

Dublin Transportation Office

Strategy 2000 - 2016

A Platform for Change

Summary Report



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Summary of an integrated transportation strategy for the Greater Dublin Area 2000 to 2016

Dublin Transportation Office
November 2001



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1. The Background

The Final Report of the Dublin Transportation Initiative (DTI) was published in August 1995. It recommended an integrated transportation strategy for the Greater Dublin Area for the period up to 2011. The Government decided that the DTI Strategy should provide the planning framework for the future development of the transport network in the Greater Dublin Area.

One of the key recommendations of the DTI Final Report was that the DTI Strategy should form the first phase of an ongoing transportation planning process. The Dublin Transportation Office (DTO) was set up in 1995 to carry on that transportation planning process. This report provides a summary of the first updating by the DTO of the original DTI Strategy and outlines the resulting DTO Strategy.

The Greater Dublin Area comprises the local authority areas of Dublin Corporation and the counties of Fingal, South Dublin and Dún Laoghaire-Rathdown (the Dublin Region), and the counties of Kildare, Meath and Wicklow (the Mid-East Region).

The DTO Strategy outlined in this report has been prepared to support and complement the strategic land use planning framework described in the Strategic Planning Guidelines for the Greater Dublin Area, published in February 1999. The Guidelines define the Metropolitan Area, which broadly corresponds with the built up area of Dublin, and the Hinterland Area, which is the rest of the Greater Dublin Area (see figure 1). The current Guidelines are the fundamental basis on which the DTO Strategy rests.

The Strategy also takes account of:

- **the transport investment proposals in the National Development Plan 2000 to 2006;**
- **the development plans of the local authorities;**
- **the National Sustainable Development Strategy;**
- **the Green Paper on Sustainable Energy;**
- **the National Climate Change Strategy;**
- **the Dublin Suburban Rail Strategic Review;**
- **the Bus Network Strategy Appraisal for the Greater Dublin Area;**
- **the National Road Needs Study;**
- **the Eastern By-Pass Strategic Study;**
- **the ESRI's Medium Term Review;**
- **the views of representative organisations and interested bodies.**

2. The Vision

Transportation is a means to an end. That is, people do not normally travel for the sake of travelling; they travel to achieve some other need or want. It is important, therefore, to put transportation in the context of the broader objectives for the city and region. The starting point for the development of the DTO Strategy was, therefore, to ask the question: "what type of city and region do we wish to live, work and relax in?". We attempt to answer this question in a Statement, which, in broad terms, describes our Vision for Dublin.

Vision Statement

The Vision sees the Greater Dublin Area as:

- **a City and Region which embraces the principles of sustainability;**
- **encompassing a leading European City, proud of its heritage and looking to the future;**
- **having at its heart the National Capital, seat of government and national centres of excellence;**
- **a strong, competitive, dynamic and sustainable Region;**
- **a Living City and Region, on a human scale, accessible to all and providing a good quality of life for its citizens.**

The next step was to translate that Vision into a series of more concrete, though still broad, objectives under five separate headings.



The Regional Economy

- improve accessibility and reduce congestion;
- sustain economic development and regeneration;
- consolidate existing economic activity;
- encourage a further increase in participation in the labour force, particularly by disadvantaged groups in society;
- enhance goods distribution in a sustainable way;

Quality of Life

- reduce growth in the demand for transport, especially private transport;
- reduce the need for car commuting by improving the reliability, availability and quality of public transport;
- reduce travel times and congestion;
- ameliorate direct environmental effects of transport – noise, severance, air pollution and greenhouse gas emissions;
- promote cycling and walking as safe, sustainable and healthy means of transport;
- improve transport safety.

International and National Context

- act consistently with Government, EU and UN policies;
- improve accessibility to ports and airports for passengers and goods;
- improve accessibility to and from the Greater Dublin Area;
- foster sustainable development.

Development of the City and Region

- promote implementation of the Strategic Planning Guidelines for the Greater Dublin Area and the proposed National Spatial Strategy;
- within the Region, consolidate growth in the Metropolitan Area;
- within the Hinterland Area, promote the self-sufficiency of the Development Centres.

Efficiency in Implementation

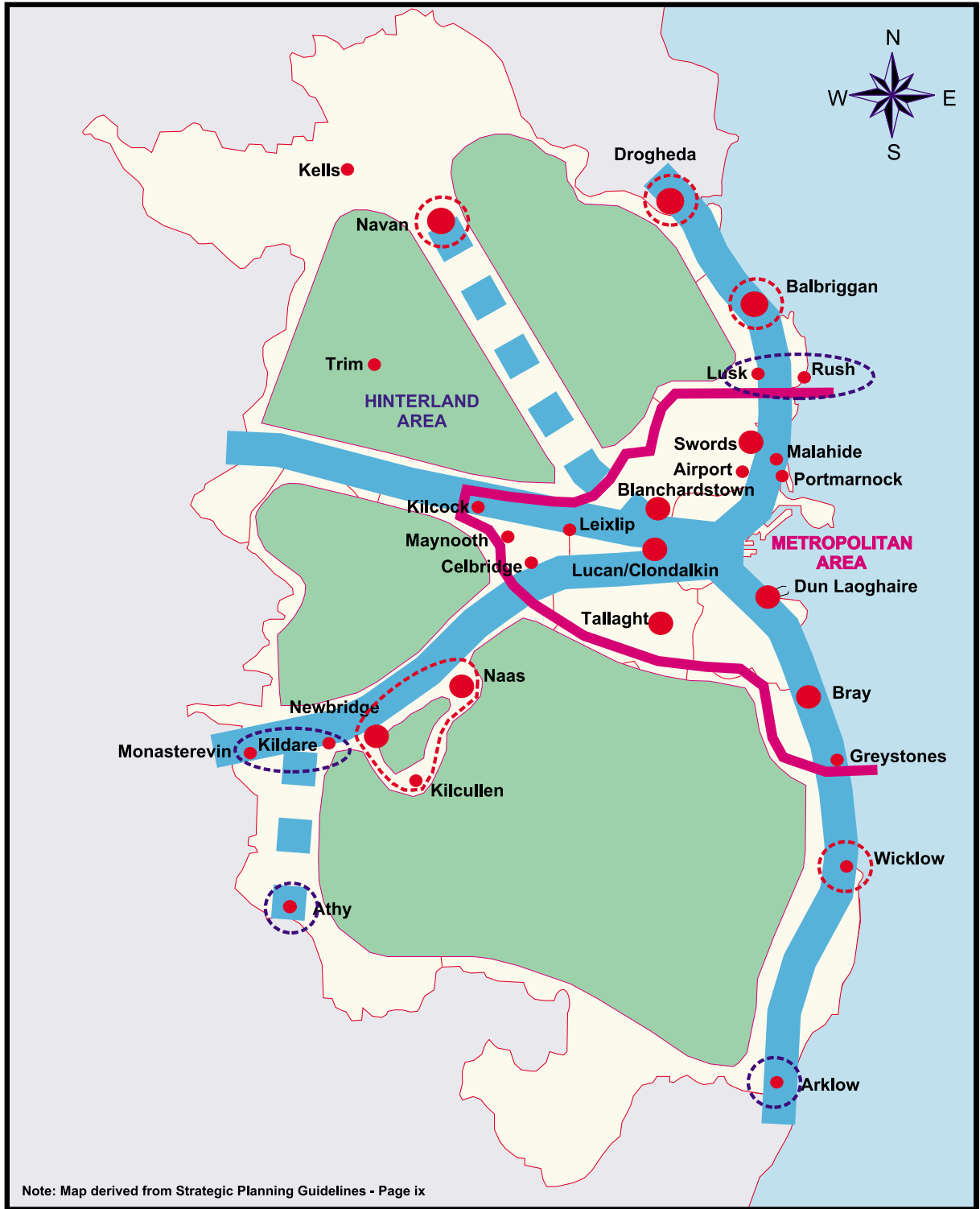
- optimise the use of existing infrastructure and facilities;
- promote sustainable land use;
- ensure timely implementation to meet sustainable transport needs;
- ensure the efficient and cost-effective use of resources – public, EU and private sector;
- ensure that legislative, institutional and administrative structures optimise implementation;
- maximise self-enforcement;
- ensure minimum disruption during construction and implementation.

