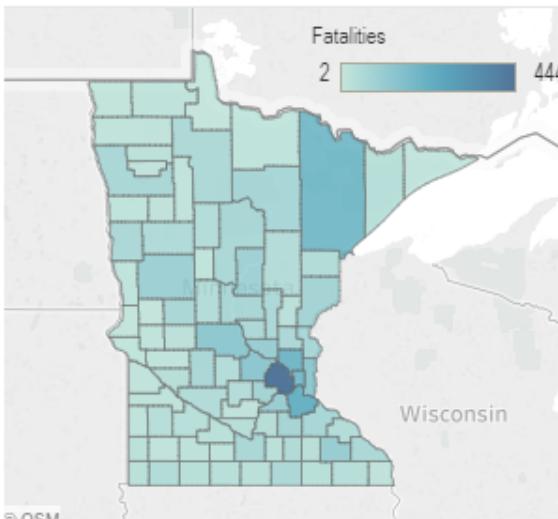
New Performance Dashboard

- Annually since 2007, MnDOT has reported transportation performance in a printed report.
- New Website designed to be more dynamic, flexible and current
- Using Tableau

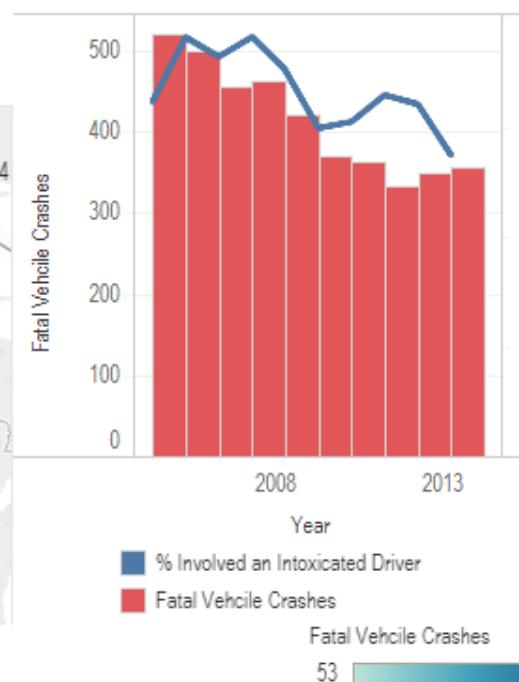


Minnesota Vehicle Fatalities, 2004-2013

Source: Fatality Analysis Reporting System

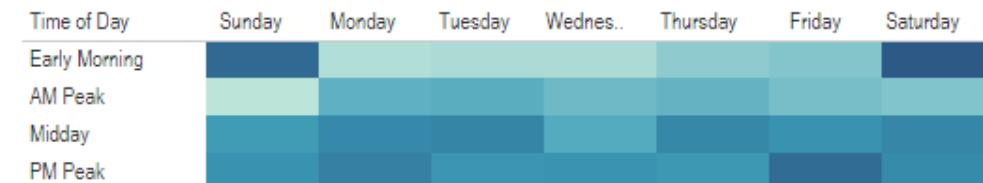


Fatal Vehicle Crashes



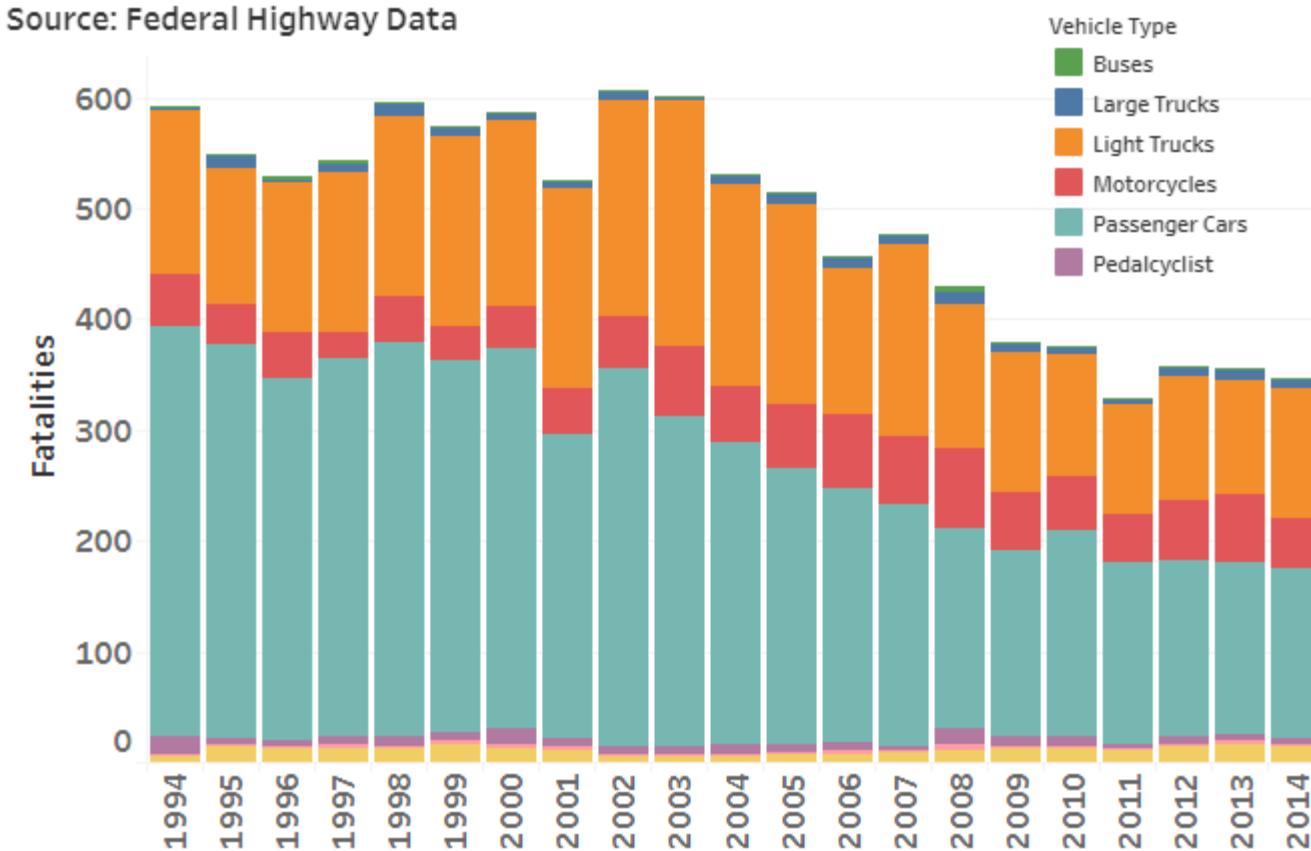
Fatal Crash Occurrence

Day of the Week



Type of Vehicle in Highway Fatalities

Source: Federal Highway Data



Additional Considerations

- Use of targets limited to a relatively small number of measures
- Not all needs / decisions are performance based
- MnDOT must be responsive to local priorities even when a statewide performance target is being met
- Incorporating risk
- Target level questions given federal minimums

Thank you!

Deanna Belden

deanna.belden@state.mn.us



SPREADING A CULTURE OF DATA

