Intelligente Transport Systemer (ITS) for Godstransporten

Bengt-Åke Claesson
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logica
be brilliant together

Logica's Corporate Responsibility Programme

Sustainability Leader
A Dow Jones Sustainability Index member (Europe)
Ranked on the Carbon Disclosure Project leadership
Index for 3 consecutive years

"A" Level GRI Corporate Responsibility Reports
Published Level A Reports in line with
Global Reporting Initiative guidance since 2009

Awards
Sunday Times Top 100 Green Company for 4
consecutive years
2011 Global 100 Company

Standards
United Nations Global Compact signatory
Carbon Trust Standard company
53% of employees work at ISO14001 sites

Smart Logistics

Track & Trace

| Freight Status Information (LIFT) | Onboard Status Monitoring (EMO) | Asset Management | Transport Management Systems |

You need to...

- Keep track of your assets, ensuring maximum capacity utilisation is being achieved
- Receive real-time updates on the status of your assets

Using...

- Tried and tested, highly accurate methods of tracking incorporating RFID / GPS solutions
- Bespoke, integrated solutions, designed to help you get the most out of your assets

To help you...

- Manage your assets efficiently and to a high degree of operational safety
- Improve customer satisfaction, benefitting from improved delivery times and increased levels of security

As we have done for...

- RailCorp, EURIDICE, Eurotunnel, City of Helsinki Health Department, Helsinki Fire & Rescue Department, Aéroports de Paris, Airbus, KLM, NS Dutch Railways and ProRail, ProRail, VOS Logistics, FlyToGet , Network Rail, ODA, RAC, ThomsonFly, SNCF

One thing could be …. My Car

If my car could talk what would it say…..

Your emissions

If you would ..

You have consumed

My car do talk to me, in my phone, on Facebook …

EMO

By improving our your driving behavior you will get reduced CO_2 emissions and improve fuel efficiency
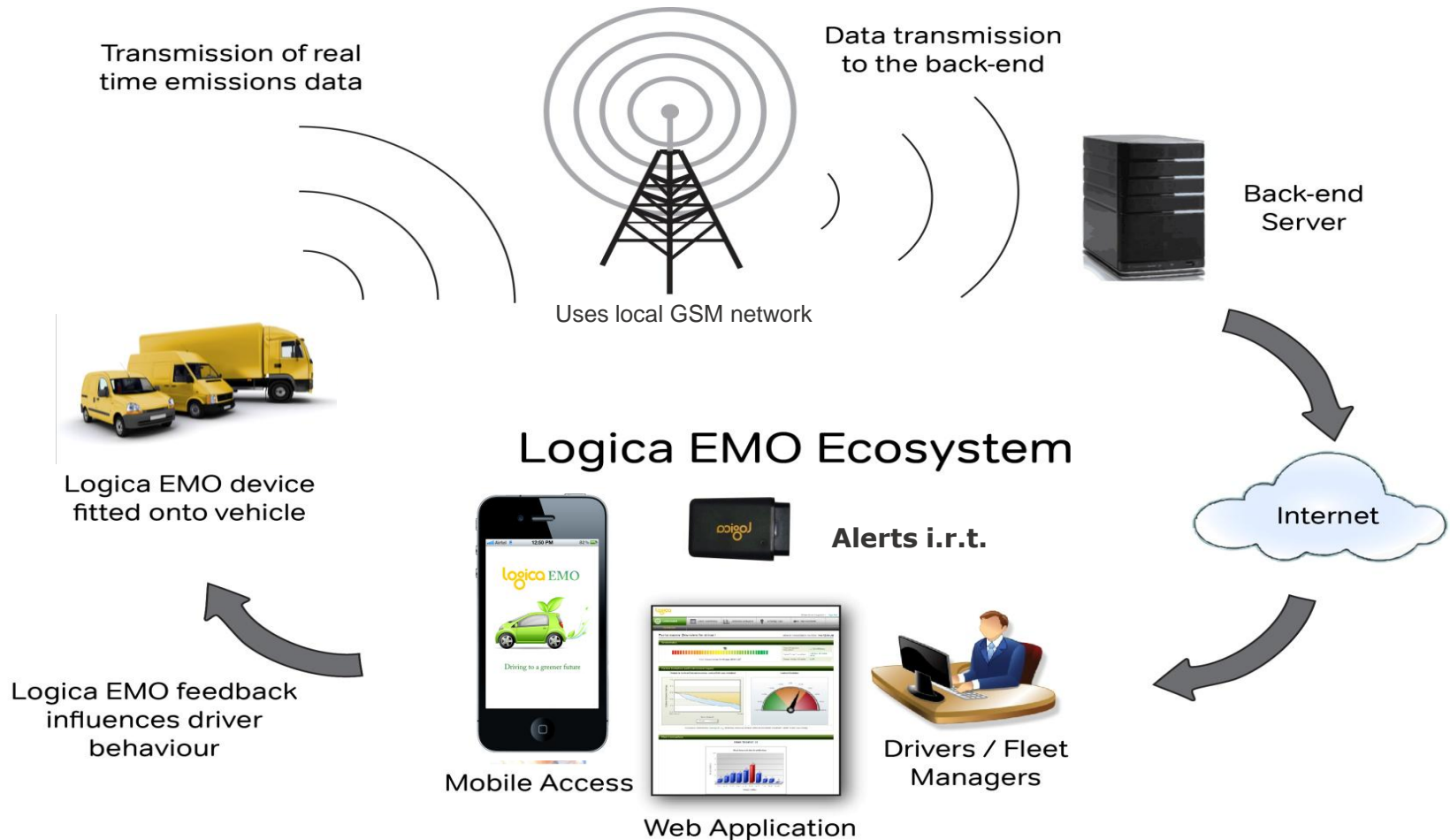
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Logica EMO Brief Solution Description

