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Achieving Modal Shift: experiences from Dublin and Cork

1 Introduction

The rural population of Northern Ireland is growing¹ as more and more people choose to live in the countryside, but while they leave the towns and cities in search of the rural idyll, the centralisation of jobs and services will mean many will have to make regular, if not daily journeys back into these urban centres.

This situation is not unique to Northern Ireland, however; what is unique is the extreme reliance of the private car. Statistics show the average person in Northern Ireland makes 81.5 per cent of all their journeys by car² compared to 63 per cent in the UK³ and just over 50 per cent in the Republic of Ireland (ROI).⁴ In terms of commuting into

¹ (DARD) Department of Agriculture and Rural Development (2007) "Northern Ireland Strategy Plan For Implementation Of The EU Rural Development Regulation In 2007 – 2013" [online] available from: <http://tiny.cc/3hh5o>

² (NISRA) Northern Ireland Statistics and Research Agency (2008) "Travel Survey for Northern Ireland 2006-2008". (DRD) Department for Regional Development: Belfast

³ (DfT) Department for Transport (2009) "National Travel Survey 2009" [online] available from: <http://tiny.cc/fi4yc>

⁴ (CSO) Central Statistics Office (2006) "Census 2006 - Volume 12 - Travel to Work, School and College- Entire Volume" [online] available from: <http://tiny.cc/60ufv>

Belfast, where 30 per cent of the total employment in Northern Ireland is based,⁵ prevalence for single occupancy journeys has been shown,⁶ making Belfast the third most congested city in GB and tenth in Europe.⁷ These figures which highlight the significant challenges faced in reducing the negative environmental impact of transport.

While it is fair to say that Government will be more concerned with reducing CO₂ emissions than the average commuter, other impacts of increased car use and particularly single occupancy journeys, such as congestion and increased journey times may encourage people to get out of their cars or at least into sharing with others, particularly if better options are more accessible. Modal shift is a fundamental component of all sustainable transport models, and achieving it, to a level which makes a difference in terms of reducing the negative impacts of transport will arguably prove the single greatest challenge to delivering sustainable transport in Northern Ireland.

Previous research was provided to the Committee for Regional Development which looked at the Sustainable Transport Actions taken in the UK and Republic of Ireland (ROI).⁸ While this paper addressed a wide spectrum of measures enacted to achieve sustainable transport, members requested some elaboration on measures taken by the Irish Government to encourage modal shift. This paper considers measures taken by the Irish Government to encourage modal shift, particularly in the major urban centres of Dublin and Cork.

2 Modal Shift in ROI

The Irish Census in 2006 identified a growing prevalence of car use for commuter journeys that surpassed all other forms of transport. It noted an increased reliance on car transport with an overall decrease in public transport use, although the launch of the LUAS (in Dublin) Light Rail Transit (LRT) did see the numbers travelling by train increase by over two thirds.

Increased car use ultimately leads to congestion and the Irish Census showed that even though urban workers travelled shorter distances to their workplaces than workers living in rural areas, traffic congestion meant that they spent longer periods commuting (27.9 minutes compared with 26.8 minutes for rural workers).⁹

The Irish Governments sustainable transport policy, Smarter Travel, identifies a number of key targets that will lead to sustainable transport, these are summarised below. Notably achieving modal shift, particularly for commuting, which accounts for the most time spent travelling, is a key target area. They aim to:

⁵ Belfast City Council (2008) "Belfast: A Profile of the City 2008-2009" [online] available from: <http://tiny.cc/nlj1m>

⁶ McKibbin, M. (2006) *Correspondence with Mr. Gregory Campbell*, Dated 6 April 2006 [online] available from: <http://tiny.cc/2xye5jv4dd>

⁷ Olson, P. and Kelly, N. (2008) "Europe's Most Congested Cities". Forbes Magazine [online] 28th April 2008 available from: <http://tiny.cc/uhvua>