Jim Padilla, Texas Department of Transportation

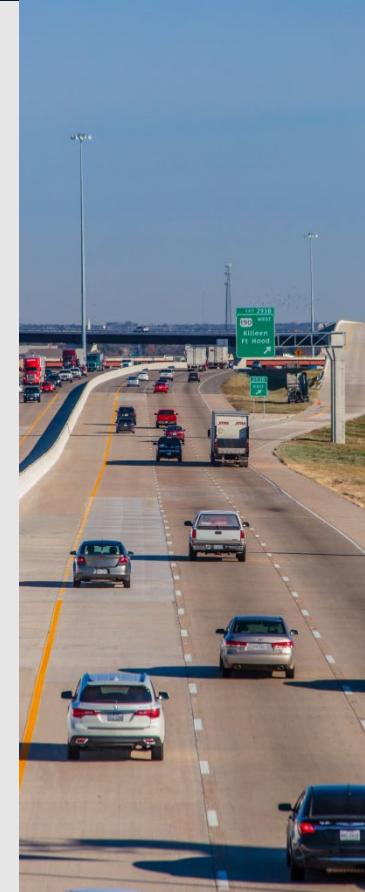


Agenda

1	Our background	3
2	Our start	4
3	Our approach	5-6
4	Our accomplishments	7-9
5	Our next steps	10

TxDOT fast facts

- Established as the Texas Highway Department in 1917.
- Plans, constructs, maintains and supports Texas' transportation system, including roads, bridges, public transportation, railroads, airports, the Gulf Intracoastal Waterway and ferry systems.
- Manages the state highway system, including safety rest areas and travel information centers, improving traffic safety and regulating outdoor advertising.
- Approximately 12,000 employees.
- Manages more than 80,000 centerline miles of federal and state on-system roads and more than 53,000 bridges, on and off the state highway system.
- Works with the state's 25 federally required metropolitan planning organizations, seven state-authorized rural planning organizations, nine regional mobility authorities and a variety of local entities.



