

SmartWay Transport Partnership

**ICF Consulting on Behalf of
The US Environmental Protection Agency**

Iowa State TRANS 691: Graduate Seminar

January 27, 2006

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The Smart Way To Save Fuel, Money and the Environment

Outline

- The Partnership
- History and Background
- Partnership Goals
- Partnership Process
- Technology and Strategies
- My Role in the Partnership
- ISU and CTRE's Role in the Partnership
- SmartWay Today
- Moving Forward

SmartWay Transport Partnership

- **Voluntary Partnership w/ground freight industry**
- **Opportunity for companies to showcase the performance of their freight operations**
- **Emission Reduction Goals**
 - 150 million barrels of oil each year (12 million cars off the road)
 - 33-66 million metric tons CO₂ annually by 2012
 - 200,000 tons NOx annually, plus PM and air toxics benefits



Partners



American
Cartage



Camionnage



Central
Freight Lines



McKelvey
Trucking

Metropolitan
Trucking



Nike

Norm
Thompson
Outfitters



VOLVO
New Roads.



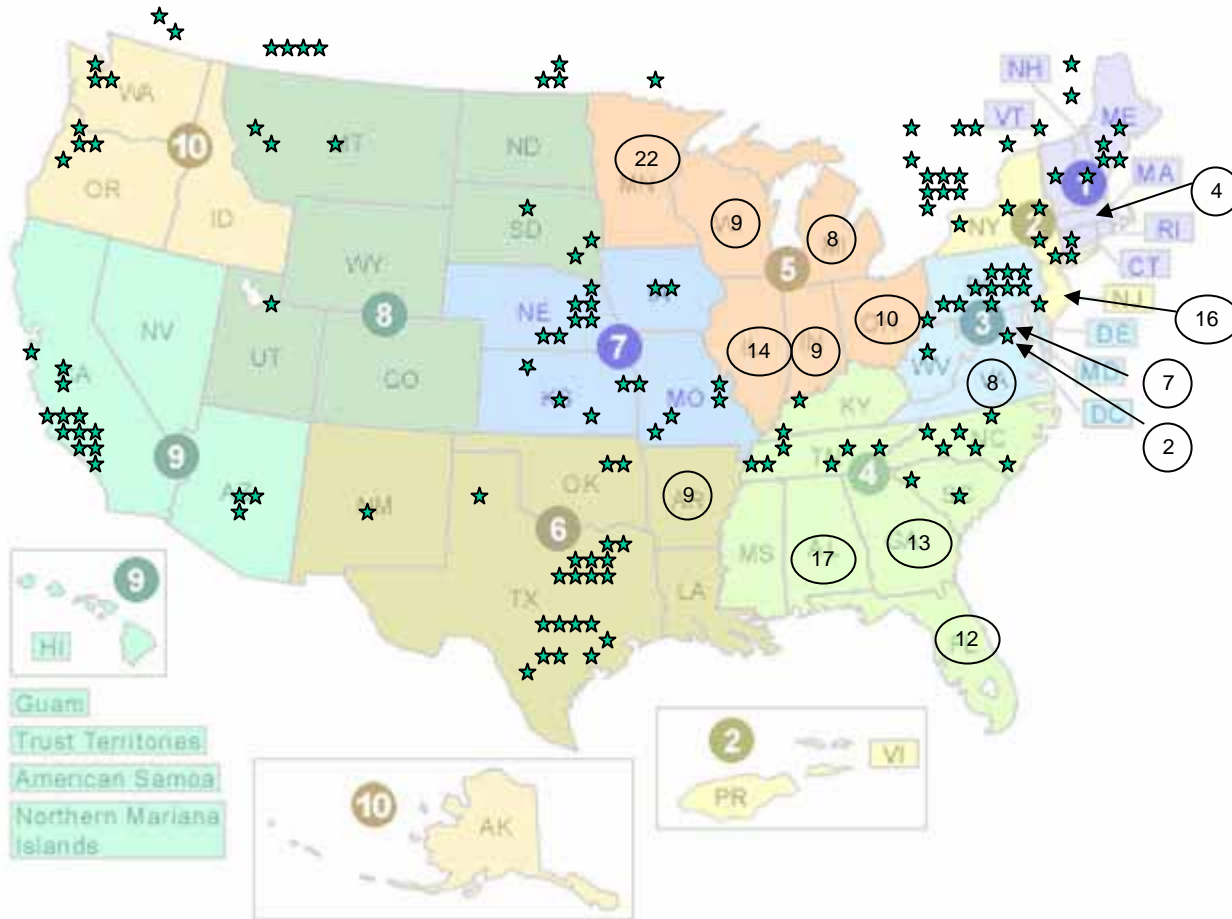
Xpress Global
Systems



SmartWay Transport Partners

(as of January 11, 2006)

