Irish Academy of Engineering

Preliminary Response to Public Consultation Documents
“Strategic Framework for Investment in Land Transport”

October 2014
Preliminary Response to Public Consultation Documents “Strategic Framework for Investment in Land Transport”

**Note:** This preliminary response relates to both consultation documents:
1) Draft Strategic Framework for Investment in Land Transport and
2) Strategic Environmental Assessment.

**The Irish Academy of Engineering**

The Irish Academy of Engineering is an all-Ireland body, concerned with long-term issues where the engineering profession can make a unique contribution to economic, social and technological development. Its members are Irish engineers of distinction, drawn from a wide range of disciplines. Membership currently stands at approximately 145.

Drawing on the experience and knowledge of its distinguished members, the Academy regularly publishes reports and analyses, some jointly with other learned and professional bodies.

This response to the government’s consultation documents draws on recommendations from two academy publications:

1) *Infrastructure for an island population of 8 million (Feb 2010)* and
2) *Towards Low-Carbon Transport in Ireland (July 2014)*

Both these publications, with research analysis, findings and recommendation, can be viewed in full on the academy’s website [www.iae.ie](http://www.iae.ie)

**Infrastructure for an island population of 8 million (Feb 2010)**

**Adaptation for Climate Change:**

- Road and rail transport routes will be particularly vulnerable to the impact of climate change, especially when following coastal and river valley routes.

  A register of existing critical (land transport) infrastructure should be established. A formal flood risk assessment should be carried out for each critical transport asset, identifying its frequency of exposure to a hazard, its resilience to exposure and the consequence of its failure.

  All significant future investment in land transport infrastructure should be informed by this register and associated flood risk assessment. It should be a formal
requirement that a climate change risk assessment be carried out for all proposed future land transport projects.

Climate change design requirements for transport infrastructure should be established by the Department of Transport in consultation with the Department of Environment, Heritage and Local Government. Only projects which meet these requirements should be considered for investment.

**Tidal Barriers and Transport Infrastructure:**

- Climate change adaptation measures to protect cities may include tidal barriers. The cost of construction of embankments and tidal barriers should take account of the possibility of using such embankments as a foundation for road and possibly rail infrastructure. An integrated approach will be more cost effective in some cases.

**Infrastructure Integration:**

- The planning of road and rail infrastructure should be co-ordinated so that each will play its appropriate role in transport between cities and in access to and within cities. There will be economic choices to be made particularly on routes having high traffic volumes.

**Transport Connections:**

- Improve transport connections, including a high speed, high frequency intercity rail system, on the primary transport corridor between the cities of Dublin and Belfast.

**South Western Corridor:**

- Develop a second transport corridor along the South Western Corridor between Cork, Limerick and Galway.

**Improve the Motorway Network:**

- Improve the motorway network to meet the projected increased traffic flows between the eight principal cities on the Island and links to ports and airports.

**Economic Assessment:**

- Finance the development of infrastructure using a combination of innovative financing sources including the Exchequer, public private partnerships, a possible island of Ireland infrastructure bank, capital markets and the European Investment Bank.
- Develop a framework which will allow the private sector to increase its share of investment in the provision of infrastructure.
Towards Low Carbon Transport in Ireland (July 2014):

The Academy urges the implementation of the recommendations below, not only in the context of striving to meet national Energy and CO₂ commitments, but also in the contexts of enhancing personal mobility, improving the environment, stimulating economic growth and achieving greater competitiveness. These are summarised as:

- **In Private Car Transport:**
  - Continue VRT/AMT incentives for low-emission conventional vehicles.
  - Delay further infrastructure for Battery Electric Vehicles pending a quantum leap in battery technology.
  - Promote Plug-in Hybrids to enhance use of off-peak renewable energy.
  - Actively promote and incentivise ride-sharing as a break-through technology for revolutionising private transport in both urban and rural contexts.

- **In Commercial Transport:**
  - Facilitate use of Compressed and Liquefied Natural Gas as future alternative lower-emissions transport fuels.
  - Recognise the limited future availability of biodiesel and the potential for bio methane in the setting of a revised national transport renewables target.
  - Consider reduction or abolition of motorway tolls for HGVs in the national interest of reducing congestion, wear-and-tear on secondary roads and improved road safety.
  - Through stricter HGV licensing procedures, stimulate fleet manager and driver training, with a focus on minimising fuel consumption.
  - Through a clearer understanding of national commercial vehicle logistics and greater use of Information Technology, stimulate greater efficiency in goods transport, consolidation of distribution and backhauling opportunities.

- **In Public Transport:**
  - Base transport policy on the fundamental principle of achieving greatest possible occupancy levels in the most appropriate modes of transport, be these public or private, based on local population density and commuting patterns.
  - In the interests of greater national economic gain, examine potential for stimulating use of off-peak travel through discounted or even free fares.
- Require even greater integration and “joined-up thinking” of all modes of public transport, using encrypted and anonymous “Big Data” to build up a more sophisticated analysis of commuting patterns that can optimise the routing and integration of public transport as never before.

- Achieve significantly greater utilisation of the existing rail assets from the Midlands into the IFSC area through utilising the Phoenix Park tunnel and establishing Kishoge as a major Park-and-Ride facility for commuter and inter-city travel.

- Seek to develop rail freight opportunities in the context of reducing road traffic into Dublin and particularly in reducing congestion on the M50.

Comment on Strategic Principles:

The academy notes that Table 3.1 Strategic Principles to Frame Transport Investment Priorities, included in the consultation documents, specifically states:

“The Principles does not include new investment to upgrade the network for delivering higher levels of performance or increased capacity”

It is ill conceived to put such a restriction on a framework which is designed to cover investment in land transport over a 30 year period. We strongly believe that transport policy and the investment principles which underpin the policy, should be informed by national spatial strategy and government economic and social development objectives.

- Predetermined restrictions should not be put on what transport investments can be considered. All potential transport investments should be considered on their merits and prioritised on the basis of robust cost/benefit analysis and contribution to national economic and social development objectives.