The Freight Shuttle System:
A Private Sector Freight Transportation Solution

Briefing for:

U.S.-México Border Mayors Association

El Paso, Texas, August 16, 2011

Texas Transportation Institute

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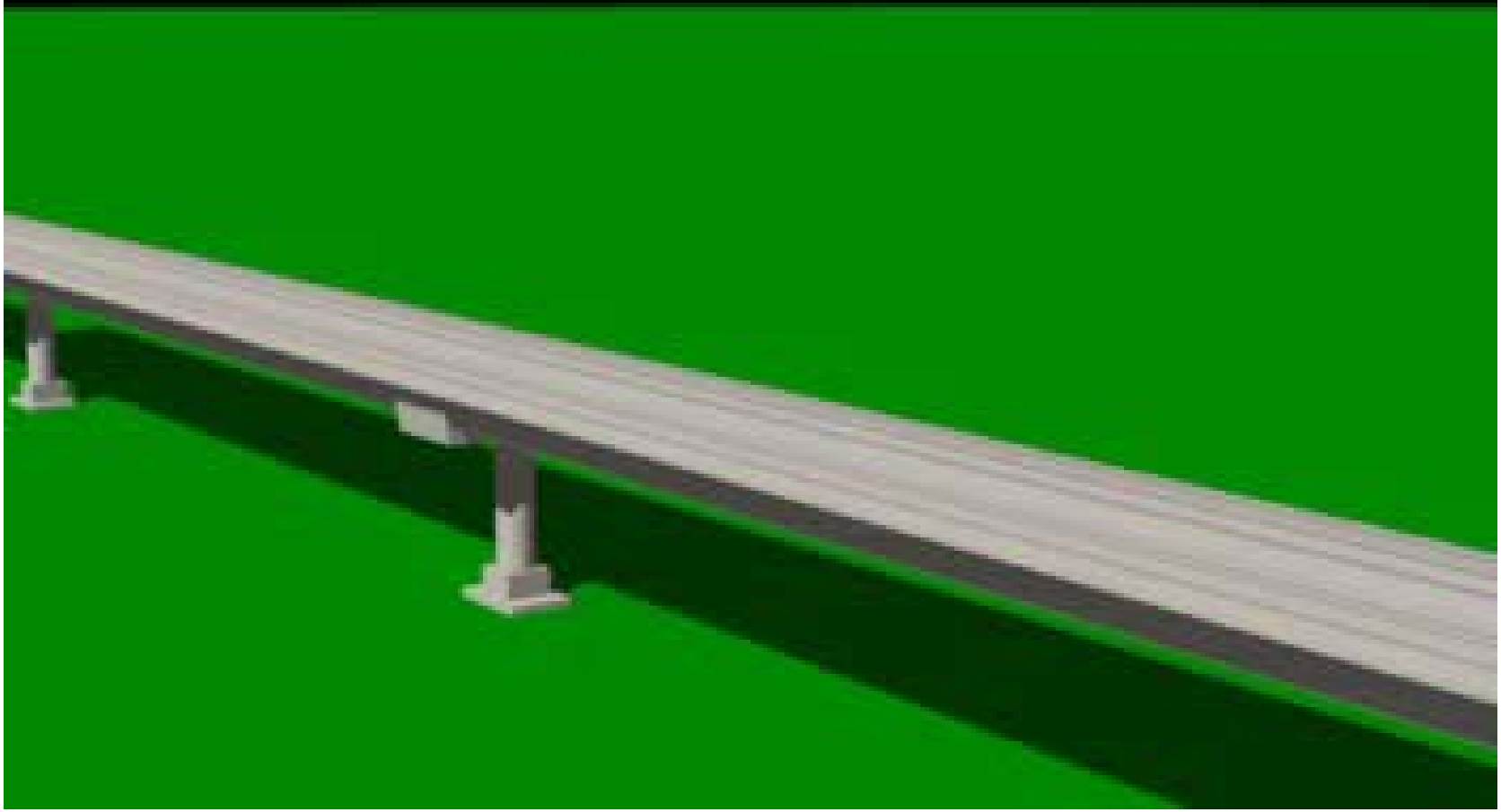
TTI’s Freight Shuttle System



