





# INNOVATIVE TRANSPORTATION SOLUTIONS

*Tangible Result Driver – Mara Campbell, Organizational Results Director*

MoDOT values innovation. The department empowers employees and seeks input from stakeholders to generate innovative ideas. Collaboration with staff, academia and industry makes unique concepts come to life so MoDOT can serve its customers better, faster and at less expense to the taxpayer.

## Number of external awards received-8a

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Rebecca Geyer, Organizational Performance Specialist

### Purpose of the Measure:

This measure tracks the number of external awards received by the department. These awards display the department's dedication and efforts towards efficiency, innovation and quality throughout the organization. This information enables the department to measure progress and encourage further participation in award programs. It also provides opportunities for the department to increase public awareness of department activities.

### Measurement and Data Collection:

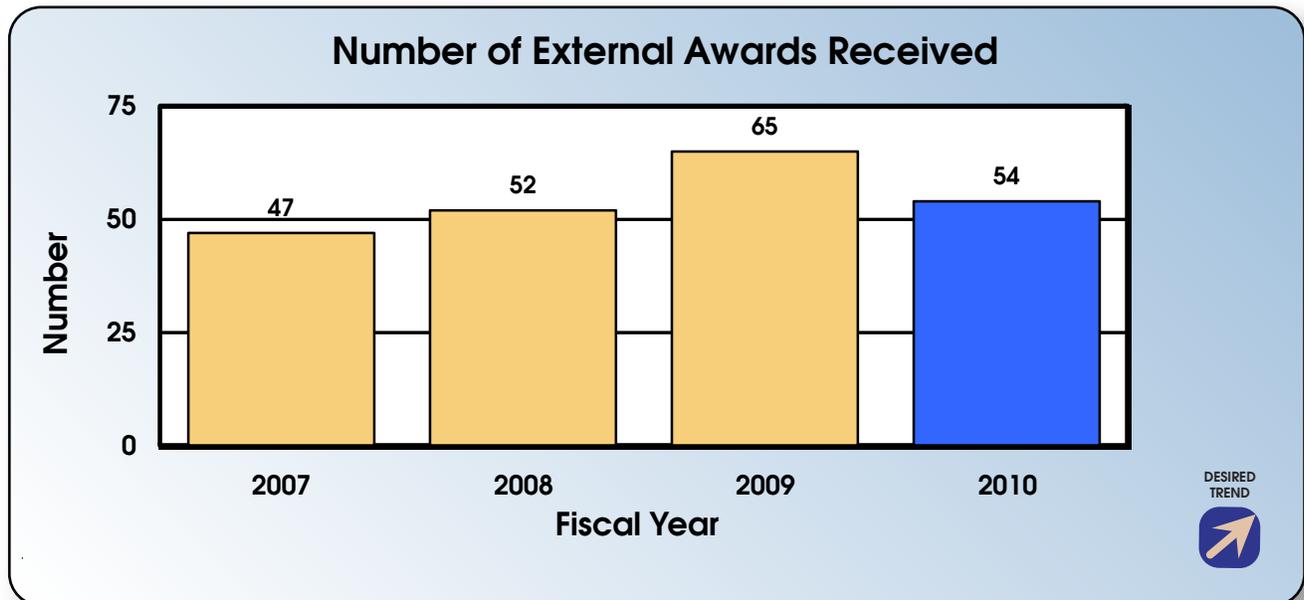
Each district and division office tracks the awards presented to the department by external organizations. This includes all awards presented to individuals, teams, districts, divisions and MoDOT as a whole. Data for this measure is updated quarterly.

### Improvement Status:

In the fourth quarter of fiscal year 2010, MoDOT received 17 awards, bringing the year-to-date total to 54. This quarter, MoDOT was recognized for their

excellence in a wide variety of areas: operations, administration and communication. Most notably, District 4 was awarded the Diversity Exemplary Practices Award by the American Public Works Association (APWA) and the Capstone Award by the Kansas City Business Journal, and District 6 received the Infrastructure Progress Award by the Partners for Progress of Greater St. Charles. Individually; Dennis Heckman, State Bridge Engineer, received a National Recognition Award by Jacobs Engineering Group; and Linda Wilson, District 6 Community Relations Manager, was recognized as the Communicator of the Year by the National Association of Government Communicators.

MoDOT continues to enter various competitions to have its work judged against the efforts of other organizations.



