



COMMERCIAL FLEET IN CANADA:

FleetSmart





Outline:

1. Canadian heavy duty vehicle context
2. FleetSmart defined
3. Delivering FleetSmart
4. FleetSmart measurement/impacts



1. CANADIAN CONTEXT

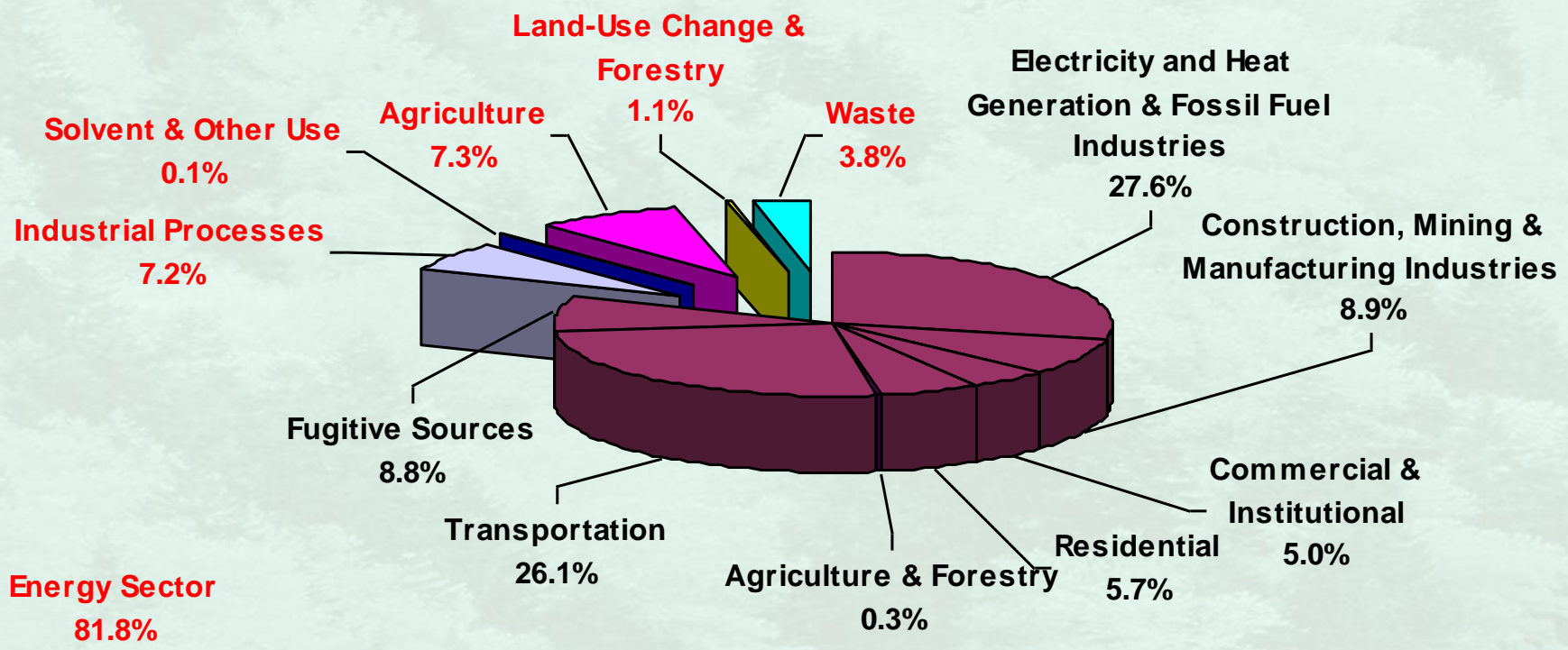
- Approx. 600k medium-heavy trucks
- Sparse population density : 3 persons per km² in contrast to 111 per km² in France.
- Great distances – 9 M km²
- Cities distributed along a southern strip
- Extremes of temperature: -40 °C à +40 °C





