

Clean vehicles in Europe

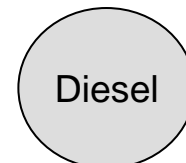
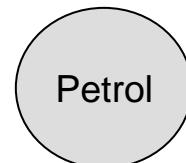
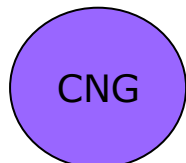
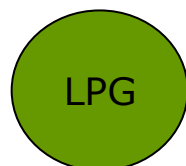
Jonas Ericson

Clean Vehicles in Stockholm

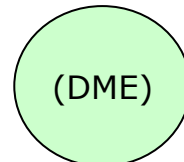
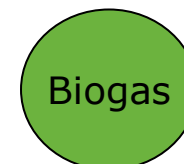
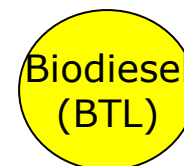
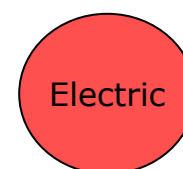
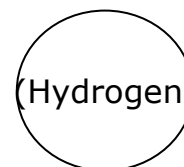
Clean Vehicles **in Stockholm**

Available Fuels

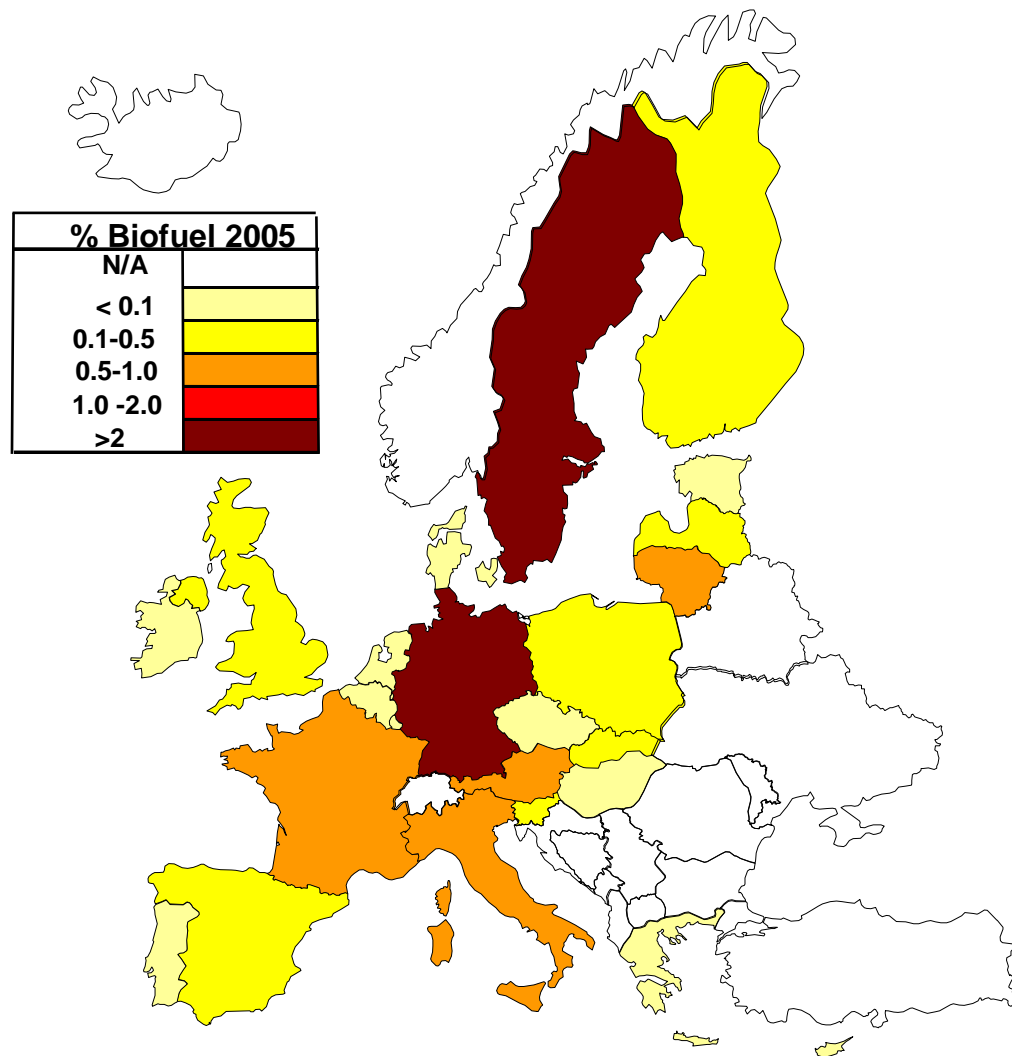
Fossil



Renewable



Clean Vehicles in Stockholm



Biofuels in EU

Target:

| | |
|-------|---------|
| 2005: | 2.00 % |
| 2010: | 5.75 % |
| 2020: | 10.00 % |

