



Camminos

Newsletter of the Pan American Institute of Highways

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Moving in the Millennium Toward Global Technology

Technology exchange in the road transportation sector, as in any field, is a catalyst for improvement and change. Road transportation technology transfer/exchange center programs have been established in the United States, Latin America, central Europe and southern Africa as effective agents in the process for continuous improvement. Road transportation professionals and organizations (public and private) worldwide need information and knowledge that will enable them to advance their processes, incorporate new products into existing programs, and increase technical know-how that produce positive change and impact on road systems. A huge universe of institutional and technical knowledge exists and continues to be developed that can be tapped to fulfill varying information and resource requirements.

Technology Transfer Centers can serve as a focal point and an institutionalized catalyst for technology transfer activities. They should be considered as part of a larger process of the ongoing technology transfer process, and not the sole vehicle for it.

The primary objective of a technology transfer/exchange center program is to facilitate the acquisition and dissemination of technology, practice and policy knowledge and know-how that is relevant to a local operating road transportation environment. They can be general in handling road transportation topics, and adapting techniques to local conditions, or can be specialized if desirable necessary. The benefits of a technology transfer center are: Reducing or eliminating duplication or redundancy of products and process development by road agencies, thereby conserving resources. Learning of beneficial policies, technologies, programs and developments earlier and more systematically. Improving skills which will lead to improved road transportation systems.

What is a Technology Transfer Center

A technology transfer center can be a local, national, regional, or international conduit for advancing information with regard to best practices or policies between technology and policy developers and users. A center is a repository for information about technologies, practices and resources - from cutting edge

to best practices. A center serves as a focal point for systematic technology transfer activities which include a variety of media and training that meet the unique needs of their respective transportation community. A technology transfer center is a catalyst for improvements and enhancements ranging from road infrastructure, construction and maintenance, to planning, financing and managing roads.

Effective networks of technology transfer centers operate in the United States (Local Technical Assistance Centers - LTAP), Latin America and the Caribbean (Pan American Institute of Highways - PIH), the Baltic Centers (Finland and its Baltic neighbors: Estonia, Lithuania, and Latvia), Sub-Saharan Africa, and East Asia. New technology transfer centers are taking shape in Central Europe and Russia.

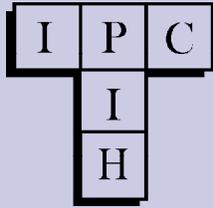
Each Technology Transfer center focuses on the acquisition and dissemination of information which will meet the needs of their respective road community. The achievements of these centers are founded on the awareness that productive technology transfer relies as much on understanding the local state-of-the-practice, as it does on the array of available state-of-the-art technology from elsewhere. Although organizational structures and methods vary depending on local conditions, effective technology transfer centers generally share some basic operating characteristics that allow them to successfully perform their functions.

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Caminos is distributed to PIH centers, to FHWA's Washington Headquarters and field offices, the transportation community in the Americas, and agencies having direct involvement with highway technology transfer.

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U.S. Department of Transportation
Federal Highway Administration

Message from the Executive Director of the PIH

Distinguished Members of the PIH Network:

It pleases me to address my first message to you as the new Executive Director of the Pan American Institute of Highways (PIH). This is an appointment that the PIH Director General has extended to me and I have accepted.

I have previously had the opportunity to be involved in the activities of the PIH during an assignment at the headquarter's office in the Federal Highway Administration in 1993. The important role that the PIH plays in the transportation community of the America's and the international community in general is crucial to the development of a better and safer roadway system worldwide. In keeping up with the advances in information technology and the new globalization efforts going on around the world, the PIH is in a privileged position to serve the transportation community of the world in the next century.

I cannot ignore the fact that there is a need for change in several aspects of the PIH network to enable it to grow, to carry out it's mission, and to be more effective in the area of technology transfer. To do this, I am relying on the appropriate tools, technology transfer techniques, and the most important element all, you, the heart and soul of this great institute. With your centers and resources, I feel confident that we can achieve our long and short-term goals.

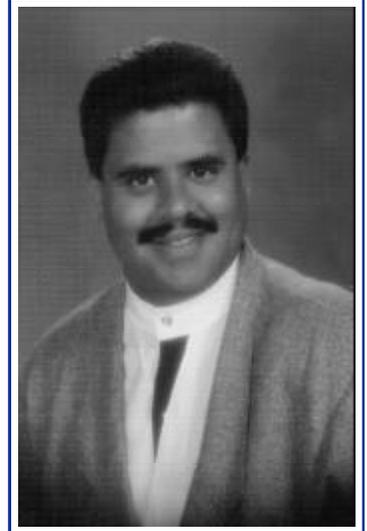
With this focus and the support of the personnel of the PIH headquarters, I hope to contribute by enhancing the development of the PIH activities in several areas. For example, we can all benefit from the development of the tools necessary to make our technology transfer more effective either by using traditional and innovative means, or by the reestablishment of activities that contributed to the professional improvement of the transportation professionals of the Americas.

