

Ireland's First National Cycle Policy Framework



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Foreword

by the Minister for Transport



Cyclists matter.

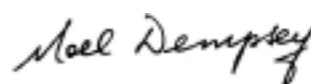
Just like other road users they deserve a safer, easier travelling experience and that's what I propose to deliver with Ireland's First National Cycle Policy Framework. I firmly believe that with the actions set out in this document we can look forward to the prospect of a new culture of cycling in Ireland by 2020. I want to see 10% of all trips to work being made by bike within the next twelve years. That will mean an extra 125,000 people commuting to work by bike. That's a lot of people but by working together I am confident that it can be done.

Over recent years, despite various attempts to improve the lot of the cyclist, including limited investment in cycle lanes and facilities, the popularity of cycling has steadily declined. The numbers using the bike for commuting fell from 7% in 1986, to 4.2% in 1996 and to 2% in 2006. As we become increasingly aware of issues such as lengthening journey times, traffic congestion and greenhouse gas emissions from vehicles on the one hand and the health benefits of pursuing more active lifestyles on the other, a return to the bike becomes a very sensible option.

A key lesson that we have learned in producing Ireland's First National Cycle Policy Framework is that no single action will prompt people to cycle. That is why this policy framework outlines a comprehensive package of interventions to make cycling not only easier but safer too.

I know that if we are to meet our ambitious target of 10% commuting by bike by 2020, it will be a major challenge for everyone involved. We will need to innovate, adopt new ways of working together and radically change public attitudes towards cycling.

Not only am I up for the challenge but I firmly believe that we can do it.



Noel Dempsey T.D.
Minister for Transport





00

Executive Summary

This document sets out the National Cycle Policy Framework, 2009-2020. The backdrop to this policy is the Government's new transport policy for Ireland 2009 - 2020 *Smarter Travel - A Sustainable Transport Future*.

Vision / Reasons to Promote Cycling

The mission is to create a strong cycling culture in Ireland. The vision is that all cities, towns, villages and rural areas will be bicycle friendly. Cycling will be a normal way to get about, especially for short trips. Cycling contributes to improved quality of life and quality of the public realm, a stronger economy and business environment, and an enhanced environment. A culture of cycling will have developed in Ireland to the extent that 10% of all trips will be by bike by 2020.

Decline in Cycling Numbers

Cycling has been in steep decline since the 1980's. In 1986 a total of 23,635 primary level pupils cycled to school whereas in 2006, only 4,087 primary school pupils cycled to school (a decline of 83%).

Why a National Cycle Policy Framework (NCPF)?

International experience indicates that having an NCPF can be a powerful tool to encourage cycling in urban areas. Such a framework can provide a common, integrated basis for the long term development and implementation of cycling policies among various sectors and levels of government. The preparation, and implementation, of an NCPF is part of the contribution to a sustainable travel vision, and contributes to cultural development.

Criteria for Success

The most important factors in ensuring that an NCPF is successful are as follows:

- The participation of many stakeholders across several government departments, many agencies, all local authorities and other non-governmental organisations and institutions.
- Appropriate levels of, and timely, funding for the initiatives.
- The knowledge and human resources available to implement the policies.
- Legislation and Enforcement.

Breadth of Interventions

There is no single action that will prompt people to cycle. There needs to be a wide package of measures to reverse the decline in cycling numbers. These measures need to integrate with wider transportation policies as well as other policy fields such as land-use planning, road safety and health. The efforts of formulating and implementing all of the policies must be maintained over the long-term. Broadly, the interventions can be grouped into:

- Planning and Infrastructure
- Hard (Engineering Measures).
- Communication and Education
(Soft Measures).

Safety is covered by both of these headings. It is also covered in Legislation/Enforcement and Policy Evaluation.

Interventions - Planning and Infrastructure (Chapter 2)

At the highest level, all planning should consider the needs of cyclists. This should be articulated in all National, Regional, Local and sub-local plans. Cycling friendly urban planning principles will cover the need to keep distances between origin and destination short, through making developments permeable (i.e. easy for pedestrians and cyclists to pass through without making long detours) and well connected.

Transportation infrastructural designs need to be cycling friendly. Cycling-friendly means that routes taken by cyclists are safe, direct, coherent, attractive and comfortable. It is acknowledged that the quality of the dedicated cycling facilities designed and constructed to date in Ireland has been inadequate. In many cases, their provision has not, generally, led to an overall increase in cycling numbers. A new approach is required in which a “hierarchy of measures” is followed. The focus needs to be on:

- reducing volumes of through-traffic, especially HGVs, in city and town centres and especially in the vicinity of schools and colleges;
- calming traffic / enforcing low traffic speeds in urban areas;
- making junctions safe for cyclists and removing the cyclist-unfriendly multi-lane one-way street systems.

The other interventions include the following:

- Schools will be a strong focus of the NCPF.
- we will support the provision of dedicated signed rural cycling networks building on Fáilte Ireland’s Strategy to Develop Irish Cycling Tourism. This will cater for recreational cyclists as well as visitors.
- we will ensure that all surfaces used by cyclists are maintained to a high standard and are well lit.
- we will ensure that all cycling networks – both urban and rural – are sign-posted to a high standard.
- we will support the provision of secure cycling parking at all destinations of importance to the cyclist.

- we will pay special attention to integrating cycling and public transport (PT). As commuting distances are lengthening, the importance of combining the bicycle with the bus, tram or train grows. We will provide state-of-the-art cycling parking at all appropriate PT interchanges and stops. We will also ensure that intercity and suburban trains have proper provision for the carriage of bikes – either on all services or (in the case of sub-urban trains) on off peak (counter-peak) services.
- we will create municipal bike systems to complement the other elements of a radically improved public transport system.

Interventions - Communication and Education (Chapter 3)

We will use marketing tools to improve the image of cycling and to promote its use to all of the main target groups. The marketing effort will concentrate on countering cycling's poor image and selling the benefits – the freedom and flexibility it offers, the health benefits, its speed in congested urban areas etc. We will organise a National Bike Week having learnt from the experiences of similar events abroad. We will produce information and material to help promote cycling and address some of the myths, such as that "It rains all of the time".

We will work to improve the standards of cycling and cycling behaviour. This we will do through developing and implementing a National curriculum on cycling training. Cycling training will also be available for adults – both those returning to cycling and those who have never cycled before.

We recognise the importance of changing driving behaviour so as to improve the safety of all vulnerable road users, especially cyclists. We will revise the Rules of the Road so that cyclists' needs are better understood. We will work to improve driver instruction standards. We will pay special attention to bus driver training and that of heavy goods vehicle drivers.

We will pursue the introduction of fiscal incentives to promote cycling. These will include measures to allow for the purchase of subsidised bikes.

Instruments - Financial Resources (Chapter 4)

The fiscal benefits of cycling include the value to the health service as a result of not having to treat illnesses which result from physical inactivity. There are also gains in productivity arising from reduced absenteeism and having a fitter and more alert work force. Increased cycling numbers means less urban congestion, thus benefiting businesses.

Cost benefit analyses (CBA) attest to the fact that investments in cycling outweigh the costs to a far greater extent than investment in other modes.

For example, Benefit / Cost ratios of 7.4 have been shown for cycling training programmes in the UK (SQW, May 2007).

We will provide appropriate levels of, and timely, funding towards implementing the NCPF.

Instruments - Legislation and Enforcement (Chapter 5)

We will review Irish road traffic legislation to improve cyclist safety. We will improve enforcement of traffic laws to enhance cyclist safety and respect for cyclists. We will pay special attention to speeding in urban areas.

Instruments - People (Chapter 6)

We will develop the structures that are required to coordinate the implementation of the NCPF across the many government departments (central and local) and agencies with a role. We will provide design professionals with suitable training and guidance to develop and implement the policies of the NCPF. We will support the deepening of knowledge of the subject of cycling planning in all relevant bodies ranging from universities to professional institutes.

Evaluation and Effects (Chapter 7)

We will develop a monitoring framework and set of indicators to assess progress in implementing the NCPF. We will focus on measuring cycling numbers in urban and rural areas, and cycling accidents. We will use hospital records of cycle accidents to supplement Garda records. We will evaluate the success of the implementation of the NCPF on a regular basis.

Objectives In This NCPF

The objectives developed in this policy document total 19. They cover; Infrastructure (Chapter 2), Communication/Education (Chapter 3), Financial Resources (Chapter 4), Legislation and Enforcement (Chapter 5), Human Resources and Coordination (Chapter 6) and Evaluation and Effects (Chapter 7). They are listed as follows:

Objective 1: Support the planning, development and design of towns and cities in a cycling and pedestrian friendly way.

Objective 2: Ensure that the urban road infrastructure (with the exception of motorways) is designed / retrofitted so as to be cyclist-friendly and that traffic management measures are also cyclist friendly.

Objective 3: Provide designated rural cycle networks especially for visitors and recreational cycling.

Objective 4: Provide cycling-friendly routes to all schools, adequate cycling parking facilities within schools, and cycling training to all school pupils.

Objective 5: Ensure that all of the surfaces used by cyclists are maintained to a high standard and are well lit.

Objective 6: Ensure that all cycling networks - both urban and rural - are signposted to an agreed standard.

Objective 7: Provide secure parking for bikes.

Objective 8: Ensure proper integration between cycling and public transport.

Objective 9: Provide public bikes in cities.

Objective 10: Improve the image of cycling and promote cycling using “soft interventions” such as promotional campaigns, events etc.

Objective 11: Improve cyclists’ cycling standards and behaviour on the roads.

Objective 12: Improve driver education and driving standards so that there is a greater appreciation for the safety needs of cyclists.



Objective 13: Support the provision of fiscal incentives to cycle.