During the course of the update, the Steering Committee set two additional quantitative objectives:







- reduce the level of congestion on the road network to 1991 levels, when the average speed in the morning peak hour was 22kph;
- to provide adequate capacity for all journeys to work and education, which make up the vast majority of trips in the morning peak hour.



Figure 1 STRATEGIC PLANNING GUIDELINES



Legend:

-  Transportation Corridor
-  Future Transportation Corridor
-  Metropolitan Area Boundary
-  Primary Development Centre
-  Secondary Development Centre
-  Strategic Green Belts



3. The Challenge

It is worthwhile to compare the 1995 DTI Strategy with the position today – firstly by looking at the progress made in implementing the recommendations of the 1995 DTI study and secondly by looking at the changes in the demand for transport. This leads to a better understanding of the challenge that the DTO Strategy will face.

Substantial progress has been made in implementing the recommendations of the 1995 DTI Strategy:

- **Quality Bus Corridors (QBCs):** Nine of the DTI's eleven QBCs have been opened: Malahide Road, Swords (from Whitehall to the city centre), Finglas, Blanchardstown, Lucan, North Clondalkin, Tallaght, Rathfarnham and the N11. The remainder to the Swords QBC, South Clondalkin and an additional QBC from Ballymun are under construction. The Orbital QBC (from Tallaght via Clondalkin and Blanchardstown to Dublin Airport) is at the design stage. The longer established QBCs (Malahide, Lucan and N11) are now carrying more than twice as many people as a lane of general traffic at their design speed of 22kph.
- **DART/ Suburban Rail:** Almost all the main elements of DART/Suburban Rail in the DTI Strategy have been implemented. The Arrow service from Kildare to Heuston has been introduced. DART extensions to Greystones and Malahide are open. New DART rolling stock is in service providing longer trains and increased capacity. There are new stations at Clontarf Road and Grand Canal Dock and upgraded stations (eg at Dún Laoghaire). The twin-tracking of the Maynooth line is completed. New diesel rolling stock is in service providing longer trains and increased frequency and capacity. There is a new station at Drumcondra.
- **Light Rail (LUAS):** Lines from Tallaght to Connolly Station and from Sandyford Industrial Estate to St Stephen's Green are under construction. They are expected to be in operation during 2003.
- **Park and Ride:** 2000 extra spaces have been provided at suburban rail stations.
- **National Roads:** the Northern Cross Route (M50), the Southern Cross Route (M50), the Balbriggan Bypass (M1), the Leixlip-Maynooth-Kilcock Bypass (M4), the Finglas Bypass (N2) and junction improvements on the M50 are open. The Southern Cross Route, the Northern Motorway (Airport to Five Roads), the Dublin Port Tunnel and the South-Eastern Motorway are under construction.
- **Traffic Management and Parking:** Enforcement of, and accessibility to, on-street parking in the city centre has improved radically - largely due to the introduction of clamping and tow-away vehicles. The computerised traffic signal system in the city centre (SCATS) now covers 320 junctions. There is a new traffic control centre in Tallaght. Traffic cells and traffic calming are widespread.
- **Cycling:** 160km of two-way cycle routes and 2500 cycle parking spaces have been provided.



There has, however, been considerable slippage in the implementation of elements of that Strategy, especially major infrastructure projects such as the QBCs, LUAS and the Dublin Port Tunnel.

There has been an unprecedented level of economic growth since the DTI Strategy was published in 1995. This has led to very large increases in the levels of traffic, resulting in much greater congestion.

The main factors influencing increases in the demand for travel are economic growth, increases in population, the number of households and the number of people at work, and growth in car ownership and use. All of these factors have shown major increases in recent years. Continuing growth is projected in the period up to 2016, though at a somewhat slower pace.

FACTORS INFLUENCING TRAFFIC GROWTH

Greater Dublin Area	1991	1996	1999	2016
Population (million)	1.35	1.41	1.46	1.75
Households ('000)	402	446	521	675
Employment ('000)	452	549	681	878
Unemployment rate	16%	12%	6%	5%
Car Ownership (per 1000 population)	247	292	342	480
% Growth in GDP since 1991	-	42%	79%	260%

A recent review of the Strategic Planning Guidelines indicates that the 2016 forecast of population was conservative by at least 100,000 and the 2016 forecast of household numbers was conservative by up to 10%.

Growth to date has far outstripped the projections in the 1995 DTI Strategy:

- The population of the original DTI Area has grown more rapidly than was projected in the original DTI Strategy. The population predicted for 2001 was actually exceeded in 1997;
- GDP grew by 79% between 1991 and 1999, compared with a DTI forecast of 38%;
- the unemployment rate has already declined to less than 5% while DTI was forecasting a rate of 17% in 2001 and 12% in 2011;
- the number of employed persons predicted for 2011 was exceeded in 1996;
- car ownership rates have substantially exceeded those projected and are steadily increasing towards the European average of 450 per 1000 population. Car ownership per 1000 population was 292 in 1996 and 342 in 1999, far outstripping the original DTI forecast of 288 for the year 2001;
- total passenger numbers through Dublin Airport in 2000 (13.8m) exceeded those originally projected for 2011 (11.0m), while the annual tonnage throughput at Dublin Port in 2000 (21.0m tonnes) was almost twice the projected level for 2011 (10.7m tonnes).



The consequence of this unexpected growth is that Dublin faces a rapidly increasing demand for travel, the scale of which is illustrated in the following table:

DEMAND FOR TRAVEL (Thousand person trips)				
	1991	1997	1999	2016
AM Peak Hour	172	250	283	488
Off Peak Hour	107	157	179	256

Total peak hour trips have grown by 78,000 or 45% between 1991 and 1997. However, the bulk of that growth has been accounted for by private car commuting (+71,000). In 1991 the private car accounted for 64% of peak hour trips; by 1997 that had increased to 72%. The average journey time by car increased from 31 minutes in 1991 to 43 minutes in 1997, reflecting greater congestion and longer journeys.

By 2016, total peak hour trips are forecast to be 488,000, a 95% increase on the 1997 level. Total trips in the off-peak hour in 2016 will be 256,000. That is six thousand trips more than there were in the peak hour in 1997.

In addition to overall growth, the Strategy will also have to take account of changing patterns of travel. A comparison of journey destinations in the morning peak hour shows significant changes between the surveys carried out in 1991 and 1997. In the 1991 survey, the city centre was the primary destination. The 1997 survey showed that:

- **the city centre continues to be the most popular destination;**
- **the south-east inner city remains a primary and growing destination;**
- **the fastest growing destination is Clondalkin/Tallaght. There was almost a fourfold increase in morning peak hour car trips to this area between 1991 and 1997 and it is now the second highest trip destination;**
- **Dublin Airport is a major destination for trips from all parts of the Greater Dublin Area;**
- **there is an extensive two-way trip demand linking the western towns of Tallaght, Clondalkin, Blanchardstown and the environs of Dublin Airport;**
- **other areas of growing importance as peak hour destinations include Sandyford and the area on the north fringe of Dublin City and the south fringe of Fingal.**

The challenge for the DTO is to prepare a transportation strategy that meets the objectives derived from the Vision Statement and the additional objectives set by the Steering Committee and that supports the development objectives of the Strategic Planning Guidelines. It must do so in the context of:

- **a rapid growth in population and households, leading to increasingly dispersed travel patterns;**
- **a substantial increase in employment leading to a large increase in the demand for travel in the peak hour;**
- **increasing car ownership resulting in additional commuting by car, which is economically inefficient and environmentally unsustainable;**
- **an unprecedented and continuing high level of economic growth;**
- **slower than expected delivery of some of the major infrastructure projects recommended in the 1995 DTI Strategy.**



4. The Technical Tasks

Deciding how to respond effectively to the transportation challenge required a great deal of detailed technical, transportation modelling and evaluation work. This was carried out over the past two years by DTO staff, supported by specialist consultants. The following were the main elements of that work:

- **updating of the DTO transportation model, taking account of transport infrastructure constructed since 1994, and committed transport infrastructure (such as completion of the M50 and LUAS lines from Tallaght to Connolly Station and from Sandyford Industrial Estate to St Stephen's Green);**
- **updating the DTO transportation model to take account of the major changes in the volume and pattern of trip making;**
- **forecasting of 2016 transport demand for the DTO area;**
- **developing a conceptual high quality, high capacity public transport network for modelling purposes, consisting of a tight mesh of radial and orbital links, centred on Dublin City centre. The conceptual network was designed so that, in general, people in the Metropolitan Area of Dublin need walk no more than 10 minutes to a public transport service;**
- **testing how this conceptual public transport network would cope with the 2016 forecast transport demand, and using the results to guide the development of an appropriate strategy for the period up to 2016.**

The above technical work showed that, even with a comprehensive, high quality, high capacity public transport network, congestion on roads would be even worse than today. This is because many commuters would still choose to drive, even when excellent public transport was available to them. Given the objective of reducing congestion to 1991 levels, it is clear that any strategy that relies on the provision of additional infrastructure and improved services alone will not succeed. It follows that some form of demand management is necessary. Examples of demand management include designing new developments to minimise the need for motorised travel, reducing the number of workplace parking spaces, increasing the cost of long-stay parking, car sharing, teleworking and road-pricing or congestion charging.

Following the above work on the conceptual network, the next stage was to examine possible practical strategies. The elements of the work carried out by the DTO were:

- **establishment of the appropriate level of demand management to reduce congestion to 1991 levels;**
- **selection of the most appropriate public transport modes (bus, QBC, DART/Suburban/Rail, LUAS or METRO) for each part of the conceptual network, based on the passenger flows;**
- **development of a set of viable transport strategies for Dublin in 2016, informed by strategic studies of the suburban rail network, the bus network, the Eastern By-Pass and the national road network;**
- **exhaustive testing and refinement of the transport network options using the DTO transportation model;**
- **multi criteria evaluation of two alternative transport strategies in terms of the economic, accessibility, sustainability and policy integration impacts;**
- **choice of a preliminary preferred strategy;**
- **sensitivity testing of the strategy with demands levels 20% higher and lower than forecast;**
- **further refinement of the preferred strategy, the conclusions of which are summarised in this report.**



5. The Strategy

The DTO Strategy has two interdependent elements:

- **Infrastructure and Service Improvements** to increase the supply of transport, including a substantial expansion of the public transport network, some strategic road construction and traffic management
- **Demand Management**, to reduce the growth in travel through the application of land use and other policies while maintaining economic progress, and which is designed to encourage a transfer of trips, especially at peak periods, from the private car to sustainable modes of transport (such as public transport, cycling and walking);

The DTO Strategy is an integrated one. It will only be effective when both elements are implemented together in a coherent way. Going ahead with the infrastructure element alone will not be enough. It must be accompanied by the demand management element and the complementary policies if the Strategy is to achieve its overall objectives.

The rest of this Chapter briefly describes the principal components of the integrated transportation strategy. It includes:

- an integrated public transport network which provides for a radical transformation in the quality and quantity of services provided;
- strategic, but limited, improvements to the road network which will be managed in a way which does not encourage peak hour car commuting;
- traffic management policies which will optimise the use of the road network for all users, including car drivers and passengers, public transport passengers, cyclists and pedestrians;
- a freight management policy designed to provide the basis for a detailed strategy to facilitate the movement of goods and improve freight access to ports and airports;
- good quality cycling and pedestrian networks;
- a statement of policy on demand management which will provide the basis for the development of a detailed demand management strategy;
- guidance on complementary land use policies.

PUBLIC TRANSPORT

The public transport elements of the Strategy will provide for approximately 300,000 trips in the morning peak hour in 2016, compared with about 70,000 today. To achieve this it will be necessary to create an integrated public transport network comprising the following principal components:

- an improved DART/Suburban rail network including improved passenger carrying capacity on the existing network and the development of more tracks on existing alignments, an interconnector between Heuston Station and East Wall and other new rail lines;
- an extension of the on-street light rail network (LUAS);
- the development of a higher capacity segregated light rail network (METRO);
- a much expanded bus network, comprising an integrated mesh of radial and orbital services and a substantial increase in passenger carrying capacity;
- a package of measures designed to improve the integration and attractiveness of the public transport network, including park and ride facilities, integrated fares and ticketing, quality interchange facilities and improved passenger information.

The role of the bus is likely to change quite substantially over time, particularly as the longer-term rail-based elements of the programme are put in place. In the short term, the bus will be the primary mode of public transport. As the rail-based networks are put in place, the bus will increasingly be used to feed passengers to rail services as well as carry them directly to their ultimate destination. The bus will also be used to fill in gaps in the mesh of public transport routes where a rail-based system is uneconomic, impractical or not feasible and also to extend the reach of the rail network.

The Strategy will make it possible to complete the bulk of public transport journeys in the Greater Dublin Area with not more than one transfer, whether intra-modal (bus to bus) or inter-modal (bus to rail), and with only one ticket.

When the public transport strategy is in place, the great majority of people living in the Greater Dublin Area will be able to access the public transport network by walking 10 minutes or less. With this Strategy, public transport will be a viable option for the large majority of trips.



Transport services in this Strategy will be accessible to all users. The particular needs of people with mobility impairments and disabilities will be addressed by providing low-floor buses, level boarding on rail-based modes of public transport and high quality pedestrian facilities. This will consequently ensure a high quality of accessibility to public transport for all transport users.

BUS (see figure 2)

Buses are the most flexible form of public transport. The Bus is, consequently, the most extensive form of public transport in the Strategy in terms of route length and geographic coverage. There will be a tight mesh of radial and orbital routes linking the suburbs with each other and with the city centre. The network will comprise Quality Bus Corridors and extensive bus priority measures on other parts of the network.

The Quality Bus Network (QBN) will consist of radial and orbital Quality Bus Corridors and additional bus priority measures. In general, the design of the network will offer a clear advantage to public transport over private vehicles so as to ensure competitive and reliable door-to-door journey times. The target design speed for public transport services in the Quality Bus Network will remain at 22kph.

In the city centre, the QBN will allow radial bus routes to access all parts of the city centre and to interchange with DART/Suburban Rail stations, LUAS stops and METRO stations. It will also improve the reliability of cross-city services.

There will be bus priority measures apart from QBCs, in particular to access major residential, retail and employment centres.

Local bus services serving town centres in the Metropolitan Area and Development Centres in the Hinterland Area will be introduced and given priority where needed.

Figure 2 QBC/BUS PRIORITY NETWORK



DART/SUBURBAN RAIL (see figure 3)

Heavy rail systems, such as DART and Arrow, have high potential capacities but are very expensive to build. DART is now experiencing capacity problems during peak hours especially in the city centre. There is a severe bottleneck on the suburban rail services on the northern and Maynooth lines approaching Connolly Station. The Arrow service from Kildare terminates at Heuston Station, which is more than 2km from the city centre.