- **Logica EMO is a solution to monitor driving behavior and report its impact on carbon emissions**
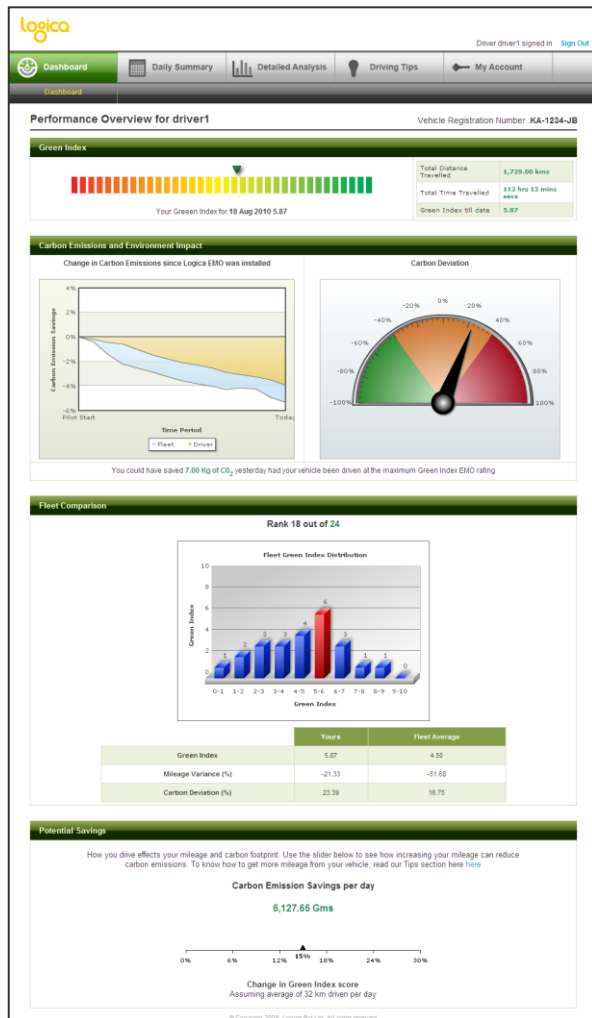
- Technically, it is an onboard device
  - captures vehicle emissions in real-time under actual driving conditions
  - enables continuous monitoring of vehicle emissions
  - enables customized acoustic feedback to the driver
  - transmit captured data wirelessly to a backend system.

- …and a backend system
  - Receives, stores and analyzes driving related information
  - Presents the analysis back to the end users as an easy-to-understand, customizable report
  - provides a platform for offering incentives for green driving behavior

Logica EMO Ecosystem

Real time monitoring of driver behavior, fuel consumption, carbon emissions, diagnostics health checks

Transmission of real time emissions data

Data transmission to the back-end

Uses local GSM network

Back-end Server

Logica EMO device fitted onto vehicle

Logica EMO feedback influences driver behaviour

Logica EMO Ecosystem

Alerts i.r.t.