Objective 14: Provide appropriate levels of, and timely, financial resources towards implementing the NCPF.

Objective 15: Introduce changes to legislation to improve cyclist safety.

Objective 16: Improve enforcement of traffic laws to enhance cyclist safety and respect for cyclists.

Objective 17: Develop a structure that can co-ordinate the implementation of activities across the many Government Departments, Agencies and NGO's.

Objective 18: Provide design professionals with suitable training / guidance to develop and implement the policies of the NCPF. Support the deepening of knowledge of the subject of planning for cyclists in Ireland.

Objective 19: Evaluate the cycling policy and monitor the success as the measures are implemented.

01

Introduction

1.1 Background / Context:

The Government is committed to developing cycling as one of the most desirable modes of travel, it being good for your health, the economy and the environment. This National Cycle Policy Framework (NCPF) sets out objectives to the year 2020 to achieve its vision.

1.2 The Vision

We have examined best practice in some of the most cycling friendly cultures, and have considered the views of many of the stakeholders at home. We have identified the potential to grow cycling as a share of overall commuting and have examined the mistakes made in the past by other countries. We have identified the measures that are required to make Irish towns and villages safe and attractive for cyclists of all ages and abilities. Based upon our analysis, we have developed the following vision for 2020.

Our vision is to create a strong cycling culture in Ireland...

Our vision is that all cities, towns, villages and rural areas will be bicycle friendly. Cycling will be a normal way to get about, especially for short trips. Next to walking, cycling will be the most popular means of getting to school, both for primary and secondary school. Our universities and colleges will be bustling with bicycles. Business men and women will see the bicycle as the best way to travel for part or all of their daily commute. Shopping by bike will be as normal as it is in many of the Northern European cycling friendly countries. The bicycle will be the transport mode of choice for all ages. We will have a healthier and happier population with consequent benefits on the health service. We will all gain economically as cycling helps in easing congestion and providing us with a fitter and more alert work force.

A culture of cycling will have developed in Ireland to the extent that by 2020, 10% of all trips will be by bike.

1.3 Why Encourage Cycling?

An Improved Quality of Life

The quality of everybody's lives will improve as more of us cycle more often. We will get the regular exercise that helps keep our heart, lungs and muscles in good working order. We will live longer and be happier as our mental well-being is enhanced with regular exercise. We will have stronger communities as there will be regular interaction between those out walking and cycling in our neighbourhoods and town centres. Our streets will become more sociable, convivial and vibrant as more of our population use the quiet, non-polluting and non-threatening means of transport. Those countries which have the highest use of the bicycle have the lowest rates of cycle accidents. In these countries there is a wide variety in the ages of cyclists - i.e. the young and the old cycle daily. Many drivers also cycle.

Younger people have greater independence when they can take more of their trips by bicycle. It gives them increased confidence as they can travel to and from school on their own or with their friends, while it frees parents from the need to chauffeur their children to school. When these younger people begin to drive,



they have a strong understanding of how to drive safely on the public roads and how to interact with cyclists.

A stronger Economy

Cyclists are almost completely immune to urban congestion. They also ease congestion as they use valuable road space very efficiently. The door-to-door journey times for trips by bicycle are predictable to within a few minutes. It is the quickest mode of transport in an urban environment for trips up to 5-6km (European Commission, 1999), and for longer trips at peak hours. A cyclist is free from public transport timetables and can park his or her bicycle very easily and very close to the destination. No time is wasted looking for parking spaces. The bicycle can increase the catchment area served by a public transport service around 9 fold (based on the rationale that cycling speed is approximately three times that of walking speed). Therefore, the investments in public transport supported by cycling promotion measures can bring combined benefits. In The Netherlands 33% of all train trips begin by bike (Ministerie van Verkeer en Waterstaat, the Netherlands, 2007).

The modern approach to mobility is about giving people more options. One is not just looking at persuading more people to use bicycle for all of their trips or for the full length of their trips; one is looking at using bicycles for (at least part of) some of the trips.



Further economic benefits arise from the lower external costs of providing for cyclists compared to those associated with a more car dependant society – e.g. car accidents, policing the road network, road maintenance etc. There are also reduced public health costs when a higher proportion of the population cycle. Furthermore, cycling employees are healthier with less absenteeism and are more alert than their non-cycling colleagues (Cycling England, 2007). At an individual level, one has greater disposable income to spend on other goods & services.

The business environment in towns and cities improves when there are more cyclists in the traffic mix: there is an increased perception of security in a city where there is the ‘passive policing’ of streets by cyclists (as with increased pedestrian numbers) as against one in which cars dominate the streets (European Commission, 1999). There is also an increased use of local services / decreased leakage from local economies when people cycle to local shops etc.

Cycling tourism is an important activity as it brings money directly into rural Ireland. This is especially important in the context of the current trend in which visitors are taking shorter breaks mainly to cities (Fáilte Ireland, 2007). Finally cycling gives adults increased access to labour markets compared to when the labour force uses (walking and) public transport only.

An Enhanced Environment

It takes very little energy and resources to construct bicycles and the bare minimum to use them. In a world where fossil fuels are increasingly expensive and insecure, it makes sense for us to use the bicycle for shorter trips. This will result in a significant reduction in CO₂ emissions.

If a car trip is replaced by a bicycle trip, then one saves, on average, approximately 150 grams per kilometre. When one replaces 2000 km of car trips by bicycle trips, then one saves 300 kg of CO₂.

At a local level, the quality of air in our cities would improve if more people cycled.

1.4 Why Is A National Cycle Policy Framework Being Developed?

There is currently no NCPF in Ireland. International experience indicates (ECMT, 2004) that having a national cycling policy can be a powerful tool to encourage cycling in urban areas and rural recreation. Such a framework can provide a common, integrated basis for the long term development and implementation of cycling policies among various sectors and levels of government. It can:

- articulate common objectives, goals, and a set of specific, integrated, co-ordinated actions among the different departments and agencies (horizontally), as well as among national, regional and local authorities (vertically), and in partnership with industry, cycling associations and other stakeholders;
- demonstrate political will and commitment at the national level, thereby pushing cycling policies higher on the policy agenda;
- raise awareness and “demarginalise” cycling as a sustainable mode of transport;
- provide a basis for the monitoring and evaluation of cycling policy implementation by national, regional and local authorities.

Furthermore, in the Irish context particularly, the NCPF:

- is part of the contribution to a sustainable travel vision,
- is part of a process of cultural development;
- is a tool to help leverage funding for schemes;
- can help set standards and develop quality criteria.

1.5 The Decline In Cycling In Ireland

Commuting cycling has been in marked decline since the 1980s both for adults as well as children. In 1986 a total of 23,635 primary level pupils cycled to school whereas in 2006, only 4,087 primary school pupils cycled to school (a decline of 83%). Of these only 1,044 were girls (25.5% of total). Census 2006 report on mode of travel (Question #17) revealed that only around 1.9% of adults used a bike to go to work.

If one is to reverse the trend, strong interventions are required.

1.6 Criteria For Making NCPF Successful

Successful cycling policies must integrate with wider transportation and other policy fields (such as planning, road safety, public health etc.)

The most important factors in ensuring that a national cycling policy is successful are as follows (Pettinga, A., 2006) and (Crass, M., 2005):

- the participation of many stakeholders across several government departments, many agencies, all local authorities and other non-governmental organisations and institutions;
- funding for the initiatives;
- the knowledge and human resources available to implement the policies;
- legislation and Enforcement.





02

Interventions – Infrastructure & The Physical Environment

The objectives presented in this chapter cover the interventions relating to our physical environment that need to be made in order to encourage cycling. The objectives are presented moving, broadly, from the largest scale (urban / regional planning) to a detailed level (provision of cycling parking etc.) and are not necessarily related to their priority. In promoting cycling, we need to have cycling-friendly urban planning and cycling-friendly road design / traffic management measures and integration with public transport and plentiful cycling parking and the other measures described in this document. It is a very broad package of measures that is required, not just single, specific interventions.

Objective 1

Support the planning, development and design of towns and cities in a cycling and pedestrian friendly way.

Discussion

The current development of towns and cities often takes place in a way that results in long distances between the trip origin and destination, such as between the home and school. While the distance “as the crow flies” may be quite short, the route that walkers, cyclists and public transport users take can involve long detours. What is required is more compact, mixed-use developments which are permeable and well connected to existing developments for cyclists (and pedestrians). This ensures more direct routes for the more sustainable modes. What is also required is high quality civic spaces that are not dominated by moving or parked motorised vehicles.

The reasons why many developments / town centres and extensions do not have these characteristics are manifold but include the absence of an approach of integrating land-use and transportation for most towns / developments. There is still an over-emphasis on designing for the motorised vehicle rather than the more sustainable modes. Policies to respond to this must address both existing and future developments.

It should be noted that the term cycling-friendly is used throughout this report. This has a broader meaning than just safe for cycling. It also encompasses the quality criteria of coherence of route, directness, comfort and attractiveness. These criteria also apply to walking.

