

# Shifting the Paradigm, Moving Towards a Statewide View

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# NMDOT TAM Journey

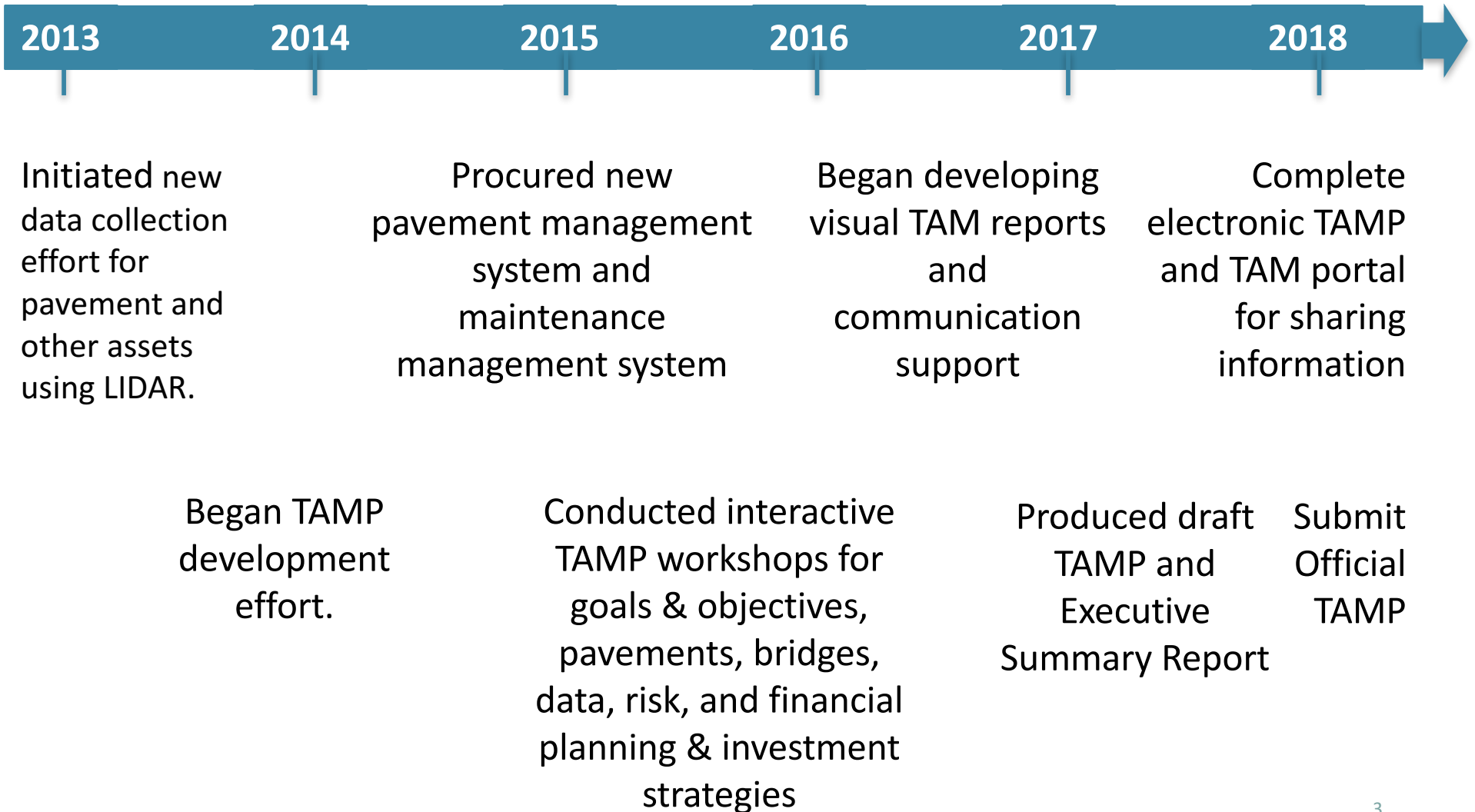
**ISTEA**  
Investments in  
Management  
Systems

