

Buy Smart

Green Procurement for Smart Purchasing

Vehicles

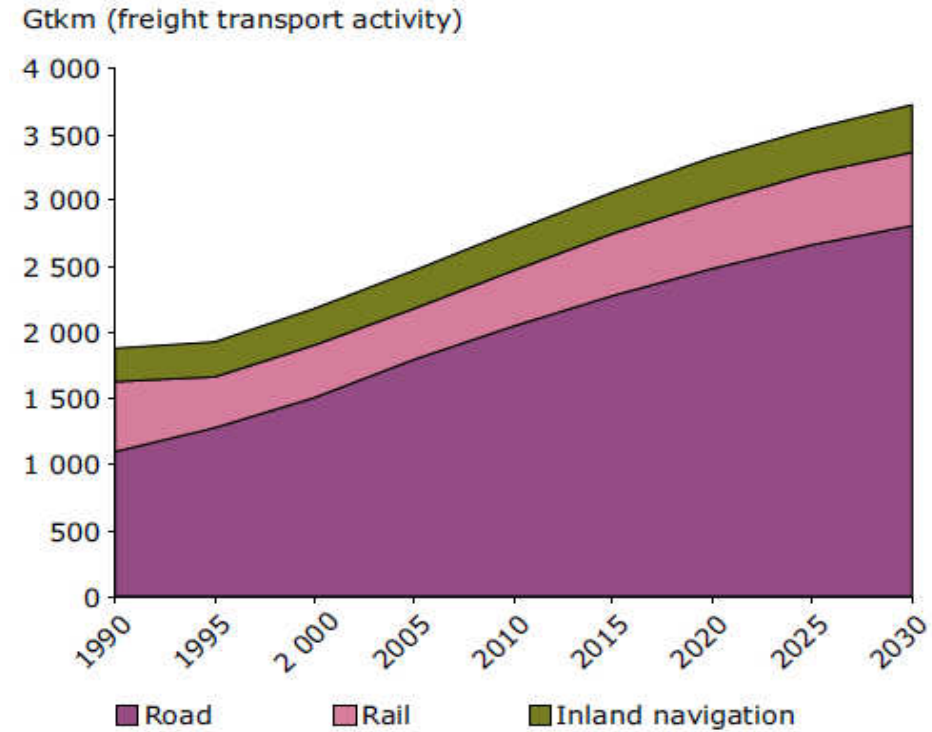
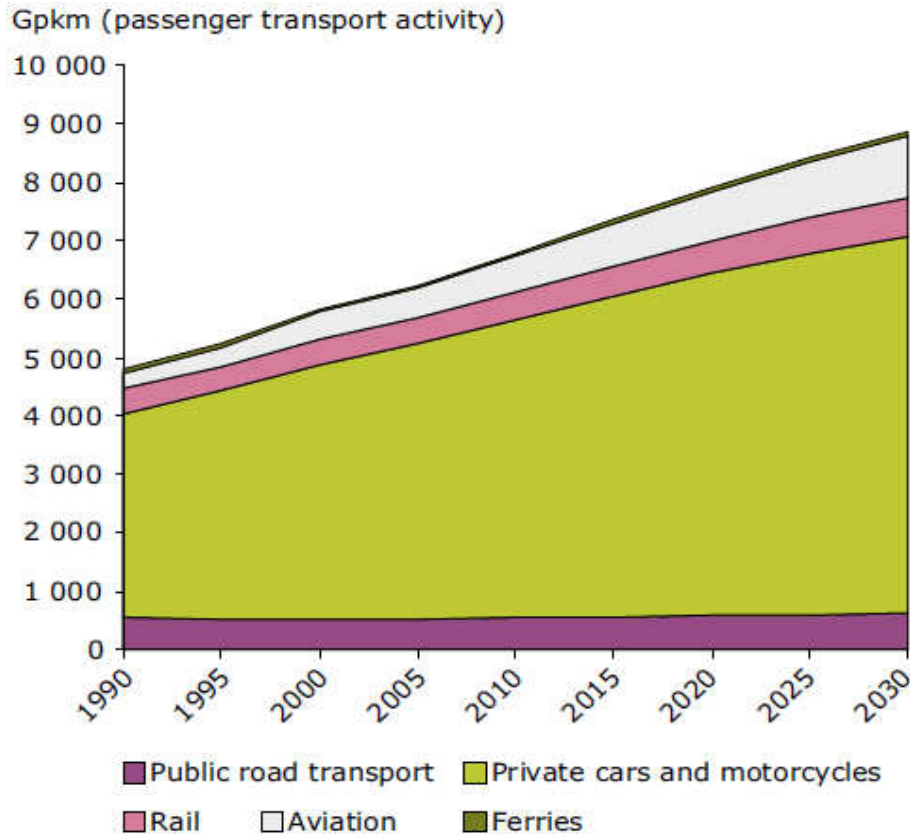
Challenges