No.	Policy	Implemented by
1.1	Planning Guidelines We will ensure that all planning guidelines and strategies support cycling promotion as a stated objective. This will be at the levels of National Spatial Strategy, Regional Planning Guidelines, Development Plans and Local Area Plans.	DoEHLG + LA's
1.2	Additional Planning Guidelines and Instruments We will examine the success of additional planning guidelines and instruments such as the (non-statutory) Integrated Framework Plans for Land Use and Transportation (IFPLUTS), (statutory) Strategic Development Zones (STZ's) and masterplanning as devices to facilitate producing cycling friendly (urban) planning. On the basis of this examination, we will ensure that the most successful tool is used more extensively so as to ensure that future developments are planned in a cycling-friendly way.	DoT + DoEHLG + LA's
1.3	Policies concerning the locating of retail, commercial, schools and colleges. We will ensure that development plans favour the locating of retail outlets (and other important destinations) in areas that are serviceable by non-motorised modes.	DoEHLG + LA's



No.	Policy	Implemented by
1.4	Urban Design <p>We will produce design guidance similar to the UK “Manual for Streets” (MfS) to assist planners, transportation consultants, architects and other design professionals in “the art of making places for people”. We recognise that national guidance documents should firmly situate the design of roads and streets within urban design. The MfS document emphasises the role of streets as social spaces, where people come first. The new Irish guidance that is required will cover not only the design of residential streets but town/city centres and mixed use areas.</p>	DoEHLG
1.5	Cycling Demonstration Towns <p>We will develop “Cycling Demonstration Towns” showing best practice in cycling- friendly urban planning, urban design and traffic engineering. This will include the retrofitting of existing impermeable / poorly connected developments. Such schemes will take place following studies of the experiences of UK Cycling Demonstration towns and other European Cycling Cities (such as Odense, Denmark). The CDT’s developed can showcase all interventions positive for cycling, not just those at a “high level” (i.e. planning level).</p>	DoT

No.	Policy	Implemented by
1.6	<p>Existing Development Layouts</p> <p>We will develop a national programme of remedial works to enhance the layout of housing estates with a focus on creating a network of attractive back-street routes closed to motor traffic but available for use by child cyclists and less confident adult cyclists.</p>	DoEHLG + L.A.'s
1.7	<p>Development Plans, Local Area Plans and National Cycle Policy Framework</p> <p>We will ensure that that all Development Plans are reviewed by DoEHLG so as to ensure that they are consistent with the objectives and policies of the NCPF. We will ensure that the development plans contain objectives to produce local cycling policies. The content of the policies should be informed by best international practice.</p> <p>Such cycling policies would form part of Local Transport Plans (see 2.2)</p> <p>We will produce specific guidance for Local Authorities for inclusion in Development Plans on effective means of enabling direct cycle routes / accessibility through new developments and enabling connectivity to shops, schools and other facilities such as public transport stations/stops.</p>	DoEHLG + DoT
1.8	<p>Planning & Development Act 2000</p> <p>Schedule 1 to the Planning and Development Act 2000 lists the purposes for which objectives may be indicated in the Development Plan. Point 2 refers to the promotion of sustainable settlement and transport strategies in urban and rural areas. We will re-examine this point and, if necessary, to expand it to refer specifically to cycling.</p> <p>Furthermore, we will emphasise cycling in an updated version of the publication "Development Plans, Guidelines for Planning Authorities", DOEHLG June 2007. This will facilitate specific policies in Development Plans.</p>	DoEHLG

Objective 2

Ensure that the urban road infrastructure (with the exception of motorways) is designed / retrofitted so as to be cyclist-friendly and that traffic management measures are also cyclist friendly.

Discussion

The current design of many urban roads is still focused on motor powered vehicles, often at the expense of cyclists and pedestrians. Examples include multi-lane one-way streets, large complex junctions - especially roundabouts, left-only slip-lanes and other free-flow arrangements. Many examples of parts of the urban cycle networks that have been provided to date produce a loss of priority to cyclists at junctions compared to what they would have if they remained on the main carriageway. Such designs reflect a bias towards providing for motor powered vehicles.

A new approach to the design of urban roads in which the car does not dominate is required. There must be a greater focus on the “Hierarchy of Solutions” (as was developed in The Netherlands originally and explained in the 1996 UK Cycling Friendly Infrastructure document). This is summarized as follows here:

(1) Traffic reduction

Can traffic levels be reduced, particularly heavy goods vehicles (HGVs)? Measures could include restricting the movements of HGVs from local roads, building by-passes to divert through-traffic, and environmental road closures to discourage through-traffic.

(2) Traffic calming

Can speed be reduced and driver behaviour modified? Here the emphasis must also be on enforcement (whether through increased use of speed cameras or other technologies). The concept of “traffic calming” should also be broadened to include physical measures to revise the perceived design speeds of roads, and other measures, such as the removal of one-way street systems. Multi-lane one-way street systems require cyclists to take detours rather than direct routes. They can also be daunting for cyclists since, if one intends to take a right hand turn at a junction, then one is required to weave across several lanes of (often fast-moving) traffic.

(3) Junction treatment and traffic management

This includes:

- urban traffic control systems designed to recognise cyclists and give them priority;
- contra-flow cycle lanes on one-way streets / making two-way streets for cyclists;
- exemptions to cyclists from certain banned turns and access restrictions;
- combined bus/cycle priority measures - and building upon the successful examples already developed in Irish cities (and learning from examples of QBC/cycle designs in which the route is not perceived to be cycle-friendly).
- on-street parking restrictions;
- advanced stop lines for cyclists at traffic signals - as has already been done in some cities around the country;
- by-passes for cyclists at traffic signals;
- signalling roundabouts, changing priorities at junctions so as to make cycle friendly;
- advanced transport telematics: designing new systems to benefit cyclists.

(4) Redistribution of the carriageway

Can the carriageway be redistributed? Such as by marking wide kerb lanes or shared bus/cycle lanes?

(5) Cycle lanes and cycle tracks

In addition, having considered and, where possible, implemented all of the above, what cycle tracks or cycle lanes (if any) are necessary in order to make a route cycling-friendly?

(6) Cycleways (public roads for the exclusive use of cyclists and pedestrians)

What opportunities exist to create traffic-free routes linking, for example, residential areas to important destinations? These might include links between (previously unconnected) residential areas using parks, canal and river-side routes, e.g South Dublin County Council plan for cycling in parks.

It can be seen from the above that in making provision for cyclists in the urban environment, it is often less about providing dedicated cycling facilities and more about wider traffic interventions that benefits all of the more vulnerable road users, not just cyclists. Should

any cycle networks be developed they must adhere to the five main requirements for cycling: safety; coherence; directness; comfort; attractiveness. It must be ensured that the design process used to produce schemes incorporates the use of Road Safety Audits, and other quality control measures to ensure the designs are of the highest quality with construction standards to match. Many current designs require cyclists to yield at secondary roads when they are on primary roads, or require “the pedestrianisation of cyclists” in areas of difficulty.

It must be understood that providing cycling networks alone - if narrowly defined to only mean cycle-tracks

and cycle-lanes - is not the solution to persuading more people to cycle. The urban cycle network must consist of a broad variety of measures including: traffic-reduced areas and public squares, train station areas, school areas; cycle-friendly junctions (with, in some cases, cycle bridges and tunnels and cycle traffic lights), traffic-calmed streets; cycle-lanes with visual segregation (painted tracks); physically separated cycle tracks, cycleways; street lighting, road signs etc. i.e. it requires the full tool-box of engineering solutions. The bicycle network in this case is part-and-parcel of the integrated approach to urban traffic solutions. Urban cyclists need them and latent cyclists are waiting for them before choosing to bike.

No.	Policy	Implemented by
2.1	Design Philosophy We will ensure that when designing for cyclists (and other vulnerable road users), the design philosophy followed will be that as encapsulated in the “Hierarchy of Measures” as described above. This design philosophy must inform the development of any Local Transport Plans that are developed. See 2.2.	DoT and LA's
2.2	Local Transport Plans (LTP) We will examine the merits of introducing “Local Transport Plans” (LTP's) as instruments to ensure that more cycling-friendly policies and strategies are developed at the local level. Should any bicycle policy audits be carried out, these must inform the LTP.	DoT and DoEHLG
2.3	Through Traffic We will support local authorities in removing through-traffic from urban centres and school routes through, amongst other measures, the provision of a national programme of ring-roads and town / village by-passes. As these are built, other measures to make the town centre more bicycle friendly should be introduced: environmental traffic cells, bridge / road closures, removal of spare lanes at signalised junctions, dismantling of one-way street systems, removal / modifications of roundabouts etc.	DoT and LA's
2.4	HGV Strategies We will require local authorities to develop Heavy Goods Vehicle (HGV) Management Strategies for every town in the country. We will consider a ban on the movement of HGVs on routes to schools / other specific routes with mixed traffic between 08.30-09.30 and 15.00-17.00.	DoT and LA's

No.	Policy	Implemented by
2.5	Audits of Existing Infrastructure <p>We will carry out audits of existing urban infrastructure to assess the quality of the cycling routes using an agreed set of criteria. This would include not only existing dedicated cycling facilities but all of the other elements of the roads infrastructure used by cyclists – roundabouts, one-way streets, road narrowings, narrow traffic lanes (in the context of the development of the Quality Bus Network etc).</p>	DoT supporting LA's
2.6	Remedial Measures <p>We will carry out remedial measures on existing cyclist-unfriendly urban roads with a special focus on roundabouts, multi-lane one-way streets and road narrowing schemes. Without addressing the difficulties posed by high capacity, high speed roundabouts in urban locations – and particularly those between residential areas and schools - it will be very difficult to encourage more of the public to cycle.</p>	LA's
2.7	Future Schemes <p>We acknowledge that the designs of many of the roundabouts, one-way street systems and off-road cycle tracks that have been constructed over the last number of years are not cyclist friendly. We will ensure that new design guidance is in place before supporting local authorities in constructing future schemes.</p>	DoT
2.8	Demand Management <p>We will use demand management measures to make cities and town centres relatively more attractive for cyclists (and public transport users). These will be included in Local Transport Plans.</p>	LA's
2.9	Urban Cycle Networks <p>We will develop cycle-networks as part of wider cyclist-friendly local traffic plans / traffic management plans in all urban areas. The use of the concept of “cycle network” will not imply that the routes forming it will only consist of linked cycle-lanes and cycle tracks (as was the original interpretation of much of the network in Dublin). Instead the design philosophy will be based on the “hierarchy of measures” as described above with the focus being on the reduction of vehicular speeds, ensuring that all junctions are cycling friendly etc. We will ensure that designs are created with the principal aim of preserving cyclist momentum. We will also ensure that designs will provide for a safe passing distance of 1.5m between motorised vehicles and bicycles.</p> <p>We will also underline the need for designers to cycle all routes for which they are producing designs.</p>	DoT + LA's



