

Strategic planning is a relatively new concept in the public sector. It has been borrowed from the private sector and incorporated into a growing number of state and local transportation agencies. Essentially, strategic planning is a management process that helps an organization

citizens; and (c) underwriting local transit systems to the tune of \$460 million each year. This restructuring has helped to turn PennDOT's essentially bankrupt programs into a dynamic set of activities that are regaining the confidence of the state legislature.

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make critical decisions about the target of its efforts and the allocation of its resources. The central thrust of the process is to develop strategic thinking and to foster strategic decision making by leaders and, in turn, by line man-

Similarly, at the local level, the Port Authority of New York and New Jersey has used strategic planning even longer to reconceptualize its conglomeration of self-supporting businesses—airports, seaports, the World Trade Center, tunnels

Applying Strategic Planning in the Transportation Sector

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agers and departments responsible for turning agency goals into results.

Recently, a number of state and local transportation agencies have begun to use this new technique to good advantage. For example, the Pennsylvania Department of Transportation has used strategic planning during the past 5 years to restructure its whole operation into three basic businesses: (a) managing a \$50 billion system of capital facilities; (b) conducting 25 million transactions each year with Pennsylvania's 12 million

and bridges, interurban railway, and bus terminals—into an economic development strategy to help revitalize the New York metropolitan region.

As practiced by large corporations since the 1960s, strategic planning has emphasized:

- Preparation of overall *mission and goals statements*;
- Scanning and analysis of the *external environment* to anticipate market forces significant to future success;
- Inventory and evaluation of the organization's *internal strengths, weaknesses, and resources*;
- Formulation, evaluation, and selection of *strategies*, using available resources, to take best advantage of

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external opportunities and internal strengths; and

- *Implementation and control of the strategic plan.*

In the business world, the primary objective is to place the company in the best market position to maximize profits. In transportation agencies, the goal is to deliver effective service to the pub-

mentation of strategic decisions more difficult.

In September 1983, the Transportation Research Board established a Strategic Planning Task Force to help evaluate the usefulness of this concept for transportation organizations and to assist them in taking advantage of the benefits it has to offer.

At the local level, the Port Authority of New York and New Jersey has used strategic planning to reconceptualize its conglomeration of self-supporting businesses-airports, seaports, the World Trade Center, tunnels and bridges, interurban railway, and bus terminals-into an economic development strategy to help revitalize the New York metropolitan region.

lic in the face of constrained resources.

Experts agree that the strategic planning process developed in the private sector is directly transferable to public-sector settings without significant modifications to the process. However, the political context in which transportation agencies operate is a major factor. Michael Meyer, Planning Director, Massachusetts Department of Public Works, has pointed out important distinctions between the public and private sectors:

- Public agencies operate under intense public scrutiny and political review.

- Public-sector decision making, by its political nature, is less direct and more complex than that of private organizations.

- Agency mandates are often set by law, and it is difficult to set new goals or move in new directions without legislative action.

- Agency executives have less control than do their private sector counterparts over the resources available to their organizations, which makes imple-

WHY STRATEGIC PLANNING?

Strategic planning has evolved from other planning and management processes in recognition that organizations must operate in complex, uncertain, and fast-changing environments. Transportation agencies work today in dramatically changed conditions brought about by sweeping shifts both in the national economy and in social and demographic characteristics. And the pace of change continues to accelerate. The days are past when pub-

their missions changing and unclear, and their resources drastically tightened.

Strategic planning offers a structured process for looking at the future in the context of the pressures confronting all transportation agencies today, including scarce capital and unpredictable revenue streams; changing markets; competing claims for limited agency resources; escalating needs for infrastructure repair and replacement; rapidly rising operating and maintenance costs; heightened public attention to transportation issues; and demands for better management and increased productivity. The strategic planning process is designed to help agencies make better decisions today as they grapple with the difficult job of the most effective allocation of scarce resources in the face of a changing environment.

HOW IS STRATEGIC PLANNING DIFFERENT?

Strategic planning supplements and guides the traditional forms of public-sector planning—long-range planning, multi-year programming, operations planning, and project planning. These traditional forms are still necessary; they can provide important means for carrying out strategic plans. Traditional plans can supply the tactical specifics to make the farther-ranging strategies more effective. In other words, strategies determine general directions, whereas plans ultimately result in specific products.

