



**An Roinn Iompair
Turasóireachta agus Spóirt**

**Department of Transport,
Tourism and Sport**

**Investing In Our Transport Future: A Strategic Framework for Investment in
Land Transport**

Background Paper Three

Proposals for Workstreams

Issued by:

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Proposals for Workstreams

The workstreams are set out to reflect the mandate adopted by the Steering Group. The mandate states as follows:

“The Framework will take account of likely future economic and demographic scenarios, affordability considerations and relevant Government policies. It will:

- (1) establish the evidence base and socio-economic case for future investment in land transport;*
- (2) quantify in broad terms the appropriate scale of investment over the long term;*
- (3) consider alternative funding and delivery models; and*
- (4) identify strategic priorities for future investment in terms of international access requirements, integration and inter-urban, urban, regional and local transport needs.”*

Priorities for early progress are items 1.1, 1.3, 2.1, 2.2, 2.3, 3.1, 4.1, 4.2 and 4.3.

1. Establish the evidence base and socio-economic case for future investment in land transport		
1.	Transport Investment and economic growth: Study the evidence base relating to the link between economic growth and investment in land transport including: <ul style="list-style-type: none"> • a literature review of academic and other evidence on the relationship between transport and economic growth and output focusing in particular on the more recent economic literature which examines how transport interacts with the economy in a modern, services-orientated economy (<i>See Appendix I</i>); and • empirical analysis of historical relationship between transport investment and economic growth in Ireland. This would involve some macro-economic modelling or econometric analysis attempting to establish long-run relationship between transport investment and economic growth in Ireland. 	Work to be undertaken by the EFEU, DTTaS ¹
2.	Project appraisal: What approach should be applied to ensure that project selection is optimised so as to deliver on the objective that transport	Work to be undertaken by

¹ Economic and Financial Evaluation Unit, Department of Transport, Tourism and Sport.

	<p>investment should be channelled to the most economically advantageous projects?</p> <p>Existing appraisal techniques and evaluation frameworks need to be critically examined and updated and expanded where necessary to ensure expenditure decisions are economically optimum. Issues such as Wider Impacts, FDI and access to international gateways will be important. Other impacts, such as health, environment, social inclusion, sustainability and the role of transport as an input in the efficient delivery of other public services, e.g. health, education, social services etc. need to be considered.</p> <p>The starting point for this work should be (1) the capital appraisal requirements of the Public Spending Code published by the Department of Public Expenditure and Reform and (2) the Common Appraisal Framework for Transport Projects developed by the Department of Transport, Tourism and Sport. (The need for review of these has already been recognised.</p> <p>The possibility of seeking academic review of any revised proposals should be considered.</p> <p><i>(Note – progress on this work item should possibly await further proposals to be developed by the Department of Public Expenditure and Reform)</i></p>	<p>the EFEU, DTTaS</p>
<p>3.</p>	<p>Case studies: Undertake in-depth case studies of a number of significant transport investments from the past decade.</p> <p>There would be two aspects to the case studies: (1) a classic project management analysis and (2) an assessment of the economic impact of the project.</p> <p>The project management analysis should examine how the project was conceived originally: What was the project evaluation process? What was the decision-making process? Was the project implemented effectively? Was value for money achieved? Were there budget or programme overruns? Were there scope changes? The initial work should be based on the post-project reviews undertaken; the possible need for and value of any deeper analysis could then be considered.</p> <p>Proposals for candidate projects include:</p> <ul style="list-style-type: none"> • MIU – Dublin-Galway, • Port Tunnel, • DART extension to Greystones, • M50, • LUAS extension to Cherrywood, • Railways rolling stock – major programmes - define; • Buses – major programmes – define • Midleton rail link <p>Evaluation of the economic impact of a project is a more challenging task and work should be confined to a small number of projects where (1) enough time has elapsed since project implementation to allow benefits to be</p>	<p>Work to be undertaken by an economic consultancy</p>

