Technology Transfer Among Centers in the United States, FinnT\textsuperscript{2} in Finland, and the Baltic Countries

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Success of the Local Technical Assistance Program sponsored by FHWA, U.S. Department of Transportation, has influenced other countries of the world to establish counterparts in their individual countries or regions. A recent example is the establishment of the Finnish Technology Transfer Center (FinnT\textsuperscript{2}), a regional center for the Baltic countries. This paper discusses the current activities of the FinnT\textsuperscript{2} as well as the future challenges for the center.

The Finnish National Road Administration (FinnRA) and the Federal Highway Administration (FHWA) of the United States signed a Memorandum of Understanding on highway transportation technology exchange on May 19, 1993. The Memorandum of Understanding included the establishment of a technology transfer (T\textsuperscript{2}) center in Finland. This center is the focal point for exchanging highway transportation technology, disseminating information, and undertaking cooperative projects. The center, called FinnT\textsuperscript{2}, is located at FinnRA.

The Estonian, Latvian, and Lithuanian road administrations established T\textsuperscript{2} centers within their organizations in 1994. These centers work in partnership with FinnT\textsuperscript{2}, which acts as the international regional technology transfer center in northern Europe (Figure 1). FinnT\textsuperscript{2} has an Advisory Committee with eight members representing essential road sector organizations in Finland (Figure 2).

**Mission, Scope, and Activities of FinnT\textsuperscript{2}**

FinnT\textsuperscript{2} is a cooperative organization for international and domestic technology transfer in highway transportation. The center also serves as a communication forum among organizations, people, and cultures in the highway transportation sector. Furthermore, FinnT\textsuperscript{2} creates opportunities for international and domestic joint projects with access to the finest expertise and know-how.

FinnT\textsuperscript{2} is linked to the 55 technology transfer centers sponsored by the FHWA under its Local Technical Assistance Program (LTAP). The technology transfer centers, both in the United States and Finland, provide their target audiences with training and technical assistance in all aspects of highway management, rehabilitation, design, and construction. They work closely with the entire highway community, including state and municipal organizations and institutions, universities, professional associations, and the private sector. Main foreign and domestic connections of FinnT\textsuperscript{2} are presented in Figure 3.
Standard services of FinnT2 are discussed in the following sections.

**Newsletters**

*FinnContact*, the quarterly newsletter in English, and *Tiemäyttäjä*, its Finnish counterpart, are published to inform readers of highway transportation technology, highlights in technical and management issues, written and visual material available, and training. *FinnContact* is delivered to all the U.S. T2 centers and FHWA, among other organizations.

**Videotapes**

Videotapes on various highway transportation topics are available and can be rented.

**Knowledge Services**

Publications on highway transportation technology and management will be delivered on request. This international flow of information is facilitated by furnishing FinnRA's research reports with English summaries. FinnT2 has delivered English translations of Finnish research reports to the United States at FHWA's expense.

**Training**

International training is provided through FinnRA's international training institute, The Institute for Highway and Maritime Education (IHME), and FHWA's National Highway Institute (NHI). Domestic training is provided through FinnRA's national training organiza-
tion and in cooperation with the participating FinnT2 organizations.

**Baltic Cooperation**

The following activities are examples of the Finnish, U.S., and Baltic technology transfer cooperation in 1994:

- Office equipment (microcomputers, copy machines, projectors, telefaxes, etc.) were delivered to the Baltic T2 centers with Finnish and U.S. financing.
- A technology transfer seminar was held in Riga, Latvia, in April to help the Baltic T2 centers start up.
- A pavement rehabilitation course was arranged by Americans in Riga, Latvia, in May for 40 participants for Estonia, Latvia, and Lithuania.
- One Estonian and one Lithuanian engineer participated in an engineer exchange with Minnesota for 10 months in May.
- One Estonian engineer was studying in the United States under an IRF Fellowship Program until June.
- Representatives from the Baltic countries and Finland took part in the U.S. LTAP Conference in Phoenix in August and a study tour in Arizona and California.
- A circuit rider van was purchased, equipped, and put into trial use.

- A winter maintenance course was arranged by Finns in Laulasmaa, Estonia, in September for 40 participants from Estonia, Latvia, and Lithuania.
- A technology transfer seminar was held in Kaunas, Lithuania, in November to solve problems encountered in the practical work of the Baltic T2 centers.

**Role of FinnT2 in INTERCHANGE**

INTERCHANGE, the Global Road Knowledge Exchange Network, established in June 1994, by the Permanent International Association of Road Congresses (PIARC) for technology transfer around the world, strives to put people with problems in touch with people with solutions. INTERCHANGE will operate at several levels—local, national, regional international, and worldwide—in order to serve the special needs of individual users efficiently, bring all relevant knowledge to bear on the solution of problems, and succeed by acting together. Its Permanent Secretariat will be located in Montreal.

FinnT2 is the international regional center, that is, FinnT2 currently coordinates the activities of the national centers of the three Baltic countries; in the future, FinnT2 will possibly also coordinate activities of the other Nordic countries and Poland. The tasks of the regional center also include...
• Encouraging the development and improvement of networks at all levels;
  • Improving knowledge exchange processes and institutions in the region;
  • Seeking out information worldwide for use within the region and translating material as needed;
  • Developing programs to adapt technology for use within the region;
  • Organizing regional meetings, conferences, expert exchange, and technology demonstrations;
  • Answering requests for assistance using a list of regional contacts; and
  • Assisting regional experts in making global contacts.

FinnT\textsuperscript{2} is also linked with the T\textsuperscript{2}-center network in the United States. This connection will in time be one of the natural linkages within INTERCHANGE.

This networking offers the advantage of sharing information openly with the others in the network. FinnT\textsuperscript{2} will follow certain procedures relevant to INTERCHANGE in order to ease and speed up the process of technology transfer.

**Challenges**

Future international challenges for FinnT\textsuperscript{2} are very much the same as the general objectives and benefits of INTERCHANGE:

• Improved access to worldwide road expertise,
• Easier assessment of domestic practices against international practices,
• Increased complementarity of efforts in research and development,
• Faster dissemination and implementation of new technology,
• Better international awareness of expertise and products, and
• More value received from belonging to national and regional networks.

Special challenges will be

• Encouraging the establishment and operation of the Baltic and other Nordic T\textsuperscript{2} centers,
• Assisting Russia in establishing its T\textsuperscript{2} network, and
• Convening occasional regional meetings on technology exchange.