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lic agencies can pursue straightforward, unambiguous missions, using ample resources to carry out their mandates in a predictable, relatively stable environment. Agencies now frequently find

Strategic planning is different from conventional planning in several other aspects as well. For example, it is more focused. Whereas conventional planning usually attempts to be comprehensive,

strategic planning is concerned with isolating and addressing the few key issues critical to the success of an organization or a program. Strategic planning focuses on those topics of most concern to the organization and engages high-level decision makers in activities that are essential to performing their duties. This attracts their attention, holds their

interest, and commits them to the results of the process. In turn, the process fosters a strategic outlook down through the organization, encouraging line managers and departments to think beyond day-to-day matters to the accomplishment of critical organizational objectives.

The results of strategic planning are immediate managerial and resource allocation decisions—such as investment, operating, and legislative strategies—not simply recommendations for the future operation of a program, facility, or organization. This direct connection to reality—and to real-time management—along with its cost-saving focus on essentials and its small staffing requirements, makes strategic planning attractive in today's cost-conscious managerial environment. Strategic plans usually result in action, whereas many conventional plans are put on the shelf. In most cases, strategic planning pays demonstrable dividends.

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been emphasized by Edwin McKeever, Director of Strategic Planning for the Port Authority of New York and New Jersey. He stresses the importance of understanding public agency dynamics and human tendencies in order to create a good fit for strategic planning within the organization. Lack of candor in facing tough issues, over-optimism about the future, the tendency to "manage" crises rather than confront them, and resistance to change are difficult problems of human nature that need to be overcome. McKeever adds that the public sector too often tends to take a short-term perspective. Because government is always in the limelight, it tends

work closely with agency leaders, and draw on other agency resources, is the most successful arrangement. What this group needs, more than large resources of its own, is the accessibility of agency leaders, a concentrated and thoughtful team effort, access to a basic set of timely data, and adequate time for the process to develop and mature. Typically, several years are required from the start of a strategic planning effort to the time when it is established and fully operating within an organization. However, in even its earliest stages, discernible benefits can be produced, particularly in clarifying agency goals and in gaining the fresh perspective that comes from looking beyond the immediate organization to the environment in which it operates.

The strategic planning process does not offer either quick or easy solutions to the challenges facing transportation agencies. It does, however, offer a focused way to deal with planning and resource allocation decisions that are characterized by complexity and a high degree of risk. The process provides an agency with a tool for making targeted, selective choices—for focusing attention on the several crucial issues it must confront. It creates an actionable, strategic agenda rather than an "ideal" agenda, which is more characteristic of fixed,

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to allow problems to overshadow opportunities, which leads to an underestimation of what actually can be accomplished.

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long-range master plans. It helps the agency to initiate, not just react. It offers opportunities for more effective, efficient management. And the strategic planning process allows the agency to position itself strategically and flexibly in its changing environment.

PUTTING STRATEGIC PLANNING INTO PRACTICE

As a growing number of agencies incorporate the strategic planning approach, some keys to success are beginning to emerge. Top-level commitment and involvement from agency officials are crucial. Their vital decisions set the basic direction of the agency and de-

EMERGING LESSONS FROM THE PRIVATE SECTOR

With their more extensive experience in the use of strategic planning, major corporations continue to refine and shape their practices. Many companies are actively moving away from top-level, isolated strategic planning staffs, grown overly large after years of being institutionalized into corporate practices. They are finding that such a situation removes strategic planning from the real issues and decisions faced daily by operating departments and line managers who must implement strategic decisions. From the perspective of those responsible for implementation, this overly bureaucratic arrangement has too often rendered strategic planning an irrelevant paperwork chore to be performed periodically before getting on to real work.

Corporations with overblown, insulated strategic planning staffs have recently and drastically cut their strategic planning departments, dispersing the planners into operating units and fostering strategic thinking and skills among technically skilled line managers. The key is the expansion of the perspective of talented line staff beyond day-to-day operations to strategic thinking—about the actions they contemplate and the decisions they make in the practical accomplishment of company goals. In this way, strategic planning guides the organization, effectively connecting its front-line implementors with its top-level leaders.