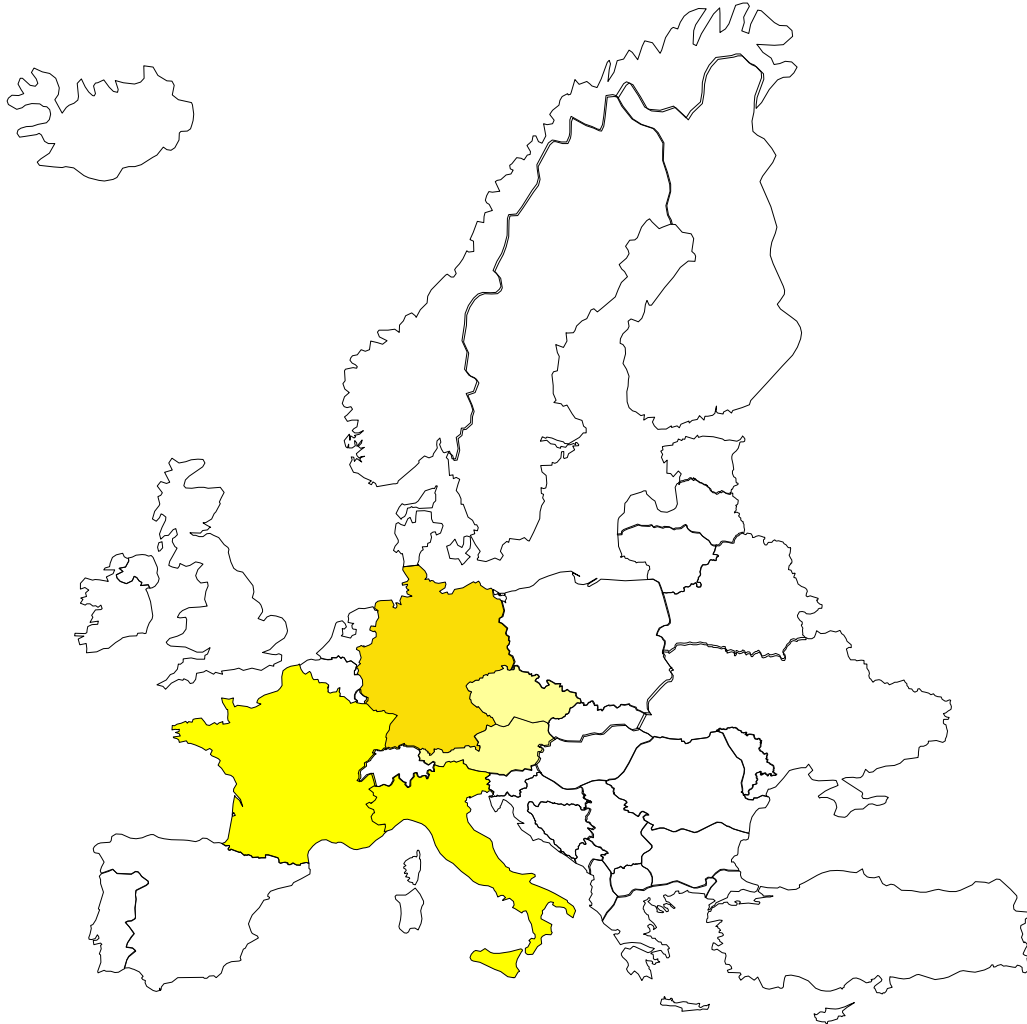
Outcome 2005

- Only 2 countries > 2 %
- Average: 1.0 %
- Mostly low-blend



Clean Vehicles in Stockholm

Biodiesel

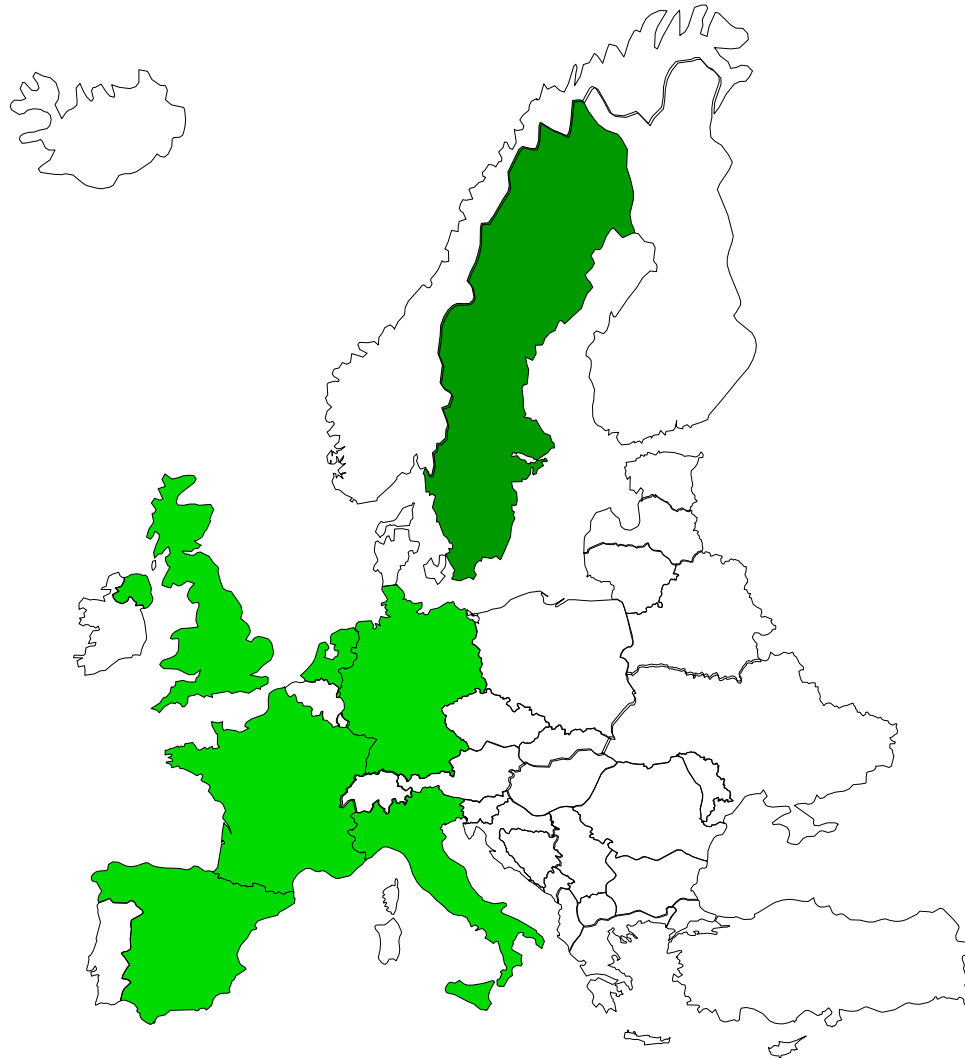


Germany

- 3.7 Million tonnes 2005
= 2.2 % of diesel
 - 1,500 filling stations B100
 - B100 not allowed for particle filter – yet (?)
 - B20, B5
-
- Outside Germany, mostly B5
 - Increasing all over Europe



