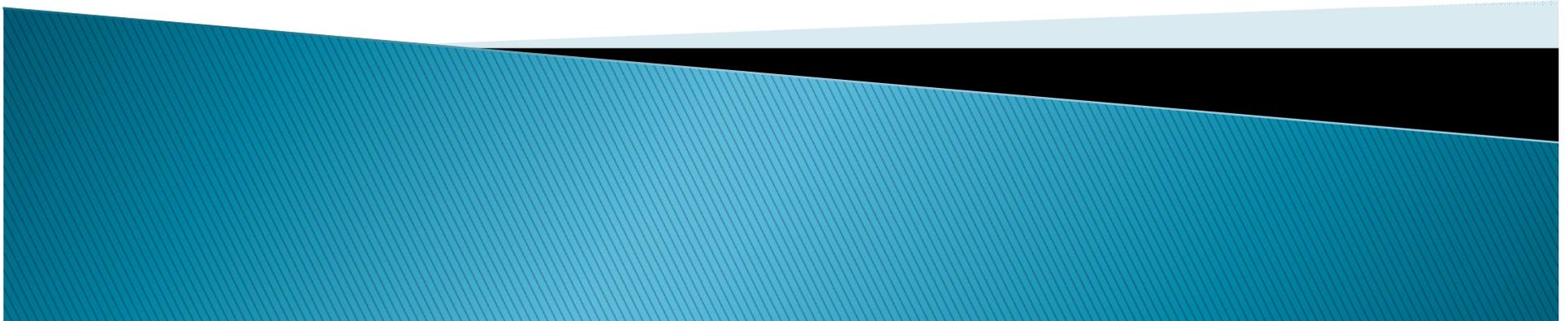


# DeIDOT Prioritization Process

Winter Workshop  
February 17, 2015



# Discussion Topics

- ▶ DelDOT Prioritization Process
- ▶ Development of the CTP
- ▶ Next Steps
- ▶ Questions