➔ Headquarters locations of 297 SmartWay Transport Partners by EPA Region





Background and History

Background

- **Currently, truck and rail:**
 - Travel over 200 billion miles
 - Consume over 35 billion gallons of fuel
 - Account for nearly 20% of transportation related energy use
 - Produce approximately 350 million metric tons of CO₂
 - Will increase usage dramatically over next decade

2003

35 Billion Gallons



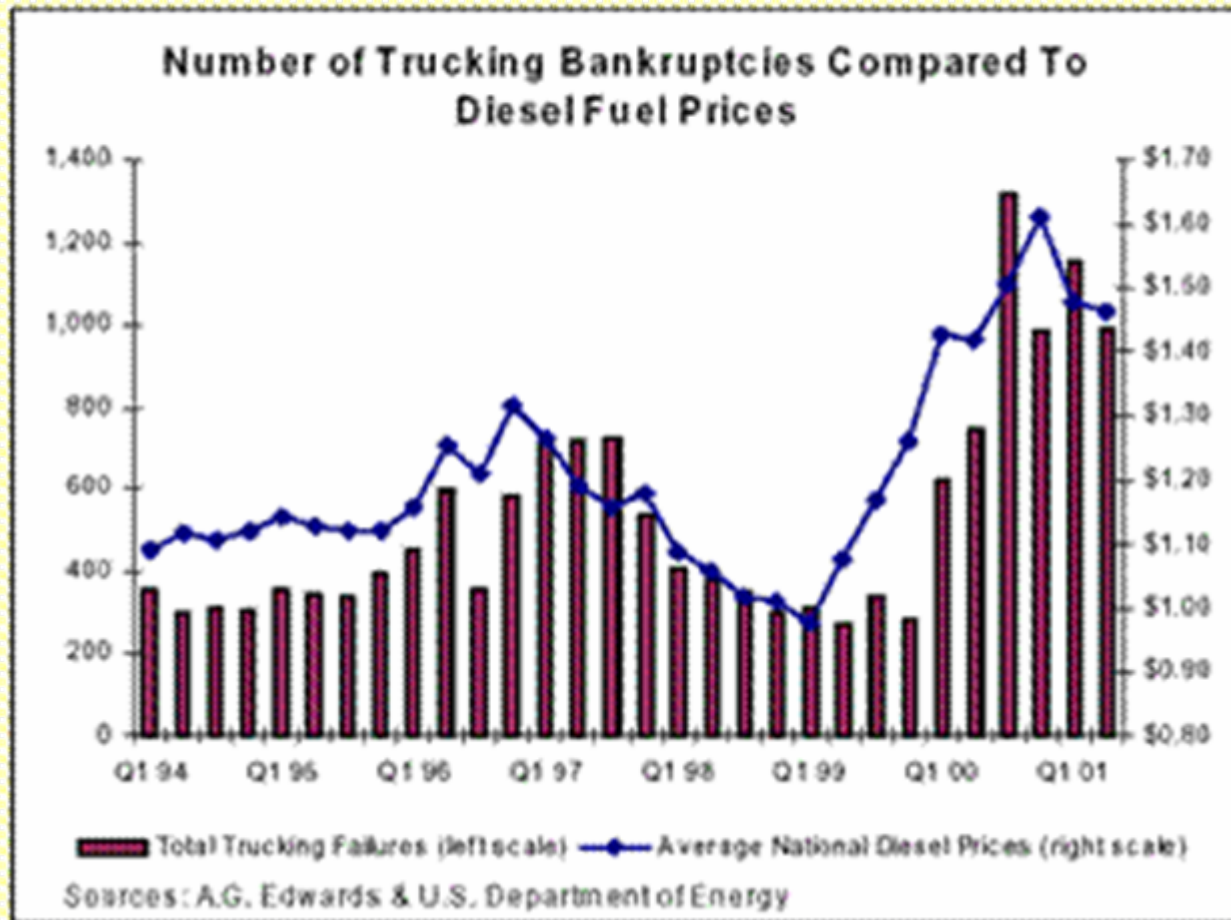
2012

45 Billion Gallons



Survival of the Fittest

Correlation of Trucking Firm Bankruptcies & Price of Fuel



The Rules are Changing



What kind of Footprint
do you leave behind?





How efficiently are you moving your freight?

How did SmartWay Transport Partnership begin?

