MEETING OF THE NORDIC AND BALTIC MINISTERS OF TRANSPORT
Joensuu, Finland
4-5 September 2007

«Climate Change and National Transport Strategies»

Jack Short
Secretary General
International Transport Forum

www.internationaltransportforum.org
www.cemt.org
ECMT ➔ International Transport Forum

- Transport Ministers set up a Global Forum for Transport with
  - Ministers
  - Industry
  - Civil Actors

- All modes, all OECD/ECMT Countries and invitations to
  China/Brazil & India

- One theme per year
  - 2008: Climate Change
  - 2009: Globalisation

- One place: LEIPZIG
Transport and Global Warming

STRUCTURE

• Political context

• Transport; implications and role/Nordic, Baltics

• What is being done

• Actions under discussion; Policy and political challenges
Transport and Global Warming

STRUCTURE

• Political context

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• What could be done; Policy and political challenges
• Near consensus on science

• Global warming top of political agenda (G8, EU, UN, nationally,…)

• Post Kyoto framework now being discussed: many new targets and commitments

• No specific transport discussion in formulation of targets
Global CO2 Emissions 1970-2004

- Electricity plants
- Industry (excl. cement)
- Road transport
- Residential and service sectors
- Deforestation
- Refineries etc.
- Other
- International transport

Source: IEA
World Motorization: WBCSD Projections

Millions of LDV (cars, light trucks, vans, etc)

- China
- FSU
- Eastern Europe
- Other Asia
- India
- Middle East
- Latin America
- Africa
- Total OECD

Increased congestion in hub airports

Air Passenger Traffic expected to double over the next 20 years

World Air Traffic Outlook

Air Freight Traffic expected to triple over the next 20 years
Shipping Growth and Forecast

- Data
- Forecast using Persistence

- Million Metric Tons


source: Corbett, 2007
Transport's Percentage Share of CO2 emissions from fuel combustion

World
- Energy Industries: 45%
- Manufacturing Industries and Construction: 18%
- Residential: 8%
- Other Sectors: 5%
- Aviation: 3%
- Navigation: 2%
- Other Transport: 1%

OECD
- Manufacturing Industries and Construction: 23%
- Residential: 8%
- Other Sectors: 6%
- Other ITF: 8%

Other ITF
- Manufacturing Industries and Construction: 16%
- Residential: 9%
- Other Sectors: 4%

Source: ECMT (IEA data)
Transport and GHG Emissions

- Transport sector responsible for about a quarter of CO₂ emissions globally
- Road transport main contributor; aviation growing fastest, maritime next
- Growth in transport sector CO₂ emissions shows little sign of slowing or reversing
Transport and Global Warming

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Total CO2 Emissions in 2003

Rest of World (25170 Mt)

Nordic and Baltic States: 1483 Mt
(275 Mt – 1.3% w/out Germany or Poland)
Transport Sector CO2 Emission Growth 1990-2004
UNFCCC Annex 1 Countries

Source: UNFCCC data
Baltic/Nordic States Transport CO2 Emissions per Capita
(Tonne CO2/Capita, 2004)

Source: UNFCCC data

Source: ECMT (UNFCCC data)
Transport and Global Warming

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Transport and GHG Emissions

- ECMT survey of existing transport-sector GHG reduction policies in OECD/ECMT countries
# Analysis of policies identified

<table>
<thead>
<tr>
<th>Demand</th>
<th>Urban planning to discourage sprawl;</th>
<th>4%</th>
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<tbody>
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<td>Road pricing;</td>
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<td>Logistics optimisation.</td>
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<td>Fuel efficiency</td>
<td>Tax differentiation to promote EFVs;</td>
<td>31%</td>
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<tr>
<td>- Technical</td>
<td>Vehicle efficiency regulations/agreements;</td>
<td></td>
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<tr>
<td>- On-road</td>
<td>Driver training; Car pooling;</td>
<td>16%</td>
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<td>Logistics management, route planning / guidance.</td>
<td></td>
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<td>Carbon intensity</td>
<td>Biofuel targets and tax incentives;</td>
<td>24%</td>
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<td>Hydrogen fuel cell R&amp;D;</td>
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<td>Incentives for CNG buses.</td>
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<tr>
<td>Modal split</td>
<td>Targeted subsidies for public transport.</td>
<td>28%</td>
</tr>
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</table>
The 400 transport measures adopted so far should save 700 Mt CO₂ in 2010.

Source: ECMT & IEA
Baltic-Nordic States Transport GHG Mitigation Measures

- CO2-related Fuel Tax: 
  *e.g. Norway, Denmark, Sweden, Finland*
- Vehicle Fuel Consumption/CO2 Based Taxes: 
  *e.g. Norway Denmark, Sweden,*
- Incentives for Alternative Fuel Vehicles *e.g. Iceland*
- Urban Transport Initiatives
  - *Stockholm Congestion Charge (Sweden)*
  - *Promotion of Public Transport,*
  - *Transport Planning, Parking Policy*
- Biofuels Promotion 
  *(EU Directive – All Baltic/Nordic States)*
Transport and Global Warming

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• What is being done
• Actions under discussion; Policy and political challenges
No simple solution

• Both technology and behaviour changes needed

• Existing technology can be improved (maybe 30%)

• Fuel cells and hydrogen a long way from commercial success (after 2030)
Car technology, no clear winner – Market Mix

Source: Haywood (US Market)
No simple solution

- Both technology and behaviour changes needed
- Existing technology can be improved (maybe 30%)
- Fuel cells and hydrogen a long way from commercial success (after 2030)
- Consumers behaviour slow to change
Transport and Global Warming
(*Specific Actions*)

- **CARS**
  - Vehicle emissions standards proposed
    - 120-130 gm/km to replace voluntary agreement (2012)
EU New Car Sales-Adjusted CO2 Emissions by Country

Source: ECMT/(EUACEA data)
Transport and Global Warming

• AVIATION
  – Decision to bring aviation into ETS; but how?
  – ICAO to discuss also

• SHIPPING
  – No proposals yet
  – IMO to make proposals
Policy Challenges

• Find cost-effective measures between sectors
  – Studies show abatement costs higher in transport
  – Many of best measures not in transport
UK Marginal abatement cost curve 2020

Source: UK Department of Trade & Industry
Policy Challenges for Transport (cont.)

- **Introduce Cost-Effective Measures in Transport**
  
  (component regulations i.e. low rolling resistance tyres, low resistance lubricants, fuel efficient lighting, air conditioning, information feedback and driver training)

- **Continue Traditional Policy Measures (co-benefits)**
  
  - Modal shift policies
  - Traffic management
  - Safety measures (speeds)
Policy Challenges for Transport (cont.)

- Think again about biofuels
  - Costly, uncertain GHG savings, environmental side effects
  - Niche market

We should:

- Use certification
- Avoid volumetric targets
- Link support to performance
Leipzig, May 2008

- Ministers, Industry leaders and others to discuss Transport and Climate Change
- Inputs and preparation
  - Online debates
    - Biofuels
    - Tradeable permits
    - Instruments generally
  - Country measures to be updated
  - Specific events:
    - Ecodriving Seminar
    - Round Table on Oil for Transport: Supply & Prices
    - Round Table on Instruments