# Why

- ▶ TITLE 29 CHAPTER 84
- ▶ § 8419. Transportation priority planning

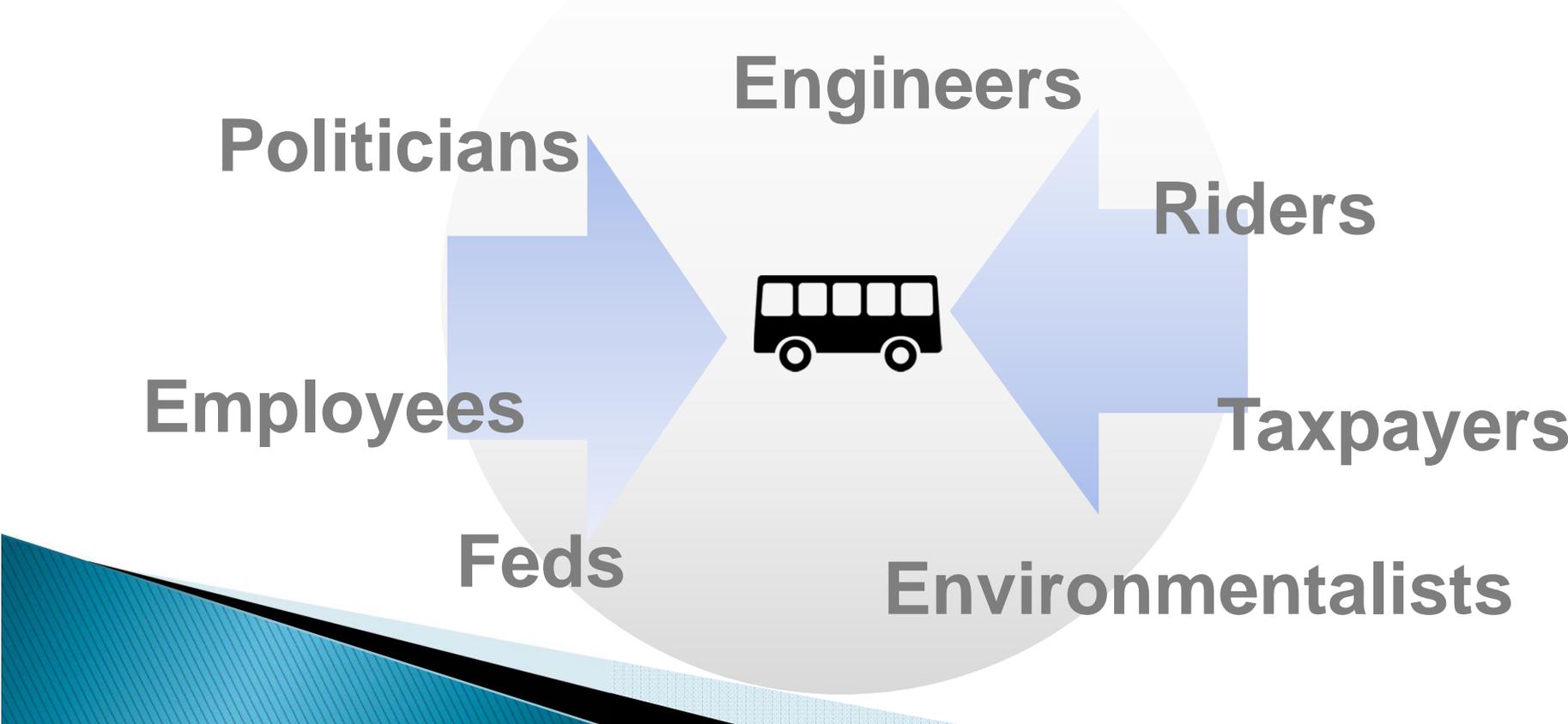
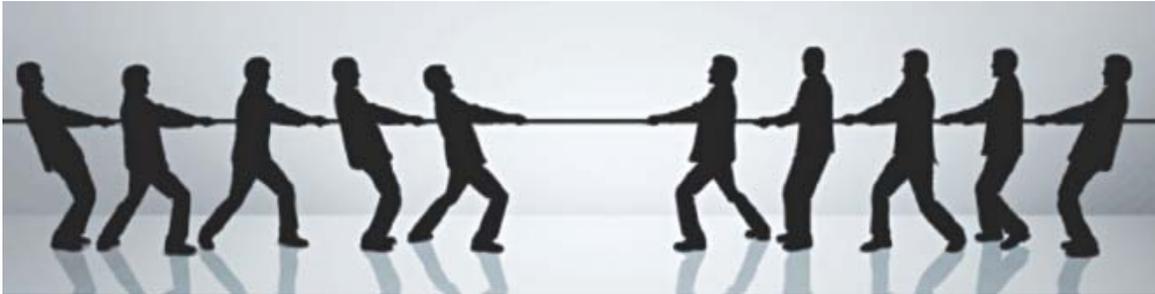
- ▶ The Department of Transportation, with Council approval, shall:
- ▶ (1) Establish a method of determining current needs and costs of the entire multi-modal transportation requirements in the State which will be utilized in allocating capital funds by transportation capital improvement program. The needs and costs will be updated annually.

- ▶ (2) a. Establish a formula-based process which shall be used for setting priorities on all Department transportation projects and which shall consider, but not be limited to the following: Safety, service and condition factors; social, economic and environmental factors; long range transportation plans and comprehensive land use plans; and continuity of improvement.

- ▶ b. The formula based process shall not be utilized for setting priorities for dirt roads, suburban street aid projects, municipal street aid projects or system preservation projects. System preservation projects will be prioritized based upon performance measures established in the Department for pavement management, bridge management and safety management projects.