1. CANADIAN CONTEXT

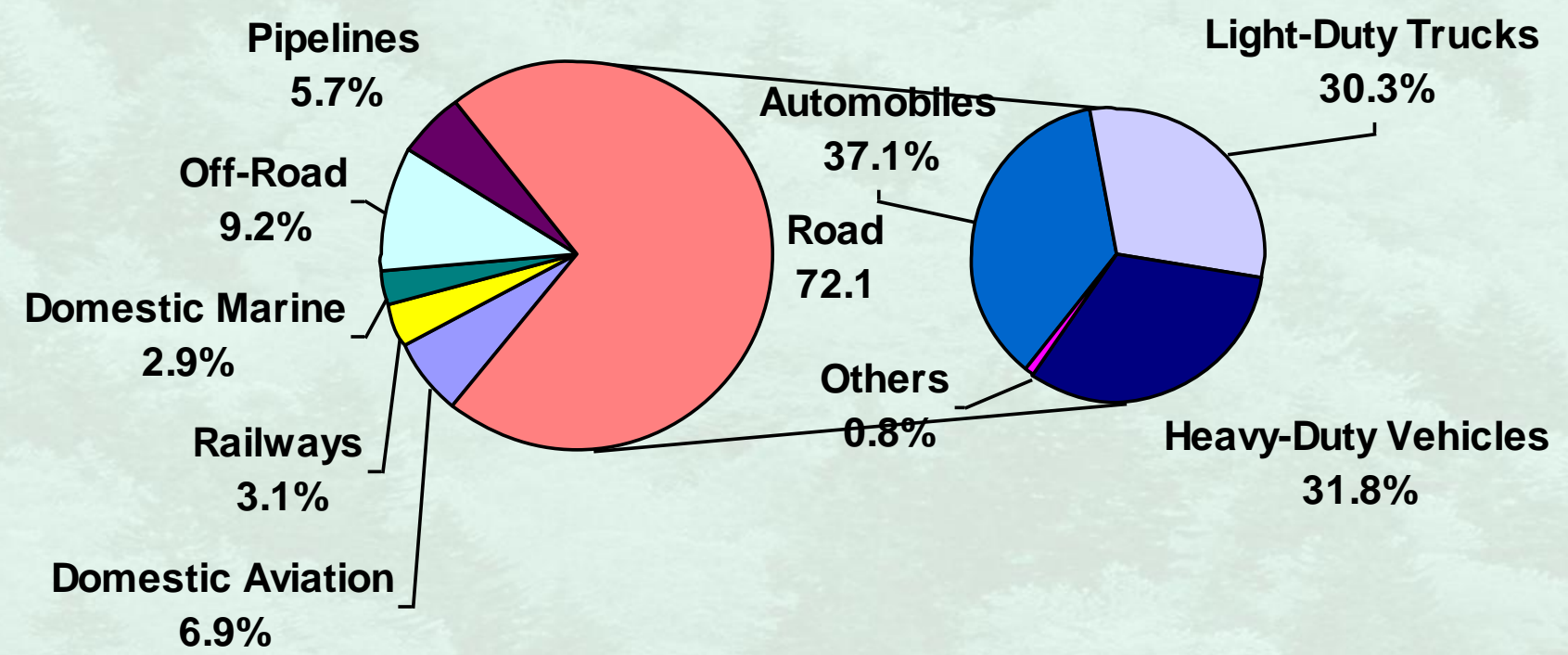
GHG Emission Sources 2004





1. CANADIAN CONTEXT

GHG Emission Sources 2004



1. CANADIAN CONTEXT


Number of vehicles in Canada between 2000 and 2005, by vehicle type

Year	Light Vehicles	Medium Trucks	Heavy Trucks	Total
2000	16,642,140 A	319,500 A	255,503 A	17,217,143 A
2001	16,790,536 A	330,043 A	253,648 A	17,374,227 A
2002	17,299,423 A	315,424 A	268,411 A	17,883,258 A
2003	17,547,499 A	321,878 A	278,848 A	18,148,225 A
2004	17,732,814 A	324,525 B	277,265 B	18,334,605 A
2005	17,993,468 A	320,635 B	294,193 B	18,608,297 A



2. FleetSmart

A Natural Resources Canada program that helps fleet managers, owners and owner-operators reduce fuel costs and vehicle emissions while increasing productivity through improved energy-efficient practices.