## Number of innovative reports published-8b

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Bill Stone, Organizational Performance Administrator

### Purpose of the Measure:

The number of reports published is an indication of how well Organizational Results is completing its research projects and sharing the results with the department. These communication tools are an important part of the unit's overall efforts to have innovative transportation solutions implemented within MoDOT.

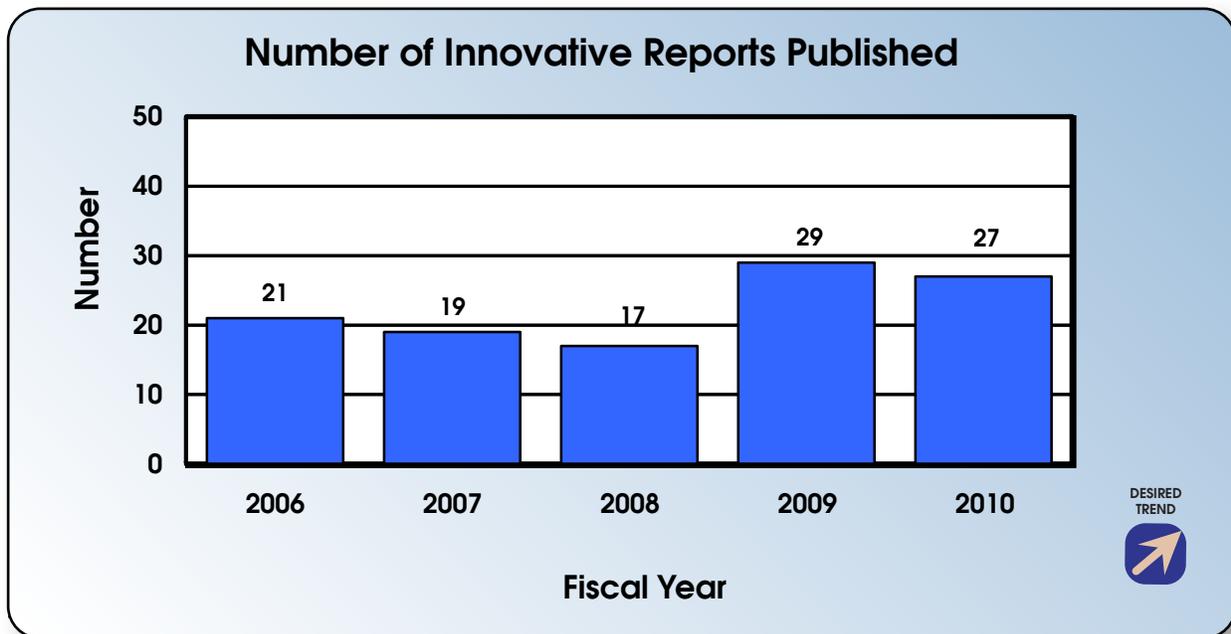
updates or final reports regarding innovations and research activities. Published – are documents printed or electronically prepared for distribution. These innovations include engineering and non-engineering aspects.

### Measurement and Data Collection:

Organizational Results staff maintains a spreadsheet of research publications. The spreadsheet is updated as they are published. Reports and staff summaries – include reports, bulletins and summaries written as

### Improvement Status:

During fiscal year 2010, a total of 27 innovative reports were published. This is only slightly lower than the all-time high total of 29 in FY 2009. The higher totals the past two years are the result of increased communication efforts for innovative solutions.



## Number of new product evaluations completed and approved for use-8c

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Jen Harper, Organizational Performance Engineer

### Purpose of the Measure:

This measure tracks the number of new products evaluated and approved for use. The OR management team will use this data to help determine if MoDOT is continuing to review new and innovative products.