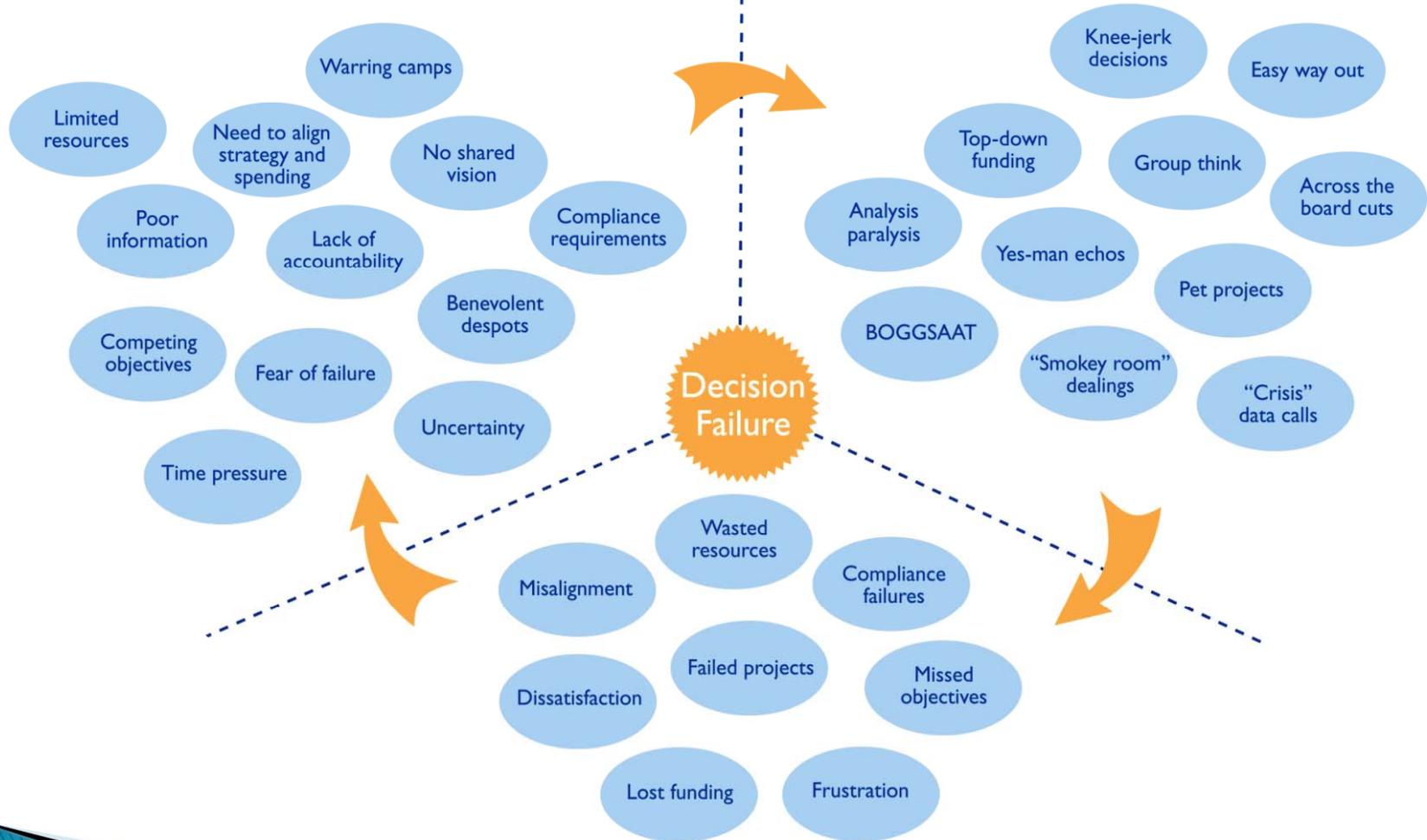
# Competing Interests



# Decision Making

Complexity

Dysfunctional Decision Making



Poor Outcomes

# Previous Prioritization System

- ▶ Adopted by the Council on Transportation 1998
  - ▶ Pooled Funds for Different Project Types
  - ▶ Projects were compared to like projects
  - ▶ Good system when funding was abundant
  - ▶ Not performance based
  - ▶ More subjective ranking process
  - ▶ Could not compare the entire program
  - ▶ Funding was pre-allocated into project types
  - ▶ Difficult to provide flexibility to changing goals of the Department
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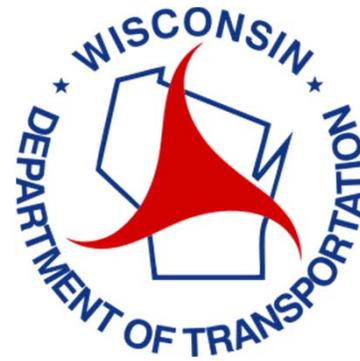
# Current Process:



THE ANALYTIC HIERARCHY PROCESS (AHP) MODEL

- ▶ Based on an Analytical Hierarchy Process (AHP)
- ▶ DeIDOT selected Decision Lens as the AHP tool
- ▶ Model based on DeIDOT's current Mission, Vision and Goals
- ▶ Qualitative and quantitative rating system to measure projects against established priorities
- ▶ Enables comparison of different project types
- ▶ Enables a Data Driven Approach
- ▶ Enables Evaluation of What-if Scenarios