The DART/suburban rail strategy is designed to make the maximum use of existing rail lines, in particular by eliminating the capacity constraints in the existing system. This requires:

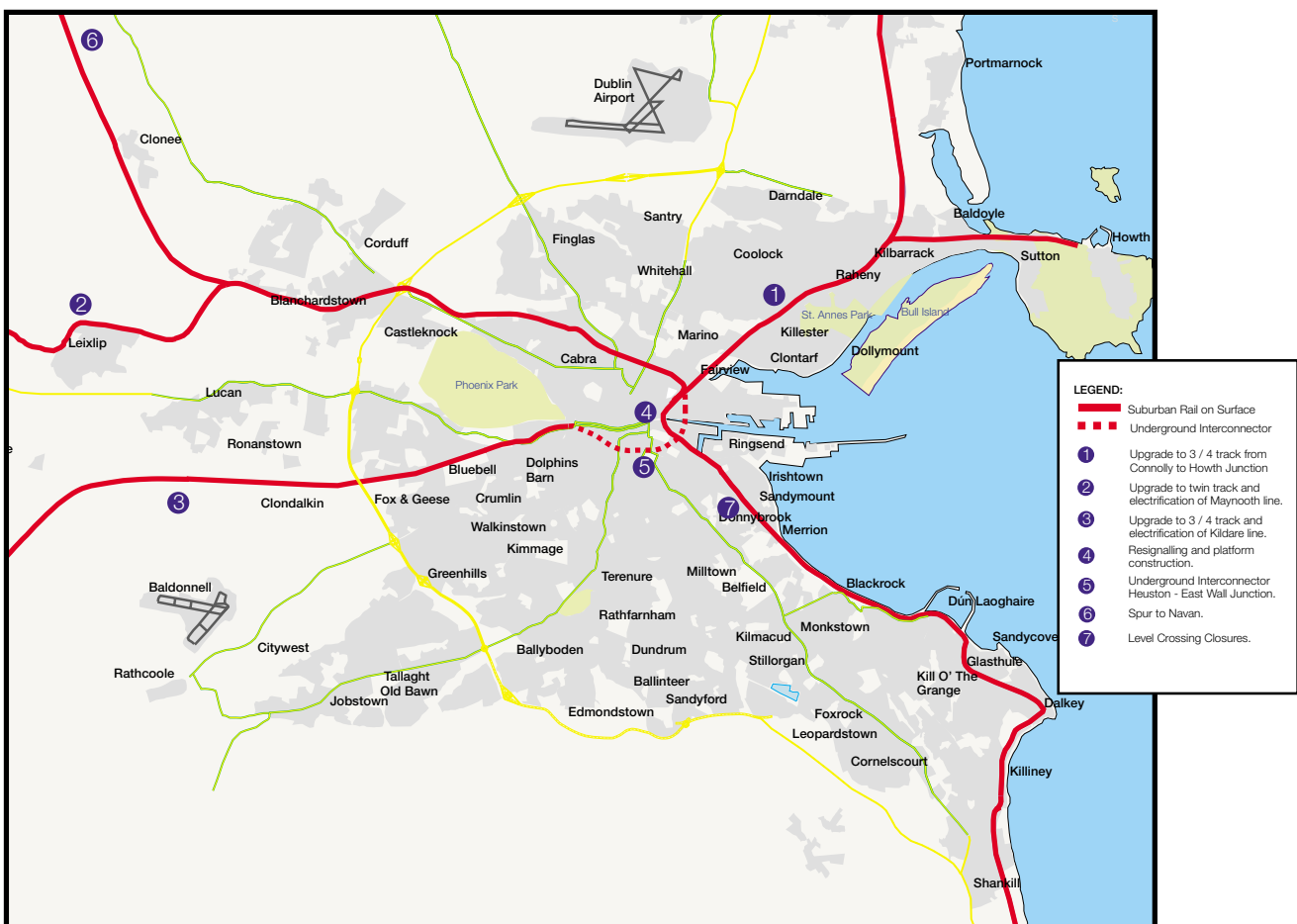
- **upgraded signalling on the Dundalk, Maynooth and Kildare lines to allow a substantial increase in the number of peak hour trains;**
- **lengthening of platforms to allow the operation of 8-car DART and Arrow trains;**
- **new platforms in Connolly Station;**
- **the removal of or restrictions on the use of level crossings on the DART and suburban rail lines;**
- **the segregation of intercity services from suburban services on the Dundalk and Kildare lines. This requires three- or four-tracking from Connolly Station to north of Howth Junction and four-tracking from Cherry Orchard to Sallins.**

The centre-piece of the DART/Suburban rail strategy is an underground interconnector linking Heuston Station with East Wall junction via Pearse Station and Docklands. This interconnector allows for through running from the Kildare line to the Maynooth line and/or the Dundalk line. It provides an eastern rail by-pass of the existing severe bottleneck approaching Connolly Station; it serves areas of high demand, especially the south-east inner city and Docklands; and it allows for the maximum use of the Maynooth and Kildare lines. Both of these lines will be electrified and this will permit a major extension to the present DART system.

There will be new rail stations, particularly near areas of new development adjacent to the existing rail lines.

A new spur rail line will be constructed off the Maynooth line near Clonsilla to Navan.

Figure 3 DART/SUBURBAN RAIL NETWORK



LUAS (on-street light rail) (see figure 4)

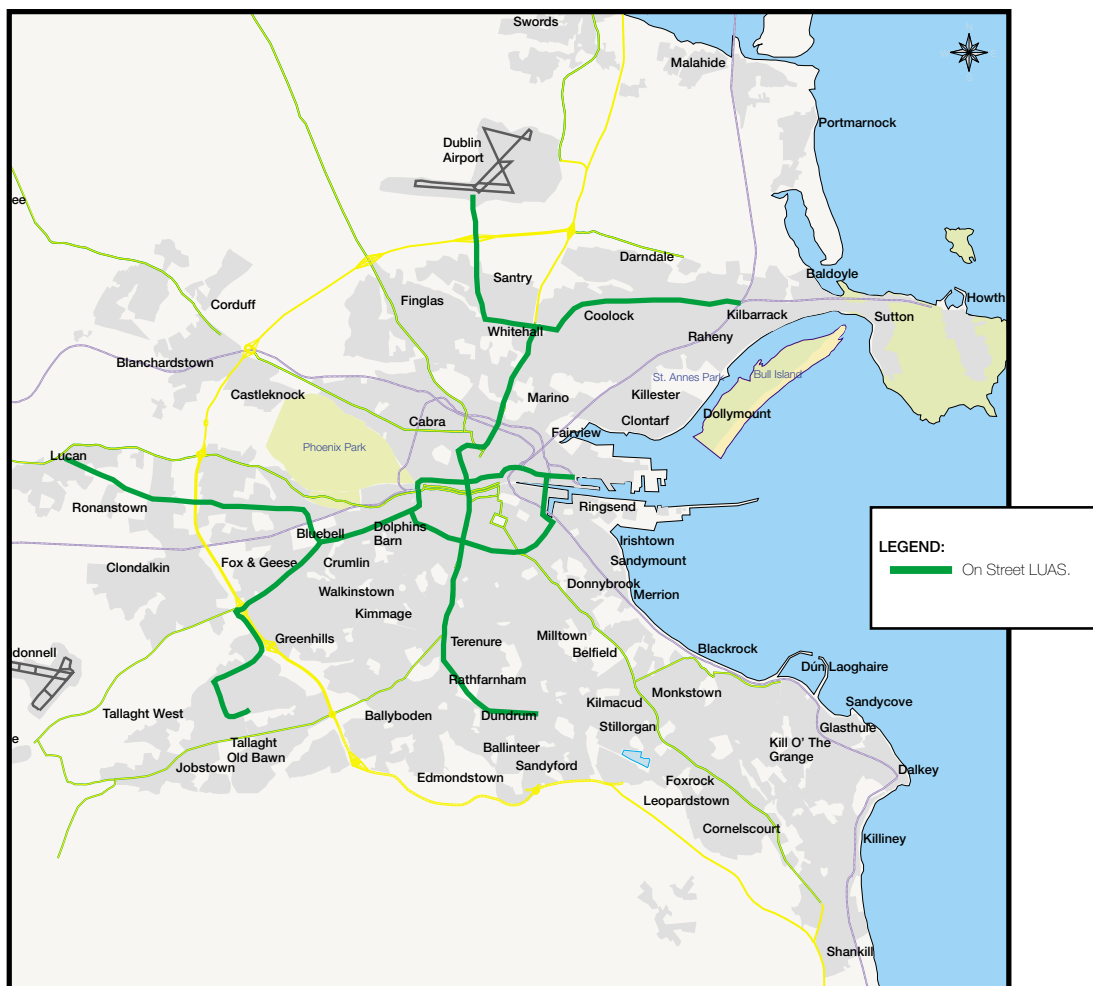
The LUAS system is appropriate in corridors where passenger numbers are too high to be accommodated on bus but not high enough to justify the expense of DART/Suburban Rail or METRO.