Internet

Mobile Access

Web Application

Drivers / Fleet Managers

Driver Login – Dashboard Display

View individual Green Index score

See Fuel Consumption and Carbon Emission trends over a period of time

Compare individual performance with that of the Fleet on various parameters such as Green Index score, Carbon emissions and fuel consumption

Interactive carbon emissions savings calculator – Understand how change in driving behavior can reduce carbon footprint

Logica EMO Innovative Technology helps to
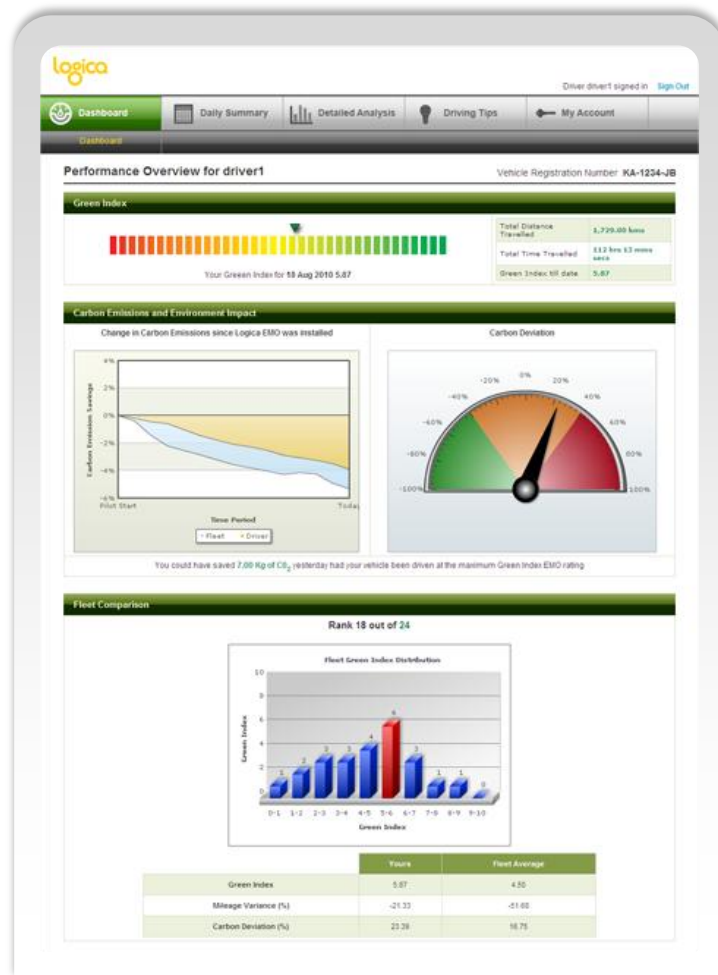
reduce CO2 emissions

- become the lowest carbon footprint fleet

improve driving behavior

- real-time audible alerts to the drivers to help change driving behavior
- EMO Green Index rating provides an easy to understand measure of driving behavior
- targeted feedback and step-by-step tutorials on driving behavior to improve driving patterns
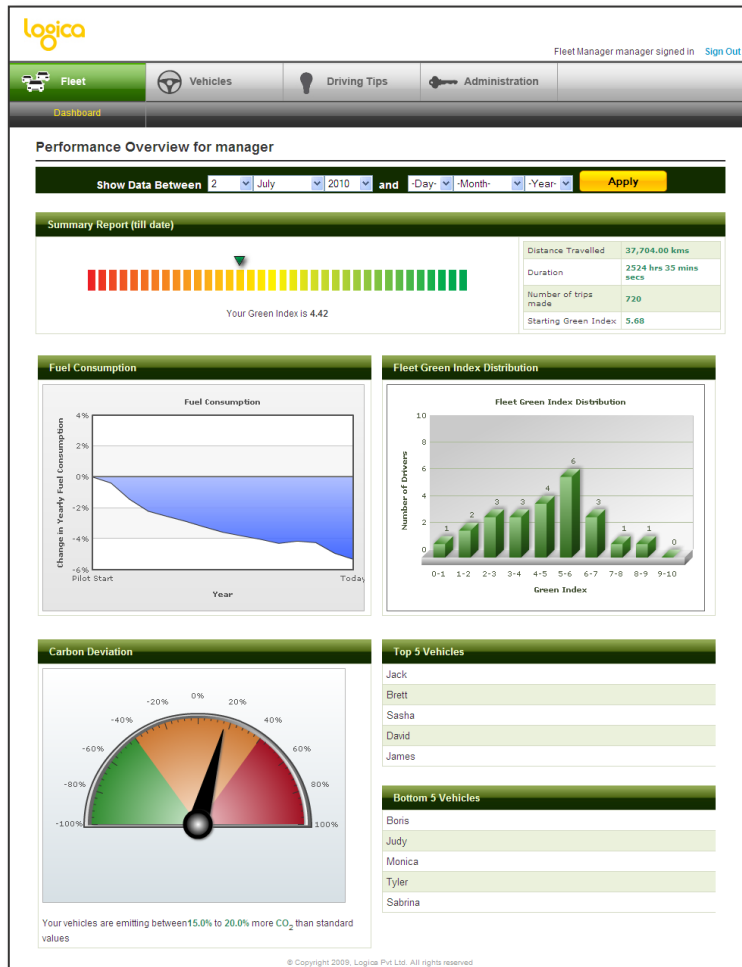
improve fuel efficiency

