



# SUSTAINABLE GREEN FLEETS

How can fleets contribute to CO<sub>2</sub> reductions

Ljubljana, 20.5.2008



## Alianta, Slovenia

- A project consulting firm
- Seated in Ljubljana, Slovenia
- Branches in Murska Sobota, Slovenia and Belgrade, Serbia
- 13 full time staff, more than 10 external experts
- All-in-one project counselling service
- Over 100 project proposals for EU programmes in 2006
- Areas of interest: economic, social and environmental issues



*Alternative fuels and propulsion*

*Sustainable Green Fleets*

## Project SU:GRE

### *Sustainable green fleets*

- **Promotion of alternative fuels and propulsion among fleet owners and managers.**
  
- **Main activities:**
  - communication,
  - training and
  - know-how exchange.

**Duration:** from 01.01.2006 till 31.12.2008

**Partners:** 27 partners from 17 countries

**Partners in Slovenia:** Alianta d.o.o. and Municipality of Celje

**Lead by:** FGM AMOR

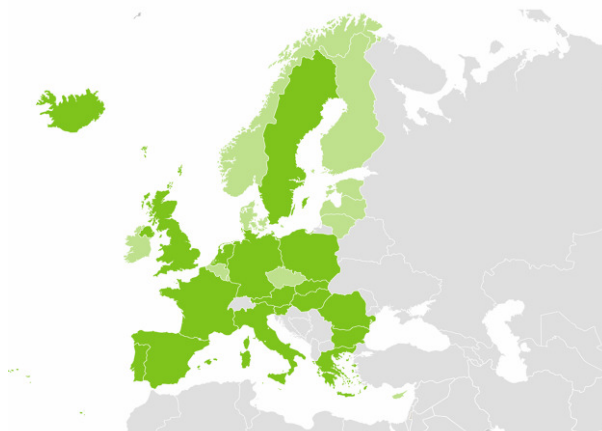
**Total project budget:** 2.580.588,00 €

**EU programme:** Intelligent Energy Europe

**Useful information at:**  
[www.greenfleet.info](http://www.greenfleet.info)

## Project SU:GRE

### *SU:GRE map*

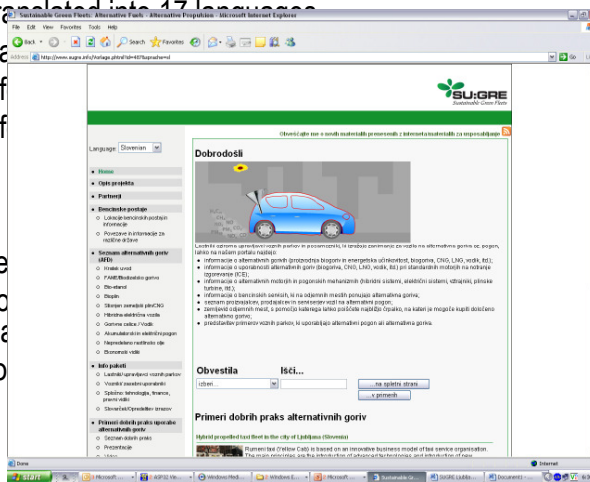


## Main project activities and outcomes

- Baseline analysis
- Trainings
- Information platform
- Alternative fuel directory
- Decision support tool for fleet owners
- Best practice cases directory
- Other promotion and information materials
- Helpdesk support by experts

## Information platform [www.greenfleet.info](http://www.greenfleet.info)

- Translated into 17 languages
- Made available in 17 languages
- Information platform
- Information platform
- Best practice cases directory
- Decision support tool for fleet owners
- To



