An intelligent eco-driving system toward automotive fuel saving and sustainable mobility
‘ What cannot be measured
...cannot be managed
...cannot be improved ’
Significance of Fuel Cost

Fleet Operation Cost

- Depreciation: 12%
- Road Tax: 1%
- Vehicle Insurance: 5%
- Interest: 2%
- Overhead: 14%
- Tyres: 3%
- Fuel: 30%
- Repair & Maintenance: 7%
- Wages: 26%
Means to Fuel Saving

Engine / Drivetrain Technology

Vehicle / Tire Technology

Sustainable Mobility

Hybrid Fuels

Eco Driving
“Between the worst and the best driver in a large fleet, the difference in fuel economy can be up to 25%.”

Michael Roeth
Executive Director
North American Council for Freight Efficiency
World’s First Eco-driving System

Carbon-pod® methodology monitoring CO₂ reduction in transport sector is approved by CDM ¹) Executive Board of UNFCCC ²).

¹) Clean Development Mechanism.
²) United Nations Framework Convention on Climate Change.
Methodology
A bottom-up approach of Data

- Carbon Consciousness
- Vehicle Owner
- GPRS
- Server / Database
- Government Regulator
- New Policy / New Technology solutions
- Fuel Savings
- Automobiles
Why Carbon-pod®?

An innovative system that can accurately measure a specific set of vehicle and driver performance data through independent sensors and report the same wirelessly and in real-time empowering fleet managers with relevant information on fuel consumption, driving patterns, and CO₂ emissions.

Trials show that the Carbon-pod® plus Eco-driving Training can yield between 5 - 25% reduction in fuel consumption.
Why Carbon-pod®?

Carbon-pod® accurately measures the following information at every one second interval:

**Vehicle information**
- Fuel consumed (liters)
- Distance traveled (km)
- Baseline, Mileage (km/liter)
- Speed (km/h)
- CO₂ emissions (g, g/km)
- Fuel savings, CO₂ reduction (%)

**Driving Information**
- Number of stops/starts
- Idling time (% per trip)
- Engine gunning
- Crawling, Driving, Coasting
- Over speeding
- Abrupt acceleration
- Harsh braking
- Sharp cornering
- Driver fatigue level

**To Improve:**
- Fuel savings
- Register CO₂ emissions reduction
- Develop eco & safe-driving habits, monitor speeding violations
- Get routine maintenance reminders
- Build vehicle historical database for new driving cycle
- Improve road safety of vehicles and passengers
Why Carbon-pod®?

The solution rests on 3 pillars. **Driver Training**, in combination with the **Financial Incentive** built over the **Carbon-pod® information** together provide a complete solution to sustainable fuel savings and CO₂ emission reduction in the fleet.
Business Model

Enter into a 5 year contract with the customer.

CPI Ltd does not sell Carbon-pod ®; but sells only fleet data and training service. No upfront capital cost to customer.

A 5 year contract backed by an EMI contract to ensure payments.

CPI Ltd will deliver
- Carbon pod ®, fuel sensors, filters, plumbing, wiring;
- RFID cards to all drivers to map fuel savings to drivers;
- SIM cards and GPRS connectivity;
- Data-Center Servers, Database Management Software;
- Periodic eco-driving training for all drivers;
- Provide analytic services for data management

CPI Ltd will measure, analyze, and host fleet-data providing vehicle-wise and driver-wise 24x7 real-time access.

All future technology upgrades to Carbon Pod are provided free of cost.
CPI Ltd will provide full term warranty.

Fuel savings up to 5% compared to the baseline will attract no fee.

Fuel savings in excess of 5% will attract a fixed fee of Rs. 3500* per month per vehicle plus Service Tax; collected as an EMI or direct debit from the customer every month.

Fuel saving per vehicle per month to be certified by independent 3rd party certifying agency etc. before actual debit. Costs to be paid by CPI Ltd.

Fee is not linked to increase or decrease in fuel prices, nor linked to any percentage of savings.

It is strongly recommended that fleet owners must share up to 20% of the fuel saved to the drivers to provide them the motivation to improve

At the end of the contract period, the Carbon-pod ® with its support system will be handed to the customer free of cost with a small fee for data reporting of Rs. 800 per vehicle per month.

* This cost may change in different countries
The Stumbling Block

Who wants change?

Who wants to change?
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