⁸ Pelan, K. and McKibbin, D. (2009) "Sustainable Transport: Actions in Scotland, the Republic of Ireland, England and Wales". NI Assembly Research, available from: <http://tiny.cc/o9w7y>

⁹ Central Statistics Office (2006) "A profile of the working population of large towns" [online] available from: <http://tiny.cc/69aqr>

- reduce the need to travel for employment and services;
- get 500,000 more people to take alternative means to commute to work;
- Alternatives such as walking, cycling and public transport will be supported and provided to the extent that these will rise to 55% of total commuter journeys to work.¹⁰

Smarter Travel was launched in February 2009 and one year later the Irish Government published details of achievements it had made in that time.¹¹

Progress made on cycling and walking policies

One of the first achievements was the publication of Ireland's First National Cycle Policy Framework (NCPF). It was published in April 2009 with the aim of creating a cycling culture in Ireland that would see 10% of all trips being made by bike by 2020.¹² According the NCPF such frameworks have been proven as a powerful tool to encourage cycling in urban areas based on a combination of Hard (infrastructure) and Soft (education) measures. Projects progressed to date include:

- the first ever all-island Bike Week (13th -20th June 2010) and the commencement of mapping of a National Cycle Network (August 2010)¹³;
- A cycle hire scheme in Dublin was successfully established;
- Work commenced on the drafting of a National Walking Policy;

Smarter Travel Project Fund

To support the Governments Sustainable Travel Policy: Smarter Travel, the Smarter Travel Project Fund, estimated at **€15 million** (over five years), was set up. In effect it was a competition where applicants had to **show** that their scheme could demonstrate innovation in sustainable travel; the model of which could be applied elsewhere.

According to the Department of Transport, projects were assessed on their merit by experts in the relative fields, while the diversity of these projects made this an arduous process; it was compounded by budgetary constraints which meant that proposals for some innovative and often expensive projects had to be passed on in favour of smaller more affordable projects.¹⁴ The first call for applications closed in September 2009 and a total of 121 applications for funding were received. There are currently 31 demonstration projects being funded; those located in the Greater Dublin Area and Cork are summarised in table one.

Modal Change in Schools and Workplaces

¹⁰ Department of Transport (2009) "Smarter Travel: A Sustainable Transport Future" [online] available from: <http://tiny.cc/n9l44>

¹¹ Department for Transport (2009) "Smarter Travel – one year on progress report" [online] available from: <http://tiny.cc/s5o6m>

¹² Department for Transport (2009) "Ireland's First National Cycle Policy Framework" [online] available from: <http://tiny.cc/6v8pe>

¹³ Department for Transport (2010) "National Cycle Network: Scoping Study" [online] available from: <http://tiny.cc/ustwn>

¹⁴ Department for Transport – Personal Correspondence with Ken Jordan, National Sustainable Transport Office, Department of Transport; kenjordan@transport.ie

Smarter Travel work places is a scheme designed to specifically target employers and employees by demonstrating to them the mutual benefits of being a Smart Travel work place, which include: improved health; cleaner environment; saving money; reducing stress; reducing congestion and saving time. To date 65,000 employees in 30 organisations were covered by workplace travel plans resulting in a 16% reduction in car use. The National Transport Authority (NTA) has commenced a national programme to target 250,000 employees by 2012.