Freight Shuttle: Trailers or Containers

Length – 75 feet
Velocity – 62 mph
Loading – 35 tons

The Freight Shuttle System

- **A <u>new approach</u> to regional Intermodal & cross-border freight transport**
  - Concept developed over the last 7 years at the Texas Transportation Institute (TTI)
  - Based on known and understood technology
  - Effectively addresses <u>both</u> community and commercial needs

Combines technology and operational strategies to provide freight transportation in an environmentally responsible manner

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The Freight Shuttle System

- **Automated Freight Shuttles**
  - Hybrid system; uses the best features of truck and rail
  - Single-container transports
  - Linear induction motors (LIMs)
  - Dedicated, small footprint guide way
  - Fully elevated on existing highway ROW

24/7 operations offer an option that may overcome throughput, capacity, and impact issues affecting freight transportation

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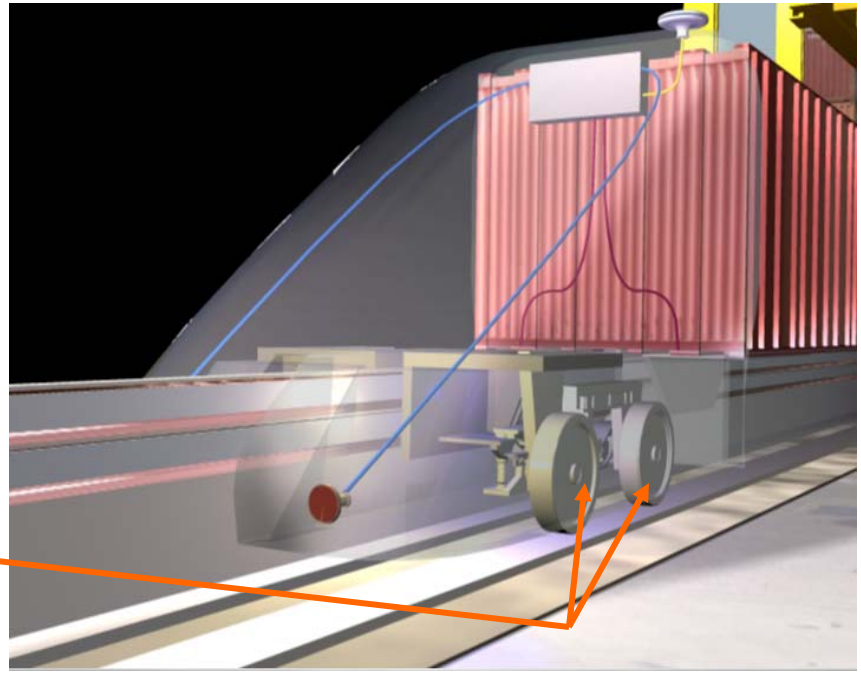
The Freight Shuttle System

- **High reliability**
  - Steel-on-steel for low rolling friction/low cost
  - LIM – linear motion from vehicle-guideway interaction
    - Small number of moving parts
  - Automated control system



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Texas Department of Transportation

- April 8th – TxDOT issued a RFP for "Low-carbon Emitting Freight Transportation Facilities"
  - The stated intent: **lease existing highway rights of way for alternative freight transportation technologies**
  - No public funds will be expended/no public costs incurred
  - Designed to monetize "under-performing" assets through leasing arrangements
  - Expecting D-B-O-M proposals that are privately funded

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I-35 Corridor - First Project