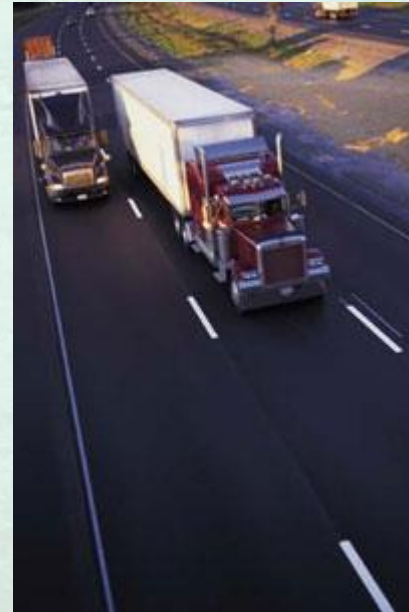
Focused on technology and changing behaviour

2. FleetSmart

Why Have a Program?

Help Fleet

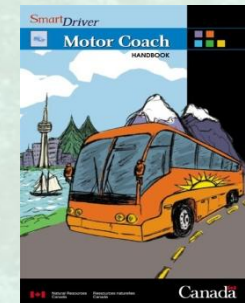
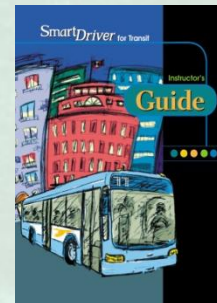
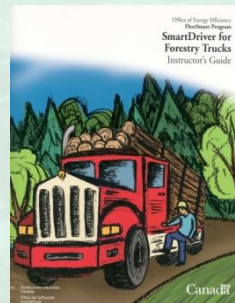
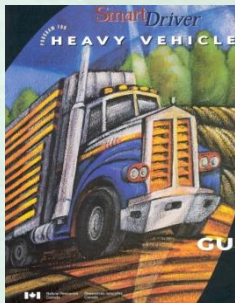
- Save Money
- Reduce Fuel Use
- Reduce Air Pollution
- Reduce Greenhouse Gases



2. FleetSmart

OUR AUDIENCE

- Motor Coach
- Forestry/Highway Trucking
- Transit
- School Bus
- **Municipalities & Utilities**
- **Light Duty Fleets:** Vans, Passenger Car, Mini Van, SUV Pick-up,





2. FleetSmart

WHAT DO FLEETSMART FLEETS HAVE IN COMMON?

- Reduced fuel costs & increased profits
- Improved professional skills
- Continual staff education & training
- Efficient use of equipment & technology
- Monitored performance
- Incentives / recognition program
- Increased competitiveness



2. FleetSmart

How Do We Do It?

- A) Training
- B) Information on Technologies
- C) Idle Free – Quiet Zone Campaign
- D) SmartWay Partnership

3. Delivering FleetSmart

A. Training

Targeted Training towards:


- Drivers
- Owner operators
- Trainers
- Technicians
- Mechanics
- Fleet Managers



3. Delivering FleetSmart

A. Training

- Driver – the most important on-board technology
- Up to 35% difference between the ‘best’ and the ‘poorest’ driver
- The investment in fuel-efficient technology will not pay off if the driver is not trained to drive efficiently



3. Delivering FleetSmart

A. Training

SMARTDRIVER

- A ready-made program for fuel-efficient driving
- Developed with industry groups
- Adult learning techniques
- Free instructor kit for qualified instructors
- Train-the-trainer sessions
- Certificates for drivers

3. Delivering FleetSmart

A. Training

SmartDriver Series

Kit

- Instructor guide
- Overheads
- Card game
- Student handbook
- Certificate
- Audio Tapes/CD
- CD-ROM home study

Topics

- Factors that affect fuel economy
- Spec'ing a truck
- Vehicle care and inspection
- Driving practices and recommendations
- Fuel efficient driving



3. Delivering FleetSmart

A. Training

Fuel Management 101 - Overview

- 1-day workshop for fleet/ operations managers
 - How to make a fuel plan
 - Benchmark
 - Analyze, evaluate and improve
- Case Study approach

NEW: Web Tool (pilot) (load/track fleet on-line)