The LUAS system in this Strategy is founded on LUAS lines that are already under construction. LUAS Line A (Tallaght to Abbey Street) is under construction. Line B (Sandyford Industrial Estate to St Stephen's Green) is under construction as a LUAS line but will be upgraded to METRO later (see under METRO). LUAS Line C (Abbey Street to Connolly Station) is under construction and will be extended to Docklands.

A new north-south line will be constructed from Ballymun via Whitehall, the city centre, Harold's Cross, Terenure and Rathfarnham to Dundrum. This will be extended north of Ballymun to Sillogue. It will interchange with the METRO at Sillogue, in the north city centre, in the south city centre and at Dundrum. There will be a spur at Whitehall via Coolock to Kilbarrack where it will interchange with DART.

A new east-west line will be constructed from Lucan via Ballyfermot, Dolphin's Barn and the South City Centre to Docklands via the proposed Macken Street Bridge.

Figure 4 LUAS NETWORK



METRO (see figure 5)

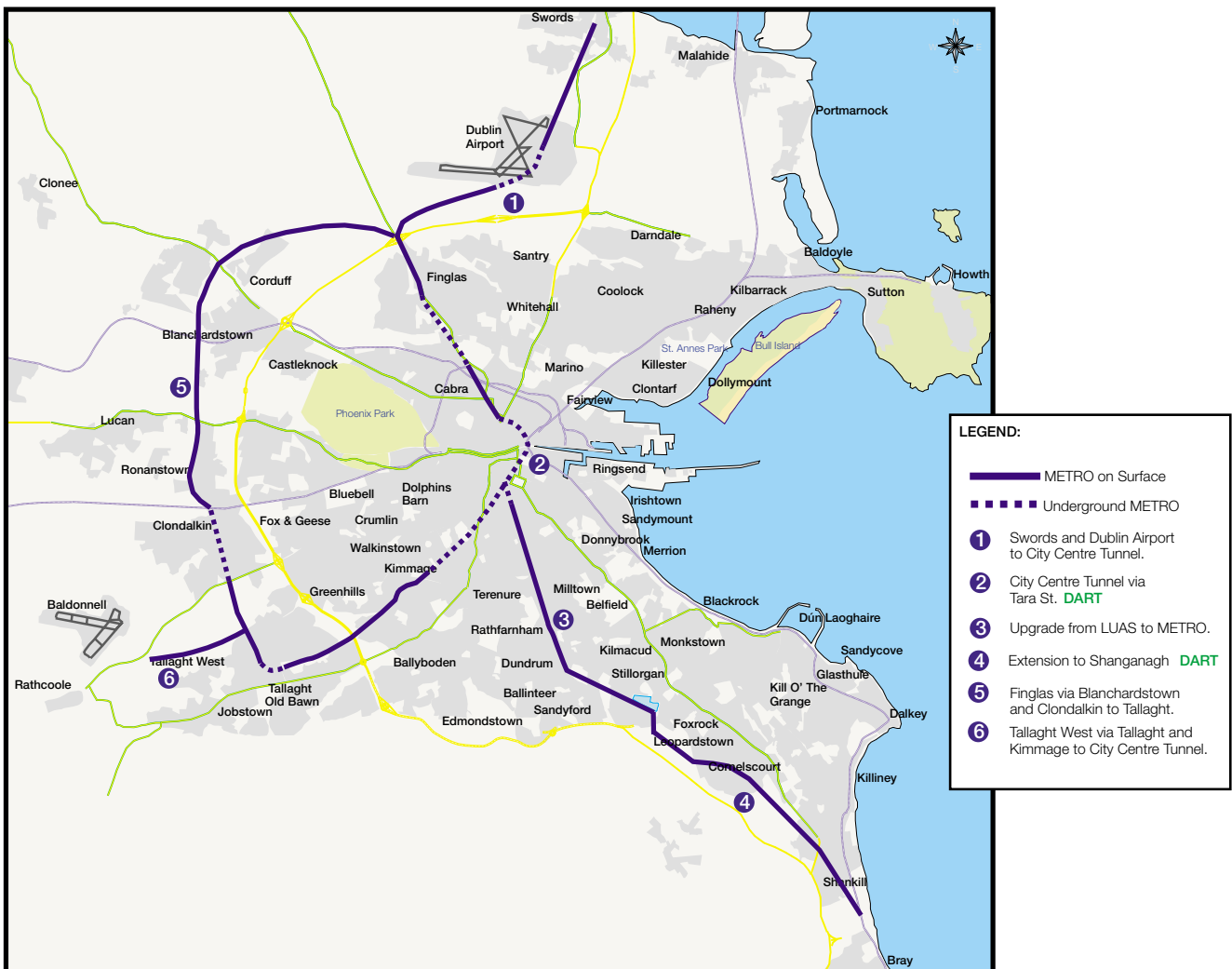
METRO is a light rail system that is similar to LUAS except that it is completely segregated throughout its entire length (that is, it has no on-street sections). This means that it can have long trains, operating at higher speeds and higher frequency and therefore has the potential to provide very high passenger capacity. Tunnels are needed to maintain segregation in densely developed areas.

The METRO system will have a spine from Swords to Shanganagh. This line will run via Dublin Airport, Finglas, Broadstone, the city centre, Ranelagh, Sandyford and Cherrywood. The section between Broadstone and Ranelagh will be in tunnel and will interchange with DART at Tara Street Station. Construction of this line will entail the upgrading of LUAS Line B to METRO between the Sandyford Industrial Estate and Ranelagh.

There will be a line from Tallaght West via Tallaght and Kimmage, entering the city centre tunnel in the south city.

An orbital line will be formed from a spur off the Swords-Shanganagh spine route at Finglas via Blanchardstown and Clondalkin to Tallaght. This line will interchange with DART/suburban rail, and possibly with intercity trains, at Porterstown and Clondalkin. This will allow passengers from Sligo, Ballina, Westport, Galway, Limerick, Tralee, Cork, and Waterford trains to access Dublin Airport with only one interchange.

Figure 5 METRO NETWORK



INTEGRATION (see figures 6 and 7)

The DTO Strategy is integrated across the various modes of transport.

There will be numerous interchange stations on the METRO, DART/Suburban Rail, LUAS and bus networks, particularly in the city centre. There will be bus feeders to rail-based public transport. It will be possible to make almost all journeys on the public transport networks with just one interchange.

All public transport networks will be fully accessible by people with mobility impairments and disabilities.

A series of public transport nodes will be developed in the city centre and in the northern, western and southern suburbs.

Real time travel information and public transport information services by telephone and on the internet will be introduced.

Park and Ride will integrate the car with public transport. There will be Park and Ride facilities for commuters at strategic locations where the national road network meets the public transport networks. All proposed Park and Ride sites will be assessed to ensure that cars accessing them do not unduly add to congestion.

Cycle parking facilities will be provided at all Park and Ride sites, DART/suburban rail and METRO station, and at LUAS and bus stops where appropriate.

Integrated fares and ticketing will be introduced. This will allow all public transport users to complete a full journey with only one ticket, even if the journey involves more than one bus and/or LUAS and/or DART/suburban rail and /or METRO trip.