# Other States Using This Approach



# Prioritization Criteria Selection

- ▶ Provisions from TITLE 29 CHAPTER 84 § 8419 of the Delaware Code
- ▶ DelDOT's Mission Statement, Vision, and Goals
- ▶ Delaware's Long Rang Transportation Plan
- ▶ Provisions from the latest Federal Authorization Bill – MAP-21



# Mission Vision Goals Priorities

## Excellence in Transportation

Mission	Vision	Goals	Priorities (Criteria)
Every Trip	We strive to make every trip taken in Delaware safe, reliable and convenient for people and commerce.	Minimize the number of fatalities and injuries on our system  Build and maintain a nationally recognized system benefiting travelers and commerce	Safety  System Operating Effectiveness  System Preservation
Every Mode	We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.	Provide every traveler with access and choices to our transportation system	Multi-Modal Mobility/Flexibility/Access
Every Dollar	We seek the best value for every dollar spent for the benefit of all.	Minimize the environmental impact of the state's transportation system Achieve financial sustainability through accuracy, transparency and accountability	Environmental Impact/Stewardship  Revenue Generation and Economic Development
Everyone	We engage and communicate with our customers and employees openly and respectfully as we deliver our services.	Develop and maintain a place where talented and motivated employees love to work and can be national leaders in transportation	Impact on the Public/Social Disruption/Environmental Justice

# DeIDOT Long Range Transportation Plan

- ▶ Economic Vitality
- ▶ Safety
- ▶ Accessibility and Mobility
- ▶ Environmental Stewardship
- ▶ Multi-Modal
- ▶ Efficiency & Effectiveness



# National Goals

## Goal area

Safety

## National goal

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

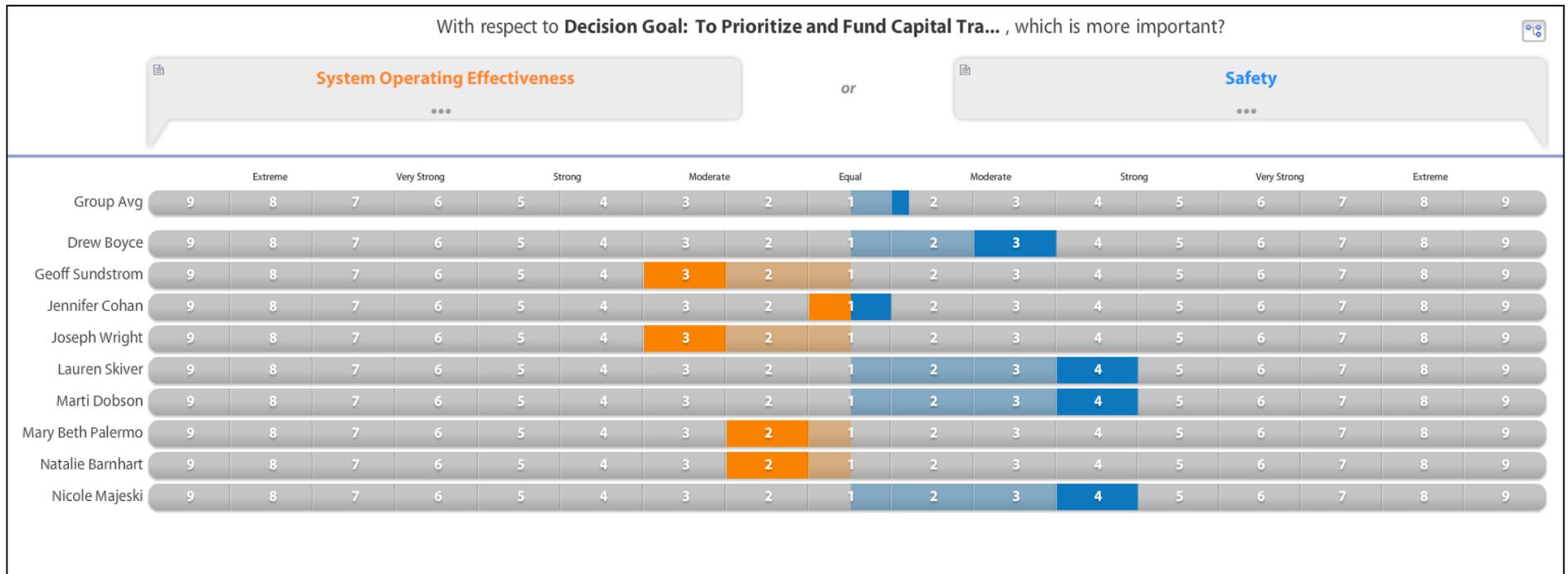
To enhance the performance of the transportation system while protecting and enhancing the natural environment