In addition to encouraging modal shift for commuters the Department for Transport's Green Schools Travel Programme has been set up to target school children and their parents "*Green-Schools Travel encourages pupils and parents to walk, cycle, Park n Stride, use public transport or car pool instead of using the private car on the school run*".¹⁵ The scheme is managed by the National Transport Authority (NTA) and although relatively new, it has proved very successful reaching 144,000 schoolchildren in 482 schools by the end of 2009 compared to 49 (schools) in its first year. It has yielded an average reduction of 18% in children travelling to school by car (equates to a saving of 100,000 car trips per annum). The approved national programme aims to reach 260,000 schoolchildren by 2012.¹⁶

Table 1: Smarter Travel Project Fund – Details of Funded Projects

Applicant	Project Name	County	Project Proposal Summary	Agreed Proposed Funding (€)
UCC	Campus Bike	Cork	18 month project aimed at providing UCC members of staff with access to a fleet of (rental) bicycles, Used for travel between campus locations and places within Dublin, during the day.	€19,750
Cork City Council	Cork walks development	Cork	This project will promote walking as an active travel mode, and also provide a tourist amenity by establishing city wide colour coded walking trails	€150,000
Cork City Council	30kph zone	Cork	Designed to improve walking and cycling comfort and safety in the city centre encouraging this mode of travel within the city	€45,000
Dublin Cycling Campaign	Bikeability map of Dublin City	Dublin	This is a study that will prepare a business plan (scope of work, costs, resources, and timescale) for funding and producing an online 'Bikeability' map of Dublin city centre. The structure of this work should be readily transferable to other cities and towns.	€12,000
James Leahy	Now What? Remaking the Modern Suburb	Dublin	This is a case study carried out in Balbriggan which will show how suburbs can be retrofitted in a way that encourages walking, cycling and use of public transport.	€12,000
Eircom	Integrating electric vehicles into commercial fleet	Dublin	This is a 2½ year pilot project to support the deployment of electric vehicles in Eircom's commercial fleet, and the provision of fast charging facilities in some Topaz garages.	€529,600
DLRCC	Cycleability review	DLR, Co. Dublin	This 9 month project will audit and classify roads within Dún Laoghaire-Rathdown by the cyclist skill level required to use them safely.	€60,000
DLRCC	The Metals Dun Laoghaire to Dalkey	DLR, Co. Dublin	Project to provide staff training on road user auditing and specifically on identifying needs of more sustainable transport modes including public transport, pedestrians, cyclists and motor cyclists.	€4,500
DLRCC	The Metals Dun Laoghaire	DLR, Co.	This project is based around improving the facilities of The Metals walkway, which links Dún Laoghaire town to Dalkey along the Dart	€203,000

¹⁵ Department for Transport (2009) "Green-Schools Travel: Progress Report August 2009" [online] available from: <http://tiny.cc/ingxoimwjs>

¹⁶ Ibid.

	to Dalkey	Dublin	Line and to integrate with key Dart station nodes. The project will support cycling and walking for both commuting and recreational purposes.	
Dublin City Council	Sustainable Goods Delivery	Dublin	The project aims to explore the feasibility of alternative goods and service delivery mechanisms in the city centre, including by cycle and the potential use of LUAS rail infrastructure for night time city centre goods delivery, which could interface with cycle 'final mile' on-street. The study will develop a recommended pilot scheme that could demonstrate the concept on the ground.	€170,000
Fingal Co. Council	Skerries Balbriggan cycle route	Fingal, Co. Dublin	This project, which will take place over 3 years, proposes to develop and upgrade cycle and walking routes in the Skerries and Balbriggan areas.	€757,000

Innovative Concepts for Sustainable Transport in Dublin

Quality Bus Corridors

Dublin City has over 200km of Quality Bus Corridors (QBC)¹⁷ which facilitate the provision of a faster, more frequent and more reliable bus service in Dublin City Centre:

- they provide adequate loading and parking facilities for businesses;
- improve safety for all classes of road users including pedestrians, combined with new or improved cycling facilities and crossing facilities for pedestrians;
- They Increase speed for buses, better reliability of service, improve patronage levels, safer environment for pedestrians and cyclists.

Outcomes and impacts can be evaluated in terms of:

Change in use of single modes: Bus journey speeds have increased by 15-20% giving an overall reduction of 10 minutes for the route. Bus passenger numbers in the morning peak have increased by up to 11%, of which 25% are new passengers transferring from cars. Car drivers manage to find alternative routes away from the QBC.