- **Freight carrier goals**
 - Reduced fuel consumption
 - Public recognition
 - Better public image
 - Benefits for carriers
 - Better relationship with government

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- **Freight shipper goals**

- Better understanding and control of transportation foot print
- New ways to promote corporate citizenship and sustainable business practices

How did SmartWay Transport Partnership begin?

- **Freight carrier goals**

- Reduced fuel consumption
- Public recognition
- Better public image
- Benefits for carriers
- Better relationship with government



- **EPA goals**

- Reduced CO2 emissions
- Improve energy security
- Better relationship with the trucking industry

- **Freight shipper goals**

- Better understanding and control of transportation footprint
- New ways to promote corporate citizenship and sustainable business practices



Partnership Goals

Freight Industry Goals

- Increase Operational Efficiency
- Reduce Fuel Costs
- Improve Financial Performance
- Improve Public Image of the Industry
- Increase Public Awareness of Social Responsibility Efforts by the Industry

Emission Reduction Goals

- 33 Million metric tons of CO₂ annually by 2012.
- 200,000 metric tons of NO_x annually
- Additional reductions in PM and air toxics
- 150 million barrels of oil annually



Partnership Process

How Does the Partnership Work?

– Carriers:

- Join the Partnership and agree to work toward improved efficiency and reduced fuel consumption over a 3 year period.

– Shippers:

- Join the Partnership and agree to work toward shipping more of their product with SmartWay Carrier Partners, as well as improving their operations over a 3 year period.

Partner Process

- Partner Account Manager assigned
- Advertise becoming a partner
- Complete FLEET Model
- Develop Action Plan
- Recruit customers, carriers, logistics providers
- Track progress to meet goals

The FLEET Performance Model for Carriers

- **Freight Logistics Environmental and Energy Tracking Performance Model - Carrier Module**
 - Measures the environmental performance of any fleet:
 - tons of CO₂, NO_x, and PM
 - the effectiveness of strategies currently used in fleet
 - Projects the effectiveness of strategies a fleet could add in the future
 - Estimates cost savings and return on investment for strategies
 - Provides a consistent approach for fleets to evaluate and record their environmental achievements

The FLEET Performance Model for Shippers

- **Freight Logistics Environmental and Energy Tracking Performance Model- Shipper Module**
 - Tracks percentage of goods shipped with SmartWay Transport carriers
 - by weight, mileage, ton-mileage, \$ value, or customized metric
 - Calculates tons of CO₂, NOx, and PM from shipper's freight activities:
 - freight providers
 - truck idling at the company's facilities
 - use of intermodal operations
 - mobile sources at a company's facilities (forklifts, loaders, cranes, generators)



Technologies and Strategies

How Can Carriers Achieve Savings and Meet Their Goals?

Idle Reduction
Single Wide Tires
Improved Aerodynamics
Driver Training
Improved Freight Logistics
Automatic Tire Inflation Systems
Reducing Highway Speed
Low Viscosity Lubricants

How Can Carriers Achieve Savings and Meet Their Goals?

Idle Reduction

- **Direct Fired Heaters**



Espar



Webasto



Class of
95

857

KENWORTH

VOLVO
SERVO

27



How Can Carriers Achieve Savings and Meet Their Goals?

Idle Reduction Benefits

- **Decreased maintenance on engines**
 - **Increased engine life**

How Can Carriers Achieve Savings and Meet Their Goals?

Idle Reduction
Single Wide Tires
Improved Aerodynamics
Driver Training
Improved Freight Logistics
Automatic Tire Inflation Systems
Reducing Highway Speed
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How Can Carriers Achieve Savings and Meet Their Goals?

Idle Reduction
Single Wide Tires
Improved Aerodynamics
Driver Training
Improved Freight Logistics
Automatic Tire Inflation Systems
Reducing Highway Speed
Low Viscosity Lubricants

Trailer Aerodynamics



Trailer Aerodynamics



Gap Fairing



Rear Fairing



Belly Fairing



PACCAR Inc



PACCAR Inc

How Can Carriers Achieve Savings and Meet Their Goals?