Approx. 600 Route Miles

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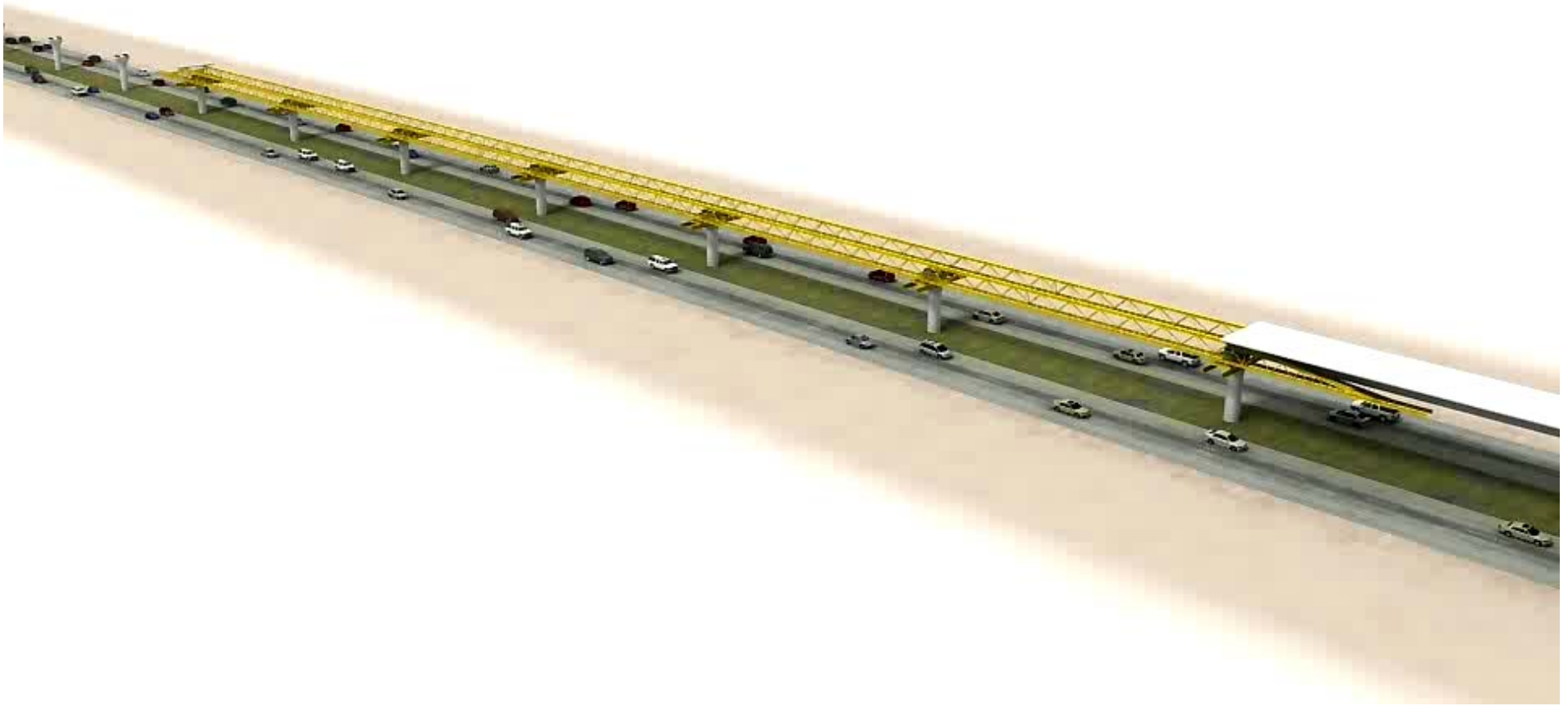

III. Freight Shuttle System Business Model

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Port of Entry Security

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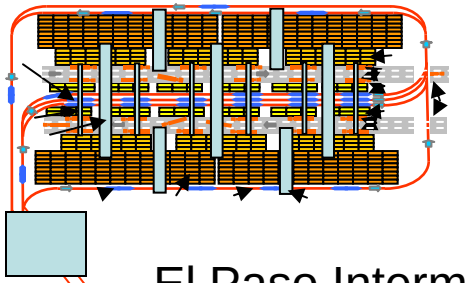
2009 DOE – funded study assessing the Feasibility of bi-national FS operations Over a secure, elevated guideway with pre-Clearance in secure facilities