The start of the journey

- Revamp of TxDOT's Values, Vision, Mission, Goals and Objectives:
 - Foundation for performance management.
 - Collective input.
 - Executive buy-in and internal marketing.

Lessons Learned: Communication, communication, communication!

- **Next step:** Develop aligned key performance measures (KPM) to new goals:
 - Start design for Commission (CMM) and Administration (ADM).
 - Agency-wide measures.



Bottom-up approach to development

- Held workshops with representation from Divisions and Districts (DD).
 - Facilitate staff dialogue to inform what is valuable to measure and discuss concerns.
(Only provided background and structure to facilitate discussions.)

Structured a Data Pyramid:

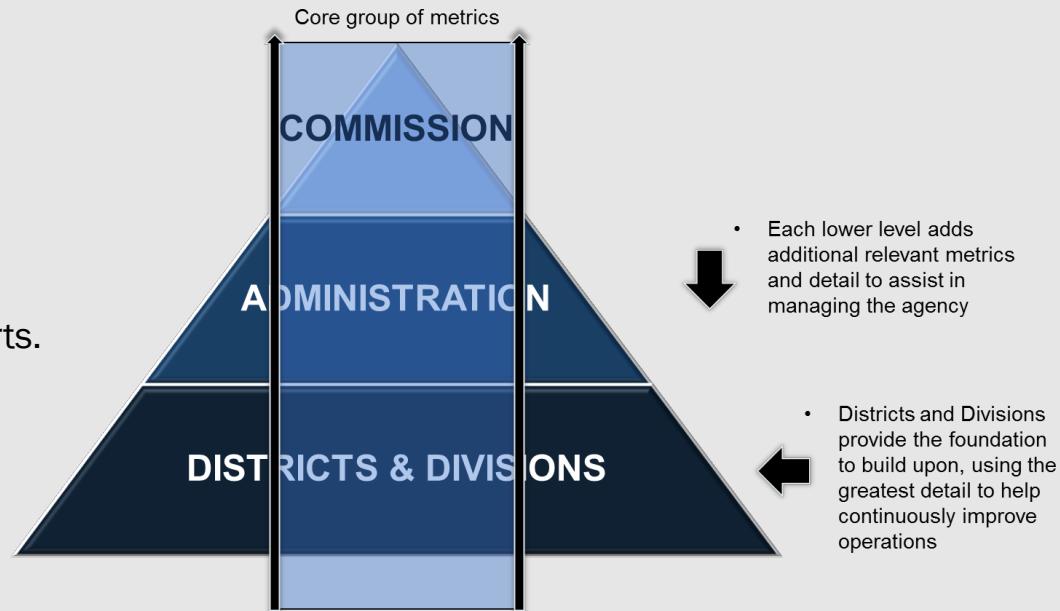
CMM level: Policy decisions

ADM level: Operational decisions

DD level: Process decisions

Lessons Learned: Prepare to combat past efforts.

Internal value not necessarily matched with mandated measures.



Establishing agency-wide performance management

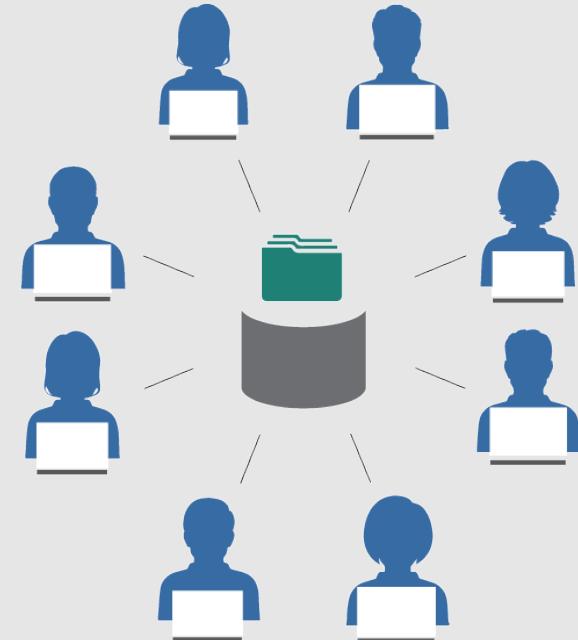
- Procured **data visualization software**.
 - Enterprise standard for measuring performance/reporting.

Lessons Learned: Control a controlled pilot; Varying learning curves; Multiple opinions from leadership.

- Established **governance structures** on all fronts.
 - Information management, performance measures, software.

Lessons Learned: Assign one voice. Partner with IT early.

- Organized an **internal user community**.
 - Share best practices. Staff leads.



Public-facing dashboard – CMM level

PERFORMANCE DASHBOARD

2018 03 01 Bass Online Performance Dashboard

Watch later Share

Optimize System Performance.
Develop and operate an integrated transportation system that provides reliable and accessible mobility and enables economic growth.