	<p>assessed and (2) the analysis is most likely to benefit future investment decisions (e.g. new motorway investments are not likely in the medium term). The choice of case studies should take account of the gain a better understanding and evidence of the linkage between the development of transport infrastructure and services and land-use.</p>	
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2. Quantify in broad terms the appropriate scale of investment over the long term		
1.	Benchmarking: Undertake an international benchmarking exercise examining levels of expenditure on transport by OECD and EU countries (<i>See Appendix II</i>).	Work to be undertaken by the EFEU, DTTaS
2.	Steady state investment requirement: Identify the steady state investment requirement. This work should identify the condition of the existing infrastructure and mobile assets (buses and trains) and provide a broad assessment of the cost of maintaining, managing and renewing those assets over the medium term. Ideally this should also include an assessment of the cost and other implications (for example increased accident risk, speed restrictions etc.) of deferring such expenditure.	Work to be undertaken by the EFEU, DTTaS
3.	Exchequer Impact Analysis: Undertake an Exchequer Impact Analysis for the transport sector in the economy, quantifying, on one hand, the level of public funds provided to the transport sector through all fiscal channels, and on the other hand identifying the tax and revenue impact of the transport sector on the Exchequer (over say - 1990 to 2012).	Work to be undertaken by the EFEU, DTTaS
3. Consider alternative funding and delivery models		
1.	<p>Non-Exchequer funding sources: What are the potential funding models for transport in Ireland. This study would examine funding models in use in other jurisdictions and assess their transferability and applicability to Ireland. It would examine the existing arrangements for funding transport investment in Ireland, and provide a critical analysis of the effectiveness of these arrangements. The analysis would have regard to:</p> <ul style="list-style-type: none"> • Private sector funding instruments for transport capital requirements • European Union funding (TEN – Transport, Connecting Europe Facility & EIB Project Bonds) • User payment mechanisms (including tolls and taking account of other charges paid by road users) • Development levies • Advertising/commercial income opportunities • Concessions/franchises • Private sector service provision <p>The work should include a review of the implementation of public private partnerships in the roads sector.</p> <p>Conclusions should be drawn on the appropriateness of different funding models and a set of principles set out for future development of same, and their role in the recommended future funding landscape for transport in Ireland.</p>	<p>Doreen Keaney to draw together some existing work on financing options.</p> <p>Further analysis might be assigned to an economic consultancy</p>
2.	Demand-side measures: What demand side initiatives are the most relevant in planning for infrastructure investment?	NTA to develop a paper as a first

		step
4. Identify strategic priorities for future investment in terms of international access requirements, integration and inter-urban, urban, regional and local transport needs		
1.	<p>Economic growth and demography: Establish a set of economic growth projections and associated population and employment projections; establish the likely distribution of future population and employment based on NSS and DECLG work.</p> <p>This work should take account of the emerging work on the revision of the National Spatial Strategy which is to be undertaken in tandem with the SFILT work.</p>	DTTaS in conjunction with DECLG to assess emerging CSO work on demography and availability of economic forecasts.
2.	<p>Assessment of the status of the existing transport system: Review the performance of the existing land transport networks and services (including committed investment to 2016) and analyse how existing investment meets the needs of the economy. This should form a base case for the future.</p>	NTA to undertake scoping work.
3.	<p>Identification of future needs: Undertake a trends analysis and an assessment of future needs having regard to economic outlook and demography assumptions established in Workstream 4.1 in terms of:</p> <ul style="list-style-type: none"> • International access; • major urban centres/city regions; • inter-urban corridors; and • regional and local requirements. <p>This work should entail detailed modelling of transport flows. It should:</p> <ul style="list-style-type: none"> • identify the most economically significant parts of the network – covering all modes and both passenger and freight transport; • identify the expected capacity constraints – including major corridors in the larger urban centres – based on an assessment of what parts of the network are at or near capacity currently; • review the case for (and deliverability of) the suspended iconic projects – Metro North and DART Underground – and, if appropriate, suggest potential alternatives; and • identify the gaps in the existing transport system in terms of integration of modes and essential requirements to promote integration in the future. 	NTA to develop a scoping paper.
5. Miscellaneous further tasks to support completion of the mandate.		