We can expand the previous ideas and concepts already started by the PIH Executive Committee and the PIH Strategic Plan, drafted at the July 1998 Executive Committee meeting in Miami, Florida. To accomplish this, it is necessary to guide the PIH network by fully optimizing the available resources through a budget tailored to the long and short-term priorities.

I extend a cordial greeting to those with whom I have previously met during different meetings of the PIH in which I participated as a representative of the network. For those of you that I don't know personally, in the upcoming months I will be traveling to the network presenting my views of the network for the future, to all the PIH center directors and representatives.

To all of you, I want to share the activities I have been working on for the past several years. I had been working at the Long-Term Pavement Performance Program in the Turner Fairbank Highway Research Center in McLean, VA.

To the PIH Members, I express my appreciation for your participation in the network. The PIH membership database now consists of approximately 3,000 members. Participation in the PIH network is of supreme importance for the success of the program, and for everyone that makes up the PIH network.



ANTONIO NIEVES TORRES
Executive Director

LTAP Centers Conference in Roanoke, VA

The 1999 Annual Local Technical Assistance Program (LTAP) Conference was held from July 25-28, 1999 in Roanoke, Virginia. This year's conference was different from past conferences in that a large contingent of international technology transfer delegates participated and shared their experiences. Everyone is used to seeing Arto Tevajarvi of Finland and representatives from the Baltic technology transfer centers at the annual LTAP meeting. However, this year an unprecedented 22 international delegates attended. First time participants included the following:

Guillermo Arredondo of Mexico
Cecilia Olivia Caballero of Mexico
Armando Quintana Contreras of Mexico
Emilio Fernandez Covarrubias of Mexico
Dita Duobiene of Lithuania
Duran Eduardo of Mexico
Juan Garcia of Mexico
John Hwindingwi of Zimbabwe
George Kubita of the Czech Republic
Richard Mahlala of Zimbabwe
Juan Marcet of Argentina
Happiness Mgalula of Tanzania
Eduardo Duran Reyes of Chile
Hector Ariel Rodriguez of Mexico
Francisco Javier Lopez Silva of Mexico
Natalia Stoika of Russia
Anna Tsaplina of Russia
Josef Tunkr of the Czech Republic
Sandra Isabel Zelaya of Honduras
Guna Skangale of Latvia, Hillar Varik of Estonia, and Arto Tevajarvi of Finland were returning participants.

The 22 international delegates participated in administrative, managerial, and technical sessions; a visit to the Virginia "Smart Road" project; and a "Cracker Barrel" roundtable that allowed representatives of transportation-related organizations, such as the Transportation Industrial Alliance, the Transportation Research Board, and the Salt Institute, to describe their programs. For the international participants, the managerial and technical sessions were the highlight of the conference and it soon became clear that the challenges faced by technology transfer centers are the same worldwide.

For the first time in LTAP history, an international presentation was made to the entire LTAP audience. In his presentation on technology transfer in Estonia, Mr. Varik described how he has adopted U.S. technology transfer concepts to Estonian highway sector.

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International Technology Transfer participants at the LTAP conference observe a pavement maintenance demonstration in Roanoke, Virginia.



International Technology Transfer participants at the LTAP conference.

The Pan American Institute of Highways Launches Bi-Lingual Web Site

The Pan American Institute of Highways (PIH) has launched a new Web site that will address road technology transfer issues in the Americas. Headquartered in Washington, DC at FHWA, PIH has a network of 90 technology transfer centers, 15 corporate sponsors, and more than 3,000 individual members in 21 countries.

The site (www.pih-ipc.org) complements the organization's efforts to transfer and share road technologies, practices and experiences among its membership. A key feature of the site is that the information is available in both Spanish and English to meet the needs of the membership throughout the Western Hemisphere and Spain.

Beyond the basic information about the organization and its activities, the site

includes technical supplements on various road-related subjects in both languages. An interactive discussion area facilitates exchanges between members and other visitors on any road-related field. The site also encourages information sharing and match making on training opportunities and needs. As a node on the World Interchange Network, the site connects visitors to this valuable information exchange resource.