- with improved driving behavior reduce fuel costs by up to 15%

precise engine diagnostics

- a well maintained vehicle runs better and saves better
- remote emissions check

Fleet Manager Login – Dashboard Display

View Fleet Green Index score and statistics

Understand fuel savings, carbon emissions reduction and overall fleet performance

View top 5 and bottom 5 drivers and carbon emissions

Fleet Manager view

Fleet Manager manager signed in   Sign Out

| Fleet | Vehicles | Vehicle Diagnostics | Administration |

Vehicle Report | Weekly Rank Report

Driver's Weekly Rank Report
Showing data for:2011-05-08 to 2011-05-14

Driver Name	Distance in kM	Duration	Carbon Deviation (%) from manufacturer standard values	Hard Accelerations per 100 kM	Hard Brakes Per 100 kM	Percent Idling Time	Percent time at high speeds	Litres of fuel consumed per 100 kMs	Green Index	Rank
Pedro Carvalho	909	10h 39min	-14%	0	2	0%	54%	5.97	9.22	1
Maria Lopes	223	5h 6min	-16%	2	9	1%	16%	4.87	9.03	2
Paulo Barros	349	5h 56min	-8%	1	2	1%	32%	7.74	9.03	3
Mario Peres	1,598	16h 18min	-11%	1	0	2%	71%	5.13	8.92	4
Miguel Veiga	1,267	16h 4min	-4%	1	4	3%	55%	5.39	8.79	5
Jaime Sousa	1,170	17h 1min	-5%	0	1	11%	49%	4.13	8.59	6
Antonio Matos	833	15h 19min	11%	0	7	5%	27%	4.76	8.42	7
Carlos Moreira	372	9h 34min	-9%	0	15	6%	14%	5.08	8.36	8
Arnaldo Reis	768	10h 3min	-3%	3	3	6%	54%	4.65	8.07	9
Manuel Arnault	149	2h 60min	-18%	14	56	1%	23%	8.04	7.59	10
Franco Caruso	370	9h 55min	0%	41	68	5%	10%	5.67	7.12	11
Luis Prazeres	284	5h 35min	28%	3	20	1%	24%	10.2	6.89	12

Previous

In real life

Driving profile – Your dashboard

Performance Overview for Bengt-Ã?ke Claesson

Vehicle Registration Number :**FHF352**
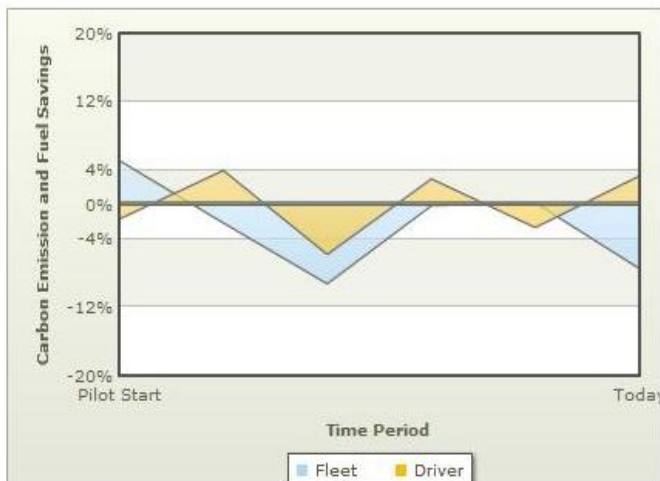
Show Data Between 2011-04-01 and 2011-04-06 | **Apply**

