Increasing Your Value Through Prioritization and Project Selection that Yields Performance

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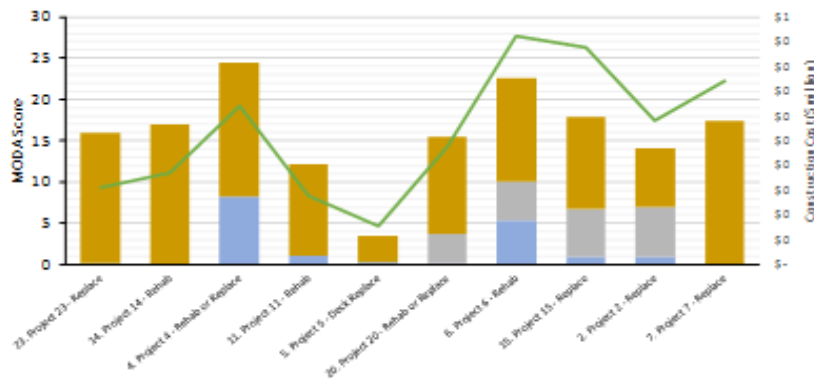
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Best Practices for Prioritization and Project Selection Using Multi-Objective Decision Analysis (MODA)

- Aligns project selection to Department's LRTP or Strategic Plan Goals

- Leadership and commitment: a critical success factor

- Develop process, methods, tools to measure value

- Cross-Department collaboration

- Analytical rigor

- Clear communication

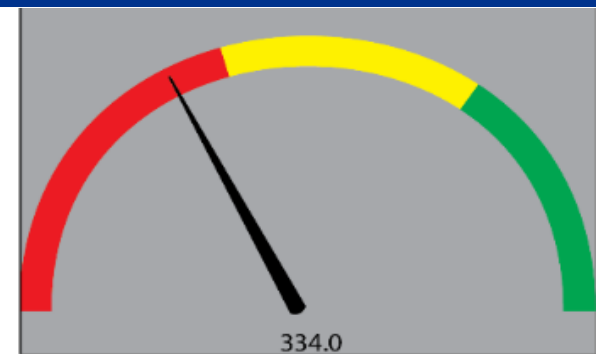# Cross-Asset Allocation to Improve DOT Return on Investment

