

# **Response to the Department of Transport Consultation on “2020 Vision - Sustainable Travel and Transport”**

18<sup>th</sup> of April 2008

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## **Introduction**

We welcome the opportunity to comment on the issues raised in the public consultation document. A fundamental prerequisite in improving the sustainability of Irish transport is a thorough understanding of the interconnected factors that shape the current transport system. Reflecting the importance of transport in a modern economy the ESRI, has recently initiated a Transport and Infrastructure Research Programme, which we hope to develop with support from key stakeholders. It is envisaged that research conducted under this programme will complement that carried out in the areas of transport and energy and transport and the environment as part of the Energy and Environment Research Programmes.

Our comments are based on the research that is currently ongoing and we identify important relevant topics for future research. They are elaborated under the four key headings in the Public Consultation Document namely: Integrated Spatial Planning, Moving People, Moving Goods and Additional Measures.

## **Integrated Spatial Planning and Transport**

The *Discussion Document* rightly highlights the interaction between land use and transport demand. It is imperative that new development leads to a more sustainable pattern of population distribution. However, it must also be recognised that after a period of substantial population increase and related construction activity, which may not be repeated (at least at the same scale), it will be difficult to change the existing patterns quickly. In this respect it is noteworthy that the most recent evidence on the pattern of population distribution shows that urban sprawl has continued.

The analysis of recent Census data (2002-2006) shows that on average Electoral Districts (EDs) with a higher population density have experienced slower population growth than low density EDs, and indeed of those EDs that could be described as

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<sup>1</sup> This consultation response reflects the views of the authors, but it does not necessarily represent the views of the Economic and Social Research Institute.

urban in 2002, over half actually experienced a population decrease<sup>2</sup>. This suggests that existing policies are at this point not as effective as they could or should be.

More research is needed to identify why we are seeing continued sprawl. One explanation for this might be that even though the NSS and Regional Planning Guidelines have been well formulated, planning decisions at the local level are not compliant with these policies. This explanation, if proven, would suggest that greater enforcement with possible sanctions against planning authorities is needed<sup>3</sup>.

One aspect of land-use that has received little attention in the debate on sustainable travel is the distribution of economic activity. Preliminary research carried out at the ESRI shows that sectors such as financial services and business services, which are projected to grow strongly over coming years, tend to cluster in city centre locations. Thus, with a fixed population distribution in the short and medium term, growth in these sectors will lead to increased commuting into already congested centres. Since clustering and spatial concentration are important prerequisites for the growth in these sectors, policies designed to reduce the agglomeration of these sectors is likely to have a significant negative impact on overall economic growth. More research is urgently needed in this area<sup>4</sup>.

Recognising that the existing patterns of population distribution will not improve rapidly has important implications for transport policy:

1. the degree to which a shift to the most sustainable transport modes, walking and cycling, can be achieved is limited as distances are too large;
2. achieving a switch from car based travel to public transport will be more difficult and more expensive than it would be if population sprawl was less pronounced;
3. a significant modal shift to public transport will require significant improvements in the quality, frequency and density of public transport;
4. a significant modal shift to public transport will only be achieved by accommodating multi-modal journeys (e.g. through the provision of more and better park and ride facilities)<sup>5</sup>.

## Moving People

The last ESRI study on National Investment Priorities (2006) supports the substantial investment in transport infrastructure including public transport<sup>6</sup>. In order to maximise both the economic and environmental benefits it is vital that this infrastructure investment is well planned.

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<sup>2</sup> Using an OECD definition, urban EDs are those with a population density in excess of 150 persons per km<sup>2</sup>.

<sup>3</sup> The planned establishment of the Dublin Transportation Authority (DTA) should improve compliance in the Greater Dublin Region, provided this authority is established and backed up by the appropriate legislation.

<sup>4</sup> At the time of writing this submission the next ESRI Medium Term Review is being prepared, which will provide an updated forecast of growth by sector that can be used to analyse the impact of sectoral change on employment location and thus commuting.

<sup>5</sup> Due to the lack of data, little is known about multi-modal journeys in Ireland. Similarly the degree to which barriers to multimodal travel constrains the use of more sustainable modes of transport is not known.

<sup>6</sup> Morgenroth, E., and J. Fitz Gerald (eds.) (2006) "Ex-ante Evaluation of National Investment Priorities 2007-2013". *Policy Research Series Paper* No 59. Dublin: ESRI

Achieving a significant modal shift towards public transport modes will require a number of policy interventions<sup>7</sup>. Firstly, it is well established in the international literature that the intensity of public transport usage is strongly related to both the frequency and quality of services provided. Improvements in Irish public transport are clearly necessary. Ease of use of public transport is one aspect of quality and in this respect the long delay in implementing integrated ticketing is highly regrettable<sup>8</sup>. Secondly, it is important that different modes of transport face the correct pricing signals. In this respect the changes to the car tax system announced in Budget 2006 constitute a step in the right direction.