6.95

Total Distance Travelled	**657 kms**
Total Time Travelled	**12 hrs 16 mins**
Starting Green Index	**6.55**

Carbon Emissions and Environment Impact

Savings in Carbon Emissions and Fuel Consumption

Carbon Emission and Fuel Savings

- 20%
- 12%
- 4%
- 0%
- -4%
- -12%
- -20%

Pilot Start — Today

Time Period

Fleet | Driver

Driving behaviour for previous 5 days

	Yours	Fleet
Carbon Deviation (%) from manufacturer standard values	🔴 22.74	🟡 6.00
Hard Accelerations per 100 kM	🟢 17.94	🟢 16.05
Hard Brakes Per 100 kM	🟢 20.88	🟢 26.75
Percent Idling Time	🟡 4.22%	🔴 5.81%
Percent time at high speeds	🔴 27.24%	🔴 18.53%

Legend

Item	🟢	🟡	🔴
Carbon Deviation	Less than 0%	Between 0% and 10%	Greater than 10%
Hard Accelerations per 100 kM	Less than 30	Between 30 and 50	Greater than 50
Hard Brakes Per 100 kM	Less than 30	Between 30 and 50	Greater than 50
		Between 3% and	

Feedback in smart phones – Iphone / Android

Feedback in smart phones – Iphone / Android cont...

Facebook a channel to follow driving behavior

Evidence

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Success Story
GALP Energia

Logica EMO Fuel Consumption Trend over Time (GALP)

Litres of fuel consumed per 100 kms vs Week

- Week 1: 7.50
- Week 2: 6.78
- Week 3: 6.21
- Week 4: 5.73
- Week 5: 5.58
- Week 6: 5.69
- Week 7: 5.53
- Week 8: 5.18
- Week 9: 5.16

12%
Reduction in Carbon Emissions
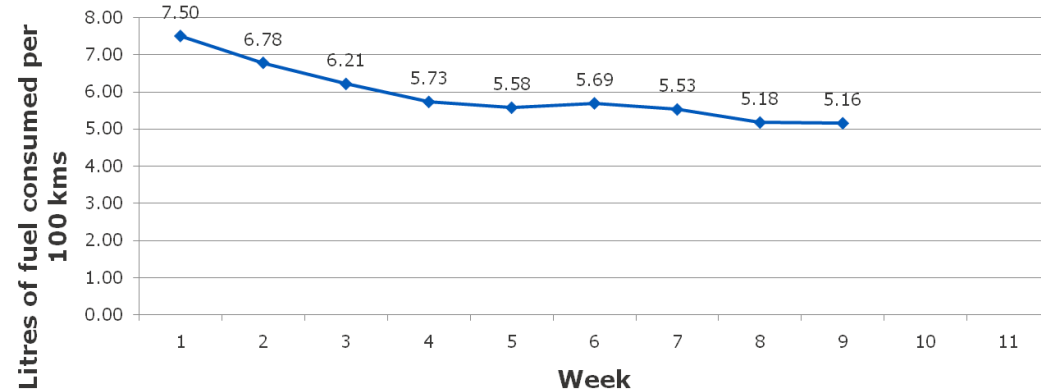
- GALP is Portugal's leading energy services provider
- Logica ran a successful pilot with over 20 vehicles for 3 months
- Based on the success of this pilot, Logica has signed a multi-year deal with GALP, which include selling EMO to GALP and GALP's customers.
- EMO has been made part of the SMARTGALP program to provide energy saving solutions to its customers

€33
Fuel saved per driver per month

Success Story
## Rallye Aïcha des Gazelles 2010 and 2011

10.5%
Reduction in Carbon Emissions

1,041 litres
Fuel Saved

- The rally is an all-female event held yearly in the deserts of Morocco, which awards winners based on their eco-driving behaviour.
- Logica EMO is the official partner in the Rallye for measuring carbon emissions of the participants. It is the only sporting event in the world to have a prize for Green Driving
- Use of Logica EMO helped Rallye participants to not just drive more eco-friendly but also win the race