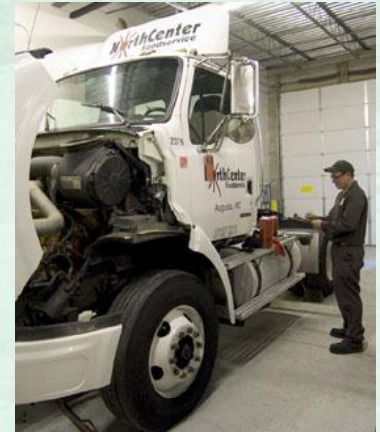
3. Delivering FleetSmart

A. Training

Smart Mechanic

In development

- Targeting mechanics - both light and heavy duty vehicles
- Goal: to encourage proper vehicle maintenance to reduce fuel consumption and GHG emissions
- Industry-led



3. Delivering FleetSmart

B. Technology

- Anti-Idling Technologies
- Vehicle Spec'ing
- Hybrid Vehicles
- Intelligent Transportation Systems (ITS)

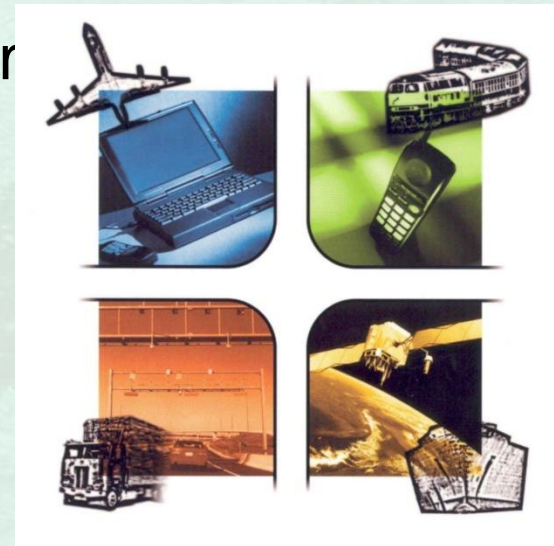



3. Delivering FleetSmart

B. Technology

HYBRID VEHICLES

- Facilitate adoption by:
 - Identifying common specifications
 - Working with manufacturers to accommodate Canadian requirements
- Facilitating working groups for
 - utility trucks,
 - refuse trucks
 - and step vans





3. Delivering FleetSmart

B. Technology

(ITS)

- Creation of interactive, easy to use database
- Updated regularly
- Resulting in:
 - Technology put to good use
 - Improved performance

3. Delivering FleetSmart

C. Idle Free

Idle Free Quiet Zone

- Raise awareness about harmful unnecessary engine idling
- Aimed at trucking sector
- Parking/customs/staging areas



3. Delivering FleetSmart

C. Idle Free

- Annual campaign aimed at trucking sector (4 years – October-December 86 sites across Canada)
- Truck stops promote idle-free quiet zones using banners, pamphlets, restaurant placemats, table-top displays
- Surveys for drivers to enter contest for prizes





3. Delivering FleetSmart



C. Idle Free

TRUCK IDLING

Cost of 110 min

1.83hr x 4 litres fuel =
 7.32 ltrs x 150,000
 trucks
 = 1,098,000 litres

@ \$0 .95 =
\$1,043,100.00
3,074 tons GHG

Cost of 25 min

.42hr x 4 litres fuel =
 1.68 ltrs x 150,000
 trucks
 = 252,000 litres

@ \$0.95 =
\$239,400.00
705 tons GHG

3. Delivering FleetSmart

D. SmartWay Partnership

- MOU
- Corporate Partnerships
- Carriers integrate cost savings, fuel-efficient technology and strategies into their fleets
- Shippers implement facility measures to improve efficiency and reduce emissions



3. Delivering FleetSmart

D. SmartWay Partnership

- Expected results by 2012 include:
 - Reduction of 33 to 66 million tonnes of CO₂ emissions, and
 - Up to 200,000 tonnes of NOx emissions
 - Representing savings of as much as 150 million barrels of oil per year = taking off 12 million cars off the road

4. Measuring Impacts

Driver Training:

Factors:

- # of drivers trained
- Drivers/vehicle
- Average annual vehicle travel
- GHG emissions/km
- Expected impact/retention (studies)



4. Measuring Impacts

Idling:

Factors:

- # of participating truck stops
- Duration of campaign
- Retention
- Average idling reduction hours
- Fuel consumption at idle
- GHG emissions factor





Thank You:

Charles Crispim
ccrispim@nrcan.gc.ca
613-996-6686

<http://ecoaction.gc.ca/ecoenergy>

