

community quality of life. Although level of service and congestion variables could be meaningful indicators for system performance, many others may have greater significance to the users of the intermodal transportation system (e.g., system reliability in the case of goods movement).

- Open process. All of the management systems are to be developed with opportunities provided for public involvement. In the case of IMS, for example, the Interim Final Rule states that IMS performance measures shall be "established cooperatively at the State and local levels with private sector coordination, as appropriate." This suggests that a wide variety of groups that have seldom been involved in transportation planning (e.g., trucking firms, rail operators, airport operators, shippers, etc.) now need to be involved.

Perhaps the greatest challenge to IMS is that of developing the required strong link to the systems planning process. All of the management systems should be viewed as supporting, not replacing, the systems planning process. However, because IMS is so new, there is the risk that its development could occur outside the systems planning context (in order to better understand the underlying phenomena) and be perceived as a separate process. IMS developers must carefully consider the relationship between IMS and systems planning and indeed the interrelationship among IMS, CMS, and PTMS.

IMS Development

Most states are in the early stages of developing their IMS. One of the first steps in IMS development is an inventory of intermodal facilities; this step appears to be the one that is most advanced among the states. Ohio, for example, has conducted an extensive inventory of intermodal facilities, as have California and several other states. Given that such an inventory is to be completed by October, it should not be surprising that this element of a state's IMS has received most attention.

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Public Transportation Facilities and Equipment Management

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Ters face a number of challenges in the coming years: maintaining and improving mobility, reducing automobile emissions, and equitably distributing services to meet the needs of all sectors of society. Public mass transit will no doubt play a very large role in meeting these needs. However, transit service providers themselves must address a number of issues:

- Uncertain availability of federal, state, and local funding resources;
- Increased competition for these funds, not just among types of transit projects but also among transit and other modal investments and public expenditures;
- An aging capital base. According to FTA's most recent report to Congress on the performance and condition of mass transit in the United States, expenditures of \$3.1 billion per year will be required just to maintain, but not improve, the condition of current transit assets;
- New statutory obligations to serve disabled Americans, as required by the Americans with Disabilities Act of 1990, and improve vehicular emissions, as mandated by the Clean Air Act Amendments of 1990.

These issues necessitate the prudent management, efficient operation, and timely maintenance, rehabilitation, and

replacement of existing transit assets. The Public Transportation Facilities and Equipment Management System (PTMS) requirement of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) is one mechanism that states, metropolitan planning organizations, and transit operators can use to evaluate the condition of major transit capital assets for the purpose of determining statewide investment priorities.

Intent of PTMS

The intent of PTMS is to provide decision makers with the information "to select cost-effective strategies for providing and maintaining transit assets in a serviceable condition." It supports both statewide and metropolitan transportation planning by identifying needs, and the strategies to meet these needs, as inputs to the planning process. PTMS further supports the results of the congestion and intermodal management systems by determining the capacity and condition of the existing capital stock—and expansion requirements—necessary to implement the transit strategies generated by these systems.

State Requirements

Consistent with the other management systems, PTMS is ultimately a state requirement. For many state departments of transportation (DOTs), the monitoring

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and evaluation of transit capital assets will be a new responsibility. To the extent that DOTs have played—or not played—a role in the provision of technical assistance and funding for public transportation, the availability of data or the capacity of existing institutional bodies to coordinate and manage asset data may prove to be a major issue in the development of a statewide PTMS. The interim final rule recognizes the wide range of arrangements and relationships among state DOTs and public transportation providers and the diverse capital needs among transit operators. Indeed, because each state's situation is unique, a "one size fits all" prescriptive approach was determined to be the least desirable method for the development of a federal regulation covering PTMS.

Instead, the interim final rule provides broad guidelines for the development and implementation of PTMS. Consistent

with the collaborative approach to decision making that runs throughout ISTEA, the rule requires that each state establish its PTMS in cooperation with all affected transit operators. Such cooperation is critical; capital management and planning is a function of sound transit operations, and the experiences and input of local operators will play an important role in the development of a statewide asset management system.