Green Index Pattern – Rally teams
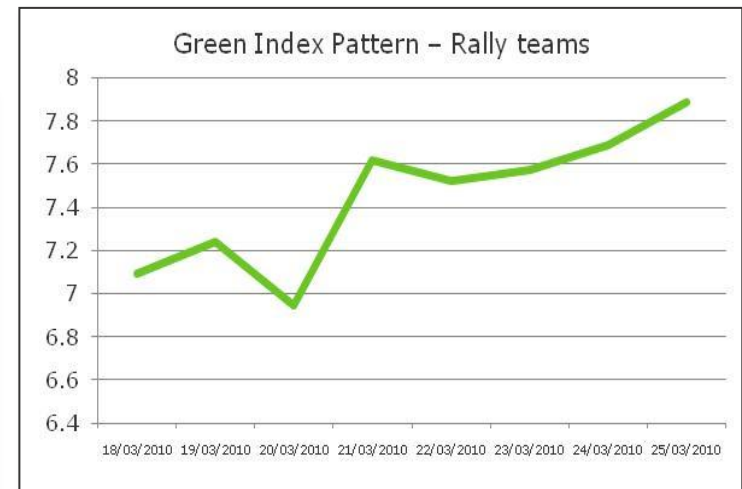
Average annual savings
from improved driving behaviour with EMO

Fleet size: 5,000 vehicles – wear and tear not included

€ 1.2 million annually

€ 0.6 million annually

€ 30 per vehicle/month

€ 1.8 million annually

€ 0.9 million annually

€ 45 per vehicle/month

€ 2.4 million annually

€ 1.2 million annually

€ 60per vehicle/month

Savings in fuel alone provide a return on investment for clients!

Double fuel savings in maintenance & service*

5.0%
improvement in driving

7.5%
improvement in driving

10.0%
improvement in driving

(i) Light trucks, passenger cars (*) according to PREEM study on ECO driving behaviour

Awards EMO

The Economist

One of the Top 10 Game Changing Innovations in Climate Change

IET AWARDS
The Institution of Engineering and Technology

Top 5 Innovations in Transportation in 2011

NASSCOM®

Top 5 Innovations in new technology

MIT TR35
Massachusetts Institute of Technology

Top Innovation by a young team

Golden Peacock Award for Innovative Product / Service

zerofootprint™

Logica algorithms validated by Zerofootprint, a leader in sustainable solutions

MEG-Track & trace

Features at a glance

User-friendly graphic user interface (GUI): uses maps to clearly display real time information about current status of the vehicle, vehicle position and movement.

Maps: trace vehicle movement for previous journeys and displays the exact path travelled on the map.

Reports: summarise the total distance travelled and duration on a day wise basis.

Routes: easily configures routes to ensure that vehicles run as per allotted route and timings.

Alerts: ensure that vehicles travel on configured paths; raise signals when vehicles reach their destination or cross a particular location.

Dashboard: user friendly view of the current status of the fleet.

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Logica MEG Brief Solution Description

- **Logica EMG is a solution to track & trace vehicles in real-time**

- Technically, it is an onboard device
  - captures GPS-data in real-time
  - enables continuous monitoring of vehicle
  - transmit captured data wirelessly to a backend system.

- …and a backend system
  - Receives, stores information
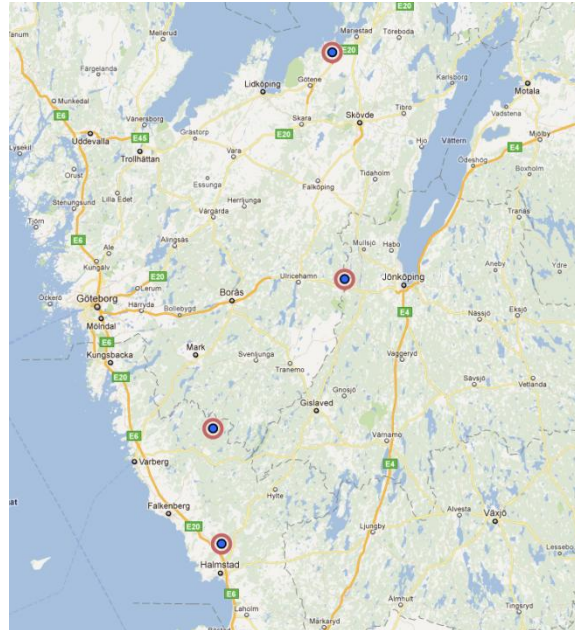 - Presents the analysis back to the end users as an easy-to-understand