Figure 6 PUBLIC TRANSPORT NETWORKS

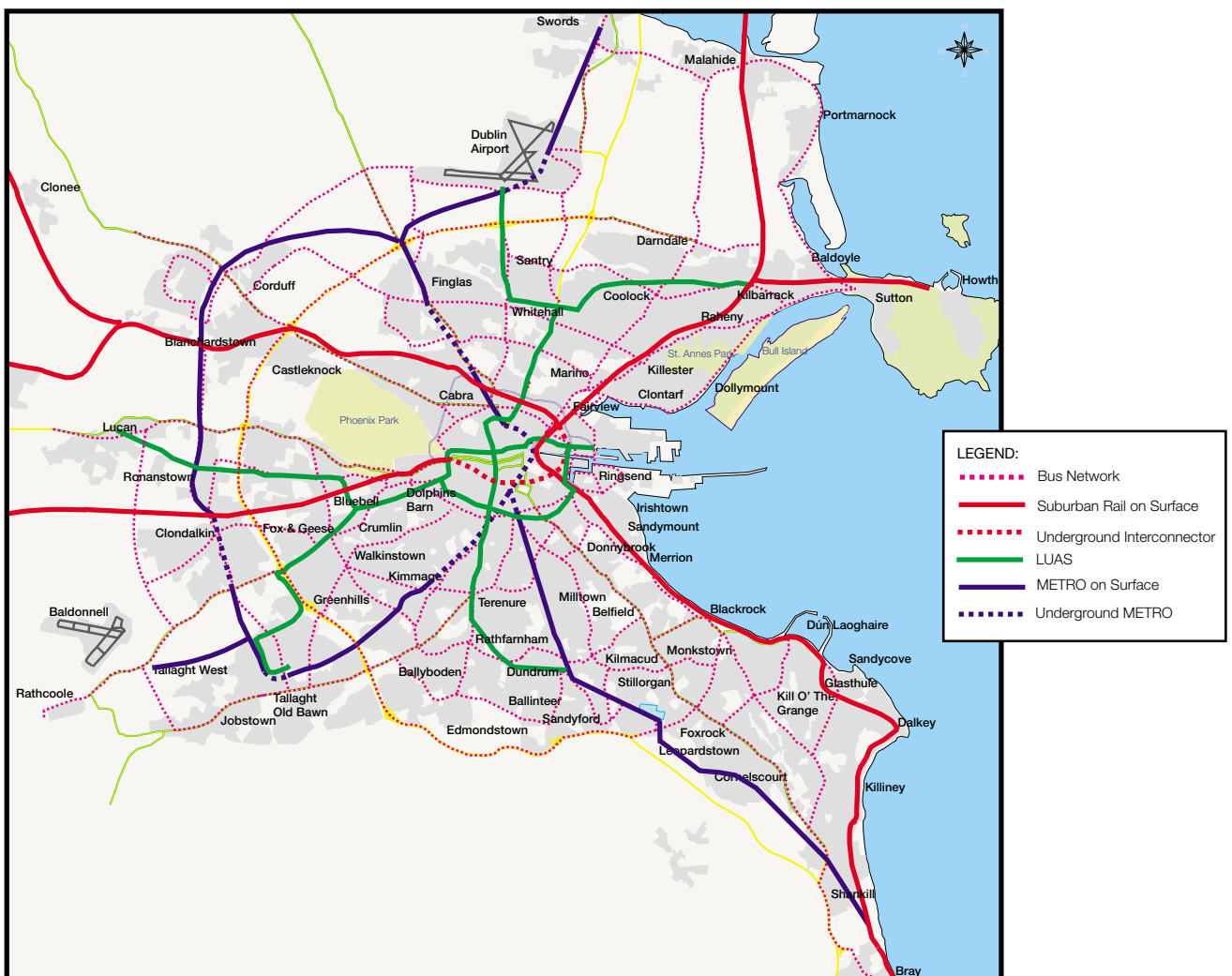
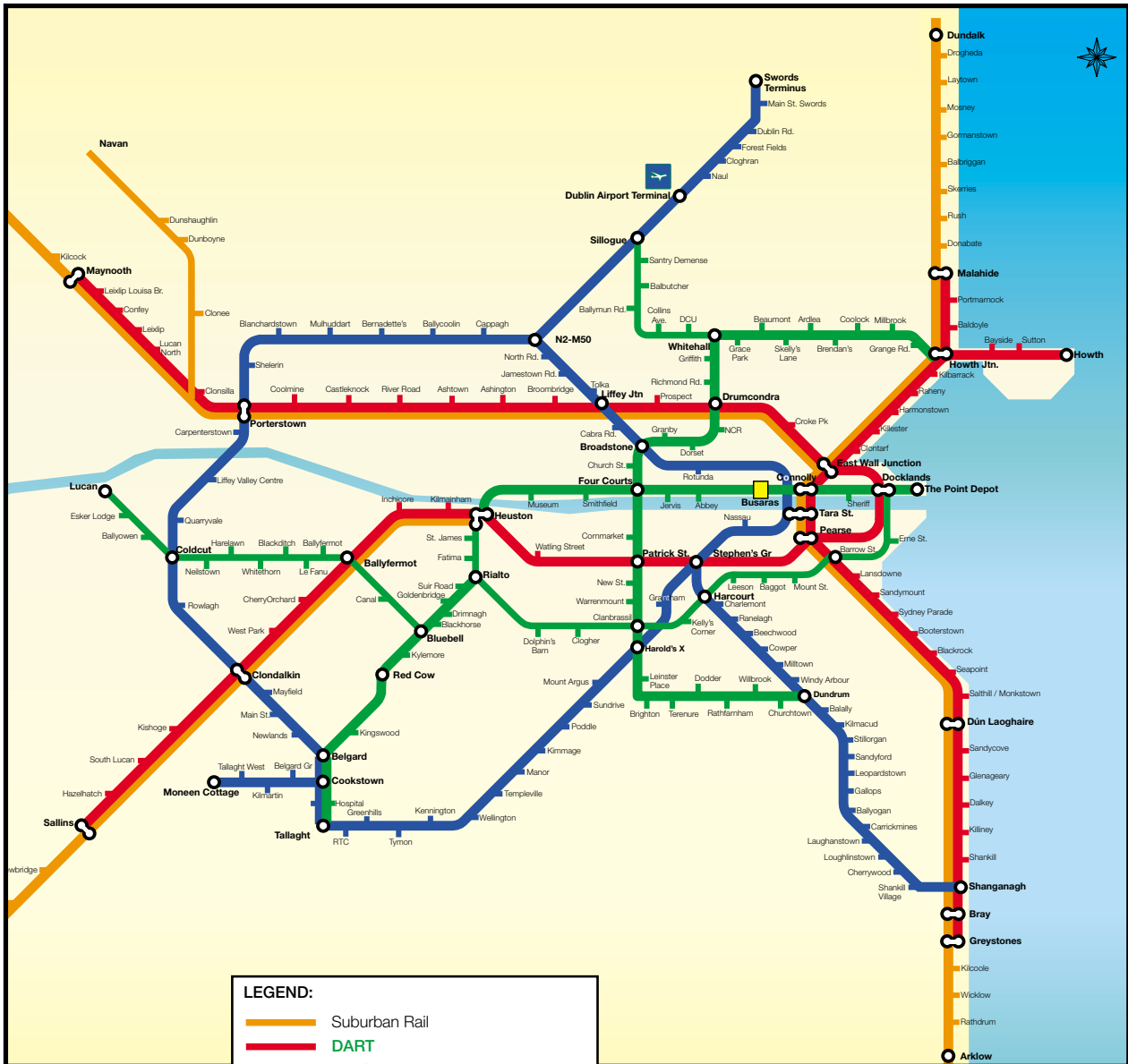


Figure 7 RAIL NETWORK SCHEMATIC



ROADS (see figure 8)

The development of the national road network in the Greater Dublin Area meets national economic policy objectives and, accordingly, a number of national road projects are included in the DTO Strategy. The projects fall into two general categories. The first is the upgrading and completion of the orbital motorway around Dublin (M50, the Dublin Port Tunnel and Eastern By-Pass). The second comprises upgrading the arterial national routes outside the orbital motorway.

