



**International Transportation
Technology Transfer Centers:
Global Platform for Delivering Innovation**

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Innovation

- **New technology, process, or policy**
- **Existing technology, process, or policy—
NEWLY introduced to, or adapted by practitioners
and users**

Technology Transfer

- ✍ **Moving from passive knowledge acquisition to ACTIVE knowledge transfer and application**
- ✍ **Changing from hoarding of information to open sharing and promotion of ideas and innovations**
- ✍ **Breaking out of isolated actions into regional collaboration**
- ✍ **Delivering innovations to practitioners and end users**

Technology Transfer Centers

- ✍ **Serve as a focal point and institutional catalyst for identification of needs and linking of innovations to needs**
- ✍ **Systematically and actively facilitate the acquisition and dissemination of technology, practice and policy knowledge and know-how relevant to a local operating road transportation environment**
- ✍ **Part of a larger technology transfer process; not sole vehicle**

U.S. Technology Transfer Centers

Local Technical Assistance Program

-  57 Technology Transfer Centers in an active network
-  Tied to universities, research institutions, FHWA and State and local DOT's
-  Proven track record in deployment of new technologies

Technology Transfer Center Benefits

- ✍ **Systematic Learning**
- ✍ **Reduce or eliminate duplication**
- ✍ **Continuing process for acquiring and introducing innovation**

Technology Transfer Center Benefits

- ✍ **Proven mechanism for evaluating and adapting innovation**
- ✍ **Local agents who understand local operating conditions and who seek and apply innovation appropriately**
- ✍ **Improve skills of practitioners and introduce materials and equipment which lead to improved road transportation systems**

International Technology Transfer Center Network

- ✍ **Inspired by success of LTAP program and network**
- ✍ **Institutional arrangements adapted to meet local, national, or regional operating requirements—road agency, professional association, university, research and training institutes.**
- ✍ **Nominally supported by FHWA seed funding and institutional development assistance.**
- ✍ **Other partners contribute to developing individual centers and network**
- ✍ **Linked to the World Interchange Network (WIN – dynamic yellow pages)**

International Technology Transfer Center Network

Pan-American Institute of Highways (PIH)–

90 centers serving the Americas and Spain.

Baltics– Finland, Latvia, Lithuania, Estonia

Russia– Perm, Arkhangelsk, Leningrad, Nizhniy Novgorod

Eastern Europe – Czech Republic, Hungary

Sub-Saharan Africa – South Africa, Tanzania, Zimbabwe, Malawi

Asia – Korea

PIH Concrete Testing Demonstration Trailer



✍ To show state-of-the art equipment and their benefits

- ✍ Brazil, Argentina, Uruguay
- ✍ Corporate Sponsors from Concrete Testing Industry
- ✍ Mobile Technology Transfer Center
- ✍ Enhances concrete testing professional capabilities

PIH Winter Maintenance Effort

- ✍ **Argentina, Chile, Nevada DOT, Colorado DOT**
- ✍ **Winter maintenance training, particularly de-icing techniques and equipment**
- ✍ **Two-way movement: experts to seekers; seekers to innovation(s)**
- ✍ **Training has resulted in reducing road closures of the mountain & border passes between Argentina and Chile**

Other Technology Transfer Centers

Initial Program Focus

- ✍ **Estonia** private sector development
- ✍ **Latvia** safety improvements
- ✍ **Lithuania** pavement rehabilitation: Introduced new pavement density technology to all 3 countries
- ✍ **South Africa**— Appropriate technology for historically disadvantaged
 - ✍ Private contractor skills developed
 - ✍ TRAC program (AASHTO)

Technology Transfer Center Success Factors

- ✍ **Provide systematic technology and information transfer that arises from and responds to local needs and expertise.**
- ✍ **Integration into existing transportation-related institution--enhances credibility, saves resources**
- ✍ **Function independently of host institution to maintain objectivity with all stakeholders**
- ✍ **Leadership, vision for improved transportation to support economic development**
 - ✍ **Further broadened by study tours to the U.S.A.**

Technology Transfer Center Success Factors

- ✍ **Involve public and private (partner/stakeholder) participation to develop and deliver programs**
- ✍ **Adequate resources for operations staff, space**
- ✍ **Viability** ✍ **long-term funding sources (public or private/local or international)**
- ✍ **Twinning and other cooperative/mentoring arrangements—direct answers from experienced users**
- ✍ **Program evaluation and continuous improvement**

World Road Association (PIARC) Technology Transfer Center Program

- **Based on success of U.S. international efforts**
- **Will provide seed funding for 10 new centers in developing countries and countries in transition over next 8 years (per capita GNP less than \$2,000)**
- **Other donors, partners, associations, and corporate entities can play role in supporting and promoting technology transfer centers**

Technology Transfer Opportunities

- ✍ **Innovators—public and private— can team with technology transfer centers to disseminate new technologies**
 - ✍ **Publications**
 - ✍ **Training**
 - ✍ **Corporate sponsorship**
 - ✍ **Tradeshows**
 - ✍ **Professional Exchanges**

Future of International Technology Transfer Centers

- ✍ **Increasing the number of centers in underserved areas, particularly Asia, Middle East, and Africa**
- ✍ **Tying centers to an international network, including LTAP**
- ✍ **Encouraging twinning arrangements**
- **Increasing private sector involvement**

Future of International Technology Transfer Centers

✍ 2001 International Symposium for Transportation Technology Transfer

✍ July 29 - August 2nd, 2001

✍ St. Petersburg, Florida

✍ www.international.fhwa.dot.gov

Additional Resources

www.pih-ipc.org

www.ltapt2.org

www.piarc.org

Pan American Institute of Highways
Local Technical Assistance Program
World Road Association