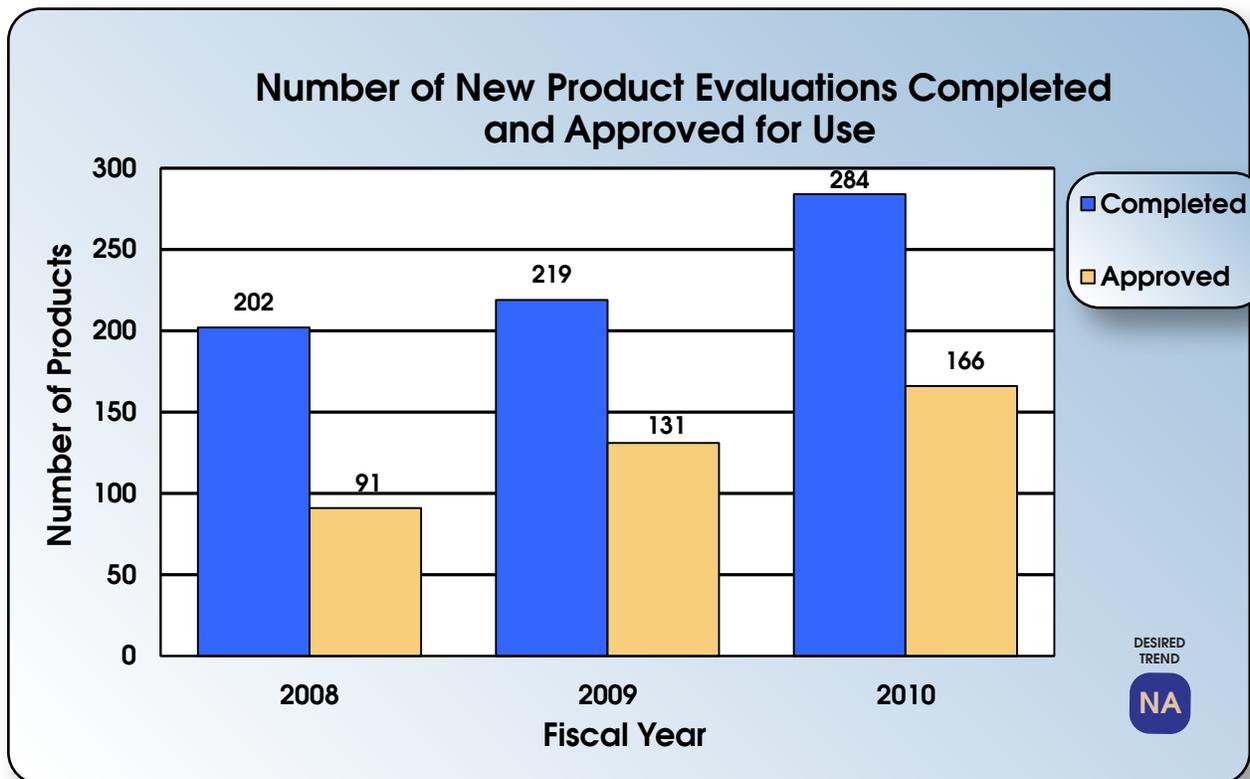
products being evaluated, and the total number of new product evaluations completed. New product evaluations completed is a count of the number of product usages approved, not approved or declined to evaluate.

### Measurement and Data Collection:

All new products that are to be considered for use on MoDOT projects or by MoDOT personnel are submitted for evaluation to OR staff. Each new product received is assigned a number and tracked in a database. The time necessary to process a new product evaluation varies with each product depending upon whether or not testing is required. Data is collected from the new product database to determine the total number of new products submitted for evaluation, the total number of

### Improvement Status:

The increase between 2008 and 2010 can be attributed to designating a new products coordinator to oversee all new “engineering” products in the department and streamlining the process. The large increase in products completed in 2010 can be attributed to both an increase in the number of submissions received as well as an increase in the number of traffic products being evaluated through the new product process.



## Number of innovative technologies implemented during construction-8d

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Travis Koestner, Assistant State Construction and Materials Engineer

**Purpose of the Measure:**

This measure tracks the number of innovative technologies implemented during construction of projects.