No.	Policy	Implemented by
2.10	<p>Sutton to Sandycove Scheme</p> <p>We will complete the Sutton to Sandycove (S2S) cycleway / promenade.</p> <p>This 22km continuous facility will act as a commuting route as well as a world class recreational and tourist route. It will be a flagship project for the capital.</p>	DoEHLG
2.11	<p>Experiments</p> <p>We will provide support to carrying out “new experiments” in road design, traffic management and use of space in urban areas.</p> <p>For example, we will examine the work of Hans Mondermans in the Netherlands and his experiments of creating shared spaces without the use of traffic signs and lines and traffic lights etc. - now also being carried out in Kensington High Street, London - or the work of David Engwicht from Brisbane and his street party approach to traffic calming. Such experiments would be carried out by multi-disciplinary Local Authority teams.</p>	DoT

Objective 3

Provide designated rural signed cycle networks providing especially for visitors and recreational cycling

Discussion

Ireland currently does not have a National Cycle Network on the ground. However, Fáilte Ireland has produced its Strategy for the Development of Irish Cycle Tourism (Fáilte Ireland, 2007). This strategy identified an approximately 3000km long network running from Donegal along the West, South and South-east coasts and continuing along the East coast as far as the Northern Ireland border. While the main target market of the cycle tourism strategy is visitors – both overseas and domestic – the secondary target market is recreational cyclists. From the perspective of the National Cycle Policy Framework, encouraging recreational cycling is a key element of

creating a cycling culture in Ireland and recreational routes in and around urban areas, which, in turn link to rural areas are very important.

The network identified will mainly use a mix of minor roads, and some greenways. The greenways are especially important for, typically, the first 10km along the routes emanating from busy town centres which are heavily trafficked and particularly unattractive for inexperienced or very young cyclists. While the overall framework of the tourism network has been identified, there is more work to be carried out to identify further routes, particularly in the Midlands and particularly to use existing traffic free routes such as the canal and river tow paths. There is also further work to be carried out in identifying which sections of the extensive network of disused rail-lines would be most suitable to be converted to high quality, traffic-free routes suitable for cyclists of all ages and abilities.

No.	Policy	Implemented by
3.1	National Cycle Network (NCN) We will construct the National Cycle Network (NCN) as identified in the 2007 Strategy for the Development of Irish Cycle Tourism. We will ensure that the Regional Authorities will incorporate the appropriate policies into the Regional Planning Guideline so as to facilitate in the implementation of the National Cycling Network.	DoT, NRA, DAS&T, Fáilte Ireland + LA's
3.2	Expansion of NCN We will carry out further research and surveying work in order to expand the network to include rural recreational routes around urban areas and to connect major urban areas. We will pay special attention to the opportunities of using both the extensive disused rail network and canal / river tow-path networks as cycling / walking routes. In expanding the network, we will examine the recent UK experiences of the construction of their networks.	DoT and LA's
3.3	Hard Shoulders and Contiguous Areas We will examine the idea of using the hard shoulders and the contiguous space of roads with an arterial character as part of the National Cycle Network. We will ensure that those hard shoulders have the same maintenance and drainage standards applied to them as to the rest of the carriageway.	DoT and NRA
3.4	Upgrading of National Roads In regard to the upgrading of national roads, we will ensure that any such proposals do not impact negatively on the safety and perceived safety of the roads for cyclists.	DoT and NRA



Objective 4

Provide Cycling-Friendly Routes To All Schools, Provide Adequate Cycling Parking Facilities Within Schools And Colleges, And Provide Cycling Training To All School Pupils.

Discussion

The proportion of trips taken to school by bike has dropped dramatically over recent years. In recreating a cycling culture in Ireland, there must be a special focus on making the trip to school and college safe

and attractive for cyclists. This objective will tie in closely with public health objectives relating to reducing the incidence of obesity.

The provision of a safe infrastructure to schools is covered in objectives 1 and 2 above and, to a lesser extent, objective 3. The school grounds themselves should be cycling-friendly environments with well-located, safe and sheltered bicycle parking facilities at each school. Cycling education and training should be part of the school curriculum at both primary and secondary levels. (See also Objective 11)

No.	Policy	Implemented by
4.1	Safe Cycling Routes We will provide safe cycling routes to all primary and secondary schools and third level colleges by 2020. An audit will be carried out of every school / routes leading to the school from residential areas.	DoT and LA's
4.2	Low Speed School Environs We will ensure that by 2020 the environment in the immediate vicinity of schools is a safe and attractive low speed (30kph) environment with speed limits strictly enforced, and drop-off by car within a given distance restricted.	DoT and LA's

No.	Policy	Implemented by
4.3	Green Schools Programme We will expand the Green Schools Programme to all schools in the State by 2020. We will encourage all Boards of Management of Schools to develop school travel plans that maximize the use of the bike, walking and public transport. Such plans would also include consideration for the phased opening times of schools, and a relaxation of the obligation for female school students to wear skirts.	DoT + DoES
4.4	Cycling Training We will monitor the success of the cycling training programmes already provided by some local authorities (such as Dublin City Council) and, if appropriate, expand these to all schools by 2020. (See also Objective 11.1)	DoT + DoES

Objective 5

Ensure that all of the surfaces used by cyclists are maintained to a high standard and are well lit.

Discussion

Cyclists are more susceptible to being destabilised by poor road surfaces than other road users. Cyclists are simultaneously steering, balancing themselves and propelling the bike. The issue of general roads maintenance – from simple and regular sweeping

to prompt detection and remediation of potholes – is of primary importance. Indicators must be developed that roads authorities must use to assess the quality of the roads in their areas. Care must be taken to ensure that drainage is adequate and that drainage grates and gulleys are of a placing and type that does not endanger or discommode cyclists. Special attention needs to be paid to the additional maintenance needs of any segregated cycling facilities that may be created given that they are not swept by the movement of other vehicles.

No.	Policy	Implemented by
5.1	Indicators We will ensure that the indicators / standards for the quality of road surfaces, take into account the needs of cyclists.	DoT
5.2	Maintenance to Standards We will ensure that all road surfaces are maintained to the standards developed in 5.1 above.	DoT
5.3	Reinstatement by Contractors We will work with Local Authorities to assess the current consequences for contractors who do not reinstate the roads to an agreed standard. We will increase penalties, where necessary.	DoT



No.	Policy	Implemented by
5.4	Off-road Cycle Track Maintenance <p>We will encourage use by local authorities of special equipment to maintain / sweep off-road cycle tracks / cycleways. This could include the purchase of vehicles with in-built GPS systems which note the exact location of potholes etc. and which automatically relay this information back to the roads authority maintenance section (such as the system used in Odense, Denmark).</p>	DoT and LA's
5.5	Pothole Hotlines <p>We will provide support for introduction of “emergency hotlines” in all LA's to enable the (cycling) public to report potholes / inadequate reinstatement of roads, broken glass on the road etc.</p>	DoT and LA's
5.6	Lighting of Cycleways <p>We will ensure that any dedicated cycling routes which are developed which are away from the main public carriageway are well lit where appropriate.</p>	DoT's + LA's



Objective 6

Ensure that all cycling networks - both urban and rural - are signposted to an agreed standard

Discussion

There is inadequate signposting of cycling friendly routes and those routes forming parts of the cycling network (Fáilte Ireland, 2007). This is of particular relevance for those routes used by recreational and visitor cyclists.

No.	Policy	Implemented by
6.1	Signposts We will ensure that as the urban and rural cycle networks develop, sign-posting is provided to the standards developed as part of the Strategy for the Development of Irish Cycle Tourism. The signs will include directional signs, warning signs as well as interpretation panels for routes.	DoT + LA's + DAS&T, Fáilte Ireland
6.2	Cycling Maps We will support the production of cycling maps both for rural and urban contexts. Such maps can also include useful information such as details of local bicycle shops, guarded bicycle parking facilities (as they are provided) etc.	DoT + LA's

Objective 7

Provide secure parking for bikes

Discussion

The provision of well-located, plentiful, sheltered and secure parking facilities is as important to the cyclist as the provisions for moving cyclists described above. In recreating a cycling culture, it must be easy for cyclists to park their bikes as close as possible to their destination. The provision of cycling parking is also needed to tackle bicycle theft. At best, bicycle theft and vandalism deters users from buying quality bikes resulting in cyclists not benefiting from using faster, lighter, more comfortable and safer bicycles; at worst, they deter the public from buying bikes at all. Therefore it is important to understand how strategies from abroad have succeeded in tackling bicycle theft and how these may be adaptable to an Irish cultural context.