"PIH built this Web site as an electronic focal point for our membership, and other visitors, to learn about technical innovations, talk to each other, and contribute their knowledge to the practice of road building," said Antonio Nieves Torres, PIH Executive Director.



"The site is also a place to keep up-to-date on our various activities, and to find out more about our membership programs," Nieves added.

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OECD Conference on Transportation Knowledge Management in Latin America Spreads the Word

The Organization for Economic Cooperation and Development (OECD) recently hosted a conference on information and documentation in transport to raise the profile and need for knowledge management in Latin America. FHWA and DOT's Bureau of Transportation Statistics cosponsored the event, held in Acapulco, Mexico, November 1999, with several international transportation-related organizations. The conference was attended by about 150 transportation and information professionals from around Latin America, and OECD member countries.

The conference emphasized the benefits of timely and systematic acquisition and dissemination of information on transportation. One objective of the conference was to determine the information system needs in Latin

America, as they pertain to transportation.

One of the key information products demonstrated at the conference was the International Road Research and Documentation (IRRD) program, and the work done by centers contributing to the database. Several Latin American countries have centers that contribute to the Spanish-language version of IRRD, introduced in 1998. A prime goal of the conference was to increase the use of the IRRD by Latin American countries, as well as to broaden the range and depth of contributions by the region to the system. IRRD is also available in English, French and German.

The IRRD program is part of OECD's Road and Transport Research program, which OECD is actively expanding to reach non-OECD member countries. The Road Transport Research program

also operates the International Road Traffic and Accident Database (IRTAD), which provides internationally comparable data, among other features. This is especially relevant in Latin America where road-related injuries and fatalities are high and on the increase.

The main outcome of the conference was the agreement that the centers in Latin America would take the lead in institutionalizing and spreading the use of IRRD, as well as coordinating the acquisition of information and including it in the program.

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Moving in the Millennium Toward Global Technology

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The elements of success for a Technology Transfer Center include:

1. Providing systematic technology and information transfer that targets local needs and expertise.
2. Integration into an existing transportation-related institution (public road agency, local authority, academic institution, research laboratory, or professional or trade association) that houses the center as part of its ongoing operation. This relationship saves resources and provides the credibility and contacts necessary to launch new initiatives and programs.
3. Functioning independent of host institution to maintain objectivity in its activities, and meet the specific needs of its broader range of stakeholders.
4. Having a visionary “champion” for the technology transfer center who can advance its goals and objectives within the local road transportation professional and institutional community. Such a person could be from the leadership of a road administration, active association, respected researcher, academic or practitioner.
5. Involving public and private (partner/stakeholder) participation to develop and deliver programs and projects.
6. Coordinating activities and share information and resources with other regional, national, and international transportation-related organizations and associations.

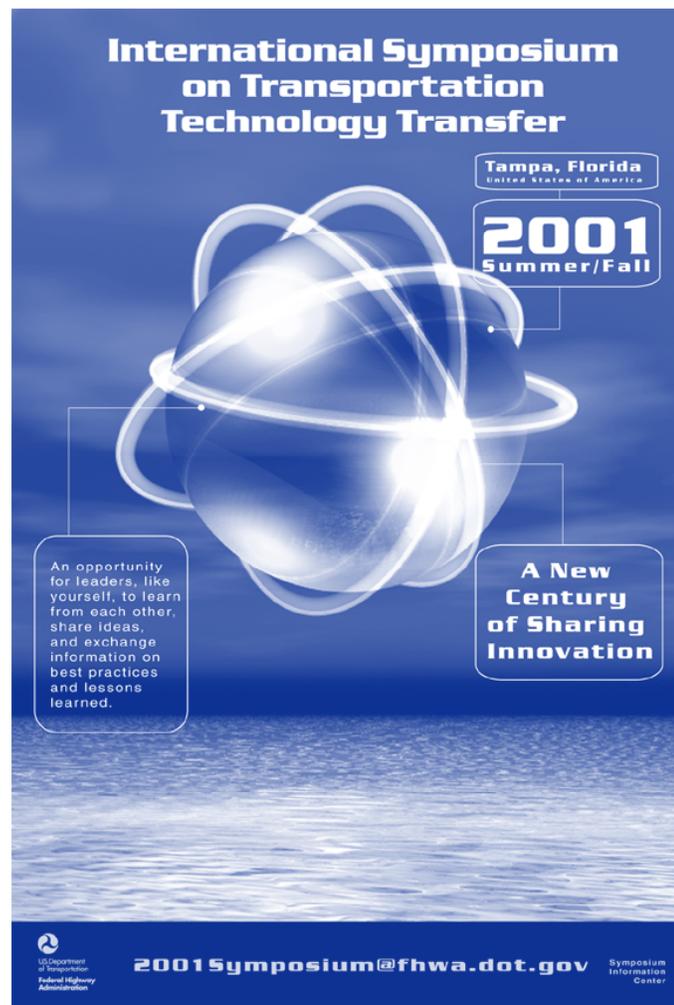
There is much to be gained by a free exchange of technology, experiences and know-how. Improvements in international road transportation enhance the flow of goods and services and help promote economic self-reliance through expanded local, regional, and international trade.

