



The project is funded by the European Commission's
Directorate-General Environment



EU Transport GHG: Routes to 2050?

Regulation for non-road transport modes

Huib van Essen, CE Delft

Focus Group Meeting

23 September 2009, European Commission

Partners

www.eutransportghg2050.eu



Overview of presentation

1. Overview and types of regulation
2. Maritime ships
3. Inland vessels
4. Rail trains
5. Aircraft
6. Conclusions/discussion/questions

Types of regulation

- No GHG or fuel efficiency regulation at present
- Reduction potential is large: basically all feasible efficiency improvements in new ships/trains/aircraft.
- Various types of regulation possible:
 - Engine
 - Vehicle
 - Technology specific
 - Overarching (to be discussed later today)
- Main barriers:
 - No indicators
 - No standardized test cycles

Maritime ships

- Type types of indexes on fuel efficiency (being developed)
 - GHG efficiency of the design of the ship (EEDI)
 - GHG efficiency of the operation of the ship (EEOI)
- EEDI could be basis for mandatory limit for new ships (IMO)
- Long lifetime of ships, but new ships have largest share in overall fuel consumption (50% by ships built after 2000).
- Main barriers: political
- Long term: EEDI compliance may be used by EU as condition for port access

Inland vessels

- No development of indicators
- Similar approach as in maritime shipping possible

Trains

- UIC/UNIFE develop a standard for each service profile (kWh/seat-km):
 - Speed
 - Load factor
 - Mass
 - Network
 - System topography, number of stops
 - Time table, driving style
- When data become available, this could be basis for regulation
- Alternative (sub-optimal): mass per seat-km

Aircraft

- Interest in fuel efficiency standards within ICAO and member states
- Metrics:
 - feasible
 - being worked on
 - taking account of speed, range, optimization to mission
- When metrics and data become available, standards could be set (ICAO)

Main conclusions

- Vehicle efficiency regulation feasible in all non-road modes
- First step: development of indicators
- Next steps: data gathering and standard setting
- Considerable reduction potential

Questions for the discussion

- Do you agree that vehicle regulation is feasible in non-road modes?
- Other information on design of indicators?
- What do regard as the main barriers?
 - Technical barriers
 - Political barriers
- Have we missed any important literature?