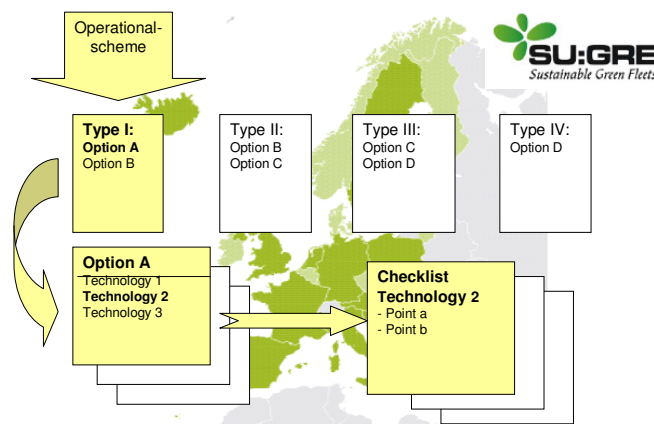
further

## Alternative fuel directory

- **Fuels and propulsions:**
  - Pure plant oil SVO / PPO
  - Battery and Electric propulsion
  - Fuel Cell / Hydrogen propulsion
  - Hybrid Electric Vehicles
  - Natural Gas / CNG
  - Biogas
  - Bio-Ethanol
  - Biodiesel / FAME
- **Aspects:**
  - Introduction with basic information
  - Blending
  - Supply
  - Environmental Benefits
  - Advantages and disadvantages
  - Legal issues
  - Economic aspects
  - Country specific information

## Decision support tool for fleet owners

- **Work flow of the tool**

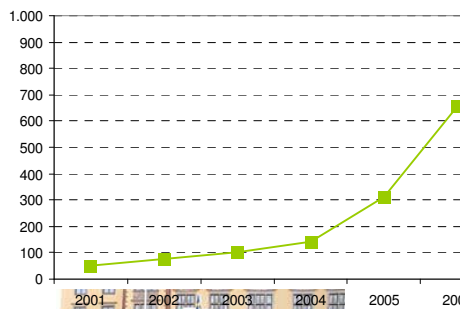


## Best practice cases directory

- 141 best practice cases from all over Europe
- Checked by ELTIS project experts
- Possibilities for further information

## Sweeden: results so far - 19,6 of all new cars sold are clean cars according to the national clean car definition

Number of ethanol fuel stations i Sweden



## Sweeden - results so far

- New models of ethanol cars are introduced in Sweden – Peugeot, Citroen, Saab, Volvo, Ford, Renault, Skoda, VW
- Sharp increase in no. of energy efficient diesel cars
- A new coordinated procurement of distribution vehicles – result: an ethanol VW Caddy will be on the market in 2008



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## Municipal Transport Company (Emt) Of Madrid

- **Biofuels:** 560 vehicles use biodiesel obtained from vegetable oil and 5 use bioethanol.
- **Compressed Natural Gas (CNG):** 237 CNG vehicles and 62 refuelling posts.
- **Hybrid Systems (Diesel – Electric):** 20 buses.
- **Fuel Cells:** 3 buses with fuel cell and a hydrogen refuelling station.

822 “green” buses → 40%  
2007 total buses



More info: [www.emtmadrid.es](http://www.emtmadrid.es)

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## Use of biodiesel by TNT Parcel Post Amsterdam

### Characteristics of the pilot:

- Since June 2006 : 56 delivery vans on 100% biodiesel.
- The vans are used in and around the Amsterdam area.
  - Average number of kilometres per vehicle per day : 40 km
  - Expected consumption: 120,000 litres of biodiesel per year
- No modification for using biodiesel needed (vans of type Volkswagen LT)
- No changes in the warranty conditions because EU certified biodiesel is used.
- The drivers refuel the vehicles at the two TNT parcel post depots in Amsterdam.

### Results:

- No change in performance
- Maintenance costs have not changed
- Fuel consumption 10% more then conventional diesel
- Fuel costs per litre still higher then conventional diesel
- Soot: minus 55% (target was 50%)
- NOX: slight increase measured (but not significantly !!!)
- CO2: assumption still minus 50% (not possible to measure)

## The Icelandic accomplishment with H<sub>2</sub> buses

- Results are very promising
- Operation total
  - 144.192 km to date
  - 8324 operating hours
- Pumped 27.000 kg of hydrogen
- Saved over >70.000 l. of diesel / and close to 200 tons less greenhouse gas emissions
- Indication that there is over 90% of the public positive towards the new fuel



## CNG Buses in the City of Athens

- ETHEL has been the pioneer in the use of CNG buses in Greece.
- Its overall bus fleet (2007) comprises of 416 CNG buses, procured as follows:
  - 295 buses in 2001.
  - 121 buses in 2004.



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## Berlin: Driving schools

**Potentials:**

- all future drivers go through driving schools
- driving students are highly motivated and open minded
- their later buying decisions highly depend on knowledge and experiences from driver education

- ***Driver education shapes tomorrow drivers***
- ***Convince driving schools and teachers !***

***From 2001 already 90 CNG – cars  
at 43 driving schools in Berlin***

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## Contacts

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