

## The Freight Transportation Lifecycle Project: North America's Most Important Infrastructure Project

*“What if legislators, planners, shippers, and citizens all understood the full comparative lifecycle benefits and costs of building and using rail lines—versus roads and trucks for moving freight?”*

*~ Michael Sussman, President, OnTrackNorthAmerica*

### THE OPPORTUNITY

**OnTrackNorthAmerica's Freight Transportation Lifecycle Project** will answer the question, “What does the nation get when we invest in each freight transport mode?” Until this question is answered through an unbiased, comprehensive comparison of all costs and benefits over time, transport infrastructure investment will continue to miss the opportunity that railroads offer as an answer to looming environmental and congestion issues.

**Our first step is to gather a comprehensive data-based comparison of all the lifecycle factors impacted by constructing, using, and maintaining railroads and highways. Briefly, here is why this project is important:**

- In 2019, the advantages of railroads are still not common knowledge
- “The miles of freight moved on one gallon of fuel” is only one layer of the issue
- Traditional Cost/Benefit analysis, increasingly used in transportation planning, disregards major aspects of how rail benefits communities
- The Freight Transportation Lifecycle Project will provide the most powerful evidence for informing infrastructure decision making
- Significant private capital, presently sitting on the sidelines, as well as increased public funding, will be deployed effectively once planners, legislators, and citizens understand in quantifiable terms, the full set of impacts of railroad and highway transportation

### THE GAP

Research to date on the costs and impacts of trucks and trains has narrowly focused on fuel use, emissions, and highway safety. But constructing, operating, and maintaining rail infrastructure offers society many other underappreciated advantages. Consider space, an increasingly critical resource. The same amount of goods moving on a one-mile train requires a 27-mile convoy of trucks. **OTNA's research team has identified over 35 different impacts, like space, to include in project evaluations and investment decisions.**

Cost-Benefit Analysis, the decades-old approach that planners typically apply, is limited and outdated. OTNA's The Freight Transportation Lifecycle Project will provide a new expanded decision-making framework for determining where best to invest infrastructure funding. This insight is also the key to

addressing community concerns, which are currently the greatest impediment to infrastructure development.

Rail isn't the right answer for all shipments. But when we provide this intelligent comparative assessment stakeholders can align around smart multimodal investments that best serve their communities. This comparative lifecycle analysis does not exist in academia or in practice. OTNA is the only organization with the autonomy and dedication to convene the intelligence necessary for a new era in freight transportation planning.

While the benefits of trains, trucks and other modes are intuitively understood by many, unwise decisions and investments will continue until all the distinctions of railroads and highways are illuminated, quantified, and applied. **The Freight Transportation Lifecycle Project will gather a side-by-side, comprehensive dataset of the benefits and costs of building, using, and maintaining highways and railroads that will address this ongoing knowledge gap.** Read more at [The Freight Transportation Lifecycle Project](#).

### OTNA'S UNIQUE QUALIFICATIONS

OTNA was born from founder Michael Sussman's decades of engagements at Strategic Rail Finance advising Class II and III railroads, government entities, intermodal facilities, and port authorities throughout North America. OTNA has been embraced by stakeholder groups across the business and political spectrum because its work is grounded in non-partisan common sense. Academic, industry, and government leaders, frustrated with silos and disconnects, welcome the rare opportunity to contribute their intellect and passion to achieving real results.

*"If any organization is prepared to rally freight rail industry stakeholders to collaborate, it is OTNA."*  
~ Dr. Barbara Gray, former Director of Penn State University's Center for Research in Conflict and Negotiation.

### OUR EXPERT TEAM

OTNA has attracted the country's leading experts in freight transportation Benefit-Cost Analysis to its team. Our Senior Analyst, **Michael Koontz**, served for ten years as USDOT's Director of the Congestion, Mitigation, and Air Quality Improvement Program (CMAQ). Our Chief Scientist is **Dr. Mingzhou Jin**, professor and Associate Department Head of Industrial and Systems Engineering at University of Tennessee and Director of their Institute for a Secure and Sustainable Environment. **Dr. Pasi Lautala**, Director of Michigan Tech Transportation Institute's Rail Program, is a Senior Advisor to the team and a prominent freight transportation academician. **Impact Infrastructure**, and its ownership team of former HDR management, is our partner in the development of a software tool for integrating the data into infrastructure planning.

### NEXT STEPS

The work described above is Phase I of **The Freight Transportation Lifecycle Project**. Phase II will address the weaknesses and limitations of conventional Benefit-Cost Analysis. A robust replacement, called the Lifecycle Benefit-Cost Analysis, will be designed to answer the real-world needs of 21<sup>st</sup> century transportation planners.

This work requires the contribution and collaboration of many. Please consider yourself invited to contribute financially and intellectually.