Clean Vehicles in Stockholm



Ethanol

Sweden

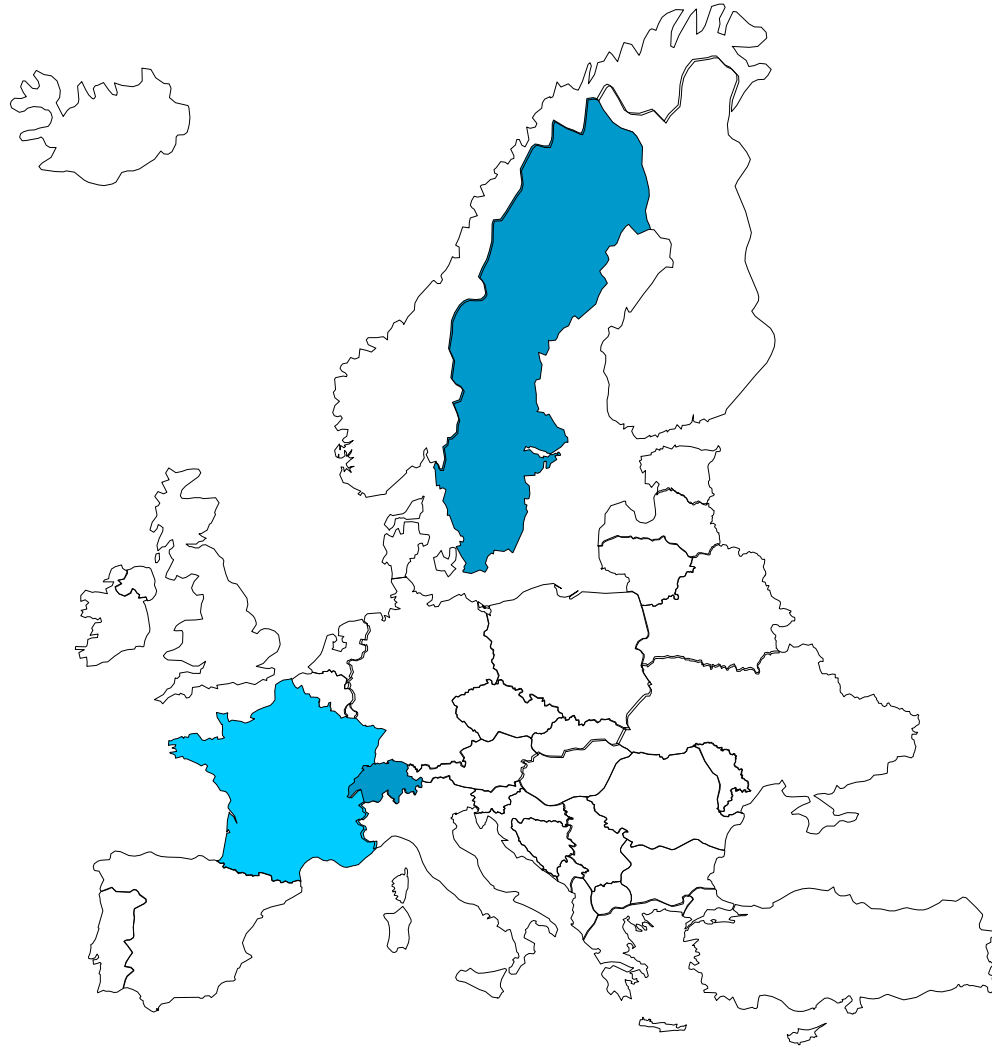
- 60,000 vehicles (1,8 %)
- 1,000 E85 filling stations (30 %)
- E5 standard