Change in modal split: Bus share has increased by 11% to 57% at the Cordon; Car share has decreased by 6% to 33% at the Cordon traffic safety: There are minor accidents involving cars on a daily basis, possibly caused by driver frustration; cars are moving slower as public transport is moving faster.

Environment: Requirement for cleaner fuels, better maintained and more modern buses Combination of cycle track and bus lane has been very positive

Land use development: Increased densities around QBCs. Perception that inclusion of cycleways is a poor use of land due to under use by cyclists.¹⁸

¹⁷ Dublin City Council (2010) Quality Bus Network Office [online] available from: <http://tiny.cc/uylif>

¹⁸ OSMOSE (2009) "Quality Bus Corridors in Dublin (IE)" [online] available from: <http://tiny.cc/tihlg>

Innovative Concepts for Sustainable Transport in Cork City: the NICHES + Project

Cork City is one of the Champion Cities in the NICHE + Project. NICHE (New and Innovative Concepts for Helping European Transport Sustainability) is a project supported by the Directorate General for Research of the European Commission. Its overall aim is to:

*“...facilitate the coordination of research activities of academic institutions, industry, transport operators and authorities regarding key urban transport innovations that lack broad deployment. More specifically NICHES promote the most promising new urban transport concepts, initiatives and projects (NICHES Concepts) to move them from their current “niche” position to a “mainstream” urban transport policy application”.*¹⁹

In terms of transport Cork City demonstrates many of the same characteristics as Belfast; in that respect it shares similar problems, including:

- Congested city centre;
- Excessive dependence on private car for access to city centre;
- Need to prioritise public transport systems; and
- HGVs travelling on routes adjacent to city centre.

In being part of the NICHE project Cork City Council aims to address these issues by creating an integrated transport system that will facilitate a reduction in car dependence and the prioritisation of public transport, cycling and pedestrian mobility.²⁰

To achieve these aims, Cork is developing a Mobility Management Centre (MMC) with fully integrated services and functions to support the development of a more sustainable, efficient and effective transportation system. Infrastructure will be deployed to supply integrated multi-modal real-time public transport information (RTPI) to commuters. Implementation of the bus RTPI will result in an increased level of service and awareness for users throughout metropolitan Cork. The scheme will contribute to the City Council's commitment to deliver a more sustainable transport network. The long term strategic aim is to provide 'Mobility Management on the Move' using RTPI and ITS delivered to complementary public transport modes including trains and planes.

3 What can we learn?

In both this paper which has looked at actions to achieve modal shift and the previous paper which looked at the broader theme of sustainable transport it has been demonstrated that the Irish Government are committed to a sustainable transport future. Their initiatives like Smarter Travel Areas,²¹ Smarter Travel projects and

¹⁹ NICHES (2010) "Innovative Urban Transport Concepts: Moving from Theory to Practice" [online] available from: <http://tiny.cc/fo2qy>

²⁰ NICHES (2010) "The Cork Mobility Management Centre" [online] available from: <http://tiny.cc/5og6m>

²¹ See: Pelan, K. and McKibbin, D. (2009) "Sustainable Transport: Actions in Scotland, the Republic of Ireland, England and Wales". NI Assembly Research, available from: <http://tiny.cc/o9w7y>

Smarter Travel workplaces all aim to combine soft and hard measures to encourage modal shift, making public transport, walking and cycling much more attractive. As for what can be learned; well clearly it is really too early to say.

The Smarter Area's have yet to be announced, but this is imminent and Smarter Travel Projects are underway, but as suggested many good projects have been left on the shelf due to budget constraints. The combination of soft measures, such as those applied in the Green School and Smart Travel work place schemes and hard measures as demonstrated in Quality Bus Corridor Scheme clearly show people are willing to change, but encouragement through marketing or better infrastructure/service is essential if this is to be sustainable.