# 1. Identify Important Decision Making Criteria

- Decision Goal: To Prioritize and Fund Capital Transportation Projects for Statewide CTP
  - System Operating Effectiveness
    - Existing Level of Service
    - Congestion Management
  - Safety
    - Identified in a Safety Program
    - Address strategies in the SHSP
  - Environmental Impact/Stewardship
  - Revenue Generation/Economic Development/Jobs & Commerce
    - Identified in a Transportation Improvement District (TID)
    - Cost-sharing support
    - Freight Corridor
  - Multi-Modal Mobility/Flexibility/Access
  - Impact on the Public/Social Disruption/Environmental Justice
  - System Preservation

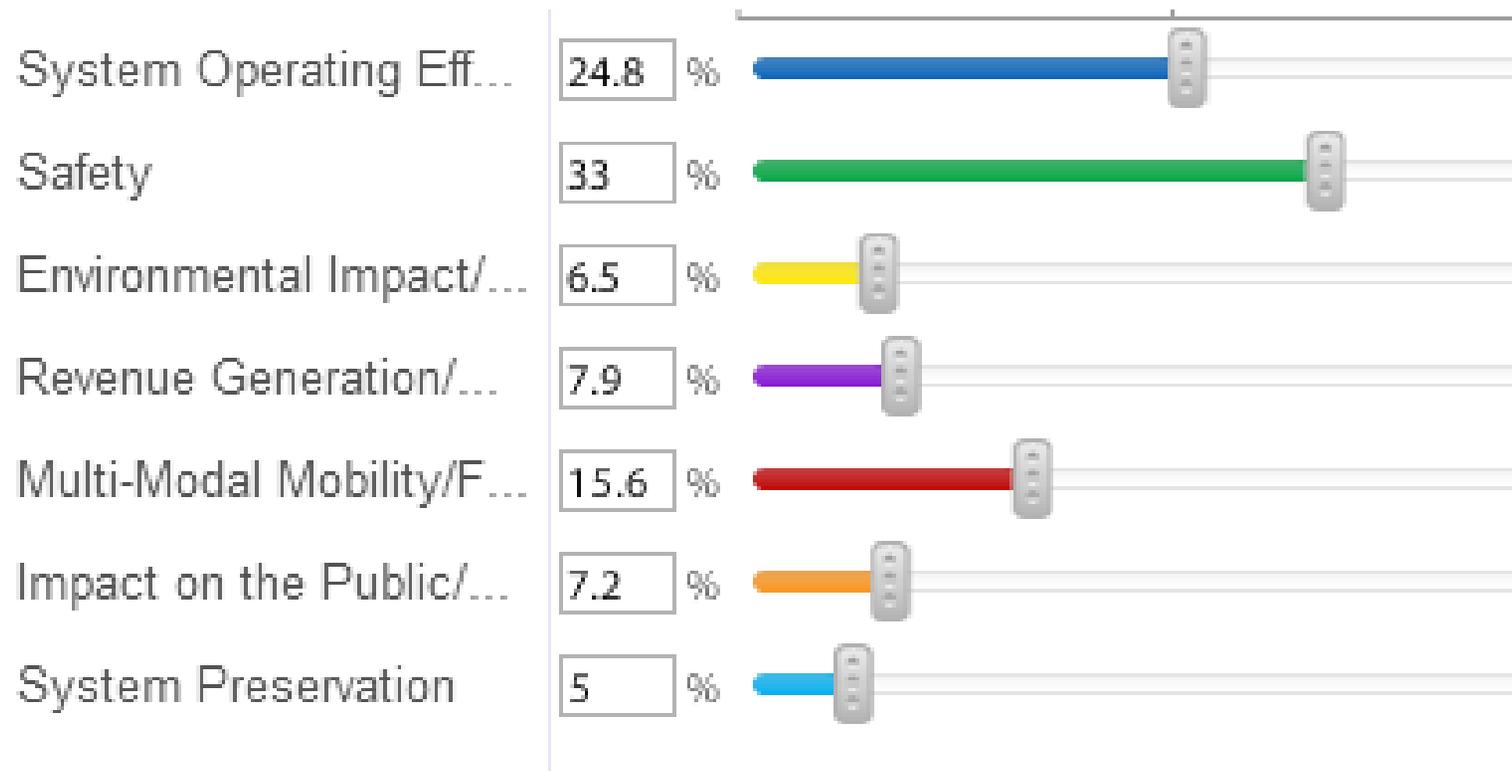
# 2. Compare Criteria



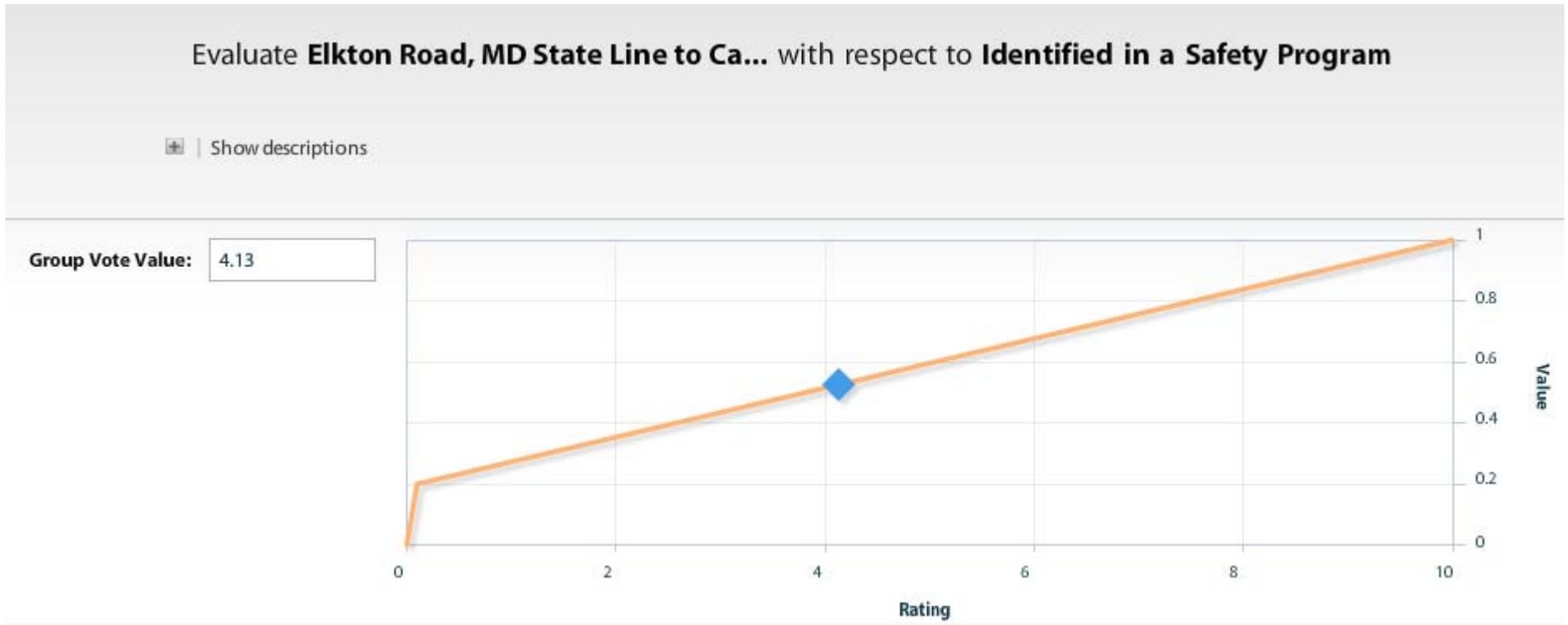
*Outcomes Are Dramatically Improved by Bringing Together Multiple Stakeholders*

# 2. Stakeholders Derive Relative Importance of Criteria

## DeIDOT Criteria



# 3. Quantitative Data Direct Input by Subject Matter Experts (SMEs)



*Quantitative data and metrics are pulled directly into the decision*



# System Operating Effectiveness

- ▶ PM Peak Hour Level Of Service (LOS)
  - This data is based on DeIDOT's travel demand model which was used to assess existing and projected daily volumes and capacities according to volume-to-capacity ratios.
- ▶ Located on a Congested Corridor
  - Evaluation of project corridors was performed using the “existing conditions” and “projected conditions” LOS maps in Dover/Kent MPO's Metropolitan Transportation Plan (MTP). This data is based on DeIDOT's travel demand model.