In relation to bus transport it is important to recognise the significant contribution that the private sector can and does play for this mode in relation to both inter- and intra-urban routes. It is noteworthy that the market share of bus transport in commuting is declining (down from 8.6% in 1986 to 6.1% in 2006), which suggests that current services are not meeting customer expectations. Greater competition and more private sector involvement may help to reverse this trend.

Rail based travel has increased its market share consistently since 1986 (even before the completion of LUAS). However, this appears to be largely due to an increase in the intensity of rail patronage in a fixed 'rail corridor'. This suggests that in order to increase rail commuting multimodal travel needs to be facilitated, for example by making available sufficient car parking near rail stations.

Cycling continues to decline in terms of share of commuters (down from 5.6% in 1986 to 1.9% in 2006). The relative importance of infrastructure provision (cycle lanes and racks), health and safety, financial incentives (tax relief on bicycles and associated equipment for the journey to work exists in the UK and other countries), and personal preferences (e.g., status, life-style) in influencing cycling behaviour is at present not well understood and will be the subject of future research at the ESRI.

Given the size of Ireland, it is surprising that there is a domestic aviation industry, let alone that its fuel use doubled between 1995 and 2005. The reasons for the rapid growth are not known, but comparison to other countries suggests that the lacking quality of road and rail connections is more important than the rising wealth. International travel is likely to continue to grow rapidly as it is important for business, particularly in the fast-growing service sectors, for the Irish tourism industry, and for the Irish tourist. Previous ESRI research has focussed on the impact of climate policy and trends in the leisure market, but future research could study the importance of international connectivity on competitiveness.

## **Moving Goods**

The transport of goods will remain important to the Irish economy. Even if the Irish economy further specialises in services activities, goods transport will remain important since consumers continue to demand goods that have to be transported

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<sup>7</sup> Research on the determinants of modal choice in home/work and home/school travel is currently underway at the ESRI.

<sup>8</sup> Integrated ticketing has operated in many European cities at least since the 1950's.

around the country. Indeed a continuing fall in local manufacturing will increase imports, which may imply increased demand for transport in the distribution sector.

The relationship between land-use and commuting was highlighted above. Structural change will affect goods transport. For example the contraction of the construction sector, which accounts for around 30% of the ton-kilometres transported, should also reduce the tonnage transported.

An important factor in determining freight transport mode is the length of haul. In Ireland the average haul length is relatively short. This, together with the fact that in almost all cases freight will have to be transported to its final destination by road, implies that substantial shift towards rail freight is unlikely, given the current cost structure. As in the case of personal transport, the sustainability of freight transport is heavily influenced by the costs facing the operators.

### **Additional Measures**

The key policy issue in promoting more sustainable transport is the fiscal treatment of transport in the broad sense. The fiscal treatment encompasses all taxes and charges faced by transport users in all modes of transport. In order to achieve the most efficient outcome these price signals need to be correct. Setting them correctly is not a trivial exercise given that policy typically pursues a number of goals such as sustainability, revenue generation, cost recovery, efficient use of infrastructure etc. In relation to sustainability, the costs faced by different modes of transport should reflect emissions and any other external costs. For example, car ownership does not generate any emissions in Ireland, while car usage obviously does. Consequently taxes/charges should be related to usage and relative emissions. In order to set charges/taxes correctly, research on the fiscal treatment of transport (personal, public, freight, aviation and shipping) is urgently required. Such research must consider all possible charging mechanisms along with the impact of any proposed charging system<sup>9</sup>. Without a reasonable prediction of the change in consumer behaviour, the budget neutrality of any tax reform is best guaranteed by changing prices (and thus behaviour) as little as possible.

The Consultation Document highlights the use of alternative fuels as a means to increase sustainability. It is important to consider firstly whether further promotion of biofuels has adverse impacts on the environment in other countries or a negative effect on global warming. For example if the world production of bioethanol is increased by cutting down rainforest, its overall environmental benefit might be questionable, while nitrous oxide emissions from soils could imply a net increase in greenhouse gas emissions. Furthermore, it is important to establish to what extent Ireland can be self-sufficient in biofuel production, if at all as Irish crops do not have a high energy content. If Ireland has to import biofuel, there should be an attempt to influence the rules governing the international trade of biofuels and the accounting of biofuel emissions, which still have to be established.

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<sup>9</sup> For example a change the fiscal regime of road freight transport will have an impact on the cost of freight. This has a direct impact on export competitiveness, which would need to be quantified, taking into account fuel prices in neighbouring jurisdictions.