This experience presents an important message and provides a good opportunity for transportation agencies. The public sector can take advantage of these lessons from the private sector and incorporate them into its strategic planning efforts, without repeating all the painful steps.

TRB'S STRATEGIC PLANNING EFFORT

The Task Force on the Strategic Planning Process in Transportation was

established by the Transportation Research Board as part of its Division A Management and Finance Section in the

committees to hold a mid-year meeting on the use of strategic planning in the freight sector, sharing experiences about

The TRB Task Force on Strategic Planning has actively reached out to agencies and practitioners to learn about their experiences, to foster information exchange, to identify research needs, and to tailor the task force's activities to users' interests.

recognition that strategic planning is part of the management process. In its first year of operation, the task force has actively reached out to agencies and practitioners to learn about their experiences, to foster information exchange, to identify research needs, and to tailor the task force's activities to users' interests.

In January of this year, the task force sponsored presentations by TRB Executive Committee member John Steiner, who described Boeing's use of strategic planning; former member Thomas Larson, who related PennDOT's experience in implementing a strategic planning process; and task force member Edwin McKeever, who described the strategic planning process as a vital part of the thinking and operations of

practical applications in such organizations as Conrail, Leaseway, and The Quaker Oats Company.

A major symposium on strategic planning, jointly sponsored by the Task Force on the Strategic Planning Process in Transportation, the Committee on Statewide Multimodal Transportation Planning, and the Committee on Intergovernmental Relations and Policy Processes, is planned for September 9-11, 1985, in Colorado Springs, Colorado. The symposium will gather together, for the first time, experts in the field along with leaders and staff of transportation agencies from the United States and Canada who are implementing strategic planning or want to learn more about putting the process into action in their organizations.

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the Port Authority of New York and New Jersey. In June, the task force joined with TRB's goods movement

Future issues of *TRNews* will provide more details on the symposium. For additional information on the TRB task

force and its activities, contact Kathleen Stein-Hudson, task force chairman, or Kenneth Cook, Transportation Research

Board, 2101 Constitution Avenue, N.W., Washington, D.C. 20418 (202-334-2966).

The TRB Task Force on the Strategic Planning Process in Transportation is chaired by Kathleen E. Stein-Hudson, New York City Department of City Planning, and currently includes the following members: W. Stearns Caswell (Secretary), New York State Department of Transportation; Phillip Anderson, Colorado Department of Highways; John W. Bates, Georgia Southwestern College; Sidney Davis, Davis & Associates, Inc.; Irving Hand, Pennsylvania State University; Robert E. Heightchew, Jr., Greenhorne & O'Mara, Inc.; David J. Hensing,

American Association of State Highway and Transportation Officials; George T. Lathrop, Charlotte (N.C.) Department of Transportation; Kenneth J. Leonard, Wisconsin Department of Transportation; Hal S. Maggied, Broward County Government Center; Robert C. Maher, AT & T; Carolyn S. McCallum, New Jersey Department of Transportation; Robert D. McCready, Arizona Department of Transportation; Bruce D. McDowell, Advisory Commission on Intergovernmental Relations; Edwin G. McKeever, Port Authority of

New York and New Jersey; Michael D. Meyer, Massachusetts Department of Public Works; Linda Pendlebury, Los Angeles County Transportation Commission; Christopher M. Randall, South Dakota Department of Transportation; Peggy Schwartz, Public Technology, Inc.; Peter L. Shaw, California State University-Long Beach Center for Public Policy and Administration; and D.L. Wieman, California Department of Transportation. Kenneth E. Cook is TRB staff representative for the task force.

