



ADEME TRANSPORTATION STRATEGIES

**EU-Twinning Project TR03-EY-01
« Improvement of Energy Efficiency in Turkey »
EIE, ANKARA, January 2007**

EUROPEAN POLICY on Transportation Pollutants

Reminder:
In EUROPE in 1991,
The TRANSPORTATION Sector generated :

- 62 % of NO_x
- 58 % of CO
- 44 % of COVs
- 14 % of PM₁₀

But also : 88 % of lead et 11 % of SO₂.

EUROPEAN STRATEGY on Transportation Pollutants

Because of **major sanitary reasons**, control regulations have been issued in **Europe** regarding specific pollutants:

1. **Engines exhaust limits:**

- First regulation on cars : Commission Directive n°70/220/CE (HC et CO)
- Euro Standards Regulations on:
Cars, Trucks, PT, motorcycles
(HC, CO, NO_x, PM)

EUROPEAN STRATEGY on Transportation Pollutants

Because of **major sanitary reasons**, control regulations have been issued in **Europe** regarding:

2. **Fuel specifications:** Directive 2003/17/CE

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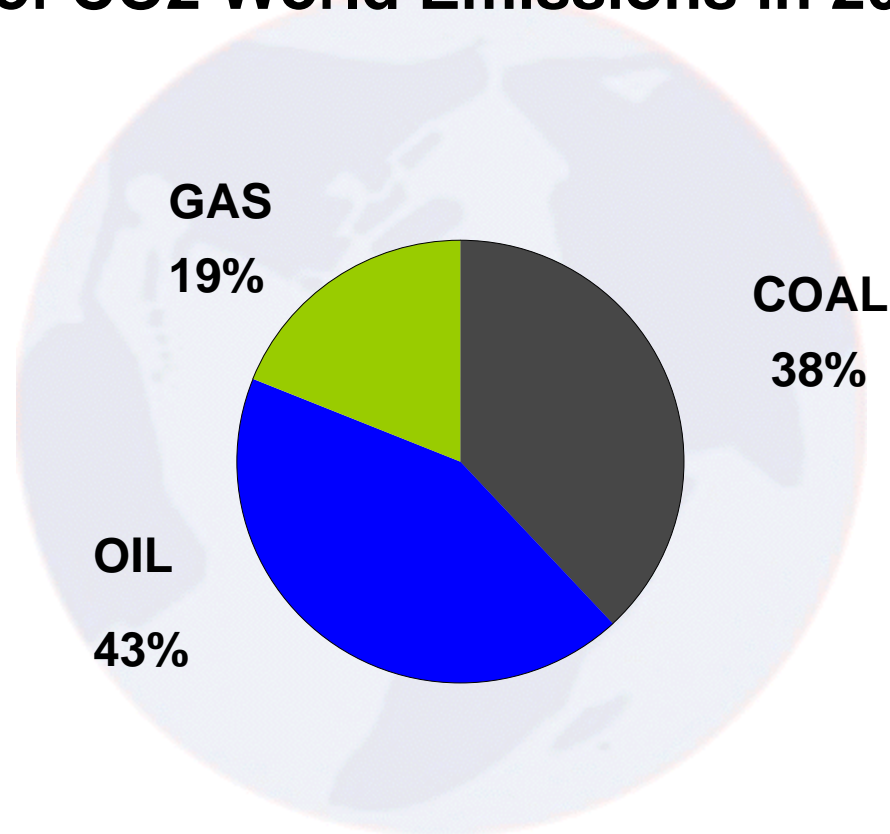
Date	Diesel	Regular
01/01/00	350 ppm	150 ppm
01/01/05	50 ppm	50 ppm
01/01/09	10 ppm	10 ppm

EUROPEAN CO2 STRATEGY

In order to reduce CO2 Emissions,
3 Main Lines are now defined by EU:

1. **Public Information (Car Labelling Directive 99/94/CE)**
relating to the availability of consumer information on fuel economy and CO2 emissions in respect of the marketing of new passenger cars
2. **Voluntary Agreements with Car Manufacturers**
(140 gCO₂/km in 2008 & 2009)
3. **CO2 Taxation (Directive on Vehicles Taxation)**

Breakdown of CO2 World Emissions in 2000 per Energy



French National Strategy

In France, 3 Plans where elaborated within 2 years in order to reduce transportation emissions and meet EU policy

1. National Plan for Environment & Health 2004-2008

- **Target: pollutants**

1. Actions on Diesel with FAP (bonus/malus CO2 Trucks taxation)
2. Actions within Transport Plans = PDU (urban areas) & PDE (large companies) + enhancement of soft modes;
3. Planification: health evaluation before any new infrastructure projects

French National Strategy

2. Climat Plan 2004

- **Target: GHG**

1. Actions on **Vehicles**. Goals: 120 gCO₂/km + voluntary speed restriction of engines ⇒ 3 MteCO₂
2. Actions on **Fuels**: reach the 2003/30/CE Directive on biofuels ⇒ 7 MteCO₂
3. Actions on **Consumers/Behaviors**: thanks to Bonus / Malus and Car Labelling ⇒ 1 MteCO₂
4. Speed Limit **Enforcement** + **Ecodriving** ⇒ 3,7 MteCO₂
5. **R&D**: 38,5 M€ for the Clean Vehicule Plan

3. Clean Vehicles Plan 2003

- **Target: pollutants & GHG**
 1. Tax incentives for Electrical/CNG/Hybrid Vehicle
 2. FAP for Trucks and subsidies for Electrical Trucks
 3. Clean Public Transport Fleets (Electrical, GNV, Hybrid)
 4. Public Exemplary: Clean Fleet for Public Administrations

French National Strategy

EXPECTED RESULTS (ENERGY)	2010	2020	2030	2050
Organisation	2,4	4,8	5,3	7,2
Vehicles & Fuels	1,1	1,2	1,4	1,7
TOTAL GAIN (Mtep)	3,5	6	6,7	9

French Domestic Demand 2003 = 53 Mtep

French National Strategy

EXPECTED RESULTS (CO₂)	2010	2020	2030	2050
Organisational Measures	7,1	15	16,2	21,3
Vehicles Technologies	3,4	3,5	4	5
Energy Diversification	7,5	9,6	12,1	15,4
TOTAL GAIN MtCO₂	17,7	28,1	32,3	41,7
Oil Dependency Rate	89%	86%	79%	75%

→ ... And then... what is ADEME locally doing in order to meet International, European and National commitments ?

1. TECHNICAL & SCIENTIFIC ADVICE

2. SUBSIDIES FOR SPECIFIC ACTIONS

- **TARGETS:** Public Authorities, Institutions, City Authorities, PT Operators, Private Companies, end-users...: anybody who needs or uses transportation = everybody is concerned and has to be reached.
- **TRANSPORTATION IS A COMPLEX MATTER** with a lot of behavioural and economical inertia. It moves slowly.

TRANSPORTATION LOCAL & REGIONAL ACTIONS

- Total TRANSPORTATION Budget with PACA REGION : 12M€/ 6 years
- 4 PRIORITIES but 1 MAIN GOAL : **CUT DOWN PRIVATE CAR TRAFFIC**

1. PLANIFICATION OF TRANSPORTATION AND LAND-USE
2. EXTENSION OF ALTERNATIVE MODES PROJECTS
3. INTERMODAL FREIGHT TRANSPORT DEVELOPMENT
4. CLEAN VEHICLES PROGRAM

→ **Advice and Subsidies dedicated to:** Studies ; Exemplary Projects; Investments; Communication & Public Awareness

1. PLANIFICATION OF TRANSPORTATION AND LAND-USE

2. DEVELOPMENT OF ALTERNATIVE MODES PROJECTS:

- Passengers : Car pooling, Car sharing, Demand Responsive Systems, Soft Modes, Intermodality and real-time User Information, School Trip Plans, Companies Trip Plans...

