

CDOT Project Funding: Return on Investment (ROI)



Client

Colorado Department of Transportation
(CDOT)

Facts

Period	2014
Project Country	United States

For the Colorado Department of Transportation (CDOT), EDR Group (now EBP) and High Street Consulting teamed to develop a statewide approach to incorporating economic costs, benefits, and impacts into the evaluation of proposed new projects and programs.

The study had three elements:

- 1. Analysis to calculate the economic contribution of Colorado’s transportation system to the state’s economy,
- 2. Development of a series of case studies and project information sheets to show the transportation performance benefits, long-run economic impact and “return on investment” for a set of Colorado DOT projects involving various modes, and
- 3. Development of an excel-based “toolkit” to enable the department to evaluate and prioritize projects on a mode-neutral, multi-criteria performance basis. The **Colorado Investment Toolkit software** was developed for Colorado DOT as part of this effort.

The intent of the study was to enable CDOT staff to better evaluate project-level investment choices and also have better tools and methods to communicate project benefits and impacts to the general public. The economic impact case studies have also been used to convey the importance of transportation investment to stakeholder groups. For instance, the case studies by EDR Group and High Street Consulting were featured in an extended article interviewing the Executive Director of Colorado DOT, published by the Denver Business Journal. [Click for Article](#)

With the toolkit, the agency sought to better understand how placing emphasis on different performance goals (such as safety, environment or mobility) could change the rating of projects in a multi-criteria analysis system. The toolkit calculates and consolidates ratings and values for a variety of user-benefit measures, including safety, environmental, travel time, operating cost and logistics benefits. It also includes other types of benefits that are often overlooked, including user and agency savings from improved pavement conditions. It allows the user to specify subjective values and scales for other qualitative factors considered in multi-criteria rankings, such as livability, habitat preservation and, visual aesthetics. Finally, it links to an economic model (TREDIS) to calculate the long-term economic consequences of setting different project priorities.

CDOT does not use for the toolkit for prioritization of their STIP. Rather, CDOT uses the system to suggest which projects would be most appropriate for new funding streams, especially when the funding is associated with particular performance objectives. Unlike most prioritization systems, it does not simply offer a rank order of projects, it also shows how the order of projects would change if the department were to emphasize one performance area of another.