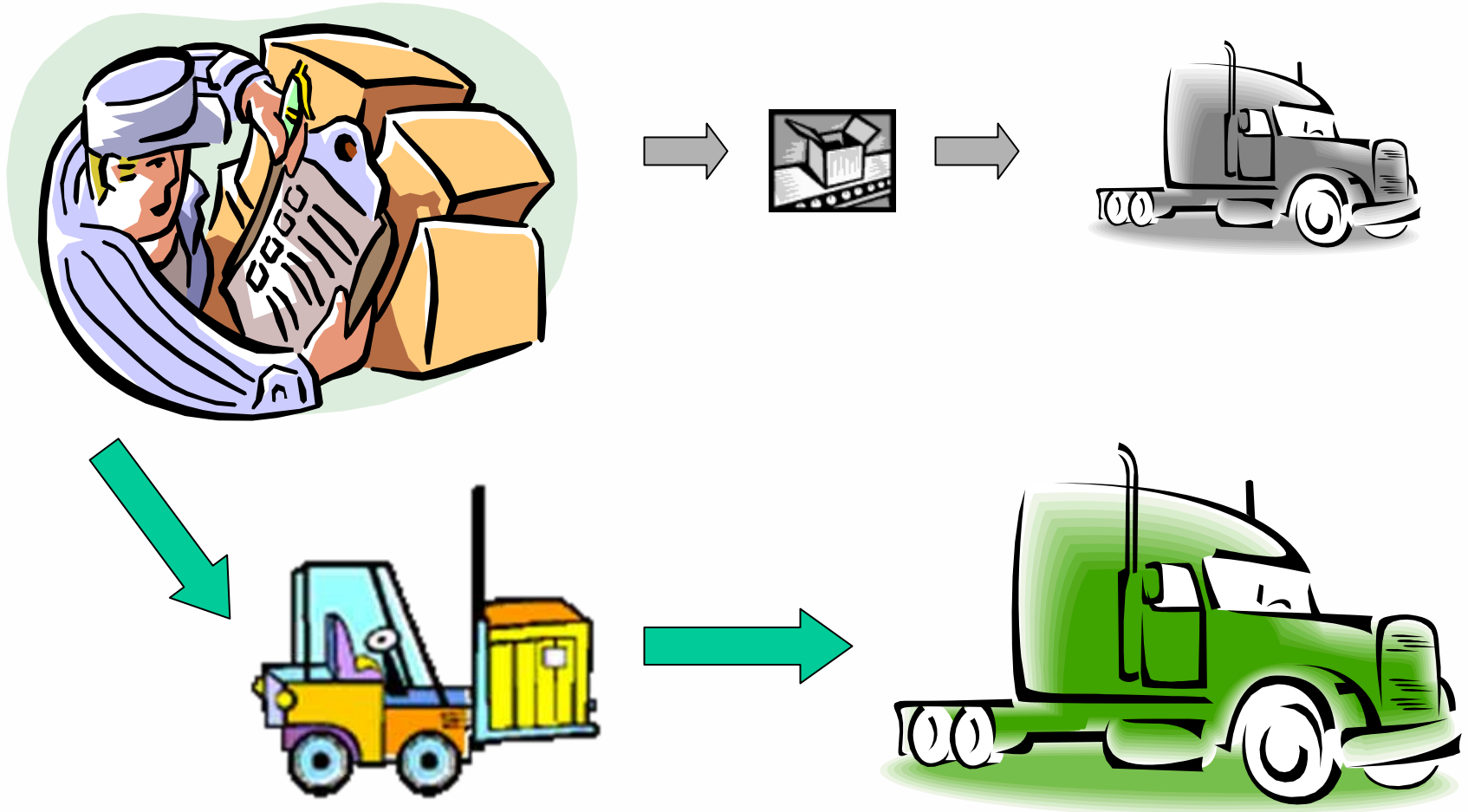
Idle Reduction
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What are Shippers doing?

Shippers implement facility and operational measures to improve efficiency:

- Intermodal shipping
- Pick-up & delivery scheduling
- Full truck loads
- Preferential docking
- Warehouse improvements
- Electric forklifts
- Driver comfort stations
- Idle-reduction at docks
- Etc.

Shipping more freight with SmartWay Transport Carriers



Intermodal Shipping



Facility and Equipment Improvements



No-Idling Policies at Loading Facilities

ATTENTION DRIVERS:

SHARP ELECTRONICS
IS A MEMBER OF THE
EPA'S SMARTWAY TRANSPORT PARTNERSHIP.

SHARP HAS A
NO IDLE POLICY.

PLEASE TURN OFF YOUR ENGINES
WHILE ON SITE AWAITING
TO BE LOADED/UNLOADED.



THANK YOU FOR
HELPING US WORK TOWARDS A
CLEANER ENVIRONMENT.