**SAFTEALU**  
Limited  
Action

**MAP-21/FAST**  
Building  
the Bricks to  
Good TAM



# NMDOT TAM Journey





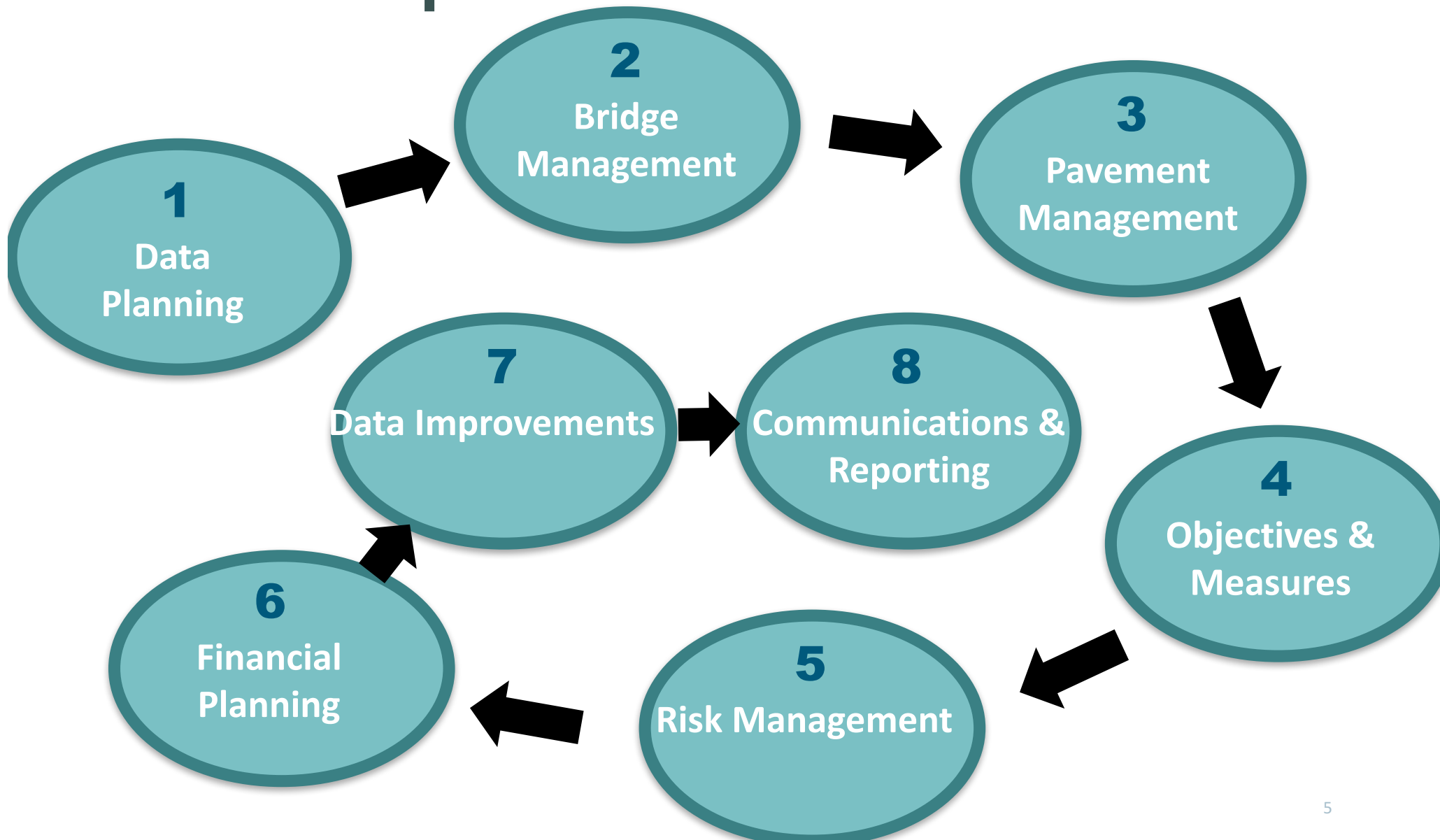
# Historic Culture

- **Budget distribution starts with allocation to districts**
- **The GO (general office/headquarters) provides guidance on TAM priorities**
- **Districts develop budgets independently**