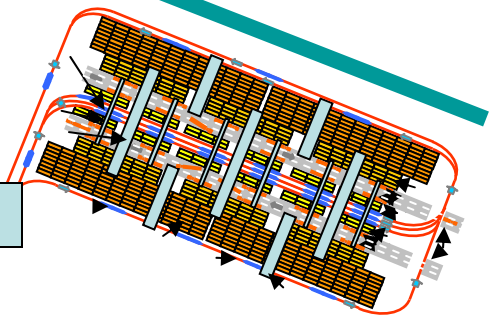
El Paso Intermodal Terminal

Inspect-in-motion

El Paso

Ciudad Juarez

Inspect-in-motion



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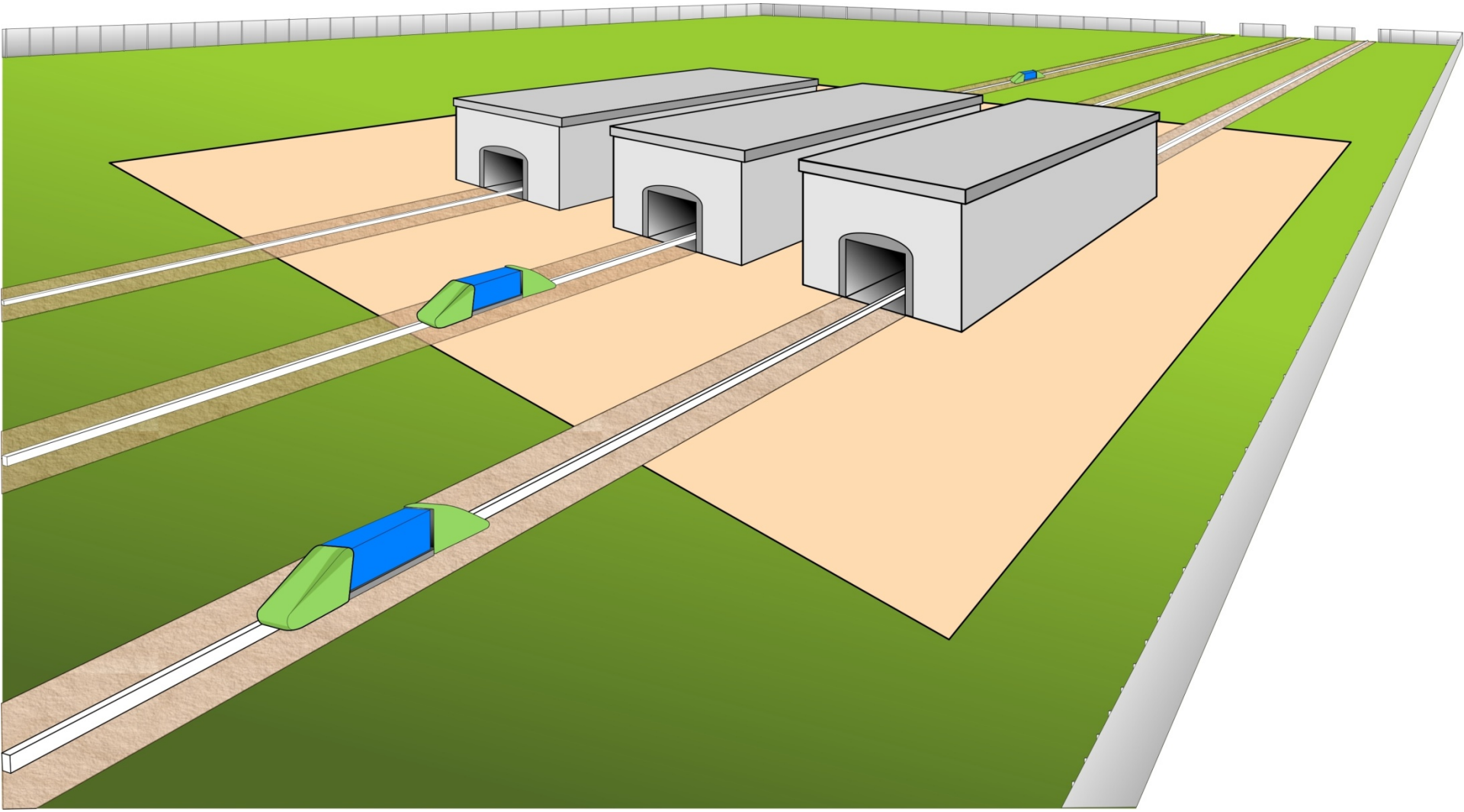
Parallel Scanning Stations Allow for 100% Inspection
Using High-Energy Scanning Equipment