CALL FOR ARTICLES

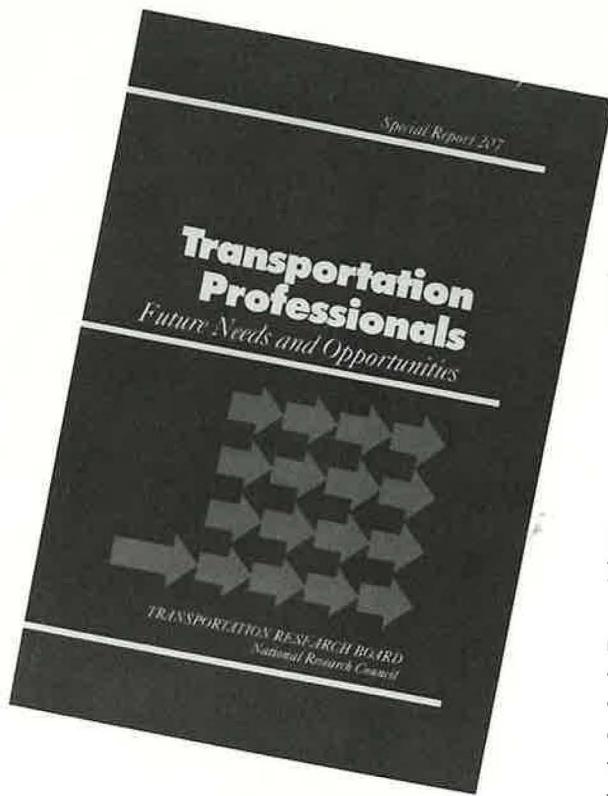
Professionals in the transportation field are invited to submit to the Editor of *TRNews* topical articles on innovative or state-of-the-art aspects of the various modes of transportation. Articles that highlight the role played by research are especially desired. Feature articles should be 1,500 to 3,000 words in length and accompanied by appropriate, high-quality illustrations.

Letters to the Editor are encouraged that offer commentary on feature articles or responses to point-of-

view articles, or in general discuss issues related to transportation research or to TRB activities. Comments are also welcome on the changes in format, design, and contents, since the change in editorship of *TRNews* beginning with the January-February 1984 issue.

All articles and letters received will be reviewed by the Editorial Board of *TRNews* for suitability for publication. For further guidelines, see Information for Contributors on the inside back cover.

—Nancy A. Ackerman, Editor



Transportation Is Moving to Younger Professionals

The generation of engineers that built the Interstate highway system and other great transportation projects of the 1950s will soon retire. So will many of the seasoned managers who helped expand transit service in the 1970s.

The result is unusual opportunities for young professionals establishing careers in the transportation field, according to the recently published report of the Transportation Research Board—*Special Report 207: Transportation Professionals: Future Needs and Opportunities*. Success, however, is likely to demand different skills than those needed in past years.

"There will be much less emphasis on building new systems and much more on renewing what's already in place," said Lester A. Hoel, chairman of the civil engineering department at the University of Virginia, and chairman of the TRB committee that conducted the study. "Technical skills will continue to be very important, but a person also will have to communicate well, be innovative, and use strategic thinking in solving problems."

The committee's report, which examines the future needs and opportunities for professionals involved with surface transportation, predicts that "the generational shift that is about to occur in the nation's transportation agencies will result in strong,

Copies of *Special Report 207: Transportation Professionals: Future Needs and Opportunities* are available from the Transportation Research Board, 2101 Constitution Avenue, N.W., Washington, D.C. 20418 (price \$18.00).

dynamic, future-oriented organizations if this shift is handled with foresight."

The report projects that ample numbers of civil engineers and other professionals generally will be available to meet future needs. Some states that are facing especially high turnover, however, must make a special effort to recruit new staff and provide additional training for existing staff. In five states, for example, more than one-third of all transportation professionals will be eligible to retire with full benefits within the next 5 years.

Transportation agencies at all levels of government can reduce personnel disruptions by providing greater training for mid-level professionals, using computers to increase efficiency, and requiring greater versatility from their staffs, the report concludes. Versatility is particularly important within local governments, where professionals working on transportation problems often are responsible as well for housing, zoning, and other programs.

"If you're the transportation director in a small community, you can't expect to be just a design engineer," pointed out committee member Christine Johnson, supervising transportation planner for the Port Authority of New York and New Jersey.

Colleges and universities should broaden their transportation programs to prepare students to deal with a wide range of problems, the report suggests. They also should recruit more women and minorities to the transportation field and increase their interaction with industry. In addition, the report stresses the importance of making young people across the country aware of the expanding opportunities in the transportation field.

The TRB study was supported by agencies of the U.S. Department of Transportation.

From *News Report*, National Research Council, June 1985.