

Challenge Europe: Northern Ireland/Republic of Ireland 2009-2010

Promoting Urban Sustainability

Introduction

Promoting Urban Sustainability is one of three projects being taken forward by British Council Challenge Europe participants from Northern Ireland and the Republic of Ireland. The *Promoting Urban Sustainability* project comprises a programme of research, stakeholder engagement and lobbying aimed at ensuring Governments in Northern Ireland and the Republic of Ireland place sustainable transport options at the heart of their transport policies for cities and urban areas.

Project Overview

The *Promoting Urban Sustainability* project will run for one year. Project participants are in the initial stage of identifying examples of best practice in sustainable transport from across the globe. This paper overviews the issues participants are currently examining from which they will draft policy recommendations for key political decision makers. We welcome the Regional Development Committee's inquiry into Sustainable Transport and would be keen to present our policy recommendations to the Committee if requested by the Committee Chairperson and Members. We anticipate the research phase of the project will be complete by November 2009, with initial policy recommendations developed by January 2010.

The Current Situation

- The Stern Review (2006) estimates the economic impact of failure to reduce the current level of greenhouse gas emissions will be equivalent to losing at least 5% of global GDP each year, now and forever.
- The UK Climate Change Act sets a target for an 80% reduction in greenhouse gas emissions below the 1990 baseline by the year 2050.
- In 2006 road transport accounted for 21% of all greenhouse gas emissions in Northern Ireland¹.

¹ National Atmospheric Emission Inventory (2008) *Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990 - 2006*

- Technical improvements in vehicle efficiency will lead only to small reductions in Northern Ireland's level of greenhouse gas emissions from transport. To ensure significant reductions in transport related emissions a modal shift is needed in transport behaviour coupled with an overall reduction in vehicle kilometres travelled².

Promoting Urban Sustainability will consider the potential of various options for delivering a modal shift in transport behaviour and an overall reduction in vehicle kilometres travelled. The following options are currently under investigation.

Encouraging Car sharing

High Occupancy Vehicle Lanes

High Occupancy Vehicle (HOV) lanes are lanes on motorways or dual carriageways in which only vehicles with 2 or more occupants are permitted to travel. HOV lanes can be introduced when enlarging existing roads or one existing lane of motorway or dual carriageway can be converted to HOV status. The restrictions on these lanes may be in operation at all times or at peak hours only.

Prioritising the flow of HOVs will have the effect of reducing the travel time for occupants of these vehicles, thus encouraging travellers to car-share. Where existing lanes are converted to HOV status, the increase in traffic density in non-HOV lanes will further discourage single occupancy vehicles and motivate travellers to car-share. Reducing the number of vehicles travelling the same route will result in a decrease in the total number of vehicle kilometres travelled and will yield a reduction in the total level of greenhouse gas emissions.

HOV lanes have been widely implemented in the US and Canada, and more recently have been introduced in GB. HOV lanes operate on the A647 dual carriageway in Leeds, and the A4174 in South Gloucestershire, a dual carriageway orbital route to the North of Bristol. HOV lanes are also being considered for implementation on the A256 in Kent. Where HOV lanes are introduced, local councils have cooperatively launched websites to promote car sharing, similar to the DRD Travelwise Carshare NI scheme. Implementation of the HOV scheme in South Gloucestershire has resulted in a 10% reduction in single occupancy vehicles (from 80% to 70%) and a 10% increase in vehicles with at least 1 passenger (from 20% to 30%) travelling the route³.

The findings of a UK Highways Agency feasibility study conducted in 2004 recommended that HOV schemes could be successfully introduced at each of

² Maguire, C., Curry, R. and McClenaghan, A. (2008) Northern Visions – Footpaths to Sustainability.

³ Department for Transport (2006) *Traffic Advisory Leaflet: High Occupancy Vehicle Lanes*

four potential GB locations examined⁴. We aim to conduct further research into the potential for introduction of HOV lanes on major arterial routes into Belfast and potentially other cities in Northern Ireland.

Improving Cycling Infrastructure

Increasing the number of people cycling has many benefits for a modern city. It is an effective method of reducing carbon emissions, it does not pollute or make noise, it reduces congestion on the roads and it's healthy and cheap. Cycling presents benefits which both walking and public transport are unable to. Public transport can reduce private car use and associated greenhouse gas emissions but does not provide the health benefits of cycling. Conversely, walking provides health benefits but is less realistic an option for journeys of three or four miles or more.

In addition to reducing carbon emissions, improving cycling rates will yield health benefits in terms of reduced cases of obesity, coronary heart disease and mental health problems. The economic benefits associated with cycling include improved workforce efficiency and reduced rates of absenteeism⁵. Cycling should be considered a long-term option for sustainable urban transport and we believe there are many examples from which we can learn in order to boost cycling rates in Northern Ireland and turn Belfast into a cycling city.