Deliver the Right Projects.
Implement effective planning and forecasting processes that deliver the right projects on time and on budget.

Promote Safety.
Champion a culture of safety.

Preserve our Assets.
Deliver preventive maintenance for TxDOT's system and capital assets to protect our investments.

Wiki/Discussion board – User community site

Tableau User Community PAGE

Recent Events: Tableau Conference 2018 (TC18) took place October 22-25. 17K attended! But you can watch all recorded sessions [here](#). Keynotes, main stage talks, and over 400 sessions - including 13 under the Government industry filter. No cost or registration required to watch.

Discussion Board

[+ new discussion](#)

[Recent](#) My discussions Unanswered questions ...

Texas Map Shapefile

Andrew Sak from the Strategic Planning Division demonstrated the build of a Texas ...
By Chad Sliva | November 13

Parking in Downtown for Austin TUG

The question was asked during the quarterly meeting regarding parking options for a...
By Chad Sliva | November 12

Welcome

Welcome to the User Community Discussion Board! Please ask questions to your fello...
By Chad Sliva | November 8

Events Calendar

[←](#) [→](#) December 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
25	26	27	28	29	30	1
				+ Add		
2	3	4	5	6	7	8
				12:00 pm - 1 Designing E		
9	10	11	12	13	14	15
				12:00 pm - 1 Tableau Cus... Trust, transp		
16	17	18	19	20	21	22
				12:00 pm - 1 The future o... 9:00 am intr 1:00 pm intr		
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Performance Measures Governance Documentation

Welcome to the Performance Measures Governance Documentation site – a comprehensive overview of performance measures used throughout the department!

In January 2018, TxDOT Administration announced the launch of the Performance Measures Workgroup that will help provide governance and coordination of all of the department's performance measures. As one of the largest DOTs in the nation, TxDOT is required to produce many performance reports for our various stakeholders, such as the Legislative Budget Board and the U.S. Department of Transportation. This team's main objectives are to establish common governance and documentation, create a single source for the agency's performance measure information, and eliminate redundant and/or unnecessary reports.

This site establishes that single source. The Workgroup (a team of TxDOT employees representing all divisions and districts) will continuously update the site with new information, improve documentation, and refine existing performance measures. The Workgroup meets on a quarterly basis, more frequently if required, and the next scheduled meeting will be on December 11th, 2018. Please direct any comments or questions to the Workgroup Leads – Chad Sliva and Jim Padilla of the Strategic Planning Division (STR).

Key reference resources for more detail on the workgroup's purpose and its current member roster; the performance measure approval processes; and a governance documentation template are listed below. Please click on the corresponding link.

- [Performance Measures Workgroup Charter](#)
- [Enterprise Performance Measure Approval Process Description and Flow](#)
- [Governance Documentation Template for new Performance Measures](#)

Click the "See Table" icon below to view the full list of performance measures currently on the site.

[See Table »](#)

Where the path continues

- Break down more silos.
 - District-level software rollout.
- Expand transparency.
 - Increase presence of performance management online.
- Promote continuous improvement.
 - Strategic decisions at all levels of the pyramid.



Today's Speakers

- Ting Ma, *District of Columbia DOT*,
ting.ma@dc.gov
- Rebecca Geyer, *North Dakota DOT*,
rgeyer@nd.gov
- David Putz, *Iowa DOT*, David.Putz@iowadot.us
- Deanna Belden, *Minnesota DOT*,
deanna.belden@state.mn.us
- Jim Padilla, *Texas DOT*, Jim.Padilla@txdot.gov

Get Involved with TRB

- Getting involved is free!
- Join a Standing Committee (<http://bit.ly/2jYRrF6>)
- Become a Friend of a Committee
(<http://bit.ly/TRBcommittees>)
 - Networking opportunities
 - May provide a path to become a Standing Committee member
- ***Sponsoring Committee: ABC20***
- For more information: www.mytrb.org
 - Create your account
 - Update your profile

Receiving PDH credits

- Must register as an individual to receive credits (no group credits)
- Must attend entire webinar (including Q&A) to receive credits
- Credits will be reported two to three business days after the webinar
- You will be able to retrieve your certificate from RCEP within one week of the webinar

TRB turns 100 on November 11, 2020



Help TRB:

- Promote the value of transportation research;
- Recognize, honor, and celebrate the TRB community; and
- Highlight 100 years of accomplishments.

Learn more at

www.TRB.org/Centennial

MOVING IDEAS: ADVANCING SOCIETY—100 YEARS OF TRANSPORTATION RESEARCH