# Workshops





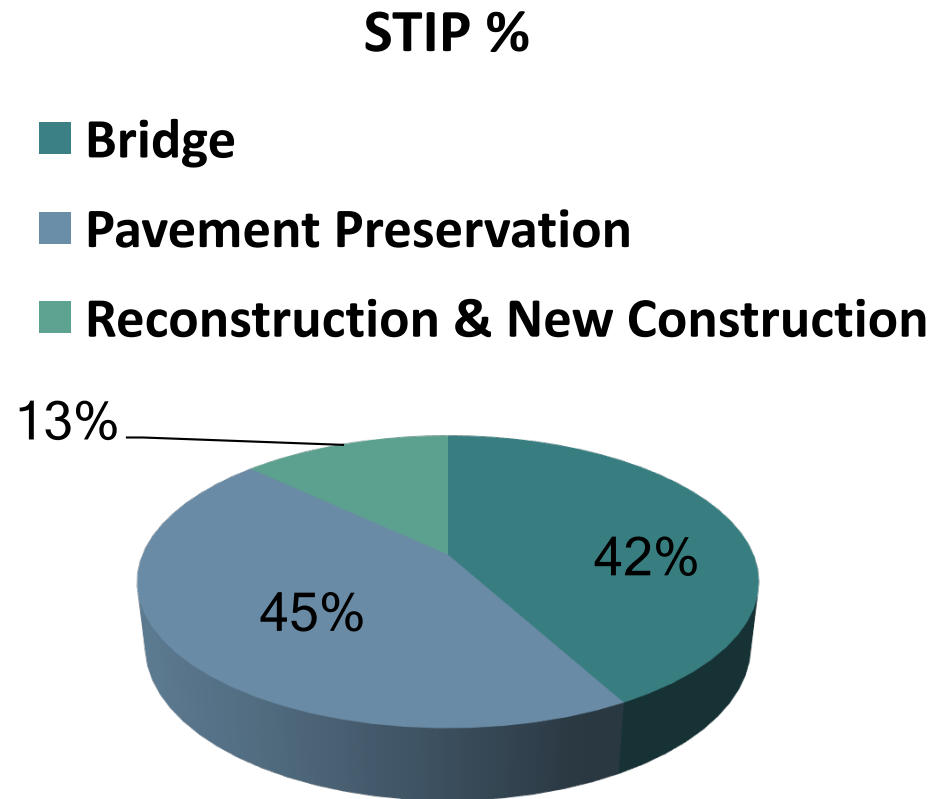
# **TAMP Implementation Plan Leading To**

**Better Data  
Better Visuals  
Better Decision-Making**



# Historic NMDOT Allocations

- Averaged FY13 and FY14 STIP
- Divided reconstruction & new construction equally among Bridge, Pavement, and Other





# Delphi Exercise



- **\$241 million annual baseline scenario**
- **Participants allocate funding among Bridge, Pavement, Other Construction**
- **Highs and Lows must defend their allocations**





# Vignettes

## Telling the Story: Preserving the System

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Trent Doolittle, District 1 Engineer, on the role of the District Engineer in TAM

At the District level, the impact of asset management elements such as improved data management Having been involved with developing asset management both on the Committee and within his District, Trent has a multilayered understanding of the dynamic between local and state priorities, and how improved data capabilities have aided that give and take. Prior to the formation for the Asset Management Committee, Trent emphasizes that “we were very reactive and not proactive.” Improved data collection and analysis has been a big part of that change, with, for example, Agile Assets beginning decision tree capabilities in 2011 and the pavement management system now offering long-term scenarios.

Now, he says, “I like that we have the right data in the system that can help make us more proactive, giving us enough information to know what to do for the next five to ten years and more.” He adds, “And even when we still reactive, we are reactive with the





# Vignettes

## Telling the Story: Risk

David Trujillo, District 4 Engineer on the risks affecting the lower tiers of the network.

In New Mexico, public travel demand and district management practices have historically directed a disproportionate amount of funding to the Interstate and NHS.

New Mexico District 4 has a uniquely stratified road network with about 300 miles of Interstate and US routes out of 6,400 lane miles. David Trujillo, District 4 Engineer, notes that “My concern is for the rural routes,” as many of these routes can have particular maintenance needs. This concern stems from District 4 being “one of the few districts that still has gravel roads.” Gravel roads are difficult to maintain because weather and usage tend to erode gravel away faster than other pavement treatments.