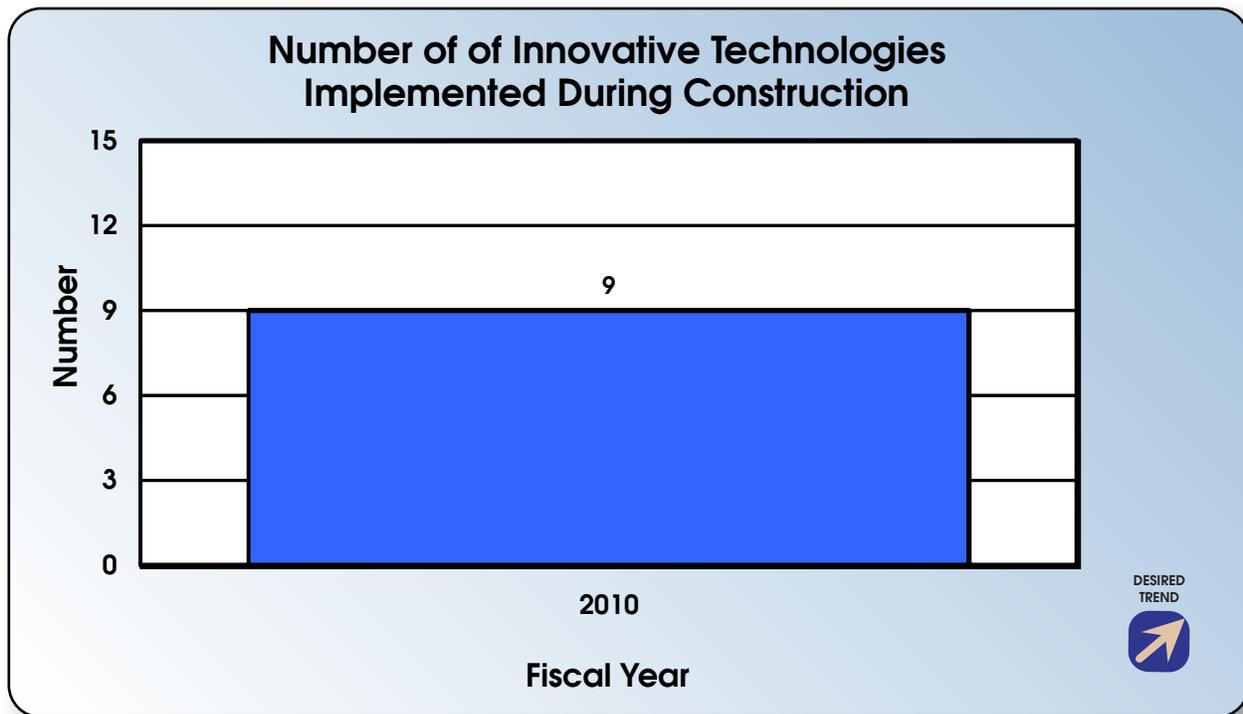
**Measurement and Data Collection:**

An innovative practice is counted once it has been incorporated into a project. The data is collected from submissions from MoDOT Resident Engineer's Offices, Organizational Results projects and Construction and Materials Division. This is an annual measure reported in July.

**Improvement Status:**

MoDOT encourages contractors to present innovative techniques that can increase the efficiency of projects

and save taxpayers money. Several of the innovative practices such as project wide quality control/quality assurance and bobsled techniques for concrete joints were initiated by MoDOT and presented to the industry for use on projects. Contractor initiated items include Tire Rubber Surface Sealer using recycled tires and a unique interchange configuration for a value engineering concept on the I-270/Dorsett Interchange. There are several techniques in the planning stages at this time that will be counted once the construction actually takes place. Examples include self-cleaning concrete, dynamic compaction and various pavement treatment combinations.



## Number of innovative solutions implemented for maintenance operations-8e

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Tim Chojnacki, Maintenance Liaison Engineer