No.	Policy	Implemented by
7.1	National Guidance on Cycle Parking We will develop national guidance on cycling parking provision. This will include details of the best types of facilities for different locations depending on security, space and cost requirements. It will also include guidance to all Local Authorities indicating what are suitable levels of cycling parking for different types of developments. This guidance must be incorporated into the revision of their next Development Plans.	DoT + DoEHLG
7.2	Compliance with Planning Conditions on Cycle Parking We will ensure that Local Authorities check that developers comply with planning permission conditions regarding the provision of cycling parking facilities.	DoEHLG + LA's
7.3	Existing Developments We will encourage employers to provide cycling parking facilities at existing developments.	DoT + LA's
7.4	Guarded Bicycle Parks We will create strategically located high-capacity guarded bicycle parking facilities in city centre locations so that commuters can leave bikes safely in the city. These could, potentially, be located on the ground floor of city centre multi-story car parks, some of which are located in the centre of environmental traffic cells.	DoT + LA's

No.	Policy	Implemented by
7.5	<p>Bicycle Stations</p> <p>We will examine schemes whereby customers could pay a modest fee to have their bikes kept safe and dry, and a parking attendant could park and fetch bikes (similar to leaving coats in a cloakroom). Ideally these buildings could evolve into bicycle stations with showers, lockers, changing rooms, and could sell basic equipment like lights, bells, reflective materials, bicycle baskets and pannier bags as well as cycling maps etc. See also objective 9 below. The best known example is Munster, Germany.</p> <p>We will also consider a scheme where customers could also pay for the use of these facilities by an annual subscription which could, in turn, be subject to tax credits. The scheme could start in major urban areas and develop to include all towns and major shopping centres.</p>	DoT + LA's
7.6	<p>Mobile Cycle Parking Facilities</p> <p>We will ensure that local authorities provide mobile guarded bicycle parking facilities to let for special events, e.g. football matches, open-air festivals, village fairs etc. (See example from World Cup final in Berlin in 2006 in which mobile bicycle parking facilities were used.) - Proceedings from Velo-city, Munich 2007.</p>	LA's
7.7	<p>Tackling Bicycle Theft and Vandalism</p> <p>We will develop a national strategy to tackle bicycle theft in collaboration with stakeholders. This is likely to include cycling organizations, Local Authorities, An Garda Síochána, bicycle shops, lock manufacturers, insurance companies, producers of parking equipment etc. Such a strategy is likely to include recommendations on the need to develop a national register / database of bikes, publications aimed at cyclists advising them on how to / where to lock bikes, specific policies dealing with abandoned bicycles etc.</p>	DoT and other Stakeholders

Objective 8

Ensure Proper Integration Between Cycling And Public Transport (PT)

Discussion

The reach of public transport is limited when PT users are limited to walking to the PT stop or station. There is considerable scope for increasing the catchment area serviced by a particular PT corridor when bikes are combined with PT. As per objective 7 above,

there needs to be high quality cycling parking at all PT stops and stations. It is noted that of all train travellers in the Netherlands, 33% use the bicycle to get between home and the station. (Ministerie van verkeer en Waterstaat, 2007). There also needs to be improved provision for the carriage of bikes on public transport vehicles. The main market here is not daily commuters who will generally leave their bikes at one (or both) end(s) of the PT trip but those recreational / tourist users who want to bring their own bikes to the scenic destination.

No.	Policy	Implemented by
8.1	<p>Safe Routes to Stations</p> <p>We will require Local Authorities to provide safe and attractive cycling routes to PT stations / stops in collaboration with the PT operator. This might include, for example, the creation of a new entrance or route across lands owned by the PT agency / provider.</p>	DoT with CIÉ, RPA and LA's
8.2	<p>Cycling Parking at all PT Stations</p> <p>We will audit every intercity, sub-urban rail, (future Metro), DART, LUAS and bus station to assess existing and potential cycling parking provision and will support the construction of suitable cycling parking facilities at each station. This will include cycle parking stations that may be guarded with staff, CCTV, swipe cards etc. and will be based upon best international practice.</p> <p>We will ensure that at the planning design stage of all future PT projects, there is proper provision made for quality cycle parking facilities.</p> <p>The cycling parking design guidance produced at 7.1 above will include all the necessary technical advice on the design of such facilities at train stations.</p>	DoT with CIÉ, RPA and LA's
8.3	<p>Bicycle Stations</p> <p>We will provide, as a pilot project to begin with, bicycle stations at rail station(s) or major public transport hubs.</p> <p>Bicycle stations are guarded indoor bicycle parks with a capacity of from several hundreds up to several thousands. Mainly targeted at commuters with season tickets, they offer long opening times (before the arrival of the first train until after the last train), sales of new and second hand bikes, accessory sales, same day repair service and bike rental. Cf. Example in Munster, Germany.</p>	DoT + Iarnród Éireann
8.4	<p>Bicycles and Intercity Rail</p> <p>We will ensure that intercity trains have proper provision for the carriage of cycles over and above the currently proposed "maximum of 2 bikes per train". This may require the retrofitting of rolling stock with flip-up seats. We will ensure that the specification of all rolling stock not yet ordered provides for the carriage of bikes.</p>	DoT + Iarnród Éireann
8.5	<p>Bicycles and Sub-Urban Rail</p> <p>We will permit the carriage of bikes on DART and other suburban rail services at off-peak times and on counter peak services at peak hour, following a more detailed study which will recommend suitable devices / facilities for the proper restraining of bikes on the trains. This will include all future Metro plans in Dublin (or anywhere else they may be planned).</p>	DoT + Iarnród Éireann + RPA

No.	Policy	Implemented by
8.6	Bicycles and LUAS <p>We will provide for the carriage of bikes on LUAS when services are of a frequency and at a capacity that allows for it. i.e. when it is considered possible to carry bikes on carriages when they do not interfere with the capacity for pedestrians.</p>	DoT + RPA
8.7	Bicycles and Intercity Buses <p>We will examine the existing conditions of carriage of bikes on intercity buses – both public and private – and develop specific policies to improve the service. This will include having operators provide clear information on the conditions of carriage of bikes.</p>	DoT, Bus Éireann + private operators
8.8	Bicycles on Urban Bus Services <p>We will support the development of a pilot project for the carriage of bikes on urban bus services comparable to what is currently used on buses in Canada and US</p>	DoT and Dublin Bus
8.9	Bikes and Ferries / Ports <p>We will carry out a study examining a range of issues under this heading. This could include:</p> <ul style="list-style-type: none"> (i) Availability of / need for safe and well sign-posted routes to and from ports (both for employees in ports / cycling tourists); (ii) Facilities at ports (cycle parking etc.); (iii) Availability of / need for clear information on what ferry companies at each port take bikes, costs, conditions of carriage etc. Information to be available on-line and at port. (iv) Availability of / need for cycling maps etc. at ports showing visitors how to get to city centres / other local centres. (v) Encouraging ferry companies to facilitate the carriage of bikes 	DoT and LA's and Port Companies
8.10	Bikes and Planes / Airports <p>We will carry out a study examining a range of issues under this heading. This could include:</p> <ul style="list-style-type: none"> (i) Availability of / need for safe and well sign-posted routes to and from airports (both for employees in airports / cycling tourists); (ii) Facilities at airports (cycle parking, areas for dismantling bikes, bike boxes etc.); (iii) Availability of / need for clear information on what airlines at each airport take bikes, costs, conditions of carriage etc. Information to be available on-line and at airport; (iv) Availability of / need for cycling maps etc. at airports showing visitors how to get to city centres / other local centres. 	DoT and Airport Authorities



Objective 9

Provide Public Bikes In Cities

Discussion

Public bikes are now being seen as another element of the public transport system. There are successful schemes up and running in many European cities. The main market here is “incidental trips” – i.e. not the daily commuting trips or recreational / tourist cycle trips. It has been shown to be important in cities in which bicycle culture is (re-) emerging such as in Paris, Barcelona and Lyon.

No.	Policy	Implemented by
9.1	Provide Public Bikes in Cities We will provide municipally-run “public bike” facilities in all cities above 100,000 population such as the O-ve bike scheme in the Netherlands. We will examine and closely monitor the Public Bike System that is due to be launched in Dublin in 2009, as well as studying the systems from abroad before developing Irish versions.	DoT + LA's



03

Interventions – Communication & Education

Objective 10

Improve the image of cycling and promote cycling using “soft interventions”

Discussion

Cycling currently has an image problem. If it is to be treated as a serious mode of transport, it needs to be seen to be normal to be on a bike. Its poor image may be related to it being perceived by many as being unsafe or it may be related to the absence of role models. National campaigns are needed to improve

the image of cycling aimed at - decision-makers, media, planners, developers, businesses, elected members, etc. These should include advertising and marketing campaigns using all available media, for example TV, radio, bus shelter posters, billboards, together with events such as bike week or bicycle festivals. The frequently humorous TV ads shown in the Netherlands celebrating cycling might be taken as a model. There must be a clear message that cycling is a readily accessible form of transport, not requiring unnecessary encumbrances such as specialised cycling attire.