Cycle Rental Schemes

A socially responsible city should provide its dwellers with the means to commute and have a healthy lifestyle. This is already the case in many cities worldwide. Paris, Barcelona, Copenhagen, Lyon, Vienna, Seville and Montreal all have low-cost bicycle rental schemes. Closer to home Dublin is launching "Dublinbikes" in September 2009 and London is due to introduce a scheme in May 2010.

We propose to look at the examples of international best practice, concentrating on the schemes in Paris and Dublin. These schemes are implemented through a symbiotic partnership of Local Government and modern advertising. The Paris Velib rental scheme is operated by the advertising agency JC Decaux. Paris City Council signed over exclusive control of over 1,628 city owned on-street advertising hoardings to JC Decaux who in return paid for supply and repair of the bicycles and covered all start up costs. Paris City Council receives all the revenue from the programme as well as a fee from JC Decaux of approximately US\$4.3 million a year. In the first three months of operation there were 100,000 users daily, traveling a total of 300,000 km. This translates to a 32,330 tonne reduction of carbon dioxide emissions annually⁶.

⁴ The four motorway sections pre-selected by the Highways Agency were all on radial routes used by commuters to major cities i.e. M3 junctions 2-3 and M1 junctions 13-7 (both London), M61 junctions 6-3 (Manchester) and M62 junctions 25-27 (Leeds).

⁵ SQW (2007) Valuing the Benefits of Cycling: A Report to Cycling England

⁶ Calculation based on user figures from 15 July – 11 September 2007, when an average 100,000 users per day cycled 300,000 km per day. This amounts to a CO2 emission reduction of 88.58 tonnes and a projected annual saving of 32,330

The scheme in Paris is the largest in the world, utilising 20,000 bicycles and employing 285 people in green jobs full time operating the system and repairing the bicycles. A bicycle can be hired from and returned to any of the 1,451 Velib stations. Stations are located approximately every 275 meters throughout the city.

Dublinbikes is primarily based on the Paris scheme. It is funded by JC Decaux and both Dublin and Paris operate the same charging principles. A user of the scheme buys a daily, weekly or yearly pass, priced at €1, €7 or €29 respectively and guarantees a €150 deposit payable by credit card if the bicycle is not returned after a specified period of time. The first 30 minutes of use are free, then the user is charged €1 for each subsequent 30 minutes. The fee structure supports the fundamental principle behind the rental scheme that the bikes are for city commuting and are for use by the whole community.

There are many potential benefits for Belfast from introducing a public rental bicycle scheme. Cycling presents commuters with a “no-carbon” transport option and cycle hire points could be positioned to interconnect with existing bus and rail services and the forthcoming rapid transport system. Public transport passengers would be able to access rental bicycles on disembarking their bus or train, cycle to their destination and leave the bicycle at a nearby rental station. The scheme would also have significant potential to support Belfast’s tourism industry and would provide a revenue stream for either Belfast City Council or Central Government, depending on which tier of Government the scheme was operated by. We propose to examine the potential for introducing a bicycle rental scheme in Belfast to provide the people of Belfast with a sustainable form of alternative urban transport that will enhance their lifestyle.

Cycle Infrastructure Development

Transport statistics indicate that on average 35.5% of journeys made in Northern Ireland between 2005-2007 were 2 miles or less and 63% of journeys were 5 miles or less. However, cycling on average accounted for only 19 of the 5,999 miles travelled by each person living in Northern Ireland⁷. If even half of all journeys of 5 miles and under were made by bicycle rather than private car this would have a dramatic effect in terms of reducing the level of greenhouse gases emitted in Northern Ireland.

We know that 22% of the population would cycle more if Government invested to improve cycle track networks⁸. We aim to examine international best practice to determine how cycle lane networks can be improved in Northern Ireland’s urban centres to increase the number of people commuting by bicycle. We will study

tonnes CO₂, assuming the modal shift is from car to cycle and 1km driven by car = 0.3kg CO₂ emitted and cycling = zero emissions.

⁷ DRD Roads Service (2008) Travel Survey for Northern Ireland: 2005-2007

⁸ DRD (2009) Public Perceptions of Car Emissions

the example of Copenhagen where 36% of residents travel to work by bicycle. We will also examine the issue of social inclusion when investigating how cycling infrastructure can be improved across urban areas to ensure equality of access to transport for all citizens.

Promoting Urban Sustainability will also research ways in which Government could help employers to make cycling a viable transport choice for their staff. Potential options include Government grants to cover provision of cycle parking, changing and showering facilities, bicycle maintenance and cycle training. Recommendations will also be developed regarding how train services could better accommodate cyclists during peak travel times to ensure provision of a fully integrated sustainable transport network in Northern Ireland.

Next Steps

Project participants are currently undertaking research regarding the feasibility of introducing the above mentioned transport options in Northern Ireland. Policy recommendations based on the findings of this research will be made available to the Department for Regional Development, the Regional Development Committee and other relevant stakeholders in due course.

Project participants

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