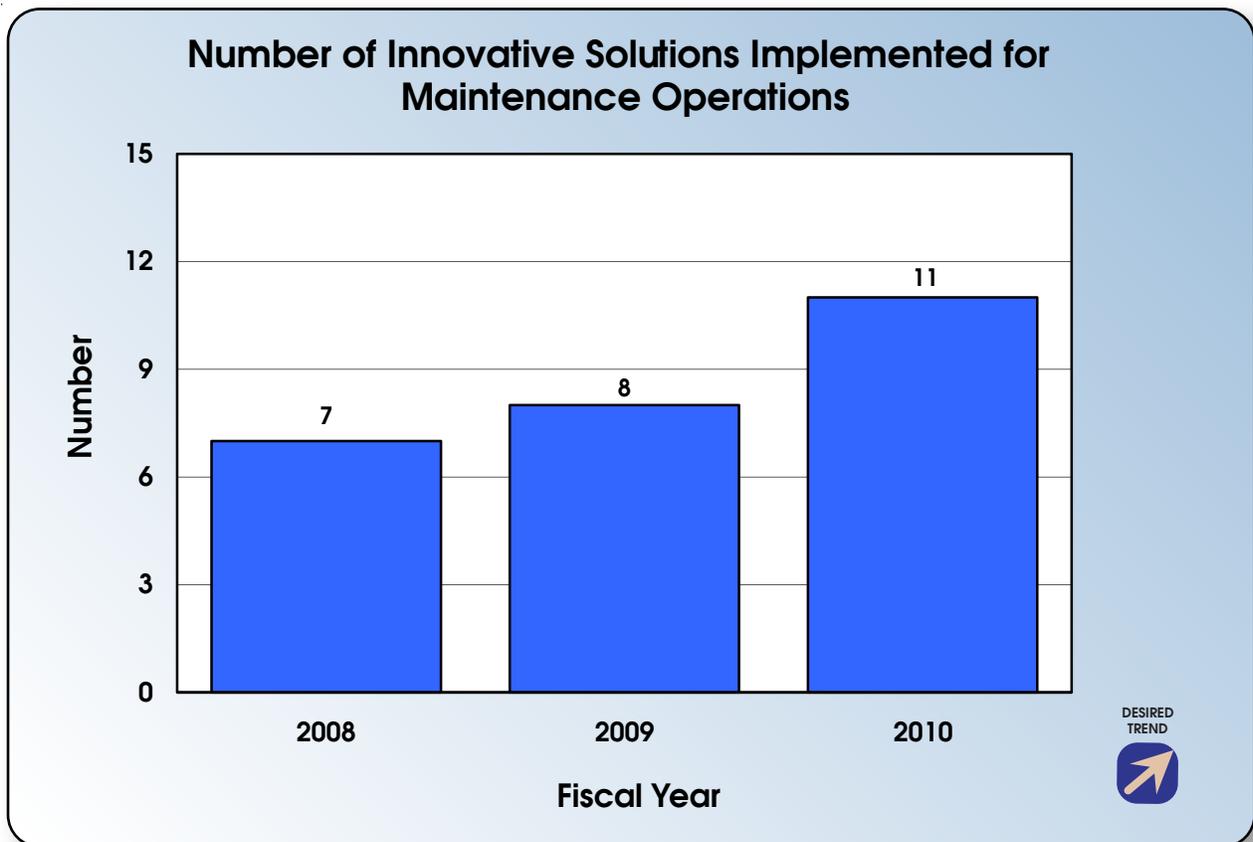
**Purpose of the Measure:** This measure tracks the number of innovative solutions implemented for maintenance operations. Best practices show how MoDOT employees are applying innovation to improve daily operations.

### Measurement and Data Collection:

Innovative solutions are identified and shared with district managers through the Solutions at Work program, the Innovation Challenge, research projects and benchmarking with other organizations. The Maintenance Division conducts an annual survey to assess the number of innovative solutions implemented in district operations. This is an annual measure reported in July.

### Improvement Status:

During fiscal year 2010 a total of 11 innovative solutions were identified and shared for district maintenance operations. The majority of those solutions (six) came from the Tool and Equipment Challenge statewide winners. Another two innovations identified were non-winning entries in the challenge. The former Tool and Equipment Challenge, now the Innovations Challenge has been expanded to focus on the six emphasis areas for maintenance in MoDOT's five-year direction.



## Number of innovative revisions and dollars saved-8f

**Result Driver:** Mara Campbell, Organizational Results Director

**Measurement Driver:** Joe Jones, Engineering Policy Administrator

### Purpose of the Measure:

This measure tracks the number of innovative engineering policy revisions to MoDOT's *Engineering Policy Guide*, *Missouri Standard Specifications for Highway Construction* and the *Missouri Standard Plans for Highway Construction* and the dollars saved. Policies and standards are a necessary part of highway construction; without them, there would be no way to ensure quality in the product MoDOT delivers to the public. The standards and policies should be practical in nature, that is to say they shouldn't be overly prescriptive and should have a positive fiscal impact (represent money saved). It is important to remember that the philosophy of Practical Design is not limited to the Design Division. Vigilance against inflated standards is an excellent way to help this value take hold throughout the entire department. This measure tracks the number of innovative cost control measures implemented during the design stage of projects.

### Measurement and Data Collection:

The staff responsible for coordinating the standards revisions collects the data. Measurement is based upon the fiscal impact reported with each bi-monthly

engineering policy ballot. The fiscal impact per unit is multiplied by the total number of units of the particular bid item that were used in the previous year. For example, an anticipated savings for reducing guardrail posts from 9 ft. to 7 ft. was estimated at \$1.53 per linear foot of guardrail. With 258,102 linear feet of Type A Guardrail installed the previous year, the estimated savings would be \$394,896. This is an annual measure reported in July.

### Improvement Status:

Success in this measure is defined as a positive savings of any amount. Improvement would be a larger savings, but since that is based entirely on the number of revisions being proposed by outside sources, it is beyond the control of the Engineering Policy Group.

**UNDER DEVELOPMENT**