Technology transfer centers need to work together so that they can grow into an effective mechanism for information and resource sharing. A commitment from the centers around the world can provide an effective mechanism for information and resource sharing. In attempt to catalytically initiate this process, a contingent of international technology transfer delegates representing Argentina, Chile, Honduras, Chihuahua-Mexico, Lithuania, Russia, Czech Republic, Tanzania and Zimbabwe participated in the 1999 Annual Local Technical Assistance Program Conference in Roanoke, Virginia, USA. This event allowed these representatives to share their ideas, experiences, as well as meet colleagues from around the world which may be of

value to obtain information on practices and policies.

All road practitioners can benefit from opportunities like these which result in greater cooperation and exchange. All those involved in the advancement of technical information and resources should move together to promote, produce and strengthen technology exchange worldwide. The vision of the Federal Highway Administration’s, Office of International Programs and the Pan American Institute of Highways is to have a worldwide network of technology transfer centers pertaining to road transportation technology and practices.

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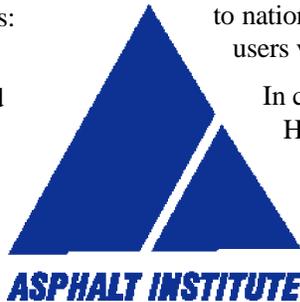
The Asphalt Institute

The Asphalt Institute (AI) founded in 1919, is a U.S.-based association of international petroleum asphalt producers, manufacturers, and affiliated businesses. The Asphalt Institute mission is to promote the use, benefits, and quality performance of petroleum asphalt through engineering, research, and educational activities and through the resolution of issues affecting the industry.

The Asphalt Institute joined the technology transfer network of the Pan American Institute of Highways (PIH) as a regular center in 1993, and in 1995 it received Certification as a PIH Technology Transfer Center.

The Asphalt Institute provides:

- A staff of professional engineers located around the United States that is dedicated to protecting, preserving, and expanding the asphalt market.
- Engineering and promotion provided routinely through publication development and education seminars that ensure specifiers will continue to choose asphalt.
- Specific engineering services for large projects that persuades a pavement selection committee to use asphalt instead of other materials.
- Engineering assistance specifically for member companies such as assisting with the development, production and followup of large projects that could have repercussions on the selection of asphalt materials for years to come.
- State-of-the-art Research Center with staff and equipment to assist your company with projects or to conduct research that affects the entire asphalt industry.



- SUPERPAVE specification system engineering expertise both in lab and in the field throughout the United States.
- The only organization solely devoted to the asphalt market.
- New market promotion.
- Access to information demonstrating the environmental friendliness of asphalt materials.
- Communications such as reports on industry events; asphalt sales reports; Asphalt Institute publications and magazines; web site and clearinghouse, opportunities to speak to nationwide audiences of asphalt users via seminars.

In collaboration with the PIH Headquarters, AI has produced publications for the Federal Highway Administration on SUPERPAVE Mix Design and SUPERPAVE

Performance Graded Asphalt Binder Specification in Spanish. AI's future activities include, forming a Latin American Committee, opportunities to teach seminars and translate publications in the Americas.

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Clements Consulting

Clements Consulting, a division of New Hampshire Engineering Corporation, has been in business for over 25 years. It provides services to both Private Industry and Government Agencies in the following areas:

- Strategic development of marketing plans for new and innovative transportation technology
- Senior Ministries of Transportation Management Counciling in the evaluation and application of transportation technology
- U.S. representation of Latin American firms seeking to partner with U.S. transportation and banking institutions for the construction of projects in Latin America.
- Latin American Transportation Project coordination for U.S. firms and joint venture partners.

As a participant in many of PIH/World Bank Provia's throughout Latin America, both as a PIH Corporate Sponsor and through its president John A. Clements, a former PIH General Director. Clements Consulting is run by Mr. Clements who has served in local, State, national, and international governments as well as holding several senior management positions in private industry.

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