Transport Efficiency: the European strategy

Climate 2050
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Reinhard Schulte-Braucks
Head of Unit, Automotive Industry
Enterprise and Industry Directorate-General
European Commission, Brussels
Agenda

- The automotive industry
- Road transport and CO$_2$ emissions
- The EU strategy
- International Comparison
- Stakeholder reactions
- Future legislation
Global passenger car and light-commercial vehicle production (in millions units)

- **EU-27, 18.05**
- **NAFTA, 15.85**
- **China, 6.29**
- **Japan, 10.77**
- **S.Korea, 3.73**
- **S.America, 3.05**
- **India, 1.68**
- **CIS, 1.4**
- **Other, 4.65**

*Source: The International Organisation of Motor Vehicle Manufacturers*
The automotive industry is important in terms of trade...

Trade balance 2006

Motor vehicles
Pharmaceuticals
Chemicals

1000 million euro

October 2007
…as well as in terms of employment

Employment 2006

Motor vehicles
Pharmaceuticals
Chemicals
Road transport and CO₂ emissions

- **Road transport’s** role in energy consumption and CO₂ emissions in the EU:
  - Ca 25 % of energy consumption
  - Ca 20 % of CO₂ emissions
  - CO₂ emissions from road transport increased by 26% over the 1990-2004 period

- **Passenger cars** alone represent ca 12 % of CO₂ emissions in the EU
CO₂ emissions in a wider perspective

Breakdown of total EU CO₂ emissions of ca. 4200 Mt

- Public electricity and heat
- Road transport
- Industries and construction
- Residential
- Commercial/Institutional
- Refining
- Energy (other)
- Industrial processes
- Agriculture
- Waste
- Other

Energy ca. 3 300 Mt

Estimated CO₂ savings through the integrated approach (2012) in the year 2020
Transport growth and emission reductions

- Kyoto
  - 1990-2004: 1.7%

- Proposed
  - 0.5%
  - 1.0%
  - 2.0%

- Agreed
  - 1990:
  - 2000:
  - 2010:
  - 2020:
  - 2030:
  - 2040:
  - 2050:

- Conservative reductions
- Accelerated reductions
CO₂ emissions in a wider perspective

- GHG emissions from transport are increasing while going down in other sectors

Sector evolution 1990 – 2004 by sector:

Sector projections 1990 – 2010 with existing measures:

Sector projections 1990 - 2010 with additional measures:

Source: EEA 2006
Progress 1995-2004 in reducing new-car CO₂ emissions

- 12.4% reduction in 2004 compared to 1995

EU15 level in 1995: 186 gCO₂/km
Voluntary commitments: 140 g CO₂/km in 2008/9
EU objective: 120 g CO₂/km
A revised strategy is needed...

- Improvements insufficient
- 2008 target (140 g/km) under voluntary commitment will be missed
- **New** approach needed to ensure that **120 g/km** is reached by 2012
- Commission presented revised strategy in February 2007
The EU Strategy on CO₂

• **Parallel Communications on CARS 21 and CO₂ and cars:**
  - General objective remains 120 g/km CO₂ by 2012
  - Instrument: a broader integrated approach
  - Specific targets:
    – *Average new car fleet of 130 g/km* CO₂ through vehicle technology
    – Additional 10 g/km by other technological improvements and increased use of bio-fuels
  - Flanking measures on demand side

• **Explore the EU emissions trading scheme for post-2012**
The EU Strategy on CO$_2$

• The automotive value chain remains at the heart of the new strategy...
  • Vehicle technology improvements (engine, transmission, hybridisation, vehicle body etc.)
  • Efficiency requirements for air-conditioning systems
  • Tyre pressure monitoring systems
  • Low rolling resistance tyres
  • Gear shift indicators
  • Mandatory fuel efficiency targets for light-commercial vehicles
The EU Strategy on CO$_2$

• ...with increased involvement of other stakeholders
  • Fuel suppliers (low carbon content fuels – e.g. biofuels)
  • Member States (taxation, fiscal incentives, traffic management, infrastructure etc.)
  • Consumer awareness (e.g. amending the labelling directive)
  • Drivers’ behaviour (e.g. eco-driving)

• Accountability and monitorability are needed for different elements
International Comparison

- US
- EU
- JAPAN
- AUSTRALIA
- CANADA
- CHINA
- CALIFORNIA
- S. KOREA

CO₂ equivalent g/km converted to NEDC test cycle

Countries and regions represented include the United States, Australia, Canada, China, California, and South Korea. The graph shows a comparison of CO₂ emissions from 2002 to 2018, with different regions and countries depicted by various line styles and markers.
International Comparison

[Graph showing international comparison of fuel efficiency (MPG) from 2002 to 2018 for various countries: US, EU, JAPAN, AUSTRALIA, CANADA, CHINA, S. KOREA, and CALIFORNIA. The graph illustrates the trend in fuel efficiency over time.]
International Comparison

Continuous Footprint for US light trucks

- 2011 MY
- 2010 MY
- 2009 MY
- 2008 MY

Traditional CAFE standard 2007
International Comparison

1) Depending on specific test cycle, fleet segments differently.
Initial stakeholder reactions

• General support for the integrated approach and mandatory targets
  – but views on implementation diverge…

• **Industry:**
  – Target and timeframe too ambitious, 135 g/km could be achieved by 2015
  – The complementary measures should be broadened (eco-driving, infrastructure, etc)
  – Targets should be set by a utility function, based on weight (**sloped line**)
Initial stakeholder reactions

• **NGOs and individuals:**
  – 120 g/km should be met by improvements in vehicle technology alone
  – Complementary measures to achieve further reductions (below 120 g/km)
  – A uniform target should be met by all manufacturers (flat line)

• **The European Parliament has adopted a first Report:**
  – It favours a target of **125 g/km** to be met in **2015**
  – Exemption for **300,000 vehicles** per year
Status of preparing the proposal

- Internet public consultation held between early May and mid-July 2007
- Public hearing held on 11 July
- Supporting study for impact assessment ongoing
- Legislative proposal accompanied by impact assessment to be put forward in 2007
- Proposals for complementary measures to be put forward in 2008
Principles for future legislation

- Ambition levels of 130g + 10g set out in February Communications

- Legislation will primarily address the issue of distribution:
  - Competitively neutral targets
  - Socially equitable and sustainable
  - Equitable to the diversity of the European automobile manufacturer
  - Avoidance of any unjustified distortion of competition between automobile manufacturers

The End
THANK YOU for your attention

Reinhard Schulte-Braucks
Head of Unit, Automotive Unit
Enterprise and Industry Directorate-General
European Commission, Brussels