

Sustainable Freight Transportation System Pilot Project

1. Submitted by **the Analytics Center of Excellence** (a Joint Powers of listed partners)
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2. Project Title: **The “Integrated Intelligent Freight Network”** (See attached Diagram)
3. Project Location: Interstate #10 linking Los Angeles County with San Bernardino County (Beta applied to selected Cities: Rialto, Los Angeles, Upland)
4. Project Executive Summary: The pilot project will provide usable information to all stakeholders to collaborate in sharing data and building decision-making information for “smarter” transportation management, predictive transportation planning, “smarter” collaboration within freight industry to optimize the supply chains and logistics involved in the freight movement, and to develop sustainable collaboration with municipal networks involved in economic development, and goods movement to support and advance economic growth.

The pilot will align the major existing transportation data networks with new capabilities to collect data to understand, anticipate, and make effective decisions to reduce emissions and improve efficiency. It will provide world-class analytical tools to capture the complex interactions, time, cost, energy, environmental impact of transporting cargo, etc. Most important, it will unite the key stakeholders involved in: transportation management, transportation planning, industry, municipal government, and public/private partnerships. This new “smarter” information and horizontal collaboration is essential to creating a Sustainable Freight Transportation System.

5. The challenges of achieving the goals of the Sustainable Freight Plan are significant but achievable with full participation and collaboration among the key stakeholders with responsibility for developing sustainable economic growth, social environmental justice, and environmental sustainability.

Collaboration IS sustainability and requires not just cooperation but new alignments and engagement of all stakeholders to make decisions that effectively preserve their resources, while adjusting to new environments and building the capacity to further transform the system. This requires NEW data networks that horizontally connect decision makers with real time information to effectively move goods, sustain the environment, and expand the economic growth of the freight industries.

The proposed pilot, “The Integrated Intelligent Freight Network (IIFN)”, provides a data network critical to the complex freight system as infrastructure to better enable all stakeholders to understand and collaborate on key decisions affecting planning, transportation management, sustainability, and economic development. IIFN enables all stakeholders to understand, anticipate, and act in more effective ways on areas of shared and regional interests and to align decisions that will optimize the freight/transportation system.

IIFN will provide real-time information to collaboratively manage, plan, predict, and build regional smarter transportation systems and optimize the freight system. It provides a platform from which to connect data, establish data standards, and provide interoperability to provide valuable information that all stakeholders can trust, scorecards that measure sustainability progress, and provide critical predictive analytics to assist in supporting planning and development of the economic growth and competitiveness of the freight system.

The pilot phase provides the following: smarter transportation network (ACE/RIITS), linkage with regional transportation planning and local government expertise, scorecards against economic/sustainability benchmarks for public/private collaboration, analytics to better understand, anticipate, and act on the data, and interoperability standards to support collaboration. The ability to track, measure, report, and deliver usable information to all key stakeholders provides the foundation for operational effectiveness. Most important, the full support of public/private partnerships are needed to invest in the infrastructure, share in the economic/environmental benefits, and collaborate in transforming the system into an “Intelligent Freight Network” – i.e., data driven.

IIFN will further support the future additions of sensors in a single host freight tracking center, further optimizing freight management. It will also support the future development of smart corridors – city-based sensor networks that feed information to the RIITS network to monitor, plan, and manage smarter transportation systems.

The IIFN provides CARB and the Sustainable Freight Plan a critical link to horizontal collaboration among stakeholders and provides State Agencies with a common focus on shared objectives (with scorecards) in meeting sustainability, preserving the freight industry, and dynamically transforming the freight/transportation system into a world-class goods movement/transportation system for California.

6. Project Cost: The Analytics Center platform and architectural design that supports this pilot proposal has been developed over the past four years by The Foundation for Sustainable Communities and IBM. This \$250,000, platform has further been advanced by the partnerships built with the Analytics Center of Excellence (a Joint Powers Authority). These Founding Members include: San Bernardino Community College District Economic Development and Corporate Training Center, LA Metro (RIITS), Southern California Associated Governments, City of Rialto (Smarter City pilot), Inland Valley Development Authority.

The proposed project, pilot (IIFN) application, is estimated to cost: \$250,000, which will cover the technology licenses for connectivity with the Smarter Transportation System and for Analytics, Analytics expertise to develop the sustainable freight algorithms, and to support the knowledge/industry expertise built into ACE with the partners. Existing funding commitments include:

- ACE Platform (\$250,000)
 - RIITS (\$25,000) applied to Smarter Transportation
 - SCAG (\$25,000) applied to Smarter Cities/Connected Communities
 - San Bernardino Community College District (\$10,000) Analytics Training
 - IVDA (\$25,000) Multi-Modal Transportation Linkages
7. Timeline: Project Design and Implementation – 13 months
8. Deliverables:
- Replicable Model for IIFN for public/private partnerships, regional planning, and horizontal collaboration among transportation/freight stakeholders. A potential national model for the new economy with IIFN.
 - Data Scorecard for measurement of sustainable economic growth and environmental sustainability
9. Milestones: Project Design Plan Completion/Stakeholder Signoff – 3 months
 Project Beta Testing – Selected Transportation Corridor – 3 months
 Data Scorecard Implementation – Data Collection – 6 months
 Data Presentation/Report – 1 month
10. Project Roles: Deborah Hagar, Project Lead
 IBM Analytics, Analytics Lead
 RIITS – Transportation Management Network
 SCAG – Freight/Goods Movement
 San Bernardino Community College District – Training
 City of Rialto – Logistics Center/Inland Empire Connection
 IVDA – Multi-Modal Transportation