**France, Germany,
Spain, Holland, Italy**
close to break-through

- Increasing rapidly
- 5 new brands enter 2007 – several models each
- E10-standard proposed
- CO₂-efficiency widely debated – Certification in the pipe



Clean Vehicles in Stockholm



Biogas

Sweden

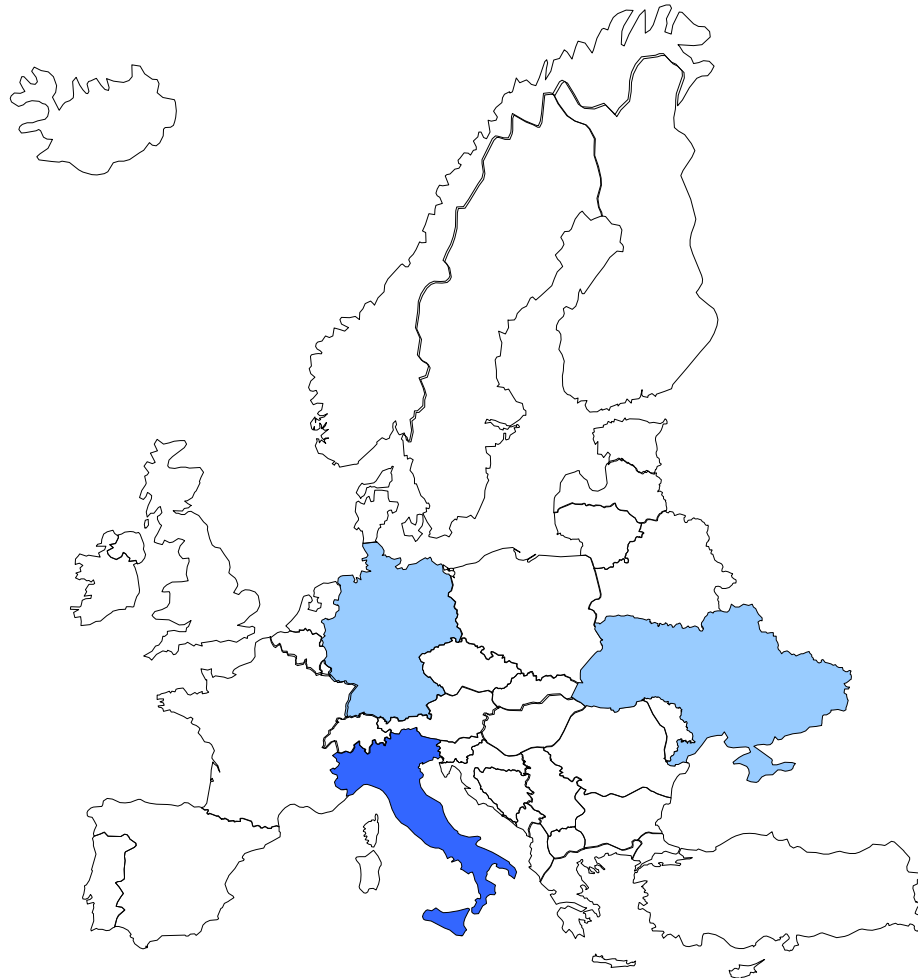
- 11,000 vehicles
- 100 filling stations (4%)

Switzerland

- 3,000 vehicles
 - 80 filling stations
-
- OEMs only
 - Only recently generally recognised
 - Often combined with CNG
 - Small but growing



Clean Vehicles in Stockholm



Natural gas

Italy

- 400,000 vehicles
- Mostly retro-fits

Germany

- 40,000 vehicles

Ukraine

- 67,000 vehicles
- Mostly retro-fits

- Mostly dedicated fleets
- Slowly increasing



Clean Vehicles in Stockholm



LPG/Autogas

Italy

- 1,220,000 vehicles
- 2,100 filling stations

Poland

- 1,100,000 vehicles
- 4,500 filling stations

Turkey

- 1,000,000 vehicles
- 4,000 filling stations

- Almost exclusively retro-fits
- Stagnation



Clean Vehicles **in Stockholm**

Seeing is believing !