3. INTERMODAL FREIGHT TRANSPORT DEVELOPMENT

- Freight : Road-Rail, Sea-Rail, Road-River, Sea-River... Road-Rail-Sea (ie Belgium-France-Italy)

4. CLEAN VEHICLES PROGRAM

- ➔ Disseminate information on Tax Incentives and Environmental Benefits
- ➔ Subsidize Public Transport Buses and public/private Companies Fleets:
 - Compressed Natural Gas (CNG)
 - Electric
 - Hybrid
 - Particles Filters (FAP)




5.... Without forgetting PUBLIC AWARENESS and TRAINING in order to reach BEHAVIORAL CHANGES

- Transportation & Global Warming**
- Road Safety & Fuel Economy**
- Eco Driving**
- Companies and Schools Trip Plans**
- ...**

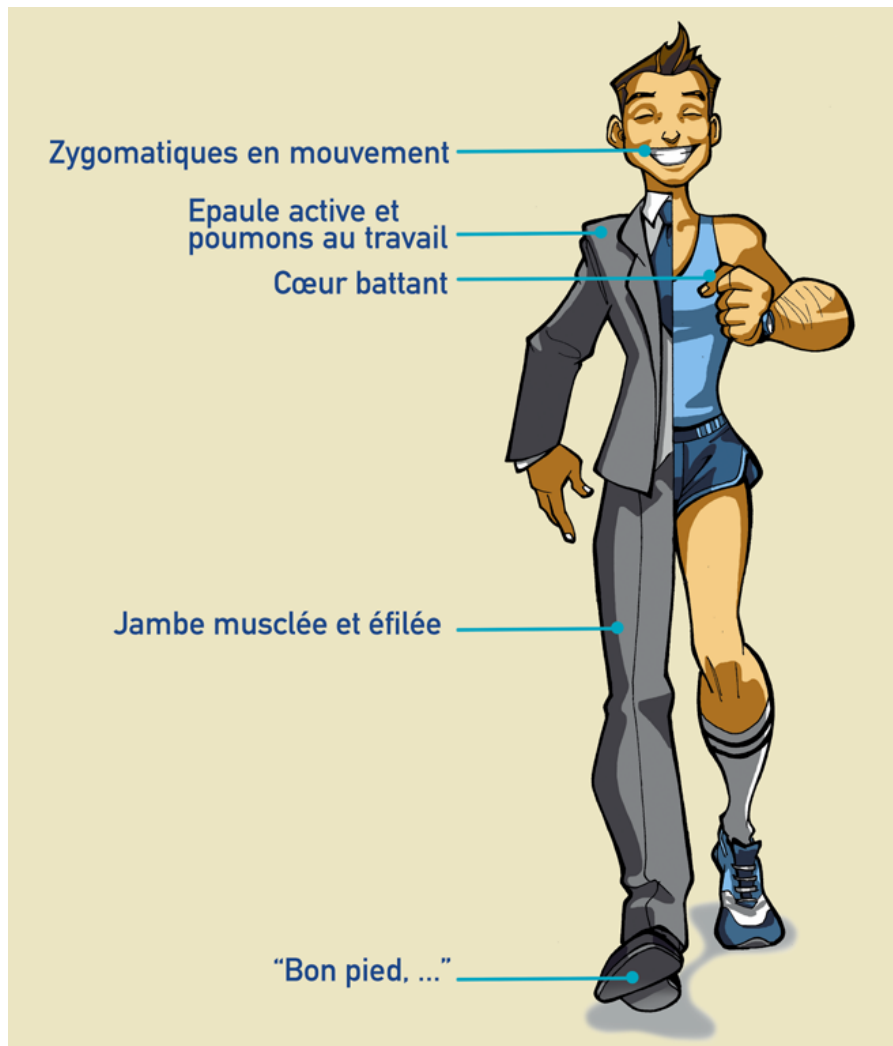


ENVIRONMENTAL IMPACTS OF CLEAN VEHICLES

TYPE OF VEHICLE	USAGE	
	CITY	INTERURBAN
Electrical	Low environmental Impact	Not suitable
LPG	Low environmental Impact	Low environmental Impact
CNG	Low environmental Impact	Low environmental Impact
Hybrid	Low environmental Impact	Moderate Impact
Regular	Heavy Impact	Heavy Impact
Diesel	Heavy Impact	Heavy Impact
Diesel with Particles Filter	Moderate Impact	Moderate Impact