- Climate Protection
 - Road traffic causes 20 % of the CO₂-emissions in the EU
- Pollutant emissions
 - European Air Quality Framework
- Noise



Picture: AboutPixel.de

Predicted growth in transport activity in Europe



Source: European Commission, 2007.

Quelle: EEA Report 3/2009

Advantages of ecological procurement

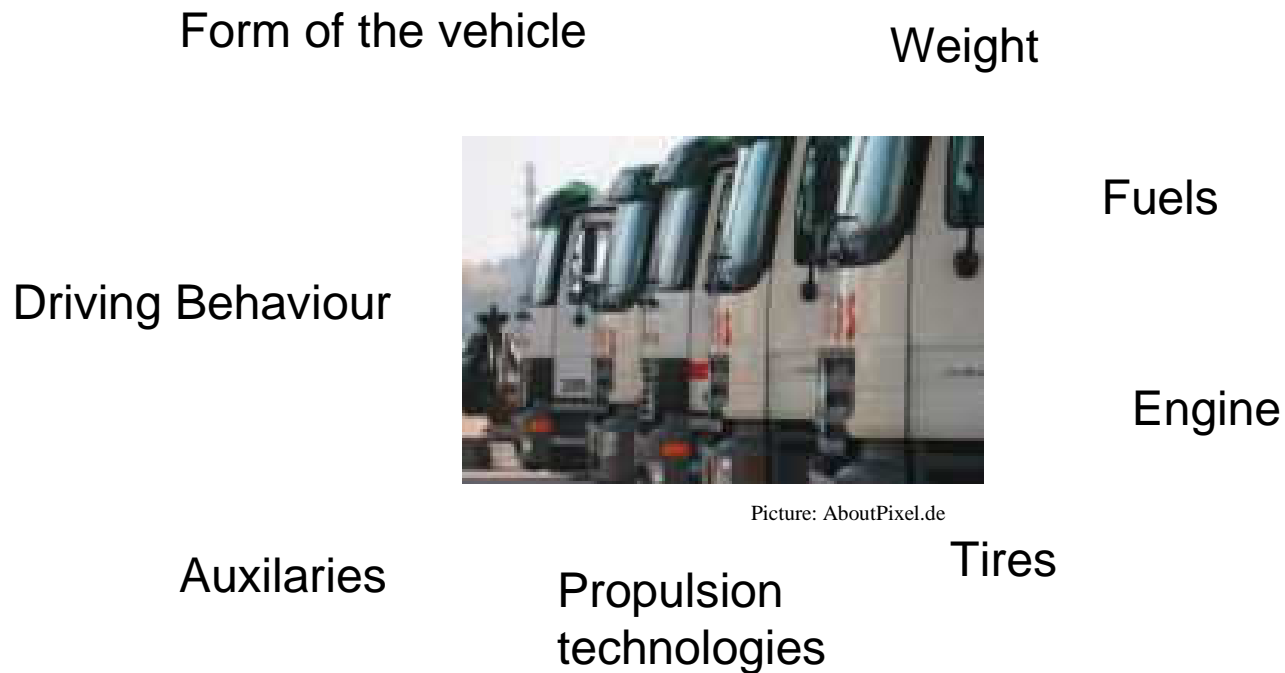


- Protection of environment and climate
- Less dependency on fuel prices
- Protection against driving restrictions in inner-city air pollution control areas
- An environmentally-friendly company image
- Economic efficiency