Specifically, this cooperative process must determine an appropriate level of detail for the collection of asset data, as well as identify the condition measures and standards needed to evaluate these assets. Again, public transportation service providers will be a key resource for state DOTs as they define the technical parameters of their PTMS. The collaborative establishment of these technical components must reflect a clear and mutually acceptable approach to the collection,

maintenance, and use of PTMS data for planning purposes.

Although each state is given wide discretion in the development of its PTMS, the content of the system should contain enough information to provide decision makers with the ability to (a) assess current and future asset conditions and needs, (b) identify major deficiencies, and (c) determine when and where to allocate funding to meet statewide goals and objectives for the provision of public transportation services. In these terms, the benefit of PTMS is twofold; although PTMS clearly provides for a statewide mechanism for the monitoring and evaluation of the condition of major transit assets, it should also be viewed as an opportunity for all participants in the process to forge a broader vision of transit service delivery and the efficient maintenance, rehabilitation, and replacement of public transportation facilities and equipment.

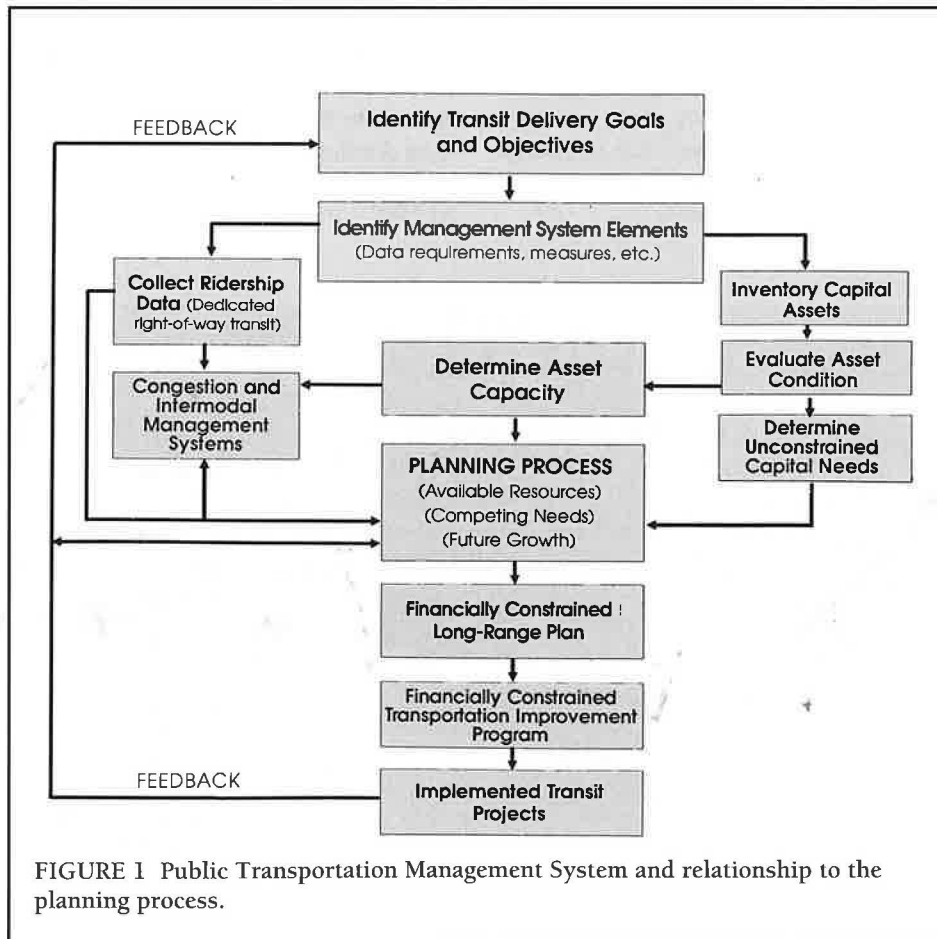


FIGURE 1 Public Transportation Management System and relationship to the planning process.