My Role in the Partnership

Recruiting

- Educating people about the Partnership
- Encouraging shippers, carriers and others to commit to achieving the goals of the Partnership
- Growing the Partnership by adding new Partners

Partner Account Management

- A 1-stop shop for Partners
- Help Partners complete FLEET Model and track progress in the Partnership
- Identify financing, business and publicity opportunities
- Recruit the carriers, shippers and logistics companies the Partner has relationships with



ISU and CTRE's Role as an Affiliate Partner

Role of a SmartWay Affiliate

- Provide information, workshops, education sessions
- Recruit local carriers, shippers and logistics companies
- Potentially help distribute grant money and identify other innovative financing options



SmartWay Today

SmartWay Today

- Over 300 Partners
- Signing New Partners everyday
- Incorporating New Partner Categories
 - Affiliates
 - Logistics Companies
 - Rail

What are Partners saying?

“We believe that cooperative initiatives, such as SmartWay Transport, are an important step toward measuring and reducing our environmental ground transportation footprint.”

-- Michael Bertolucci, Senior VP, Interface, Inc.

“This program gives us the opportunity to work with our carriers and logistics centers to develop practices and technologies that significantly benefit the environment. ”

-- Mark Servidio, VP, Sharp Electronics

What are Partners saying?

“The very worst thing that'll happen to you is you'll save fuel, which means you'll make more money.”

**-- Dave Berry, VP,
Swift Transportation**

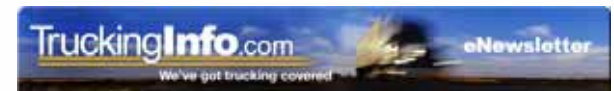
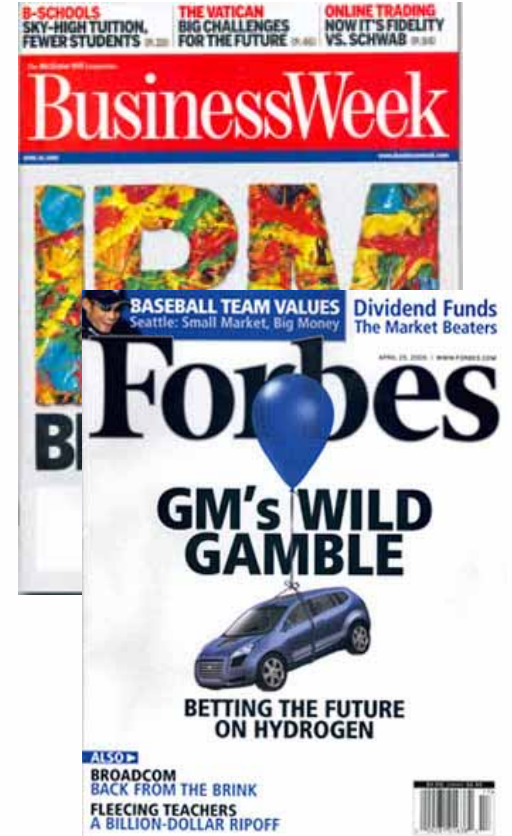


Moving Forward

Moving Forward

- New Partner Categories
- Expanding Outside the US
 - Canada
 - Mexico
- Financing
 - Upgrade Kits
 - Grants
 - Loans
- Technology Verification

Advertising in numerous Trade Publications



PSA Campaign

SHIP SMARTER



An environmentally appealing way to transport goods that's also deliciously profitable.

SmartWay Transport helps shippers and for-hire carriers lower greenhouse gases and other emissions, while at the same time giving the average truck a fuel savings of \$2,000 per year.

To find out more about this new partnership, call for your info kit at 1-734-214-4767 or log onto www.epa.gov/smartway.



A new voluntary program from the U.S. Environmental Protection Agency

CALCULATE YOUR SAVINGS TO THE ENVIRONMENT. TO YOUR BOTTOM LINE.



For logistics managers, SmartWay™ can add up to 7% in fuel savings.

SmartWay Transport helps shippers and for-hire carriers lower greenhouse gases and other emissions, while at the same time giving the average truck a fuel savings of \$2,000 per year.

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PSA Campaign

ATTENTION SHIPPING CUSTOMERS



Shopping for the smartest way to transport your products? Ship SmartWay and save 7% on fuel.

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BOXED IN?



With margins so fragile you need smarter solutions, like SmartWay.

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Public Recognition

- **The SmartWay Transport logo**
 - The EPA SmartWay logo is a mark of cleaner transportation
 - Like Energy Star, the SmartWay Transport Partner logo identifies the Partner as a responsible corporate citizen and environmental steward



Moving Forward

- Continue to Grow the Partnership!
- Continue to Decrease Fuel Dependency!
- Continue to Reduce Emissions!



www.epa.gov/smartway

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