

Iowa DOT Project Management Peer Exchange

tech transfer summary

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RESEARCH PROJECT TITLE

Iowa DOT Project Management Peer Exchange

SPONSORS

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The Construction Management and Technology (CMAT) program is part of the Institute for Transportation (InTrans) at Iowa State University. The mission of the CMAT program is to improve the efficiency and cost-effectiveness of planning, designing, constructing, and operating transportation facilities through innovative construction processes and technologies.

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A structured framework and tool that can reflect local requirements, practices, and operational conditions would greatly assist local agencies in making consistent and defensible pavement treatment selection decisions.

Background

This project supported the planning and conduct of a two-day, Iowa Department of Transportation (DOT)-hosted peer exchange for personnel from Iowa and other state DOTs that have implemented strategies identified in the Second Strategic Highway Research Program (SHRP 2) project R10, Project Management Strategies for Complex Projects, specifically strategies related to five-dimensional project management (5DPM); see Figure 1.

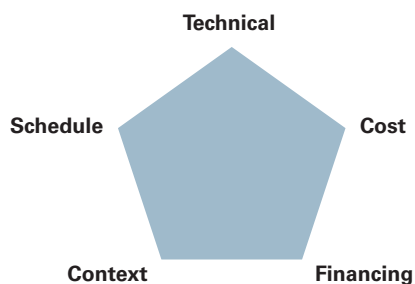


Figure 1. Five-dimensional project management (5DPM)

Objectives

The objectives of the peer exchange were to promote a transfer of knowledge and to capture lessons learned that can be incorporated into the Iowa DOT Project Development Process Manual.

Methodology

The peer exchange consisted of two parts:

- Iowa DOT presentation on the state of project management at the agency followed by breakout discussions
- Presentations by other recipients of SHRP 2 Implementation Assistance Program funding related to the R10 project, each followed by question-and-answer and discussion sessions

Key Findings

The following seven themes emerged as best practices.

Agency-level decision and support. To implement changes and improvements in project management processes, agency leadership needs to decide that a new approach to project management is worth pursuing and then dedicate resources to development of a project management plan.

Culture shift. The change to formalized project management and 5DPM requires a culture shift in agencies from segmented “silo” processes to collaborative, cooperative processes that prioritize good communication and working together to address issues as they arise.

Project managers. Agencies need trained project managers who are empowered to execute the project management plan, as well as properly trained functional staff.

Location. Project management can be centralized or decentralized with equal effect. Each agency should decide whether to centralize or decentralize and then develop a plan and structure that support that decision.

Project management vs. tools. Project management is not a software or other tool; it is a philosophy. After the project management plan and structure are developed, tools and other resources (e.g., software, checklists, operating procedures) should be implemented to support the plan and structure.

Project levels. All projects will benefit from enhanced project management, but the project management plan should specify appropriate approaches for several project levels as defined by factors in addition to dollar value.

Documentation. Project management should be included in an agency’s project development manual as either a single chapter (perhaps most appropriate for implementation on high-level projects) and/or throughout the manual (perhaps most appropriate for implementation at all project levels).

Implementation Readiness and Benefits

The detailed reports from the breakout sessions and the themes that emerged from the breakout sessions and presentation discussions provide information that can inform the Iowa DOT’s development of specific project management policies, including the Project Development Process Manual.