

# POINT OF VIEW

## Pavements More Research— or More Research Implementation?

The three points of view on pavement research, which appear following the introduction by Thomas B. Deen, are the comments of three authors who presented papers at the Sixth International Conference on Structural Design of Asphalt Pavements held last summer at the University of Michigan in Ann Arbor.

These remarks are published as part of the *TR News Point of View* series. It should be emphasized that the opinions expressed here do not necessarily represent the views of the Transportation Research Board or the *TR News* Editorial Board.

Contributed articles to the Point of View series on various issues in the transportation field are welcome. All material submitted is subject to review by the Editorial Board and to editing for purposes of space limitations. Readers are encouraged to respond to the issues presented in this series in the form of a short article or a letter to the editor, which will be published in a subsequent issue of *TR News*.

Please send correspondence and manuscripts to Nancy A. Ackerman, TRB Publications Manager and Editor, *TR News*, Transportation Research Board, 2101 Constitution Avenue, N.W., Washington, D.C. 20418.

### New TRB Task Forces

TRB is proud of the role it has played in getting the Strategic Highway Research Program (SHRP) under way. However, it is generally acknowledged that the potential for getting SHRP results into practice would be much enhanced if ways could be found to change the incentive structure in various parts of the industry (see relevant remarks by R. Yarbrough in accompanying article).

To assist in stimulating innovation in this area, TRB has recently established two task forces. The Task Force on Contracting Practices, under the chairmanship of Dwight M. Bower, Colorado Department of Highways, is looking for improved methods of contracting for pavements with a major emphasis on performance contracts, which may also encourage some demonstrations. The Task Force on Improving and Retaining the Technical Competence of Field Personnel in Flexible Pavement Construction, under the chairmanship of James A. Scherocman, is seeking ways to improve pavement quality by other means, including training, improved hiring practices, and better standardization of methodology.



## Introduction

THOMAS B. DEEN

Pavements—how to build them, how to maintain them, how to manage them, and how to pay for them—are clearly a hot topic and getting hotter, both in this country and throughout the world. It is not difficult to understand the reasons for this growing concern. There are some 20 million kilometers of roads in the world, 8 million of which are paved. Approximately 73 percent of these roads have been paved since 1959. Thus there are millions of miles of 10-, 20-, and 30-year-old pavements requiring restoration, repair, and maintenance. This is in addition to the new pavements that will be required for the increased travel expected in the years to come.

Most industry leaders question whether this challenge can be met. Everything appears to be in short supply: money, technology, people, methodology, and research, as well as appropriate institutions. A number of major international conferences have dealt with one or more of these issues in the past year.<sup>1</sup>

Although there is general consensus that the reasons for concern are real, and that the problem is composed of multiple subproblems, it is extremely difficult to reach agreement on which of the subproblems are in most need of attention. Concern about the primitive state of pavement technology gave the Strategic Highway Research Program (SHRP) a powerful boost during its formative stages, but a major challenge to its initiation was posed by those who, while they acknowledged that more research on asphalt binders was needed, believed that higher priority should be given to training, mix design, construction methods, or other concerns. Although SHRP is now under way with unanimous support, the question remains whether the program's results will be maximized if solutions to other problems are not found. One of the problems that needs to be addressed is technology transfer: how effective are we at it and how can we improve it?

At the Sixth International Conference on Structural Design of Asphalt Pavements in Ann Arbor in July, three speakers addressed this issue with a clarity not often heard. All agreed that more research is needed but were miles apart on the question of how effective implementation of research is and the steps to be taken to improve technology transfer. Two of the speakers questioned whether adequate incentives exist for innovation by designers, academics, and contractors. I urge readers interested in this subject to carefully read the comments of the three speakers, which appear on the following pages. For those of us concerned about the future of highway transportation and research, this is a most serious subject.



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<sup>1</sup> Including Fourth Annual Conference on Low-Volume Roads in Ithaca, New York; Traffic Safety on Two Continents in Gothenburg, Sweden; Second North American Conference on Managing Pavements in Toronto, Canada; Permanent International Association of Roads Congresses in Brussels, Belgium; International Pavement Maintenance/Management Technology Symposium in Chicago, Illinois; and Sixth International Conference on Structural Design of Asphalt Pavements in Ann Arbor, Michigan.