The Strategy includes a number of non-national road projects that have a strategic influence (as distinct from local impacts). The main criteria for inclusion are that the project should:

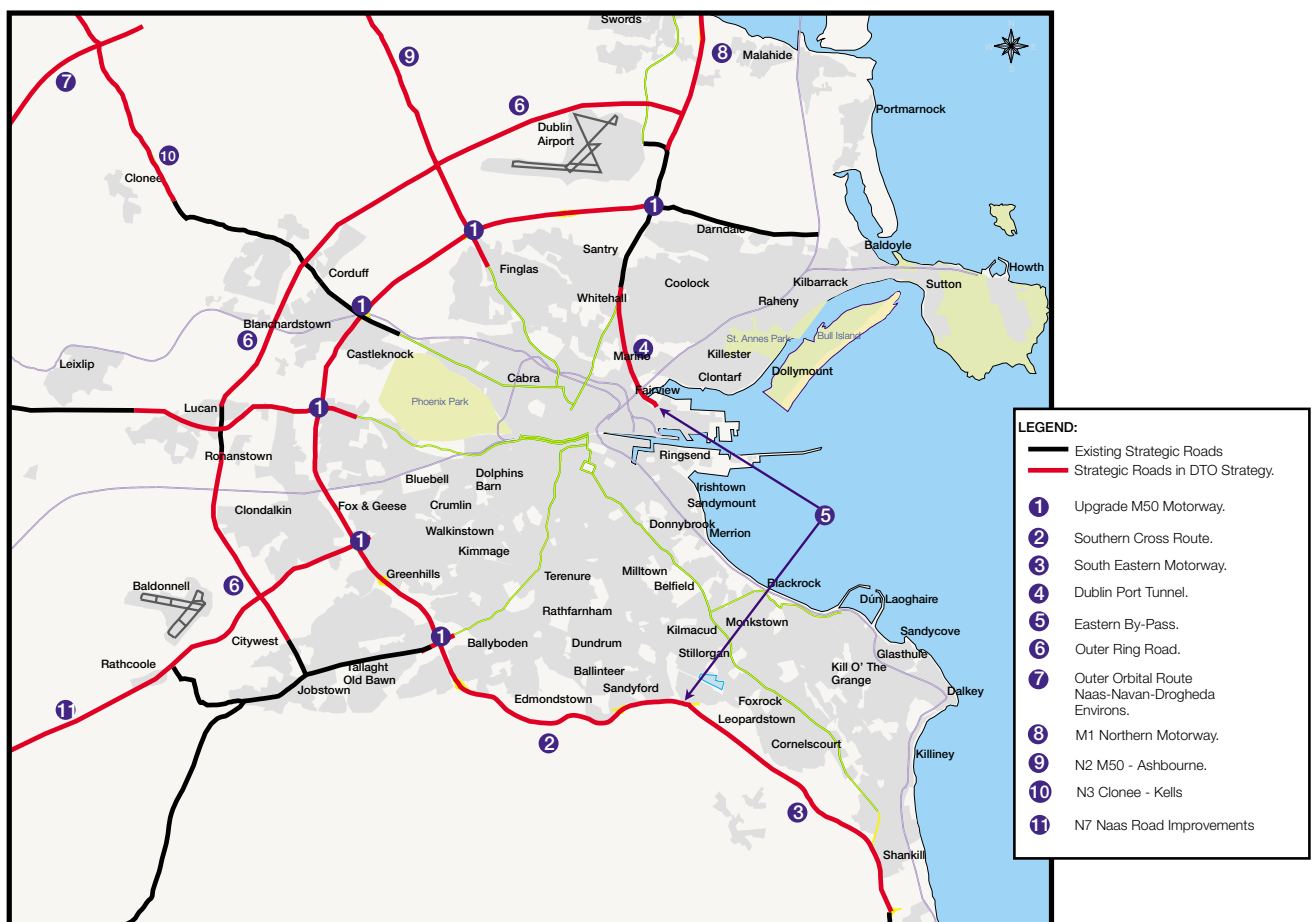
- provide for proper management of access to the M50 and/or national arterial routes;
- complement the Strategic Planning Guidelines;
- serve critical economic development needs in the Metropolitan Area or in the development centres identified in the Strategic Planning Guidelines;
- provide other environmental or safety benefits;
- increase capacity for public transport.

The principal road projects are listed in Chapter 8.

There will be no significant increase in road space on radial roads inside the M50 Motorway. Further, there will be no additional roads to cater for car traffic passing through the Metropolitan Area, apart from those roads contained in the Strategy.

The construction of new and improved roads, especially by-passes, will be accompanied by the reallocation of road space on the existing road network to pedestrians, cyclists and/or public transport users.

Figure 8 STRATEGIC ROAD NETWORK



TRAFFIC MANAGEMENT

The primary objective of traffic management is to optimise the use of road space for all users. Traffic management will be particularly important in the short term, before the high-capacity rail-based public transport schemes are completed. In 2006, there will be an additional 60,000 public transport users in the peak hour, most of them travelling by bus. This alone will require the traffic management system to provide additional bus priority as well as catering for the extra 120,000 pedestrian trips (ie 60,000 at each end of the public transport journeys).

There will be a Regional Traffic Management Strategy, which will include:

- **the definition of a hierarchy of roads in the network, setting out the purposes and objectives for each level in the hierarchy;**
- **a monitoring system, to measure how well the highway network is meeting its objectives;**
- **a control system, enabling adjustment of the network;**
- **a series of firm proposals comprising a traffic management policy.**

There will be a vast improvement in the quality of pedestrian facilities. In the city centre, new walking corridors will form the basis of a primary pedestrian network serving commerce, business, leisure and tourism trips, and linking primary commuter destinations with public transport facilities. A Safer Routes to School (SRTS) programme will promote health and safety on children's journeys to and from school.

The DTO Strategic Cycle Network will be completed. An extended network will include strategic cycle routes and links to public transport facilities and main employment centres. There will be adequate cycle parking facilities.

There will be local traffic signal control centres in each of the four Dublin local authorities. They will have integrated traffic management systems controlling traffic signals, remote fault detection, closed circuit TV and variable message signs. There will be a Regional Signal Control Plan that will co-ordinate traffic signal control on a regional basis and will seek to achieve broad goals, including the reduction of rat-running, pedestrian delays and congestion, while increasing bus speeds and improving safety.

There will be one motorway control centre for all the motorways within the Greater Dublin Area. The centre will have an integrated suite of systems for the management and maintenance of the motorway system.

Enforcement systems will be increasingly automated, with camera recording and computer processing of violations. Clamping will be extended to areas of high parking demand, especially retail centres. Towing will be extended to the additional main traffic routes.

The local authorities and the utility companies will develop a more co-ordinated approach to the planning and management of road works. All non-emergency works will be planned with the objective of minimising disruption to traffic.

A Regional Freight Study will be undertaken to identify appropriate routes and restrictions for general goods distribution and for freight trips to and from Dublin Port, Dún Laoghaire Port and Dublin Airport. It will also review the scope for improved goods distribution strategies, including consolidation centres, night-time deliveries, as well as considering pricing strategies, loading, layover and general distribution management.

The development of traffic cells in the city centre and traffic calming generally will continue. In the case of city centre cells, further attention will be given to the issues of severance at cell boundaries, access to car parks inside cells or at cell boundaries, links between cells for cyclists, pedestrians and public transport, the requirement to maintain and foster urban villages, and the enhancement of the unique character of some principal streets in the city.

Travel information systems (maps, kiosks, internet, phones etc.) will be developed to provide information to enable people to make appropriate travel choices before they start their journeys. Within the transport networks, effective and comprehensive direction signing, passenger and traffic information will be essential.



DEMAND MANAGEMENT

Previous sections of this report have dealt with the first element of the Strategy, the supply of infrastructure and service improvements. The second, interdependent element of the Strategy is demand management, which seeks to reduce the growth in the demand for travel while maintaining economic progress, and which is designed to encourage a transfer of trips to sustainable modes. The Strategic Planning Guidelines state that the success of the land use strategy for the Greater Dublin Area is contingent on the introduction of effective demand management measures, since physical planning policies and measures can only partially reduce demand for travel. Analysis by the DTO shows that the introduction of the infrastructure and service improvements element of the Strategy alone will not achieve the overall objectives.