# Revenue Generation and Economic Development

- ▶ Located in a Transportation Improvement District (TID)
  - This information was pulled from DeIDOT's Development Coordination data base.
- ▶ Degree of Non-State/Non-Federal Contribution
  - This information was pulled from DeIDOT's Development Coordination data base.
- ▶ Located in Designated Freight Corridor
  - Primary and Secondary Freight Corridors have been identified in DeIDOT's draft Freight Plan.



# System Preservation

- ▶ This Criteria is used to determine the value that a project brings to an identified State of Good Repair need.
- ▶ This is a yes or no measure and was determined in coordination with our pavement management section.



# 3. Qualitative Input by Subject Matter Experts (SMEs)

Evaluate **Industrial Track Greenway Phase ...** with respect to **Multi-Modal Mobility/Flexibility...**

Show descriptions

<b>Significant Improvement</b>	Positively impacts multiple users groups or locations
✓ 4	Drew Boyce David Nicol Mike Simmons Mark Tudor
<b>Moderate Improvement</b>	Positively impacts single user group or location
✓ 2	Denny Hehman Jennifer Pinkerton
<b>No Effect</b>	No improvement nor decline in access/mobility
✓ 0	
<b>Detrimental</b>	Negatively impacts user group and/or one or more locations
✓ 0	

# Multi-Modal Mobility, Flexibility/Access

- ▶ A project is evaluated to determine whether it will:
  - Create a significant improvement by positively impacting multiple groups or locations
  - Create a moderate improvement by positively impacting a single user group or location
  - Neither improve nor degrade the existing access and mobility within the project limits
  - Negatively impact the transportation choices or access/connectivity

