

**Modal Shifts to Relieve Global Gridlock**

*How to Use Marine Transportation to Solve Transportation Problems*

*In the forward to a recent National Governors Association report, Pennsylvania Governor Ed Rendell offered the following assessment of our nation’s infrastructure: “Despite its importance, America’s infrastructure has not kept pace with our country’s growing and shifting demands and the changing world around us. A growing pattern of underinvestment and uncoordinated planning has led to a range of concerns that are felt across the country; including wide spread congestion, unsafe bridges ... More broadly, we have created a system that leaves us dependent on imported oil, vulnerable to rising energy prices, and ill-equipped to address the challenges of climate change”.<sup>1</sup>*

*The executive summary goes on to add that “America’s current infrastructure investments are also not keeping pace with our global competitors.” It goes on to cite that China invests 9 to 12 percent of GDP, India and the European Union invests 5 percent and Japan consistently invests 10 percent of GDP. The U.S. spends only about 2.6 percent of its GDP on infrastructure. The American Society of Civil Engineers in 2009 awarded our own country’s infrastructure a D rating and estimated that we need at least \$2.2 trillion over five years to bring our infrastructure up to a passable B level.*

*Lack of infrastructure spending exacts a heavy toll with over \$200.0 billion in annual net economic losses due to congestion including 2.9 billion gallons of wasted fuel and 4.2 billion man hours of time. The situation is so dire that 94 percent of the American public has expressed a growing concern about the condition of the nation’s infrastructure.*

Not a pretty picture painted by the nation’s governors—watching America’s landside infrastructure crumble around us. The condition of our roads and bridges is known and left unattended will deteriorate at an ever increasing pace. With a national infrastructure funding crisis aggravated by the financial crisis and extended recession, is there a way around the infrastructure funding problem? The Unions and American Feeder Lines believe there is.

Water transportation is a missing piece in the transportation solutions puzzle. It can play an important role in relieving stress on the national transportation system and providing a cost-effective capacity alternative.

How can the U.S. affect a modal shift to water? Just follow EU’s lead. Credible solutions can be found in the lessons learned from the European policy initiatives of the past forty years.

By way of background, in 1992 Northern Europe faced many of the same problems we face at home today but with a startlingly different transportation network to work with.

	Waterway Miles	Rail Miles	Road Miles
United States	26,098	120,000	3,900,000
European Union	21,748	321,869	7,724,851

How did the policy makers of the EU deal with the issues we face today? How did they promote the use of coastal and inland waterways, railroads, and roadways to their fullest potential to absorb projected increases in container traffic flows? How did their policy makers get businesses and shippers to recognize the value of safe and reliable marine transportation as an integral part of the supply chain? And

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<sup>1</sup> “An Infrastructure Vision for the 21<sup>st</sup> Century”. Darren Springer and Greg Dierker for the National Governors Association. 2009.

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how did they develop a reliable water borne container hub and spoke port network to move cargoes, chemicals, refrigerated goods and high value non-time sensitive container cargoes via water?

The EU approved a series of public policy initiatives.

In 1992 the EU countries recognized that increasing freight traffic contributed to highway congestion; increasing highway infrastructure deterioration, repairs and maintenance costs, and levels of emissions. In order to deal with the growing volume of container traffic, the European countries launched a series of policy incentives and initiatives to help improve the competitiveness of their combined railway, inland waterway and short sea shipping systems. Programs included PACT, and Marco Polo I and II as developed over the years.

The EU's programs had an underlying stated objective of correcting a modal "imbalance" and improving sustainability by granting financial incentives to businesses willing to improve road, rail and water intermodal supply chain synergies.

The EU's incentive programs have five basic components:

1. **Modal Shift Initiatives** focus on shifting as much cargo as possible from the roads to short sea shipping, rail and inland waterways.
2. **Catalyst Actions** are defined as a change in the way non-road transportation is managed.
3. **Common Learning Actions** are defined as ways to enhance the knowledge of freight logistics.
4. **Motorways of the Sea Actions** are intended as door-to-door services to shift freight from long haul road operations to a combination of short sea shipping and other modes of transport.
5. **Traffic Avoidance Actions** are defined as any plan that reduces freight transport demand by road with a direct impact on emissions.

Were the policy initiatives successful? In a word; yes! Today the EU estimate that for every 1 Euro invested, their certified return is over 15 Euros.

The three programs have been instrumental as the foundation for the desired modal shift in containers to the rails, waterways and coastal shipping. Today more than 80 percent of all containers are transhipped by rail or water for at least some part of their routing, up from 16 percent in 1992. In 1956 more than 50 percent of all domestic U.S. trade was waterborne. Today the number is less than 2 percent. Imagine what would happen in America today if the maritime was a significant part of our freight transportation movements?

Today there are more than 2,000 short sea/feeder ships connecting European ports along a fully developed inter-coastal, intra-country container port container network. It is an integrated system of waterways, railroads and roadways. Here in the U.S. the corresponding number of ships is zero with the exception of the non-contiguous trades e.g., Hawaii, Alaska, Puerto Rico.

To advance the development of a U.S. Marine Highway we recommend two incentive programs—at the Federal and/or State level—similar to ones that proved highly successful in other nations.

1. Amend the U.S. Tonnage Tax to include domestic tonnage. (Such a program revitalized German shipbuilding, sustaining tens of thousands of jobs for forty years.)
2. Enact shipper or Sustainable Transportation Credits (STC). (Marco Polo incentives resulted in a sustained modal shift to a more balanced three-mode transportation system that is the model for the world today.)

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We can only imagine what a fully integrated three-mode transportation system, including a fully integrated hub and spoke waterborne container network, could do to relieve gridlock, pollution, reliance on foreign oil, and the stress on our highways and bridges. Not to mention jumpstarting associated manufacturing here at home.