No.	Policy	Implemented by
10.1	<p>Campaigns to change the image of cycling</p> <p>We will examine best international practice in devising campaigns specifically to change the image of cycling. Since there are much fewer women than men cycling (especially during the teenage years) campaigns need to focus on this target group. We will develop a range of national and local campaigns aimed at countering the poor image of cycling. These will be carried out in collaboration with other partners etc.</p> <p>We will develop a range of national and local promotional campaigns selling the wider benefits of cycling: freedom, the fastest way of getting around, sociability of cycling, lack of running costs, health benefits, ecological benefits. A national campaign could, perhaps, be fronted by a well-known public figure.</p>	DoT and DH&C
10.2	<p>Bike Week</p> <p>We will organise an annual National Bike Week. There may also be the possibilities of incorporating the Bike Week into the existing “Sustainable Energy Week” promoted by Sustainable Energy Ireland or “Mobility Week” promoted by European Commission. There is also an embryonic “Bike Week” being developed by the Mater and Temple Street hospitals.</p> <p>The Bike Week could also encompass Bicycle Festivals, as have been organized on a voluntary basis in Dublin or more professionally abroad - e.g. The Cornwall Festival of Cycling, Bicycle Film Festival (which travelled around the world: San Francisco, London, Edinburgh etc.) plus a similar bicycle film festival in Tillburg, Netherlands.</p>	DoT and LA's
10.3	<p>Competitions</p> <p>We will organise competitions to raise awareness of the importance of cycling in special target groups – e.g. the most cyclist-friendly employer / school / college / PT station etc.</p>	DoT
10.4	<p>Information</p> <p>We will produce useful information for cyclists / potential cyclists. This could include:</p> <ul style="list-style-type: none"> • cycling maps; • online journey planners for the different cities; • online weather information (linking it with Met sites for example) • “How not to get your bicycle stolen” information leaflet; <p>We will investigate the idea of creating and running a “Cycling Portal”. This could be a one-stop-shop for anyone seeking information on cycling. Possible content could include news (about events, new legislation etc.), advice, bicycle registration, discussion boards, facility to enable cyclists to report potholes etc. to relevant Local Authority, classified section.</p>	DoT

No.	Policy	Implemented by
10.5	<p>Targeting Employers and Employees</p> <p>We will support companies / other organisations above a certain threshold to produce mobility management plans. Guidance will have detailed reference to the range of interventions that can be used to promote cycling.</p> <p>This could build on the lessons learnt from the “One Small Step” campaign.</p>	DoT
10.6	<p>Targeting Third Level Students</p> <p>We will develop special campaigns / initiatives aimed at the target group of third level students.</p>	DoT / DoES + LA's
10.7	<p>Targeting Shoppers</p> <p>We will develop special campaigns / initiatives aimed at the target group of shoppers.</p>	DoT / DoEHLG + LA's
10.8	<p>Targeting Family / Recreational Cyclists</p> <p>We will develop special targeted campaigns/initiatives aimed at the target group of family / recreational cyclists.</p>	DoT / Fáilte Ireland / LA's
10.9	<p>Targeting Visitors</p> <p>We will support Fáilte Ireland in developing and implementing its Strategy for the Development of Irish Cycle Tourism (See also Objective 3)</p>	DoT / Fáilte Ireland / LA's
10.10	<p>Sports Cycling</p> <p>We will support the development of all aspects of sports cycling. This would include:</p> <ul style="list-style-type: none"> • Road cycling – leisure and racing; • Mountain-biking – leisure and racing; • Track racing; • Bicycle Polo; • Other aspects of the sport. <p>We will work closely with Cycling Ireland (CI) in the development of specific strategies.</p>	DAS & T and Sports Council

Objective 11

Improve cyclists' cycling standards and behaviour on the roads

Discussion

Very few cyclists currently receive formal training. The standards of cycling and standards of adhering to the rules of the road need to be improved. The current poor behaviour of some cyclists impacts on the wider image of cycling. Teaching students how to be safe on a bike teaches them road safety for driving motor powered vehicles later in life. The purpose of the

education proposals is to arrive at a situation where Ireland has a population of cyclists and motorists who have a level of training that would be considered normal in the Netherlands or Germany.

There needs to be a mandatory national cycling proficiency programme for all school children in Irish schools starting at primary level and continuing in a graduated manner through to secondary level. This programme should prioritise practical on-road skills. A similar approved national curriculum for adult cyclists could also be developed, based for example, on the UK "Bikeability" programme.

No.	Policy	Implemented by
11.1	National Cycling Training Programmes for School Pupils We will assess the experiences of those Irish Local Authorities that have run cycling training programmes and we will also examine the National Curriculum of the leading European countries in this area. This will inform and lead to the development of a national curriculum on cycling training for primary schools. Such a curriculum is likely to include desk-based (theory), school-yard based and graded road-based cycling training. (This would include cycling along quieter residential streets and busier roads in mixed traffic). This should emphasize issues such as correct road positioning for cyclists, an awareness of the blind spots on HGVs, etc. It should also include basic bicycle maintenance. We will ensure that every child will receive cycling training using this new curriculum.	DoT / DoES, RSA
11.2	Training Instructors We will develop a curriculum for the training of cycling instructors and train the number of instructors that are required to oversee the curriculum.	DoT + RSA
11.3	Adult Cycling Training We will develop and organise a service to provide cycling training for adults returning to cycling and those who never cycled before.	DoT + RSA
11.4	Awareness Campaigns We will organise campaigns on: (i) promoting greater courtesy by cyclists towards other road users; (ii) wearing of lights, reflective gear etc. on bikes.	RSA

Objective 12

Improve driver education and driving standards so that there is a greater appreciation for the safety needs of cyclists

Discussion

In comparison with (Northern) continental European countries, cyclists in Ireland are not treated with the same respect by drivers. One possible response

to this is that the granting of learner driver permits should be made contingent on the applicant being in possession of a valid Irish schools cycling proficiency certificate or, for adult applicants, evidence of attendance at and passing of an equivalent course of instruction. German learner drivers, in addition to having had cycling training in school must also undertake a formal 90 minute module on vulnerable road users as part of their driver training. A similar requirement could be introduced for Irish learner drivers.

No.	Policy	Implemented by
12.1	Rules of the Road (ROTR) We will ensure that in the next revising of the ROTR, there will be a significant module of how to interact with cyclists - focusing on, for example, passing out cyclists and leaving adequate space, plus interactions between modes at junctions.	DoT / RSA
12.2	General Driver Instruction We will ensure that the curriculum developed for driving instructors/ students includes a greater emphasis on how to interact safely with cyclists. It will include promoting a greater awareness of not encroaching into cycle lanes and cycle boxes (advanced stop lines) etc.	DoT / RSA
12.3	Buses We will pay special attention to the training needs of bus drivers since bicycles and buses both occupy bus lanes and interact closely with one another in this space. We will examine the training curriculum and course followed by bus drivers and ensure that it caters properly in helping trainee drivers understand how best to safely interact with cyclists. We will examine best international practice in the provision of training for bus drivers.	DoT / RSA, Bus Éireann, Dublin Bus and private operators
12.4	Heavy Goods Vehicles (HGVs) We will review the training curriculum for driving heavy goods vehicles given the disproportionately high number of heavy goods vehicles involved in cyclist (and pedestrian) accidents.	DoT / RSA
12.5	Cyclops Mirrors on HGVs We will investigate the feasibility of providing incentives to encourage the retrofitting of Cyclops mirrors to the older vehicle fleet within a specified time period. This may be explored through the Insurance Industry Federation.	DoT

No.	Policy	Implemented by
12.6	Awareness Campaigns We will develop campaigns for all drivers - for example: (i) to explain why it is important to tackle urban speeding - e.g. If you speed, you are making it difficult for others to choose to cycle or walk thus exacerbating congestion; (ii) to promote greater courtesy by motorists towards cyclists; (iii) advising motorists of the legal requirement to yield to cyclists at roundabouts and at other locations;	RSA

Objective 13

Provide fiscal incentives to cycle

Discussion

While cycling is still cheap compared to using other modes of transport, there is an absence of dedicated fiscal policies to incentivise cycling over other modes. There is an opportunity here to use policy interventions tried with great success in other countries in Ireland.



No.	Policy	Implemented by
13.1	Subsidised Bike Purchase We welcome the Budget 2009 initiative under which, from 1 January 2009, the provision of bicycles and associated safety equipment by employers to employees who agree to use the bicycles to cycle to work will be treated as a tax exempt benefit-in-kind. We will encourage employers to implement the scheme through salary sacrifice arrangements as is envisaged in the Budget 2009 provision and review progress to maximise take-up.	DoT
13.2	Cycle Mileage Allowances We will examine the existing scheme that allows for mileage allowances to be paid to cyclists for business related trips (in the public sector) and work to ensure that the rates paid to cyclists are the same as those paid to drivers. This has symbolic importance as well as a true monetary incentivising value. While it is not possible to direct private organisations to adopt a higher mileage allowance for cycling trips, we will encourage them to do so	DoT + Department of Finance (DoF)
13.3	Indirect Tax System We will investigate possible options of using the indirect tax system to reduce the cost of bicycle purchase	DoF + Revenue Commissioners

Instruments: Financial Resources

Costs and Benefits of Investing in Cycling

Discussion

There are many benefits to investing in cycling, as described in Chapter 1. The fiscal benefits include:

- (i) the value of lost lives - i.e. the deaths which could have been prevented as a result of being physically active through cycling;
- (ii) savings to the Health Service Executive as a result of not having to treat illnesses which result from physical inactivity;
- (iii) gains in productivity arising from reducing absenteeism which is preventable through increased activity;
- (iv) reductions in (urban) congestion;
- (v) reduced emissions.

The extent of the benefits of cycling will vary depending on many factors.

It depends on the profile of new cyclists as well as the amount of cycling. Cycling contributes to improvements in levels of physical activity offering protection against chronic disease and premature death. The methods adopted produce higher values for older people who are encouraged to become active, than younger people.

The contribution to abating congestion and pollution rests on the extent to which new cycle trips replace car journeys, and the values associated with both congestion and pollution which are much higher in urban areas than rural areas.

A typical Cost Benefit Analysis (CBA) for a road (or public transport facility) will normally only consider the linear corridor itself. An investment in a cycling network will have an impact on an entire geographical area. It will have an impact on road safety within that area as well as a positive impact on the health of the population using that network. It has an area-wide positive impact, a societal effect, a living area effect. The methodology of a CBA for a road, as used by the World Bank, cannot be applied to assessing a cycling network. It is even more challenging to carry out a CBA of an entire cycling policy, such as this. International cycling (and walking) appraisal has only been developing over the last three of four years.

The SQW report examined four examples of cycling intervention. Each was shown to produce positive returns to investment. The highest value was found for the cycling training investment. Training is less expensive than physical development and where it can demonstrate even modest increases in levels of cycling it is likely to produce high returns. The London Cycle Network + also produced a strong Benefit to Cost Ratio (BCR). Links to Schools and Bike It are both initiatives targeted at school children. Links to Schools provides improved infrastructure and, as a result, also benefits other residents. Because of the physical infrastructure element it also has value to those using the existing routes and this

also strengthens the BCR. Even without any value for children's health or accident prevention, Links to Schools produces a positive result.