Logica MEG

MEG Dashboard

Overview of your vehicle fleet in real-time
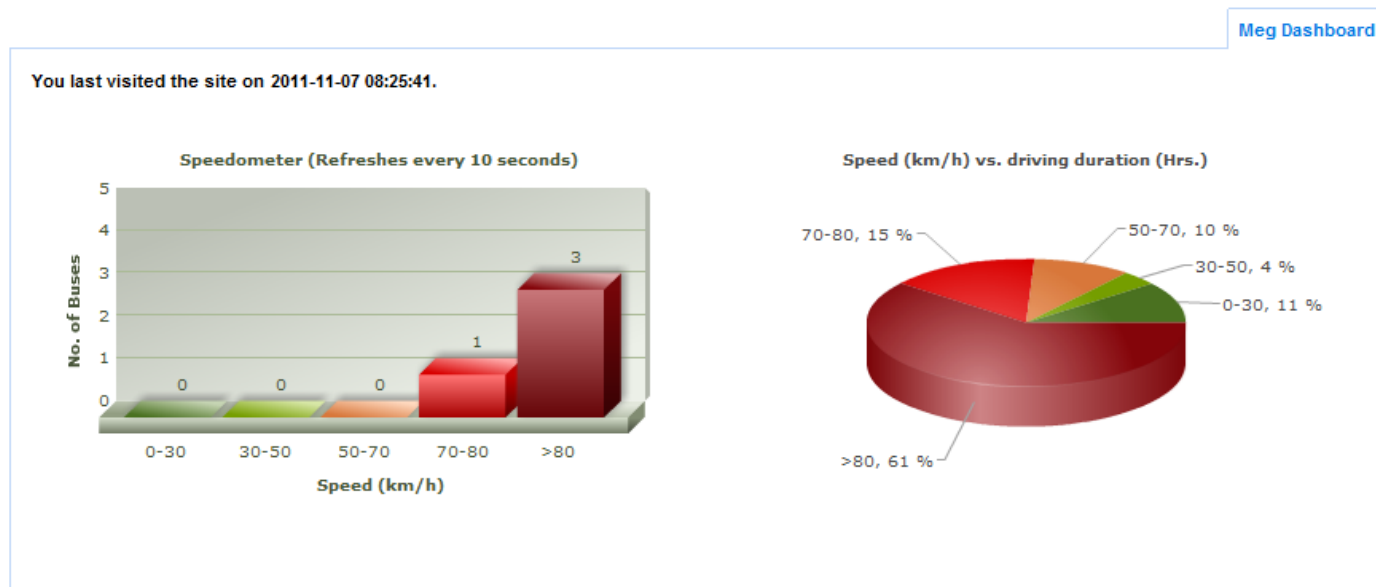
Logica MEG

Live tracking of all vehicles

Current speed, Position, Engine on/off, Stopped, Speeding....

