CO₂ emissions from the transport sector 1990 - 2003

Paul Duffy, Niamh Connolly, and Michael McCutigian 2005
Transport Emissions

• The transport sector is the fastest growing contributor to national GHG emission levels
• Transport is the third highest contributor to national GHG emissions
• Road transport accounts for an estimated 93% of emitted CO$_2$
Central role of transport

- Transport is critical to our economic well-being and quality of life
- Transport sector supports economic prosperity, regional development and social inclusion
Key Emission Drivers

- **Increased fuel consumption**
  - Significant economic growth
  - Growing population
  - Increasing demand for housing – urban sprawl

- **Increased commuting**
  - Higher throughput at airports
  - Increased freight movements
  - People traveling more often, in larger vehicles
Pressures to address energy and emissions intensity of transport

- Kyoto Protocol
- National Climate Change Strategy
- EU Green Paper on Energy Efficiency
- Oil peak approach – security of supply
- Rising oil prices – from e.g. rapidly expanding economies, geopolitical tensions, interruptions to supply – Hurricane Katrina
The Challenge

- Bringing CO₂ under control whilst minimising negative economic and quality of life impacts
- Cross-sectoral, whole of Government, approach is required
- There is no one single solution – no ‘silver bullet’
Achieving emissions reductions in transport is no easy task

- It is usually recognised that the transport sector is the most expensive sector to achieve CO$_2$ reductions
Department of Transport
• The Department identifies ‘Sustainability’ as a key objective in Statement of Strategy 2005-2007
Statement of Strategy

• To incorporate the economic, social and environmental dimensions of sustainability into the development and delivery of transport policy
Two key outputs

- Sustainable development considerations mainstreamed into transport policy
- Targeted policies to reduce the level of greenhouse gas emissions from transport in a sustainable way
Sustainability

• Balance of environmental, social and economic considerations will deliver a modern transport system
Mainstreaming sustainability considerations

• Embedding sustainability considerations into transport policy
Mainstreaming sustainability

- Awareness raising initiative
- Incorporate sustainability considerations into policy development
Aviation Emissions

• The Department of Transport accepts that it is desirable to reduce the environmental impacts of aviation
• The Department does not object, in principle, to bringing aviation into the emissions trading scheme
• An emissions trading system for aviation should not introduce competitive distortions between air carriers or reduce access to air services
Policies and measures to reduce GHGs

• Supply side measures
• Demand side measures
• Technological advances
Supply Side Measures – Transport 21
Supply side – Transport 21

• Total capital funding is over €34 billion over the next 10 years
• About €9.4 million per day being invested in Irish transport for the next ten years
• Major rebalancing of investment in favour of public transport - about €16 billion of the total funding
Transport 21

• In Dublin
  – Expansion of LUAS
  – DART extension
  – Two new Metro Lines
  – Bus capacity will be increased

• New commuter services in Cork and Galway
• Significant investment in the national roads network – leading to an improved and more efficient road infrastructure
Demand side measures

• Get the most out of the network, e.g.
  – Expansion of QBC network in cities under Transport 21
  – Transport 21 will support the further development of Park and Ride facilities, with a particular focus on rail-based public transport
Technological advances

• Support EU Voluntary Agreements between government and industry
  – Target to reduce CO₂ emissions to 140g/km by 2008/2009
  – Considering the reduction of CO₂ emissions to 120g/km by 2012
Biofuels and Alternative Fuels

• Support D/CMNR scheme to promote the use of biofuels as a transport fuel in Ireland

• Biofuels have the potential to significantly reduce the environmental impact of the transport sector
Biofuels Directive

• “In some cities captive fleets are already operating on pure biofuels and, in some cases, this has helped to improve air quality in urban areas. Member States could therefore further promote the use of biofuels in public transport modes”

• Looking to countries such France, Sweden and Austria who use biofuels in public transport fleets
Biofuel and Alternative Fuels

• Engaging with relevant sectors to explore
  – biofuels and other clean technologies such as hybrid-electric vehicles
  – ‘eco-driving’ or energy-efficient driving behaviour
Fiscal measures to incentivise a shift to clean vehicles

- Proposed EU Directive to re-structure passenger car taxation and link to CO$_2$ emissions
- Average emissions of new passenger cars could be reduced by $\sim$5% on average by 2008 as a result
- Restructuring of company car tax in the UK to CO$_2$ basis has made significant CO$_2$ savings
Cycling and Walking Network

- Almost €30m has been spent on provision of cycling facilities in the GDA since 1994
- Delivered 220km of cycle lanes for the investment
- Despite this, cycling has continued to fall – although less so where there has been most investment
- Support will continue for DTO Traffic Management Grants, which includes provisions for cycling network, under Transport 21
Longer term

- The integration of spatial development and transport investment will support more sustainable travel
- The Department has been involved in developing the Regional Planning Guidelines as part of the National Spatial Strategy
- Local Authorities are implementing these Regional Planning Guidelines
CASP – integration in action

- Example of successful land-use planning
- Early and effective engagement with stakeholders (including D/Transport)
- Symbiotic relationship between transport and land use
- Appropriate use of rail, bus and cycle solutions
- Car restraint combined with Park & Ride
Conclusions

• The Department is committed to tackling CO$_2$ emissions from transport
• Transport sector is a difficult sector in which to achieve emission reductions
• No one ‘silver bullet’ but a range of solutions need to be addressed
• The Department will be progressing these items over the coming months