There are potentially significant costs in implementing the National Cycling Policy Framework in full. Based on international experience and research in the Irish context, the Department of Transport considers that a benefit to cost ratio of 4:1 is achievable.

In summary, the subject of quantifying the costs and benefits of spending on cycling is complex but all the indications are that benefits significantly outweigh the costs.



No.	Policy	Implemented by
14.1	International CBA <p>There is, in fact, compelling evidence that the benefits of investing in cycling significantly outweigh the costs.</p> <p>We will carry out an assessment of the emerging international studies on valuing the benefits of cycling and apply these to an Irish context. This will include looking at spend per head on cycling provision in different countries.</p>	DoT
14.2	Continuous Funding <p>We acknowledge that there needs to be continuous funding of the NCPF over the short, medium and long term in order to achieve the broad aim of recreating cycling culture in Ireland.</p> <p>We will provide appropriate levels of, and timely, funding towards the implementation of the NCPF.</p>	DoF + DoT

05

Instruments: Legislation And Enforcement

Objective 15

Introduce changes to legislation to improve cyclist safety

Discussion

Cyclists in Ireland are not given the same legal protection as they are in other jurisdictions. A broad objective is to explore more fully the range of legislative and regulatory changes that are required to improve the safety of cyclists.

There is a case for adoption of the standard Northern European Hierarchy of speed limits with 30kph as the standard limit in core urban areas and with reduced limits applied on residential streets (home zones) and at large junctions where there are vulnerable road users in the traffic mix.



No.	Policy	Implemented by
15.1	<p>Review of Legislation</p> <p>We will carry out a review of Irish road traffic legislation to change the balance in favour of the more sustainable modes such as walking and cycling.</p> <p>Any revision of the legislation should also provide clarity on those aspects of the law relating to cycling, which are perceived to be ambiguous or uncertain. For example:</p> <ul style="list-style-type: none"> (i) the use of “Flashing LED lights”; (ii) the issues surrounding making it legal for cyclists to overtake on the left; (iii) cycling along canal towpaths, riverbanks and through parks. 	DoT
15.2	<p>European Hierarchy of Speed Limits</p> <p>We will consider the adoption of the standard Northern European hierarchy of speed limits with 30kph as the standard limit in core urban areas and with reduced limits applied on residential streets and at large junctions used by vulnerable road users.</p>	DoT + LA's
15.3	<p>Hierarchy of Care</p> <p>We will explore the concept of “Hierarchy of Care for Road Users” that is used in some Northern European countries to give more vulnerable road users additional legal protection on the roads, and advise on whether a similar system can and should be used in Ireland.</p>	DoT
15.4	<p>Mandatory Use Regulation</p> <p>We will revoke the Statutory Instrument that requires cyclists to use cycle tracks where they are provided - Road Traffic (Traffic and Parking) Amendment Regulations, S.I. No. 274 (1998). This regulation is unsatisfactory for a number of reasons:</p> <ul style="list-style-type: none"> (i) it is clear that the cycling infrastructure that has been constructed to date is often of a poor standard and is poorly maintained, and cyclists are required to use it; (ii) it can force cyclists to be on cycle tracks and (when they are planning on continuing straight ahead) to be on the inside of left-turning vehicles, including Heavy Goods Vehicles; (iii) if a group of cyclists (on a weekend cycle for example) is using a road with an off-road cycle-track alongside it, then they are required to use it – which is not practicable. 	DoT
15.5	<p>Maximum Speed Display</p> <p>We will require HGVs (as well as buses and coaches) to display their maximum allowable speed as in most EU jurisdictions.</p>	DoT



No.	Policy	Implemented by
15.6	On the Spot Fines We will extend on the spot fines to infringements by cyclists.	DoT + DoJE & LR
15.7	Further Legal Changes We will introduce / explore other ideas to facilitate cyclists, such as the following: <ul style="list-style-type: none"> (i) exempting cyclists from no-entry / one-way street restrictions in urban areas; (ii) “logo-only” routes / shared lane road markings such as the California style “shared lane road markings” or equivalent treatments that have been tried in Australia and Scotland and elsewhere. (iii) providing default exemptions of cyclists from restrictions in pedestrianised streets; 	DoT + DoJE & LR
15.8	Selling Bicycles with Lights We will require retailers to sell bicycles fitted with legally compliant lights, with exemptions for particular types of bikes – e.g. specialist lightweight racing bikes or kiddies’ bikes.	DoT

Objective 16

Improve enforcement of traffic laws to enhance cyclist safety and respect for cyclists

Discussion

There is a need for better enforcement of many traffic laws. For example, in 2005, it was shown that on urban arterial roads with a 50km/h speed limit, the observed free speeds of 91% of cars exceeded the limit.

No.	Policy	Implemented by
16.1	Urban Speed Enforcement We will give enforcement of urban speed limits greater priority. Should there be difficulties with the enforcement of lower speed limits, consideration will be given to alternative means to achieving this aim.	DoT, Gardaí, DoJE&LR
16.2	Enforcement of Other Traffic Laws We will examine and highlight the barriers preventing an effective enforcement regime for other traffic offences that affect cyclist safety. For example, <ul style="list-style-type: none">(i) dangerous driving in (urban) areas;(ii) cyclists running red lights;(iii) illegal parking on cycle tracks;(iv) motor-bikes using bus-lanes etc. This study will link with the wider Road Safety Strategy 2007-2012.	DoT, RSA, Gardaí
16.3	Bicycle Mounted Gardaí We will increase the number of bicycle mounted Gardaí. Such an intervention re-inforces the notion that cyclists are an integral part of the city as well as having policing advantages. We will also develop a suitable cycling safety course to be given to all Garda Recruits.	Garda Síochána
16.4	Penalties We will explore – as part of a wider examination of traffic penalties (and legislative changes) – the scope for amending the penalties for motoring offences against cyclists.	DoT



Implementation: Human Resources And Coordination

Discussion

I - The Need for Co-operation and Co-ordination

There will be many separate bodies that will have a role in implementing the NCPF. The policy will inform and dove-tail with other policies and strategies. Experience from abroad indicates that implementation of policies to promote cycling must have a multi-level, multi-stakeholder approach. It is, therefore, critically important that there is good co-ordination and co-operation between all bodies, both horizontally and vertically. These include the following:

- (i) Government Departments, to include:
 - Transport
 - Environment, Heritage and Local Government
 - Education and Science
 - Community, Rural and Gaeltacht Affairs.
 - Health and Children
 - Arts, Sports and Tourism
 - Justice, Equality and Law Reform.

(ii) Government Agencies, to include:

- Road Safety Authority
- National Roads Authority
- Railway Procurement Agency
- Quality Bus Network Project Office
- Iarnód Éireann
- Bus Éireann
- Dublin Bus
- Airport Authorities
- Dublin Transportation Office/the proposed Dublin Transport Authority
- Fáilte Ireland
- Irish Sports Council
- Health Service Executive

(iii) Existing Interdepartmental / Interagency Committees

- National Trails Advisory Committee (for example)

(iv) Local Authorities – both urban and rural.

- These are main “target groups” of the NCPF.

(v) Non-governmental Organisations

- Cycling Campaigns (Dublin, Galway, Cork, Dundalk, Waterford)
- Cycling Ireland
- Sustrans
- Professional Bodies (EI, IPI, RTPI, IPH)
- Academic Networks
- Private Bus Operators, road hauliers and other stakeholders
- The Bicycle Industry

II – Options for Co-ordination at a National Level

There are (at least) two distinct models for coordinating the implementation of the NCPF– one is to establish a new National Agency; another is to create a Cycle Office within a national department organisation. Both models have been used abroad.

The advantage of a separate national agency is that a dedicated mandate is established and resourced at national level to oversee the delivery of the policy. The disadvantage is that there is already a plethora of separate agencies in the public sector and it

takes time to set up a body, requiring legislation and institutional arrangements. A further disadvantage is that cycling may continue to be perceived as an activity and transportation mode separate from the rest of the transportation system. Therefore it may not succeed in one of the overarching aims of the NCPF, that is, to integrate cycling into the wider transportation and planning fields.

On the other hand a Cycle Office within an existing government department can be established quickly. The disadvantage is that the mandate could be lost to competing objectives and dedicated resourcing, and is more difficult to retain.

A third model, might be to review and amend the remit of an existing government agency so that it has the power to oversee the recommendations in this report.

All models need to be explored further to ascertain which will be best for an Irish cultural and institutional context and in light of the prevailing economic climate. The model developed needs to account for new agencies that are proposed (such as the Dublin Transport Authority) and the need for maximum efficiency in the organisation of public sector bodies. Pending further exploration, and bearing in mind the need to progress measures under this policy, responsibility for overseeing the implementation of the policy should be assigned to the Department of Transport.

III – Local (Authority) Level

There is a strong need for every Local Authority in the country, especially urban Local Authorities, to have local policies, objectives and action plans that are consistent with the NCPF. These plans should be informed by best international practice and local knowledge, and they must be embedded in the Development Plan and Local Area Plans, as well as other plans / instruments such as Integrated Framework Plans (IFPLUTS), Strategic Development Zones (STZ's) and masterplans. Such policies will be more robust if they have been created collaboratively by the officials/professional staff of the authority (including traffic engineers, planners, road safety education officials etc.), the elected members (especially those with particular responsibility for transportation policy such as the Chairperson of the Strategic Policy Committee) and the users. This latter group could consist of representatives from the local

cycling advocacy organization as well as those from the sports cycling group etc. This is the model that has been used in the “bicycle policy audits” created by South Dublin County Council, Dublin City Council, Cork City Council and (most recently) Waterford City Council.