**Welcome to Stockholm for Clean Vehicles
and Fuels 2007 !**

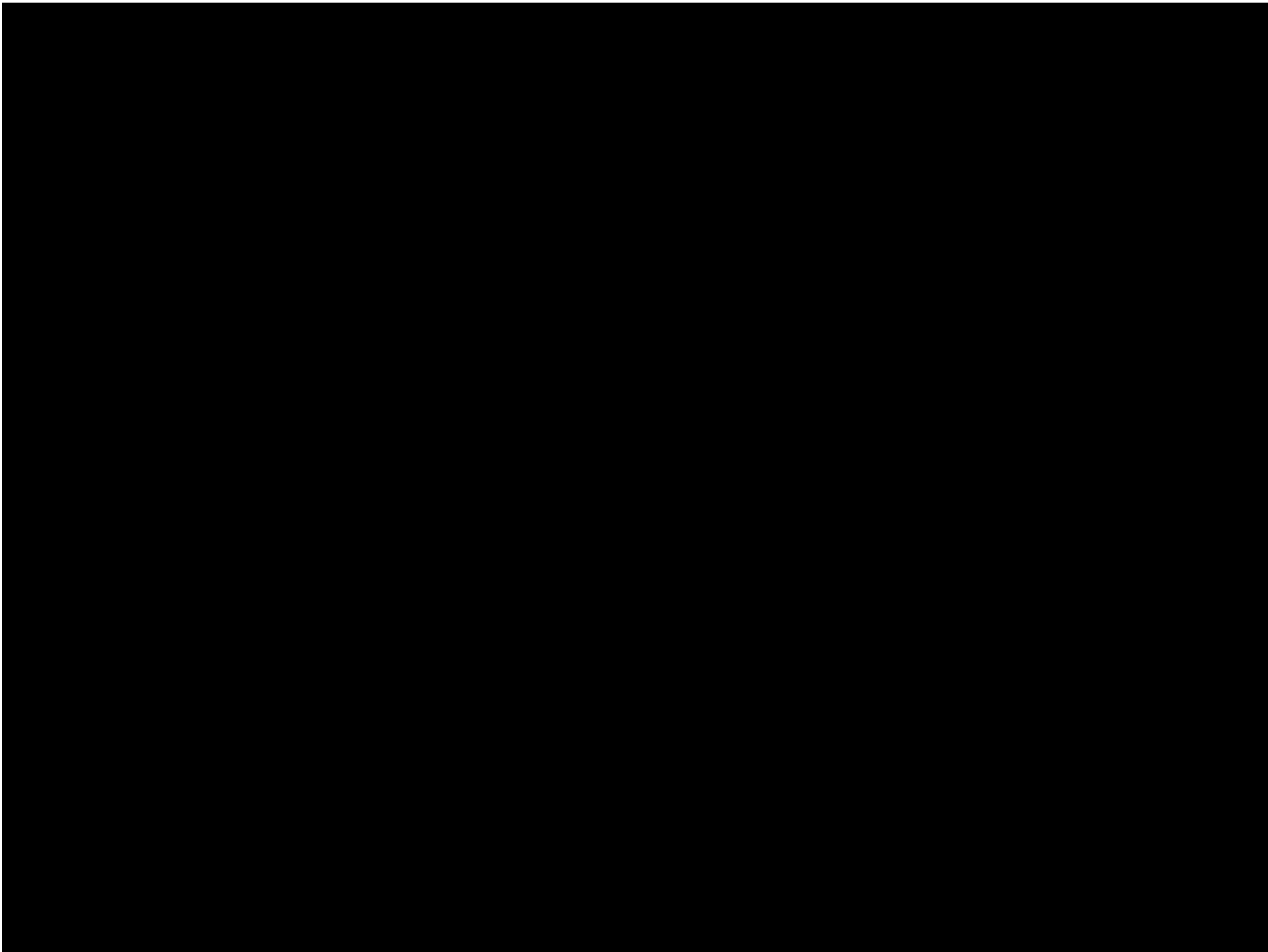


- **European Symposium**
- **Exhibition**
- **Study tours**

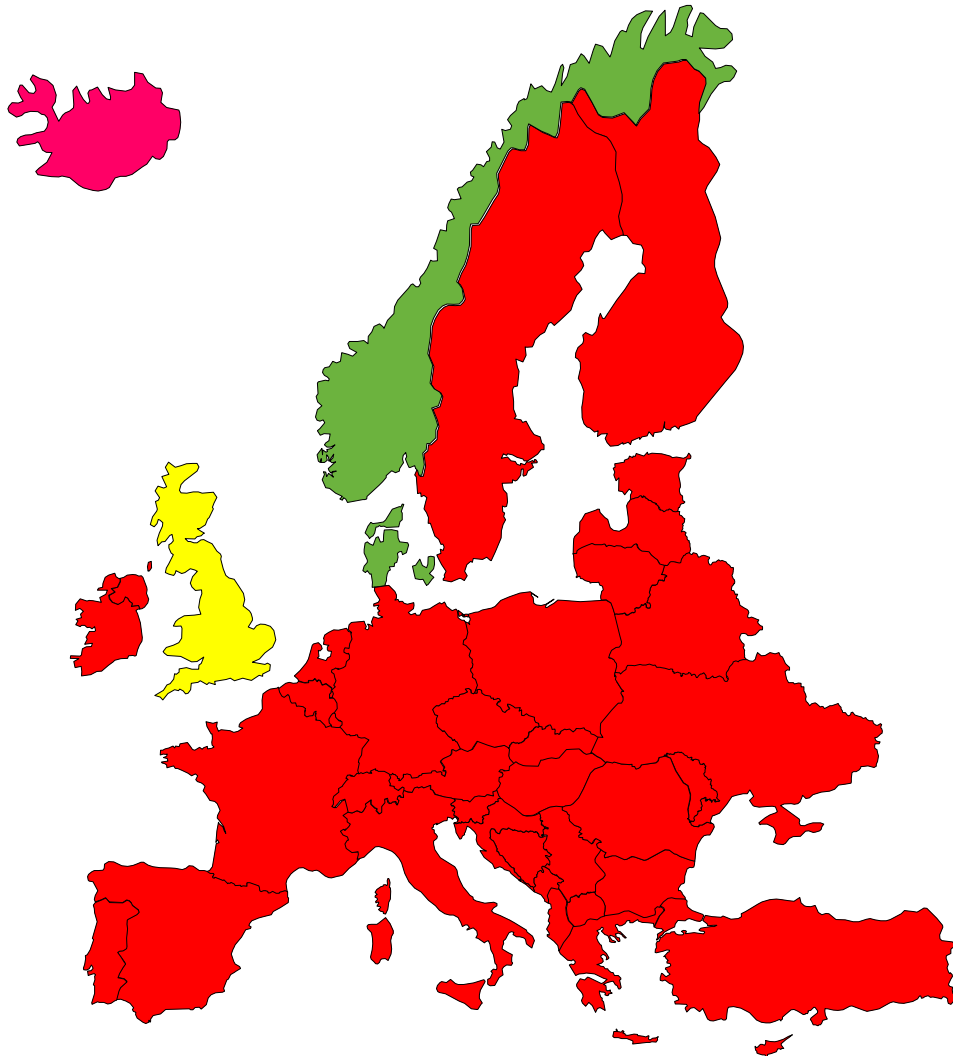
- **8-9 november 2007**



CLEAN VEHICLES IN STOCKHOLM
ENVIRONMENT & HEALTH ADM
www.miljobilar.stockholm.se



Clean Vehicles **in Stockholm**



Oil import in EU

Exporting 2005

Norway: 2,756 barrels/day

Denmark: 188 barrels/day

Self sufficient 2005

UK

Importing 2005

All other European countries

Source:

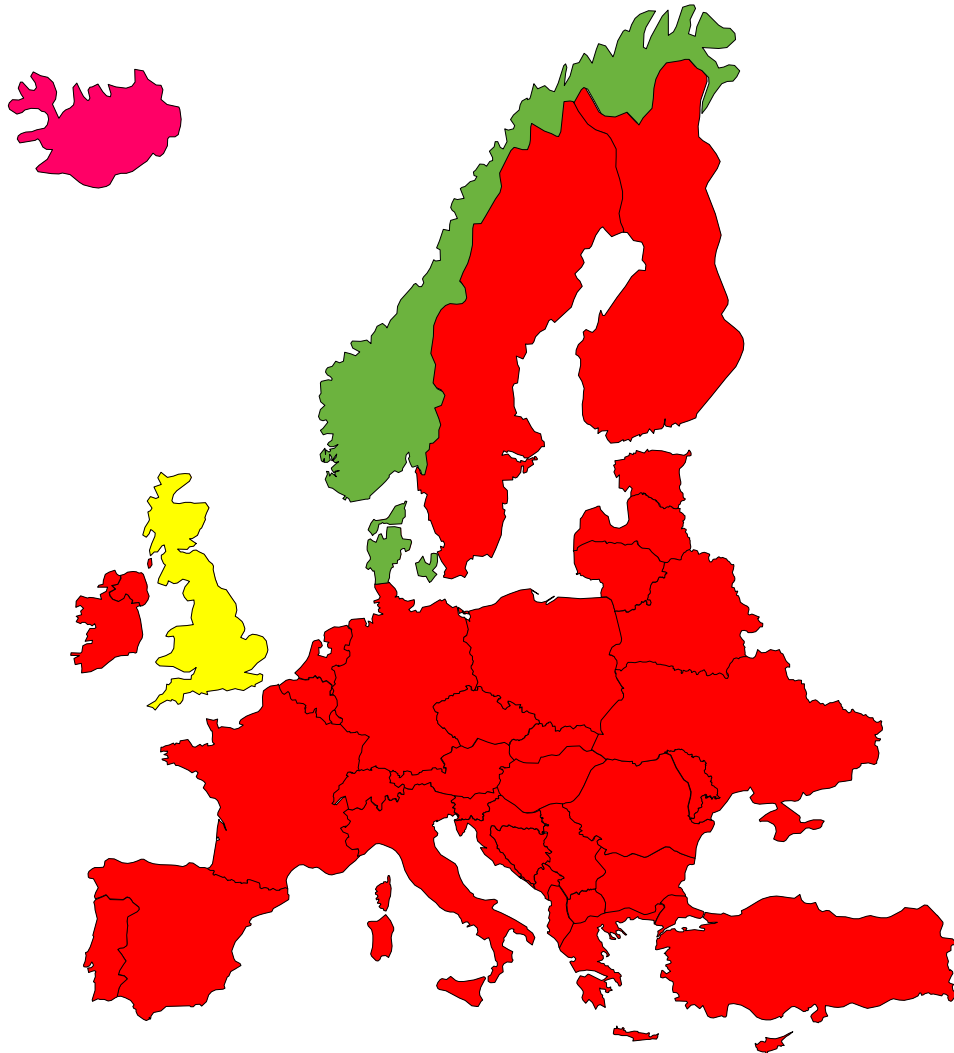
Statistical Review of World Energy 2007

www.bp.com



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Clean Vehicles in Stockholm



Oil reserves in EU

Proven EU oil reserves 2005

900 million Tonnes =
2,5 year of EU-transport

Proven EU oil & Natural gas reserves 2005

3,600 million TOE =
7,5 year of EU-transport

Source:
Statistical Review of World Energy 2007
www.bp.com
Eurostat



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