Because of these maintenance needs and the department’s history of prioritizing local routes behind NHS or interstates, David says, “We’re behind...we’re constantly battling lack of funding on the state routes.” If the lowest tiered roadways are underrepresented in the prioritization process, leaving segments untouched for up to five years, some routes could severely degrade and be lost from the system,” he warns. David







# Vignettes

## Telling the Story: Funding

Heather Sandoval, Assistant District Engineer

In order to maintain a well-connected system, New Mexico must maintain many miles of rural routes, balancing those needs with those of the National Highway System (NHS) and of urban roadways. Rural roads often have different traffic characteristics that drive their preservation needs. Heavy truck traffic can make up a high proportion of use, often on surfaces that weren't necessarily built to withstand this kind of traffic. "We get trucks that bypass I-40 and come across the little roads, cutting across Texas on smaller routes," Heather Sandoval, Assistant District Engineer in District 4, explains. That rural truck traffic may further increase due to industry, according to Heather. In District 4, Heather notes that Routes 39 and 402 see heavy truck traffic due to the oil and gas industry. Major roadways are also affected, with Heather also seeing more and more truck traffic on the District's portion of Interstate 25.

When a large project arises, the funding challenge increases, since rural areas typically do not command the large requests more common to urban areas, and funds must stretch over both the large and small project needs. As an example, Heather says, "the Canadian River Bridge on US 54 immediately southwest of Logan will take two years to fund. We're estimating that job to be about \$18 million job in bridge and roadway." The





# Vignettes

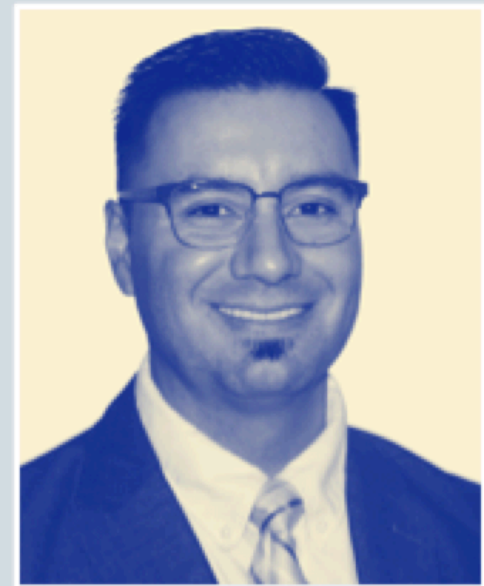
## Telling the Story: Life Cycle Planning

Leo Montoya, District 1 Engineer, on the current use of life cycle tools for pavement and bridge

Leo Montoya, is a proponent and frequent user of NMDOT's Pavement Management System (PMS). He notes that NMDOT's PMS "Recommends what would have been recommended in the field; so far it's fairly accurate."

Leo cites the example of the I-10, I-25, and US-7- fog seal treatments under consideration. In order to verify whether the work made sense, it was analyzed using Production 7 of the PMS. "We applied the constraints in the system and we verified in the field." However, Leo notes that he still has to consider a time lag between the data and the condition – the most recently completed work may not yet be reflected in the system, since it relies on inspection data.

Being able to analyze needs the same way for bridge is an intriguing possibility. "If we get this capability with the bridge system, it will be another tool in the toolbox," Leo says. Right now, bridges are prioritized by sufficiency ratings, and the system recommends a bridge rehab, replacement, or preservation based on these ratings. However, Leo notes, "It does not get specific to the component level or element level or recommend dollars" in the way that the pavement system already does.







# Shifting Culture

- **A change in culture is being driven by TAM**
- **District Engineers understand the value of TAM**
  - They want TAM resources in their districts
  - They want to make better decisions
  - They are starting to support the concept of statewide priorities for a portion of the budget
- **The understanding of the need for GO and districts to work together to strengthen TAM's impact is growing at NMDOT**



# Manage Assets Effectively

Policy Goals & Objectives



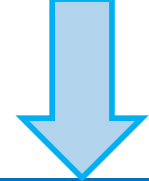
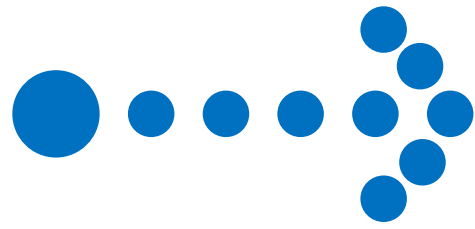
Budgets



Expectations



Goals & Investments Are Aligned With Performance Data





# Questions?

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