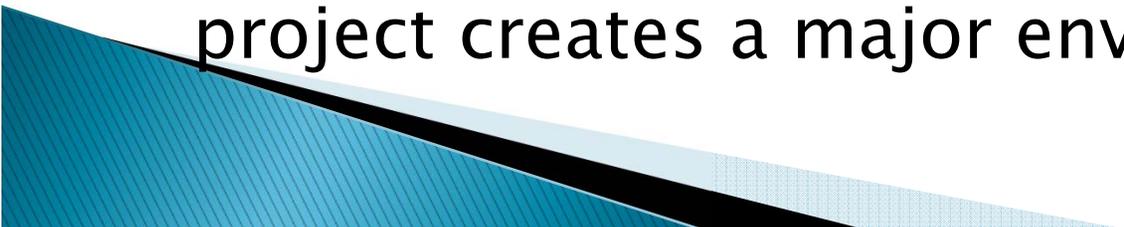


# Impact on the Public/Social Disruption/Environmental Justice

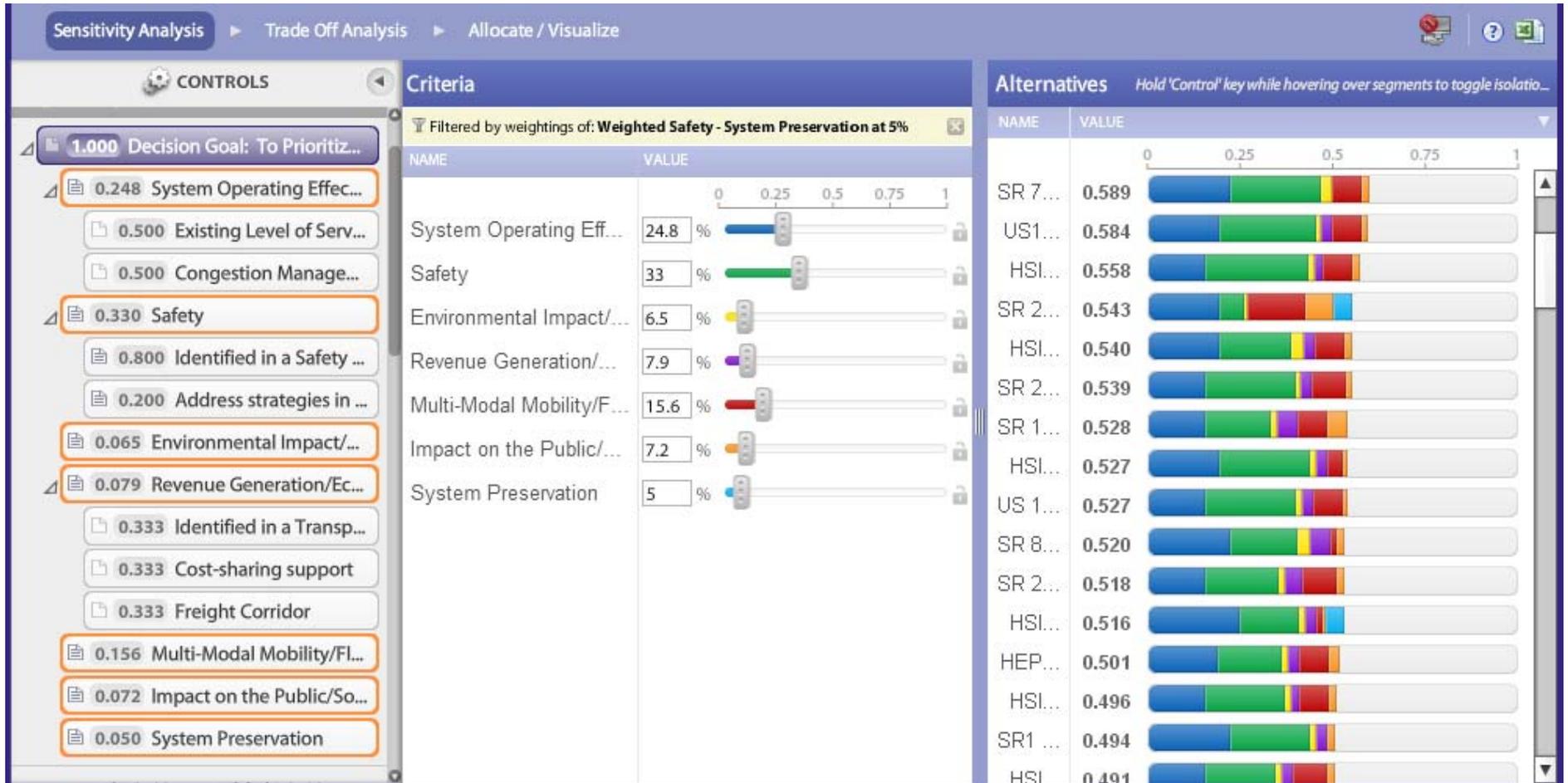
- ▶ The project provides a positive impact if it provides improvements in access/mobility OR physical environment of community.
- ▶ A project is detrimental if there is an adverse impact on access/mobility OR physical environment of community



# Environmental Impact/Stewardship

- ▶ The project is considered to have a positive impact if it completely resolves existing outstanding environmental impact or issue that was not created by the current transportation project.
  - ▶ The project is considered to have a minor negative impact if the project creates minor environmental impact that are resolved as part of the project.
  - ▶ A major negative impact is selected if the project creates a major environmental impact.
- 

# 4. Value Representation



# Development of the CTP

- ▶ **Prioritized project list**
  - Based on the technical score derived from the approved prioritization process
- ▶ **Assessment of project readiness**
  - Current Investment in man-hours and \$
  - Availability of Resources
- ▶ **Assessment of funding eligibility**
  - State and Federal
  - Federal Obligation



# Development of the CTP

- ▶ Draft CTP Developed Based on Anticipated Revenues (Summer)
- ▶ COT Holds Public Hearings in September
- ▶ COT Reviews Comments and May Make Priority Changes (October–February)
- ▶ COT Adopts CTP by March 1
- ▶ COT Submits CTP to OMB and General Assembly by March 15
- ▶ General Assembly Passes Bond Bill by July 1



# The Result – A Transparent and Defensible Process

- ▶ Improves communication between the officials, government, and citizens.
- ▶ Increases decision efficiency, buy-in, and transparency.
- ▶ The outcome of decision is a smarter allocation of limited resources.
- ▶ Provides the ability to quickly model various “what-if” scenarios to quickly react to what the future brings
- ▶ Resulting in a process that is proactive and defensible.

# Next Steps

- ▶ Continue to work with the MPOs and Sussex County on projects to be added to the Database for evaluation
- ▶ Continue to evaluate the method of measurement for the Criteria
- ▶ Look for opportunities to link Performance Measures with the Criteria
- ▶ Begin to incorporate Benefit Cost and Budget Allocation into the process



# Questions