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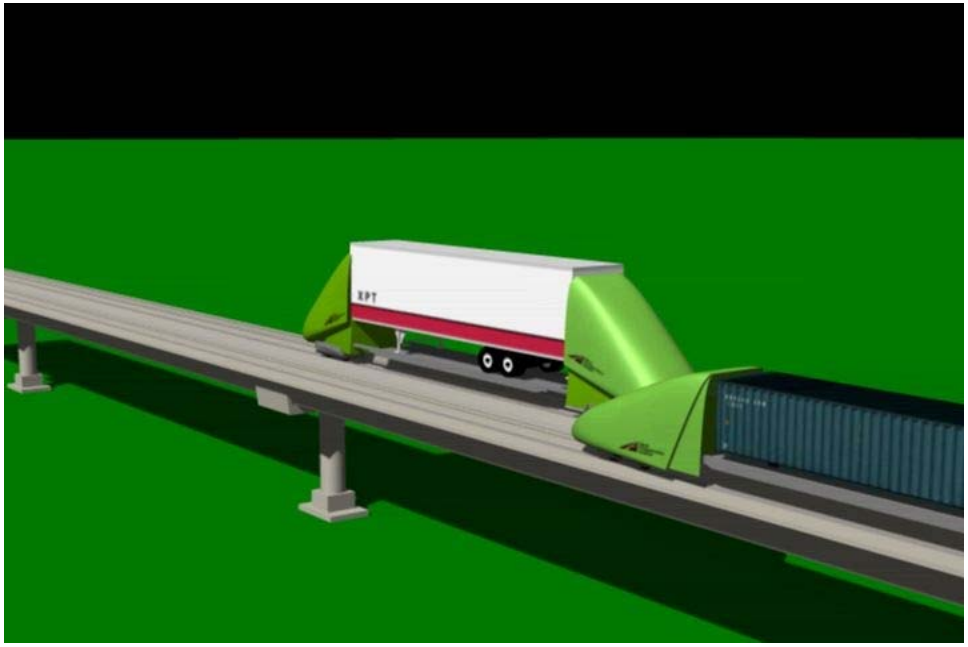
Overview of Freight Shuttle International

- FSI was formed to **commercialize** the Freight Shuttle technology developed by the Texas Transportation Institute
- The Freight Shuttle System is a **hybrid** mode of freight transportation that can move freight over international borders on a secure, grade-separated, electric-powered guideway
- The Freight Shuttle System will move freight in a more **secure and sustainable** manner than is currently possible



