

Intermodal Transportation Institute The University of Toledo (UT- ITI)

Vision Statement

To develop technology-enabled intermodal transportation systems and supply chains that promote *economic development* and *quality of life*.

Mission Statement

To provide **research, education and training**, and **planning and technical assistance** in developing and maintaining technology enabled, efficient, secure, and environmentally sound **transportation systems, supply chains, and logistic processes**.

Projects

The following projects are currently active. A brief description of each is provided.

1. Upper Midwest States Freight Study: Phase 1 funded and complete. Assess freight flow, capacity, and administrative impediments for freight movements across Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin as well as Ontario. UT-ITI is working with University of Wisconsin at Madison and University of Illinois at Chicago to build a regional coalition of states for transportation planning.
2. Midwest Regional Freight Planning and Research Institute: Funding is pending in the Transportation Reauthorization bill. Partnership among University of Wisconsin at Madison, University of Illinois at Chicago, and the University of Toledo will focus on long-term freight planning and research in the states defined in project 1.
3. Transportation Cluster Leadership: Partial funding secured. The ITI is providing leadership for the Transportation Cluster. A detailed marketing planning is in preparation. Economic development activities include international air freight and distribution via highway, ship to rail to truck connectivity, and warehousing and distribution center development that support retail operations.
4. Facility Management Information System: Project is funded and complete. Assessing the impact of information systems use on maintenance effectiveness.
5. Information Management for the Maumee River Crossing: Project is funded. Uses information systems to collect and analyze data to verify construction and recognize possible damage.
6. BIO-Diesel Fuel Study: Project is funded and will start in the summer of 2005. The project evaluate the impact of using a mixture of bio-fuel and diesel fuel on operating costs, emissions, engine performance, and engine life. The project involves TARTA and Toledo Public Schools as well as the ITI.
7. Hybrid Vehicle: This project is funded by NASA. Development work on hybrid buses is being done by Bowling Green State University and the University of Toledo.
8. Related Research in Alternate Fuel: Project is jointly funded by the U.S. Department of Energy and the Ohio Department of Development. Involve the production of hydrogen from sun light and uses that in a fuel cell to power a vehicle on UT's campus.
9. Global Network of Universities through ICHCA: Initial funded by the University of Toledo. ICHCA International Limited (IIL) and the Intermodal Transportation Institute have agreed to work together to develop a global network of universities that focus on enhancing global supply chain performance. This affiliation of universities will function

as a Panel of IIL and will cooperate with IIL to define focus areas for investigation and education within the board area of global supply chain management.

10. Center for International Business Education and Research: Seeking funding from the U.S. Department of Education. The ITI is working with the International Business Institute to fund education and research in global supply chain management.
11. U.S. DOT University Transportation Center (UTC): Seeking funding from the U.S. Department of Transportation. A UTC is an internationally recognized center of excellence that is fully integrated within an institution of higher learning. It is designed to advance technology and expertise in the many disciplines comprising transportation.
12. Metropolitan Utility Link for Transportation to Industry: Seeking funding from the U.S. DOT. This project facilitates the movement of materials between suppliers and manufacturers on a just-in-time basis in an urban environment. It moves freight without using city streets or expressways.
13. Short Sea Shipping: Seeking funding from the U.S. DOT. It is the ability to move freight by water as an alternative to overland hauling via rail or truck. Shipping routes in the Great Lakes and along the coast of the U.S. are substantially underutilized. This is an opportunity to move freight off of congested highways and rail corridors and onto water.
14. KACI Intermodal System: Seeking funding from the U.S. DOT. It is an operational concept that can provide a very quick, inexpensive, and uniquely simple exchange of highway vehicles onto and off trains. This breakthrough in time, equipment, and labor savings changes the limit that prevents intermodal trains from being cost-effective in short and medium haul markets.