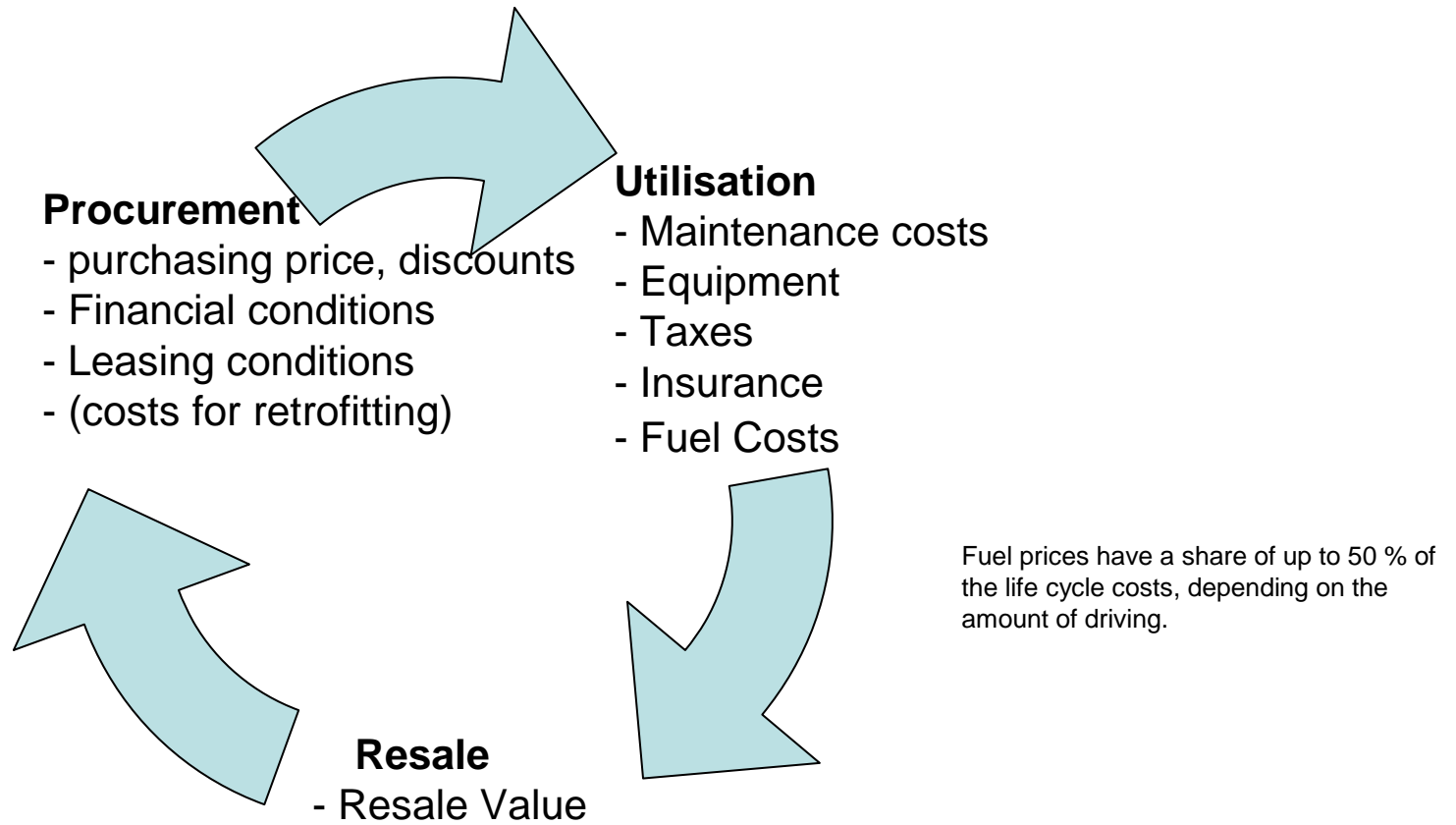


Copyright: H.-G. Oed

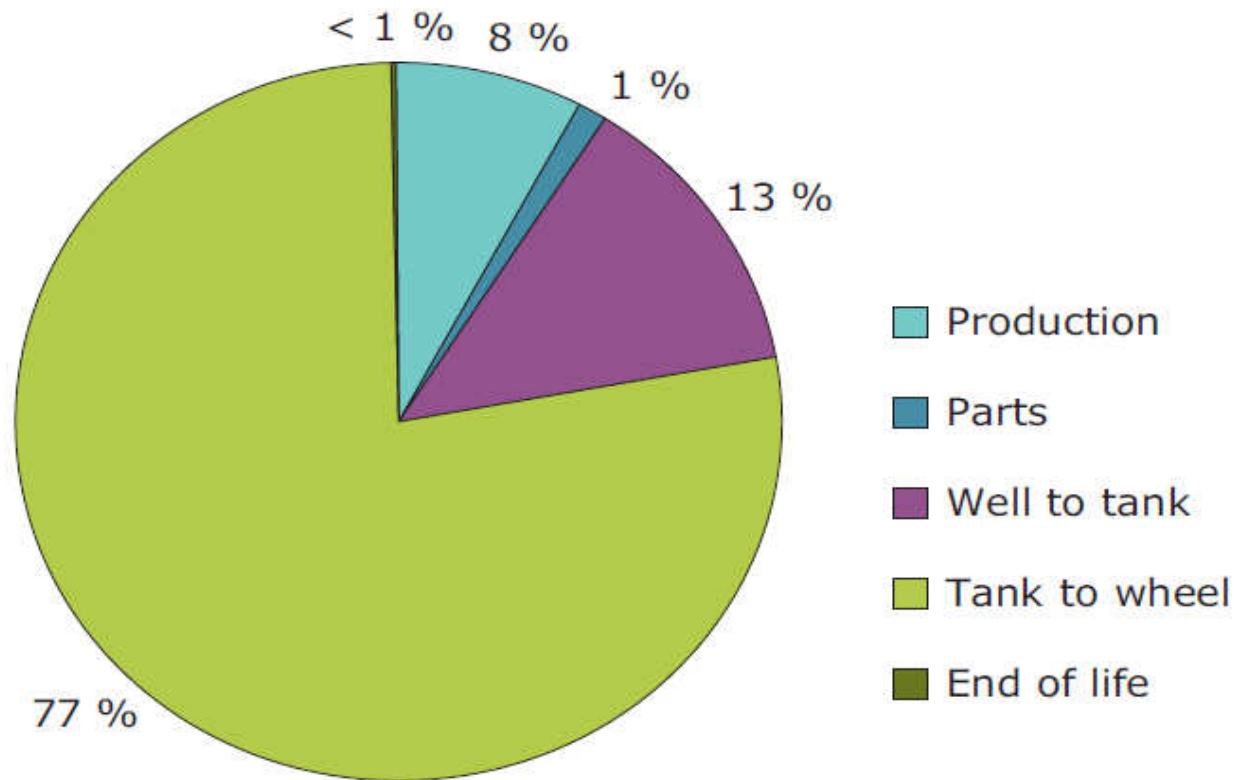
Influencing factors for the fuel consumption



Life Cycle Costs



Life Cycle – CO₂-emissions



Source: IMPRO-car, 2008.