-  Low environmental Impact
-  Moderate Impact
-  Heavy Impact

EXAMPLE OF PUBLIC AWARENESS: HEALTH



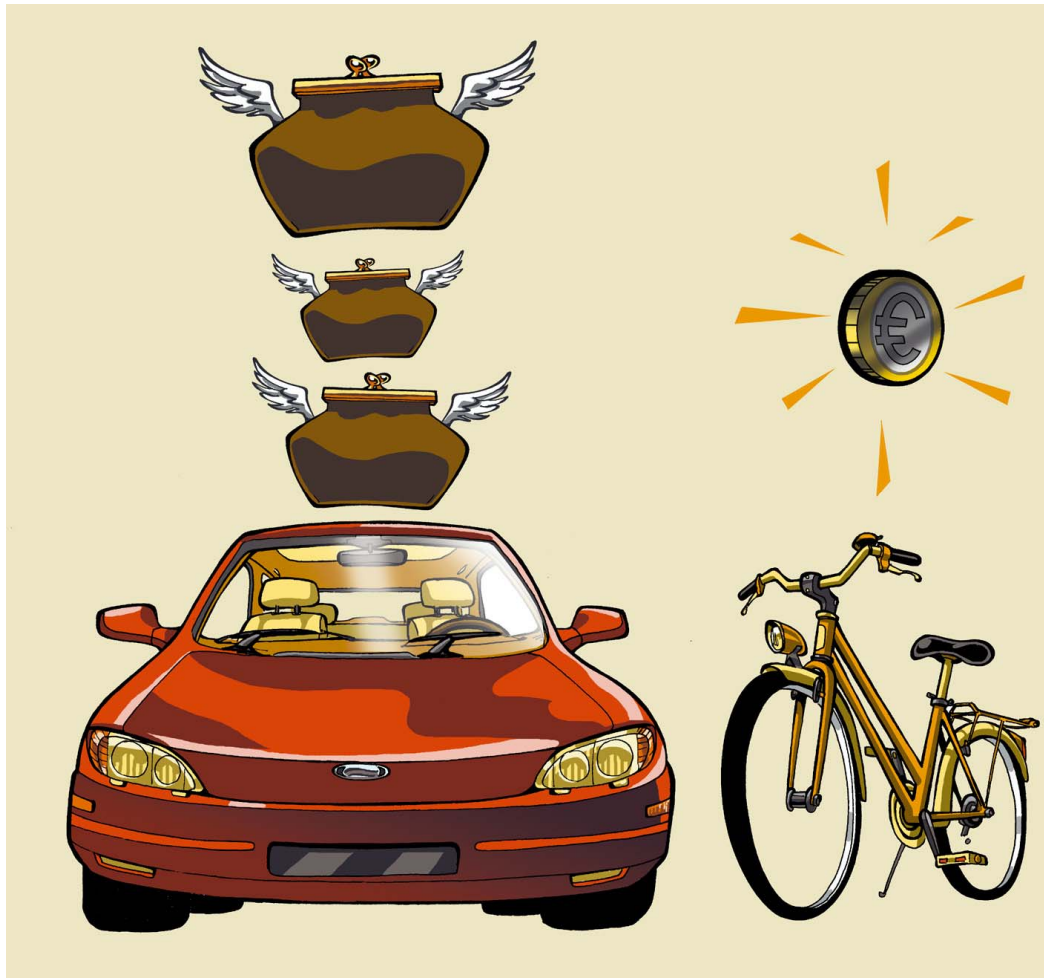
The World Health Organization recommends to walk 30 minutes per day