It would also be useful for every local authority to have a Cycling Forum. This is a structure that would facilitate the cycling community / representative organisations in developing cycling policy and be involved in the implementation of policy. A Cycling Forum has recently been established in Dublin City Council. It brings together representatives from the cycling campaigning organizations, public health sector with engineers, the Gardaí and elected members. Cycling Forums are established structures in many Continental municipalities (and it is worth noting that the Cycle Forum in the City of Tillburg in the Netherlands includes the City Manager).

Within each Local Authority, there must be a figure who will take responsibility for and oversee the implementation of the cycling policy. Since the cycling policy cuts across all elements of transportation policy (and beyond), this must be a figure at an appropriate senior level in the organisation. The appointment of a “Cycling Officer” at too junior a level in the organisation may reinforce the idea that cycling is a separate, more marginal, mode. This has been the experience in some UK Local Authorities.

There currently is little formal or systematic contact between figures from separate Local Authorities who have responsibility for formulating and implementing cycling policy. There would appear to be a value in creating a formal network of those figures from all LA's so as to disseminate knowledge and share local experiences. There could be annual (or more regular) meetings of this network, ideally as part of wider gatherings of transportation professionals so as to forge the idea that cycling policy is an integral part of wider transportation policy. The network could also operate virtually, such as has happened in the UK with the Cycling Planning Groups e-Network. The network should also mesh with or have a formal relationship with (or include) the network of figures in Central Government Departments and Agencies that are involved in the development and implementation of cycling at a national level. Similarly it needs to incorporate the ideas and experiences of academics working in the area and the user groups. The overall

network should strengthen and evolve in order to make cycling policy mainstreamed – i.e. incorporated into all wider policy fields. The networks developed in Ireland should communicate with and become part of wider networks – such as those in other countries.

All in all, there needs to be a deepening of knowledge amongst transportation professionals of how to promote cycling. One of the main roles of the cycling contacts within each organisation would be to disseminate ideas and knowledge through that organisation as opposed to the knowledge staying with one person.

IV - Academia

There are a significant number of students / academics – at undergraduate, Masters, Doctorate and Post-doctorate levels – who have carried out or are carrying out theses in subjects relating to promoting cycling. These are taken in disciplines such as Transport Economics, Transport Planning, Traffic Engineering, Road Safety / Mechanical Engineering, Urban Design, Urban and Regional Planning, Public Health, Environmental Science, Medical and Health Sciences to name but a few. There is no systematic co-ordination of activities between these students / researchers and the knowledge that is being developed is not being disseminated or centralised. It is being lost. This needs to be addressed. Any network of academics in this field needs to be part of the other network described above.

Objective 17

Develop a structure that can coordinate the implementation of activities across the many government departments, agencies and ngo's

Discussion

Structures will need to be established at a national and local level. Separate government departments will need to combine their energies and work closely together. There also needs to be good co-operation between national and local levels and good co-ordination between all stakeholders.



No.	Policy	Implemented by
17.1	Oversight of Implementation of the NCPF We will ensure that the Department of Transport will oversee the implementation of the NCPF.	DoT
17.2	National Advisory Forum We will establish a National Advisory Forum of stakeholders to advise the Department on the delivery of the NCPF. This could evolve from the many organisations who contributed in the initial consultation phase of the policy research.	DoT
17.3	Local Authority Cycling Officers We will require each Local Authority to assign an officer at an appropriate senior level as a “Cycling Officer”. He or she will establish a Cycle Forum and be responsible for overseeing the formulation and delivery of the local cycling policy. This policy must be embedded within wider transportation policies and in the statutory plans. He or she will also be responsible for the upskilling of staff within the local authority so as to ensure that the competencies exist to fully implement the policies.	DEH&LG, DoT, LA's
17.4	Networks of Cycling Experts We will facilitate in the creation of networks of cycling experts at all levels – Local Authority, central government / agencies, virtual networks, academic.	DoT

No.	Policy	Implemented by
17.5	Optimum Arrangements for Implementation After an initial period we will review progress, explore options and consider any necessary changes in the arrangements to ensure that the ambition in this policy continues to be realised.	DoT
17.6	Adapted Remit for Existing Agency We will explore how the NRA could have its remit developed so as to have responsibility for implementing certain elements of the NCPF relating to infrastructure.	DoT

Objective 18

Provide design professionals with suitable training / guidance to develop and implement the policies of the ncpf. Support the deepening of knowledge of the subject of planning for cyclists in Ireland.

Discussion

Design professionals need to be aware of and trained in the new tools that are required to bring about a complete change in the way that towns are planned so that the urban (and rural) environment is transformed for pedestrians and cyclists.

No.	Policy	Implemented by
18.1	Third Level Education We will work to explore how Irish third level civil engineering / transport planning / urban design departments can offer undergraduates and post-graduates instruction on the safety issues involved in providing for vulnerable road users and, more generally, on planning for the more sustainable modes.	DoT / DoES
18.2	Centre of Knowledge We will support the development of a centre of knowledge in planning for cycling (perhaps in one of the universities or within a Research Department of the Road Safety Authority). We will examine examples from abroad in which such centres have been created. Such an Irish centre would concentrate the knowledge developed around the country and it could liaise closely with universities and research institutes abroad as well as the Department of Transport.	DoT
18.3	Training of Professionals We will organise training workshops / sessions for all design professionals in understanding and using the new guidance produced. We will also stipulate that all local authority roads engineers and any engineer wishing to tender for government road contracts should be required to have taken an approved cycling skills course, together with a course on cycling friendly infrastructure design.	DoT + LA's

No.	Policy	Implemented by
18.4	<p>New Cycle Guidelines Manual</p> <p>We will produce new Design Guidance to supersede the existing Cycle Guidelines Manual / Traffic Management Manual produced by the Dublin Transportation Office to reflect best international practice and latest thinking on creating a cycling friendly infrastructure.</p> <p>We will ensure that the new guidance developed is consistent with new guidance on Urban Design Policy (Policy 1.4) and informs a revision of the Design Manual for Roads and Bridges and other relevant guidance and standards.</p>	DTO / DoT
18.5	<p>Annual Conference on Cycling Planning</p> <p>We will organise an annual conference on cycling planning / promotion that will bring together experts from the academic, private, public and voluntary sectors with the aim of sharing experiences and the latest research in providing for cyclists. It will also provide an opportunity to assess progress in implementing an NCPF.</p>	DoT
18.6	<p>International Collaboration</p> <p>We will provide support for the further training of relevant engineers / planners / policy measures through sending them to international conferences and training events / workshops such as the Velo-city Cycling Planning conference</p>	DoT
18.7	<p>Virtual Network of Experts</p> <p>We will examine the UK experiences of developing a “Cycling Planning” virtual network / group of cycling planning experts with a view to establishing a similar network in Ireland, or perhaps linking with that group. Again the purpose of this is to raise the level of understanding of cycling engineering / safety / planning issues.</p>	DoT
18.8	<p>Irish Best Practice Database</p> <p>We will support the creation of a “best practice” database of Irish examples of cycling friendly designs, schemes, initiatives etc. This database could link with and draw upon European best practice databases such as BYPAD and Velo-Info, ELTIS etc.</p>	DoT



07

Evaluation and Effects

Objective 19

Evaluate the national cycle policy framework and monitor the success as the measures are implemented.

Discussion

There is lack of quality data on cycling numbers and cycling accidents in Ireland. While the census provides 5-yearly data on cycling numbers, there is a lack of accurate data on cycle use for particular routes in particular cities. While the numbers of cyclists, and number (and severity) of cycle casualties are the most important indicators, it is also important to monitor the numbers of bikes sold and the spend on public infrastructure, provided it is designed to a desired standard. The use of an indicator measuring the number of kilometers of cycle-tracks / cycle-lanes constructed may not be a useful indicator. This is because it is the design of junctions which has the

greatest impact on cycle safety and the attractiveness of a route rather than the longer stretches of links. Furthermore it is acknowledged that the quality of the facilities constructed (and maintained) to date has been, in many cases, inadequate.

Another indicator which has both qualitative and quantitative dimensions, and which could be considered for use, is the number / share of parents who transport their young children on the bike (and the number / share of (Primary) school pupils cycling to school). These are good measurable and useful expressions of how safe the streets are perceived to be by the public. Countries with high cycle use, such as Denmark and the Netherlands have many children being ferried around by bike.



No.	Policy	Implemented by
19.1	Monitoring Framework We will develop a monitoring framework to measure progress in achieving specific 19 objectives and many policies . The policy indicators will have a qualitative and quantitative dimension.	DoT
19.2	Indicators We note that the two important indicators are: (i) numbers of cyclists/modal share. (ii) numbers of cycle accidents of different severities. We will develop systems to closely monitor trends in these two indicators in all urban and rural areas.	DoT
19.3	Accident Reporting We recognise that there is an under-reporting of accidents to the Gardaí but that hospitals pick up on many accidents involving cyclists, We will develop and implement a system that correlates between the databases. This will feed into the work carried out by the RSA.	DoT + LA's + RSA
19.4	Study of Cycle Accidents We will commission and produce a detailed analysis of allfatal / serious cycle accidents over (an approximate) 10 year period 15.	DoT + RSA
19.5	User Satisfaction Surveys We will arrange other surveys that are deemed necessary such as user satisfaction surveys (every two years).	DoT

Appendix 1 – Bibliography



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smartertravel >>>



Department of Transport
An Roinn Iompair



Transport House, 44 Kildare Street,
Dublin 2, Ireland.

Tel: 353 1 670 7444
LoCall: 1890 44 33 11
Web: www.smartertravel.ie