EEA: Term 2009

„Clean Vehicle Directive“ (2009/33/EC)



The operational energy and environmental impacts to be taken into account shall include at least the following:

- (a) energy consumption;
- (b) emissions of CO₂; and
- (c) emissions of NO_x, NMHC and particulate matter.

If the impacts are monetised for inclusion in the purchasing decision, common rules shall be followed for calculating the lifetime costs linked to the operation of vehicles.

More information:

http://ec.europa.eu/transport/urban/vehicles/directive/directive_en.htm

<http://www.cleanvehicle.eu/>

Conventional Vehicles

Gasoline

- + low particle and NOx-emissions
- consumption/CO₂-emissions higher than for comparable diesel vehicles
- ban on driving for old vehicles without controlled catalytic converter in environmental zones



Picture: H. Huppertz

Conventional Vehicles

Diesel

- + consumption/ CO_2 -emissions lower than for comparable gasoline vehicles
- + / - with particle filter low particle emissions
- higher NO_x -emissions than gasoline vehicles
- ban on driving for strong emitting vehicles in environmental zones



Picture: H.-G. Oed

Natural Gas Vehicles



- + no particle emissions
- + lower NOx-emissions compared to diesel vehicles
- + / - CO₂-emission savings compared to diesel vehicles are low
- + / - fuelling stations infrastructure differs regionally
- limited offer of new vehicles

Liquid Gas Vehicles



- + no particle emissions
- + lower NOx-emissions compared to diesel vehicles
- + / - CO₂-advantage compared to diesel vehicles is minimal
- + / - fuelling stations infrastructure differs regionally
- limited offer of new vehicles

Hybrid Vehicles



- + high saving potential for fuel consumption in city traffic
- + CO₂-advantage up to 30 % compared to conventional vehicles
- low saving potential for interurban driving
- limited offer of new vehicles

Biofuels

- + Advantage in climate protection compared to fossil fuels
- No advantages regarding pollutant emissions
- Use of pure biofuels is limited, just in few vehicles possible



Bild: AboutPixel.de

Future Technologies

- Second Generation Biofuels
- Hydrogen Vehicles
- Electric Vehicles



Practical Tips




- Use of High Lubricity Oils
- Use of Low Rolling Resistance Tires
- Tire Pressure
- Driver Training
- Use of Air Conditioning Systems and Independent Vehicle Heaters

Use of energy labels

- Exhaust Emission Standards for Motor Vehicles
(European Standard)



- European Fuel Economy Label
- The Blue Angel

 **Information**
über Kraftstoffverbrauch
und CO₂-Emissionen gemäß
Richtlinie 1999/94/EG

Hersteller: LOGO
(optional)

Marke: XXX	Leistung: 75 kW
Modell: YYY	Getriebe: 4-Gang-Automatik
Hubraum: 1995 cm ³	Kraftstoff: Benzin

Kraftstoffverbrauch kombiniert: **8,0** l/100 km
innerorts: 11,2 l/100 km
außerorts: 6,2 l/100 km

CO₂-Emissionen kombiniert: **192** g/km

Die angegebenen Werte wurden nach den vorgeschriebenen Messverfahren (RL 80/268/EWG in der gegenüberig geltenden Fassung) ermittelt. Die Angaben beziehen sich nicht auf ein einzelnes Fahrzeug und sind nicht Bestandteil des Angebotes, sondern dienen allein Vergleichszwecken zwischen den verschiedenen Fahrzeugtypen.



Good Practice Example



- 12 natural-gas-fueled VW Caddy EcoFuel vehicles are operated by the service company within the „Mobile Hausmeisterservice“ (Mobile Janitor Service).
- Furthermore, an information campaign has been initiated to promote natural-gas-fueled vehicles to HOWOGE tenants.

Contact



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