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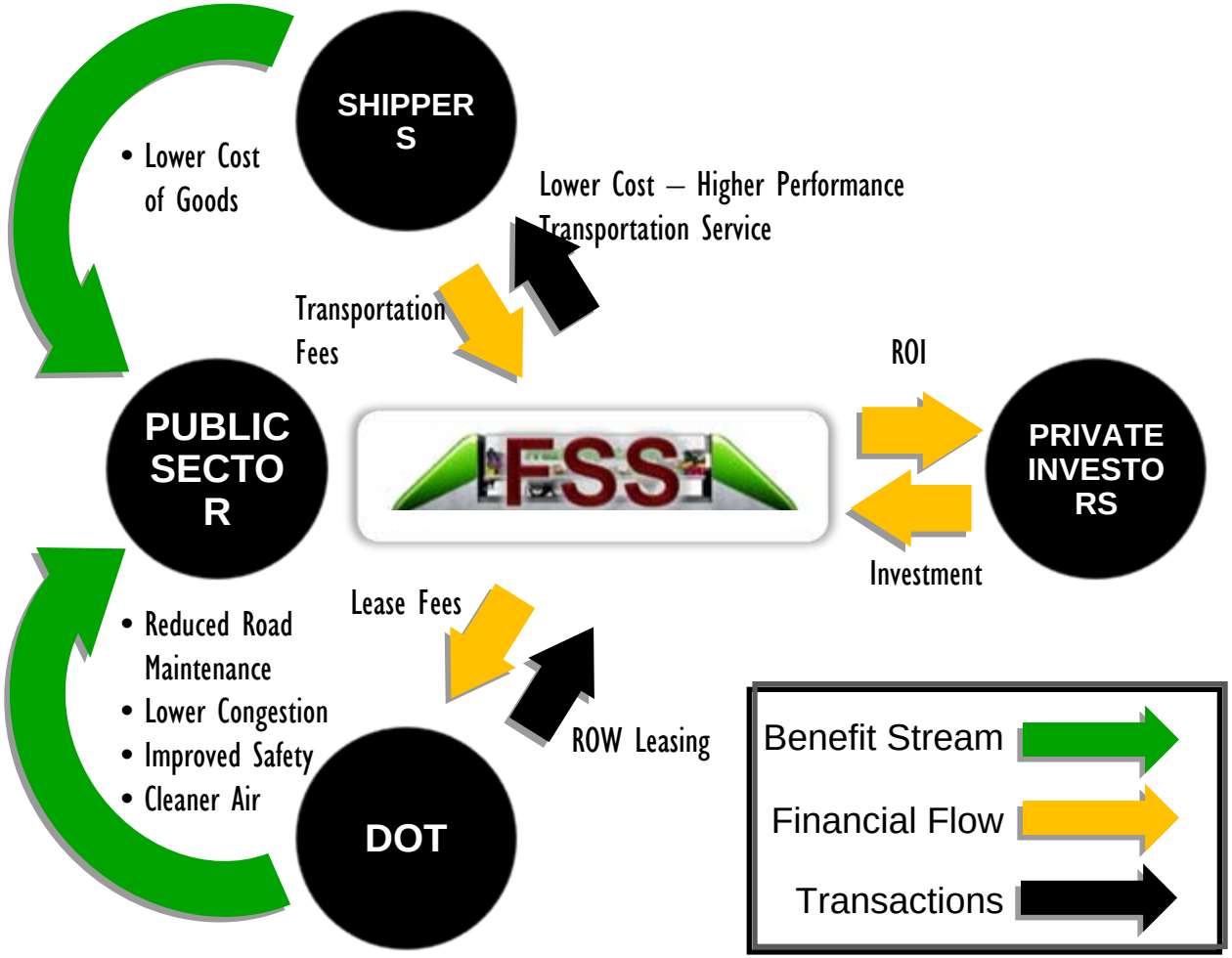
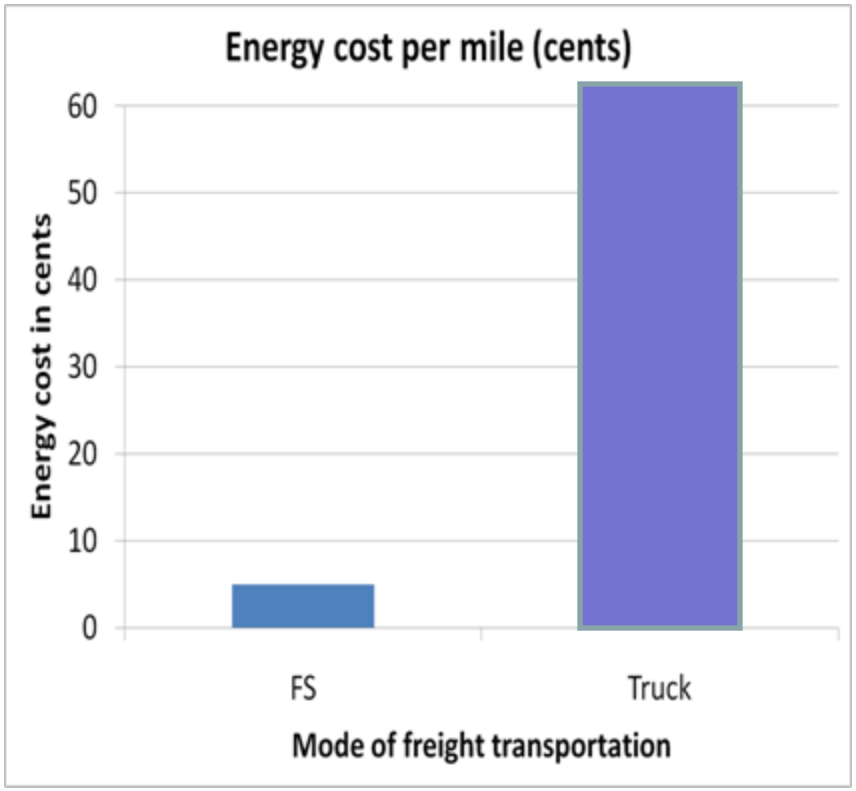
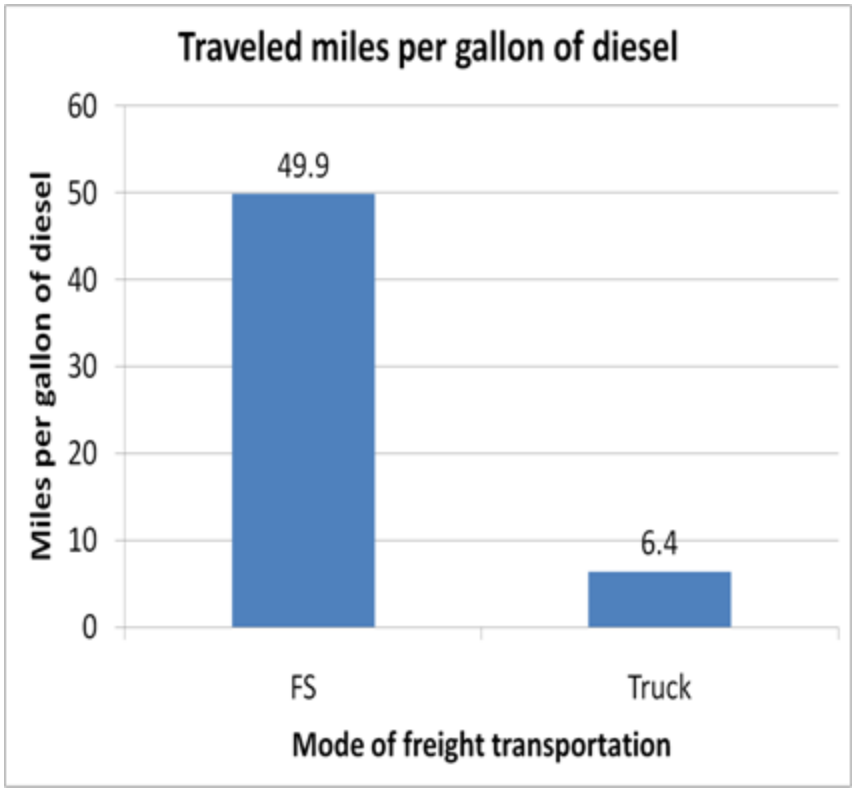
FREIGHT SHUTTLE BUSINESS MODEL



Improving Energy Efficiency





Based on BTU Equivalency

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