

**Improving California's
Transportation
Project Delivery Through
Better Information Management:**

**DRAFT
AB 1012
COMPREHENSIVE
MANAGEMENT INFORMATION SYSTEM
PLAN**

Executive Summary

Introduction

The AB 1012 M.I.S Advisory Committee was asked to recommend ways to improve project monitoring and project delivery through the use of information technology. The Advisory Committee reviewed the existing systems used to track the status of specific transportation projects and monitor the use of federal transportation funds state highway and local assistance projects.

The Committee recognized the need for transportation stakeholders to have current and accurate project information at their fingertips. Readily available information will provide the ability to proactively manage projects and ensure maximum efficiency in project delivery. The Committee also recognized that responsible state and local agencies need current and accurate project information so they can ensure the right projects are going forward in order to utilize available funding. To capture these thoughts, the Committee formed the following vision;

Sharing mission critical information among the transportation community will position California to maximize available funding and efficiently deliver transportation improvements to its' citizens.

This document represents the Advisory Committee's draft plan focused on achieving this vision. Upon review and comment by stakeholders, the plan will be revised and finalized for submission to the Legislature in February 2001.

Opportunities for Improving Management Information Systems

AB 1012 M.I.S Advisory Committee found that the transportation community relies on a patchwork of databases that are not well connected. For instance, project delivery information related to cost, schedule, and scope is stored in multiple departmental systems that are not linked. This redundant data capturing results in potentially inaccurate information and causes the transportation community to spend extensive time reconciling and maintaining data.

Furthermore, while existing Caltrans information systems track programming and project delivery information, the information is not shared electronically between the state and local agencies. In order to track this information, Metropolitan Planning Organizations (MPOs), Regional Transportation Planning Agencies (RTPAs), and local agencies manually key-enter data into their own internal data systems. Similarly, when local

agencies submit documentation to Caltrans, data is sent in either hard-copy format or in a non-standardized electronic format.

Caltrans must then key-enter this data into its departmental systems. With the same data being entered by different people in multiple systems, data integrity is jeopardized and it is difficult for stakeholders to access accurate data for management and reporting purposes.

Consequently, without extensive reconciliation, the transportation community does not have access to timely information that would allow them to monitor project status, including planned to actual expenditures or planned to milestone completion. Furthermore, since departmental systems are not linked, it is difficult to access the historical data over the lifetime of a project. This limits stakeholders' ability to better manage project delivery, analyze trends, identify opportunities to improve efficiencies, or improve its estimating capabilities.

Regular reporting of project costs is required by both SB 45 and the California Transportation Commission. Both Caltrans and its business partners need information to monitor project status and expenditures in order to meet these requirements.

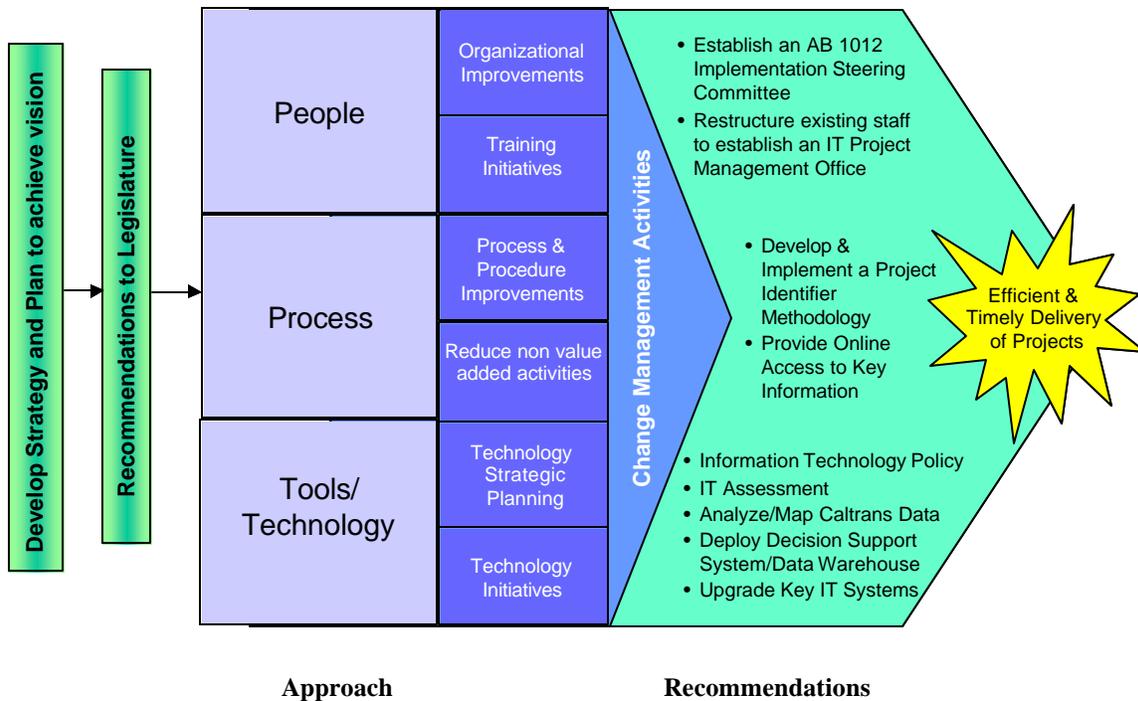
Long Term Vision

Sharing mission critical information among the transportation community will position California to maximize available funding and efficiently deliver transportation improvements to its' citizens.

To provide stakeholders current and accurate project information the Committee believes that Caltrans should lead in the development of a Decision Support System (DSS). This system would facilitate the critical project information within the transportation community. The transportation community and ultimately the public would have web-enabled access to mission critical information, such as scope, budget, cost, and schedule data from Caltrans' core applications. Much of the framework for data needs have been established from this effort, however, in order to facilitate development, the working relationship of the transportation community must continue.

This document contains the Advisory Committee's proposed strategy and plan to implement this long-term vision. This approach focuses on *people, process* and *tools/technology*. Each of these areas has been targeted to play a critical role in implementing the vision. Within each, there are numerous recommended implementation activities that are identified in the following graphic and discussed in detail in the remainder of the document.

Efficient and Timely Delivery of Projects



These recommendations set out this vision in a sequence of activities and identifies the timelines that the Department may wish to implement in the short term within this fiscal year, in the medium term by next fiscal year, or in the long-term over the next two or more fiscal years.

The Committee intends to have a more detailed scope, cost and schedule for each of the recommendations in its Final Report due in February 2001. This detail will also include a description of the required information technology and budgetary approvals.