Logica MEG

Manage routes

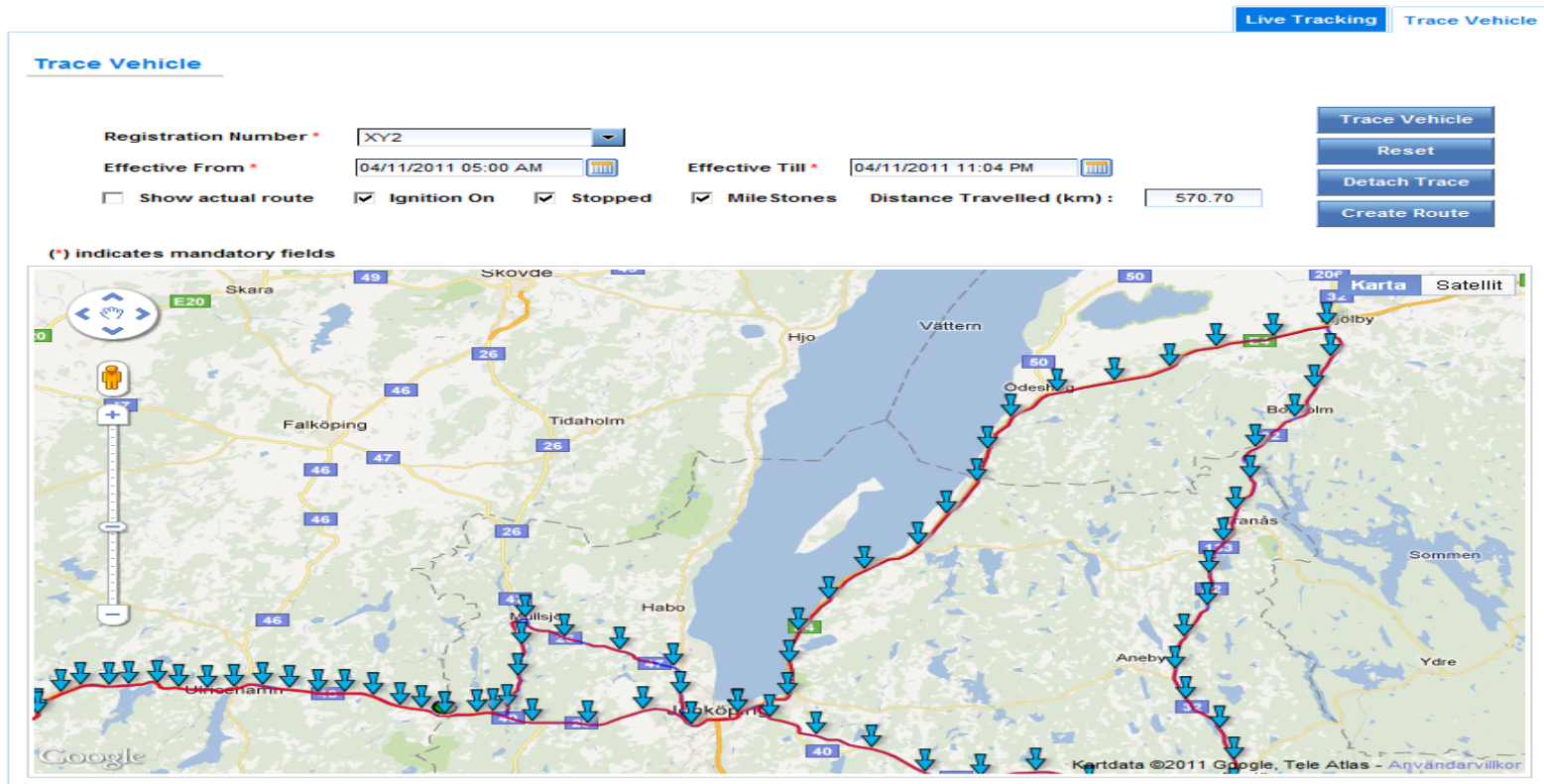Create route and find out whether a vehicle is following the route
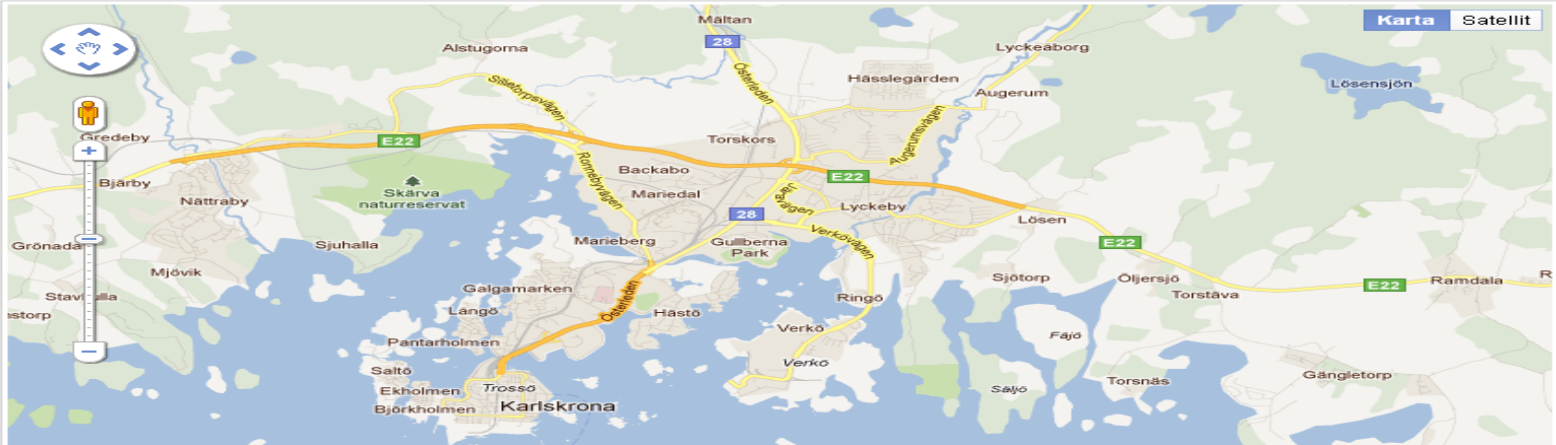
Logica MEG

Trace vehicle
Current Route, Distance travelled , Stopped →When and where, Milestones

Thank you