EXAMPLE OF PUBLIC AWARENESS: CAR POOLING

**Driving alone in 1 car is
wasting precious resources**

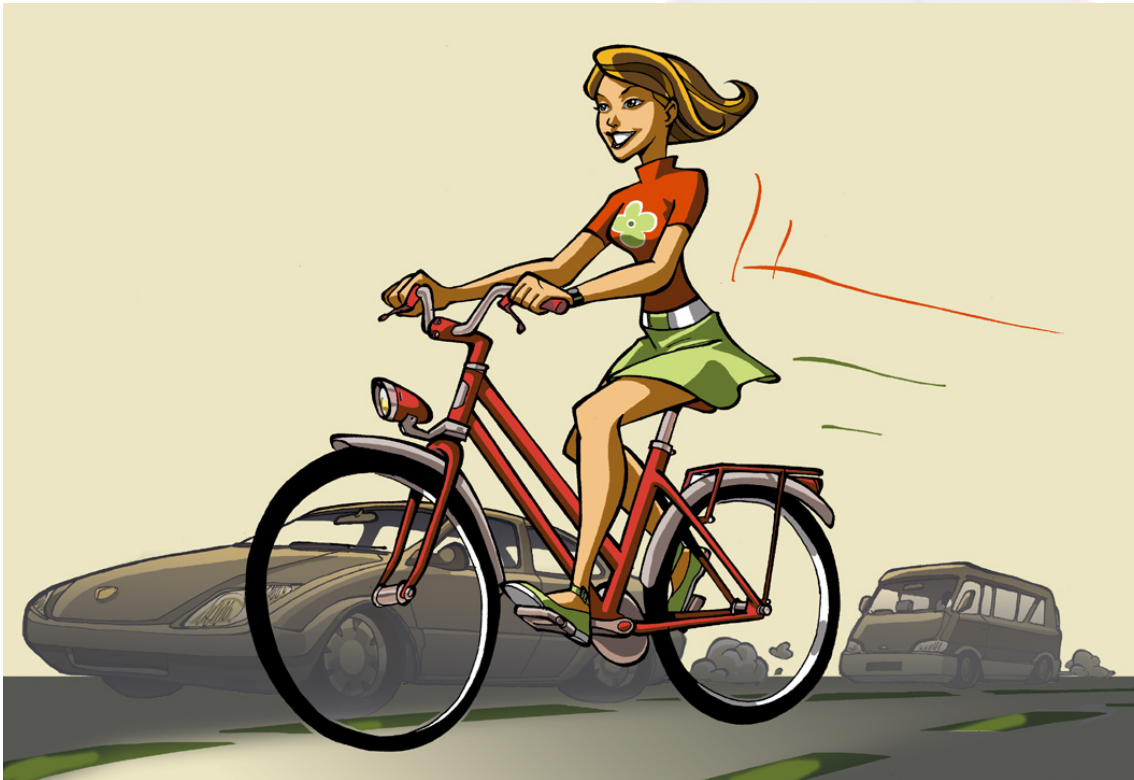


EXAMPLE OF PUBLIC AWARENESS: COSTS



**Knowledge of
Real Cost of Car
Operation is not
common to end-
users**

EXAMPLE OF PUBLIC AWARENESS: TIME



**Time
Perception
and Time
Gains varies
according to
the different
modes**

MORE INFORMATION IS AVAILABLE

- **Climat Change**
- **Car Labelling**
- **Bio Fuels**
- **Clean Trucks**
- **Clean Cars**
- **Particules Filter (FAP)**
- **Other Vehicles: Construction; Agriculture; Air; Sea; Railways**
- **Oil issues/Clean Fuels/Futur Markets**
- **Fuel Economy versus New Cars Equipments**
- **Fuel Cell vehicles**
- **Hybrid-Electric vehicles**