1.	Employment in transport construction projects: What are the direct employment effects of investment expenditure in the transport sector?	NTA to procure some work from DKM.
2.	Climate change: How is climate change and, in particular, carbon reduction policies likely to impact on the transport sector?	Laura Behan to draw together a paper on the existing work undertaken.
3.	Societal/Behavioural changes: Are lifestyle changes arising from evolving communications technologies or otherwise likely to have a significant impact on transport system requirements over the medium term e.g. teleworking, internet ordering, “peak-car” etc.	
4.	Technology and transport: What are the major technological developments likely to impact on future transport investment: <ul style="list-style-type: none"> • Cars; • Trains; • Tolling technology (satellite); • ITS; • IT and soft measures that would lead to ‘informed travellers’ and better use of what already is provided (infrastructure and services); • Train management systems? • Light Rail/Metro; • QBC/BRT; 	
5.	Institutional arrangements: Review the structure in place relating to land transport investment and the linkages between them and consider any proposals for measures to achieve greater effectiveness or efficiencies.	
6.	Persons with reduced mobility: Review policy and practice relating to the measures to promote access to transport services by persons with reduced mobility and develop proposals on future practice.	

Literature Review of Relationship between Transport and Economic Growth

This task is to review the economic literature on the relationship between economic growth and transport. The review should identify the methods by which transport impacts economic growth, and provide a framework through which the many economic impacts of transport can be considered. The review should focus primarily on academic research, but also include significant other pieces of independent research where relevant.

The review should:

- Assess the empirical evidence on the impact of transport on the economy, with reference to empirical and econometric studies;
- Draw conclusions on the importance of transport relative to other inputs in generating economic output and growth, and allow the importance of transport to be contextualised as an input to economic growth.

The review should draw conclusions from the literature on the extent to which the economic impact of transport varies depending on, *inter alia*:

- Countries' stages of economic development;
- Spatial development patterns;
- Density of population;
- Supporting economic policies;
- Background levels of economic growth etc.

Where conflicting views are in evidence in the literature, these should be explored before a summary conclusion is offered based on the weight of evidence.

The review should include a meta-analysis aimed at uncovering the range of economic returns typically generated by transport investment.

The review should ensure evidence from a large number of countries is represented as well as and that the most recent economic thinking is included in the analysis.

A full reference list of documents considered, including web addresses where available, should be provided.

International Benchmarking of State-supported Expenditure on Transport

This task is to compile data on levels of expenditure on transport internationally over time, and to benchmark Ireland against this. The benchmarking exercise should examine, as a minimum, levels of expenditure in the OECD and EU countries. The work should compile time-series data on expenditure in the transport sector over the long term, to provide an historical perspective.

The review should capture disaggregated data, where possible, on levels of expenditure on transport. The levels of disaggregation should include:

- Expenditure on investment versus expenditure on operations or services;
- Levels of leveraged private sector expenditure (PPPs, PFI etc.);
- Other sources of funding such as World Bank or EIB loans, grants etc.
- Investment by transport mode (highway, bus, rail, air, water etc.)

Data should be presented in absolute terms, and as a proportion of each country's GDP and GNP.

Expenditure on a per capita basis and per unit area basis should also be provided.

The output of the exercise should be a clear picture of the magnitude of investment in transport in OECD and EU countries, and where Ireland fits into that picture. Some commentary should be provided on the basis of the data gathered on the extent to which Ireland fits with the pattern of investment demonstrated in the data.

Sources should be provided for all data as well as files and databases where these have been downloaded.