MODA Project Prioritization and Selection

Develop a ranking for a set of projects based on DOT value for $ spent

Performance-Based Programming
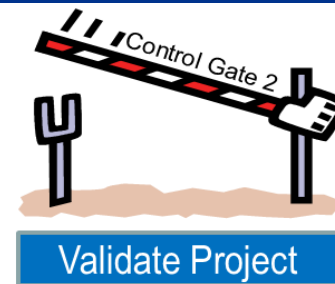

Total No. of Crashes

334.0

Test system performance with different levels of program funding
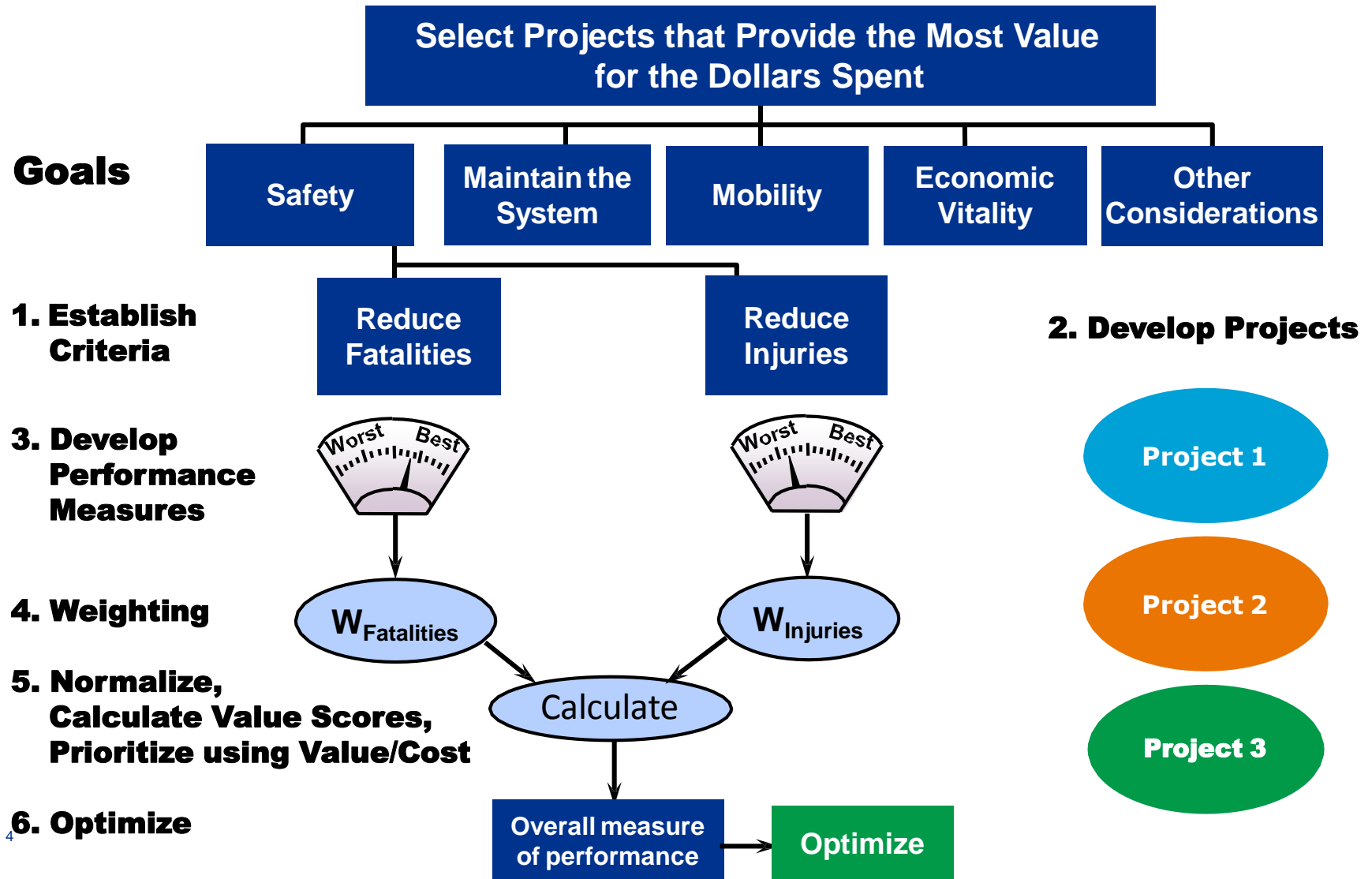
Long-Range Planning

Plan and schedule projects to meet multi-year budget constraints

Project Right-Sizing

Control Gate 2

Validate Project

Conduct business case evaluation of project concepts to maximize value for $ spent

Multi-Objective Decision Analysis (MODA) Prioritization & Selection Approach

Jacobs PRIORITIZE Tool

LOW COST Use existing software, available to the DOT, with a no-cost license. There is no need for costly ongoing licenses or "black box" hosting

TEST DRIVE Allows the DOT to "test drive" a tool, then specify exactly what is desired in a more comprehensive application, rather than limiting business practice improvements to what can be supported by a commercial "off the shelf" solution.

DATA CONTROL DOT will control all data and see all calculations and formulas.

DOT DESIGNED Based on a tool that is tailored to DOT prioritization, and is simple yet powerful.

QUICK MODIFICATIONS Excel or VBA can be quickly modified to meet specific DOT requirements.

EASY TO LEARN DOT staff can quickly learn what is needed to use the CH2M tool for prioritization analysis.

MODA works for many state DOTs – Different approaches and stages

- Developed a set of "Common Criteria" to use as starting point, and a criteria library to reflect most of CDOT prioritization needs

- Designed to fit CDOT investment decisions -- Tailored and easy to use

- Applied for multiple project selection activities within Asset Management, Development Program, NHFP

- Support from Transportation Commission for new data driven approach

- Maximizing value for dollar across goal areas

- Multiple workshops and trainings with staff from multiple departments to develop new approach

- Developed and formalized criteria aligned to agency goals

- Pilot tested on HSIP and on subset of projects in STIP
  - Project Timing
  - "Color of Money"

- Seeking insight NOT black box solutions

- Got staff talking and created more collaboration

What State DOTs say about MODA …..

- Data driven

- Creates collaboration

- Tracks performance and investments

- Matches with outputs from internal management systems

- Allows for comparison of differing projects

- Evaluation of trade-offs

- Accountability and transparency – no "black box"

THANK YOU!

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