Intermodal transportation continues to increase in international prominence. While intermodal conferences in the United States have traditionally attracted numerous international visitors, there seems to be today an attempt to reverse the flow.

Intermodal conferences in Europe have existed for several years, but now European promoters are joining with the Georgia Freight Bureau (the promoters of the International Intermodal Expo) to initiate an Asian intermodal show next year. These activities certainly point to the possibility of global growth of the intermodal area of the industry.

In its basic form, intermodal already exists globally. Most containerized cargo moving in international trade is intermodal. There is truck movement at origin and destination, sandwiched around the ocean portion. In Europe, there is some barge traffic in specific corridors.

However, the real interest in intermodal is the use of rail to move large numbers of containers — usually over a long distance. With certain, limited exceptions, large-scale, long-haul intermodal has not been replicated outside North America.

Certainly, the unique nature of North America's geography is a significant reason. The general rule has been that a minimum distance of 750 miles is necessary before intermodal becomes a viable alternative to door-to-door motor-carrier transportation. The United States has significant population centers developed along both ocean coasts and east of the Mississippi River. Intermodal transportation between the West Coast and Chicago and points east was a natural development for moving goods almost 2,000 miles.

By comparison, Europe is a market of short distances, with a fairly uniformly dispersed population. Motor carrier is the predominant form of haulage.

The European Commission has estimated that highway traffic has negative externalities — social costs unrecovered from users — in excess of several hundred billion dollars. Unlike North America, Europe seeks to increase the use of intermodal based on its environmental benefits.

In Europe, the outcome of successful U.S. innovation has been studied in an attempt to replicate it, with not very impressive results. The problem is that design specifications, and not performance specifications, have been utilized in designing services.

A performance specification outlines requirements from a customer perspective. For example, the customer requires time-definite delivery at a specific price. On the other hand, a design specification outlines the mode and manner of achieving the delivery.

In the United States — as is true everywhere — innovation occurs as frequently by accident as by design. Yet it usually can be traced to customer-driven initiatives. Originally, leading intermodal shippers all had some marketing goal that drove them to intermodal. Market demand created intermodal solutions.

APL wanted to serve East Coast destinations without sending its ships through the Panama Canal. UPS wanted to serve all 48 states. J.B. Hunt needed a way to continue growth while keeping its drivers closer to home. None of these goals specified intermodal solutions — intermodal simply developed as a natural result of these transportation providers trying to meet their own customers' requirements.

Double-stack is an interesting example. The well-car was originally the result of a design specification: develop an intermodal car that could carry trailers into New York City through the tunnels. The technology was a success but there was no market. Later, the low-profile engineering was converted to fulfill the performance specification that became double-stack.

In Europe there is demand for intermodal solutions, which have not yet materialized. And a great deal of blame is placed on the railroads. It is interesting to note that many believe that European intermodal suffers from too much fragmentation. The complexity from the involvement of multiple participants adds another series of barriers.

In the United States, fragmentation arose as a means to mitigate a series of inherent complexities. Railroads, through Plan Two service, were unable to manage door-to-door transit, and shipper's agents (now known as intermodal marketing companies) managed door-to-door transportation for their customer. The fragmentation continued as liner shipping companies, stack operators and other specialized entities entered the intermodal market.

There is no doubt that Europe is moving in the right direction for increased intermodal service. And certain parts of Asia will also achieve intermodal success in time.

Nevertheless, it is worth remembering as we face service problems, equipment shortages and the like, that the North American intermodal system is the model for the rest of the world. As long as fulfilling customer requirements remains the top priority (along with generating adequate investment returns), the North American intermodal system can continue to serve as an example of demand-led transportation success.