A demand management strategy is therefore a critical element of this Strategy. A comprehensive Demand Management Study is necessary to develop the strategy. The goals of the demand management strategy will include the following:

- **To reduce the growth in demand for travel by motorised modes;**
- **To reduce the number of peak hour car trips from 250,000 to 180,000 (ie by 28%) in 2016;**
- **To reduce the level of congestion on the road network to 1991 levels, when the average speed in the morning peak hour was 22kph.**

The following mechanisms exist in other countries and cities to manage travel demand, and are among those that will be examined during the Demand Management Study:

- **Land Use Policies**
- **Economic/Fiscal Instruments**
- **Parking control**
- **Mobility Management**
- **Information Technology measures**
- **Reorganisation of work**

Each demand management mechanism will generate different types and levels of behavioural reaction. Travellers may:

- **Retime journeys to travel outside busy periods;**
- **Transfer to a mode with sufficient capacity to ensure arrival at the preferred time;**
- **Change trip origin or destination (more likely over the longer term);**
- **Link trips to other trips that they wish to make to avoid travelling twice;**
- **Share a private vehicle with others for some or all of the trip;**
- **Decide to forego the trip entirely.**

The Demand Management Study will quantify the likely impact on traveller behaviour and assess the feasibility of a package of mechanisms.

GUIDANCE ON COMPLEMENTARY LAND USE POLICIES

The Strategic Planning Guidelines have determined that development will be consolidated within the Metropolitan Area and into defined Development Centres in the Hinterland Area. In principle, development outside of these centres is to be restricted to natural growth in the locality. The DTO Strategy complements this land use strategy. The following issues need to be addressed by the implementation agencies with the assistance of the DTO where appropriate.

New development should be concentrated within the Metropolitan Area and within the Hinterland Area development centres.

Within the Metropolitan Area, the use of public transport corridors should be maximised by concentrating development along these corridors at public transport nodes (stations, bus stops or interchanges). Development should be phased to maximise the utility of existing public transport services and to avail of new services as they come on stream. Reservations for public transport should be protected in the design of new developments. A study should be undertaken which identifies at the outset the appropriate locations for additional public transport nodes. Local Area Plans should be prepared around rail transport nodes and along quality bus corridors, which identify the appropriate development potential for these areas. Development near interchange nodes should be primarily reserved for large trip attractors such as major employers or town/district centres. Development of rail stations should support local residential areas by providing local services. Integrated Framework Plans for Land Use and Transportation should be developed for each of the Major Centres within the Metropolitan Area.



Within the Hinterland Area, development within the designated development centres should be consistent with the objective of achieving self-sufficiency. Priority should be given to complementary development that supports the local transportation network and is consistent with the objective of providing predominantly self-sustaining development centres. An Integrated Framework Plan for Land Use and Transportation which will determine the future development of these areas should be prepared for each development centre. Primarily people based employment activities should be located close to existing and future public transport nodes.

Parking policies and standards should promote the use of sustainable modes of transport, so providing a competitive advantage for public transport. Parking policies need to be developed which are consistent across the region, complement the provision of public transport, reduce car dependency, set maximum parking standards for each land use, allow for temporary parking provision and locate parking to complement the policy of concentrating development.

In response to the DTO Strategy, the Strategic Planning Guidelines should be reviewed and should address a number of issues including: maximising access to public transport infrastructure, facilitating high-density development by accelerating the provision of public transport, reviewing development plans to reflect the DTO Strategy, disaggregating the Metropolitan Area into appropriate development zones and clarifying what are acceptable levels of commuting between each of the designated Hinterland Area development centres and the Metropolitan Area.

The DTO will provide advice notes on relevant issues relating to land use and transportation.



6. The Costs

Most of the costs of the Strategy relate to the infrastructure and service improvement element of the Strategy. The demand management element will have some set-up costs, but these are likely to be relatively small.

The table below shows the breakdown of the capital costs of the infrastructure and service improvement element of the Strategy, in the period 2000-2006 and the period 2006 – 2016. The costs are in 2001 prices and include land costs, contingencies and VAT, which is assumed to be at 15% on average.

Capital Costs (£Million)						
	2000 - 2006		2007 - 2016		Total	
	IR£m	€m	IR£m	€m	IR£m	€m
METRO	1,000	1,270	4,687	5,951	5,687	7,221
LUAS	1,037	1,317	636	808	1,673	2,124
DART/Suburban Rail	1,817	2,307	2,579	3,275	4,396	5,582
QBN/ Bus Priority	486	617	150	190	636	808
Integration	155	197	155	197	309	392
Roads	3,256	4,134	972	1,234	4,228	5,368
Traffic Management	145	184	145	184	289	367
Total	7,896	10,026	9,323	11,838	17,218	21,862

Operating Costs

There will be significant operating and maintenance costs associated with the public transport infrastructure and service improvements in the Strategy. There will be operating costs associated with the roads infrastructure and demand management elements of the Strategy. The revenues from tolled road schemes, such as the Dublin Port Tunnel, will cover their operating and maintenance costs. Revenue from possible economic and fiscal instruments of demand management, such as increased parking charges and road pricing, would cover their costs and could provide significant surplus revenue.

As part of the Strategy work, we have estimated the operating costs and anticipated revenue for the public transport elements of the Strategy in 2016. The anticipated revenue assumes that average fares remain the same in real terms as today. The operating costs and fare revenues will grow between now and 2016 as each new infrastructural element of the Strategy is added, and as public transport patronage increases.

The rail operating costs are derived from the "Dublin Suburban Rail Strategic Review" produced for CIE by Arup Consulting Engineers in March 2000 and the "DTO Strategy, Cost and Programme Review" prepared for the DTO by Arup Consulting Engineers in July 2000. They have been further updated by additional information received from Irish Rail. Operating costs for METRO, DART/Suburban Rail and LUAS include train operation and maintenance, track and station maintenance and ticketing costs.

Bus operating costs are based on the operating costs contained in the 1999 Dublin Bus Annual Report, with an allowance for the extra buses required in 2016, compared to 1999.

Vehicle depreciation costs are included for bus (assuming a 10 year vehicle life) and for rail rolling stock (assuming a 20 year rolling stock life).

Revenues assume a flat fare of 80 pence per trip. There is an allowance for discounted and concessionary fares (eg season tickets) which is assumed to be an average of 81% in the peak hour and 75% in the off-peak hour.

Operating Costs and Revenues in 2016 (£Million in 2001 prices)				
	Operating costs		Revenues	
	IR£m	€m	IR£m	€m
QBC / Bus	194	246	149	189
METRO, LUAS, DART/suburban rail	354	450	289	367
TOTAL	548	696	438	556

This leaves a requirement for an annual subvention of approximately IR£110m (€140m) in 2016.



7. The Benefits

The function of the Strategy is to meet the objectives set out under the Vision Statement in Chapter 2 and the additional objectives added by the Steering Committee. The benefits of the Strategy derive from meeting those objectives.

Because of the importance of having an objective analysis of the Strategy, the DTO employed independent consultants to carry out a multi-criteria analysis.

The multi-criteria evaluation showed that:

- The Strategy is very effective in terms of its contribution to the **economy**. The economic benefits of the Strategy are very substantial at £18.6bn (€23.7bn) in net present value terms. With a cost-benefit ratio of 3.08 and a rate of return of 15.8%, the Strategy is efficient and provides good value for money.
- It improves **social inclusion** by providing a transport system that is accessible to all sectors of society and all geographic districts in the Greater Dublin Area.
- It promotes **sustainability** by reducing polluting emissions, noise impacts and energy consumption.
- It supports **policy integration** with the Strategic Planning Guidelines and caters for longer-term transport needs.

It is worthwhile to describe some of the benefits in practical terms outside the strict terms of the multi-criteria analysis.

- The transport system will have **adequate capacity** to cater for all journeys, in particular for all journeys to work and education in the morning peak hour.
- There will be an **extensive** high-quality public transport system extending over a large catchment area. Most people will live within 10 minutes walking distance of DART/suburban rail, METRO, LUAS or the Quality Bus Network.
- There will be an **integrated** public transport system. Most journeys will be possible on public transport with, at most, one interchange and all journeys will be possible with only one ticket.
- The level of road **congestion** will be less than half what it would be if the Strategy were not implemented. The average speed on the road network in the morning peak hour will be increased to 20kph, compared with 8kph without the Strategy.
- **Average journey times** will reduce dramatically. The average journey time by bus and rail will be 37% and 53% respectively less than the situation if the Strategy were not implemented. The average journey time reduction for car will be 39%.

AVERAGE JOURNEY TIMES IN 2016 AM PEAK (Minutes)

	Without the Strategy	With the Strategy
Bus	47	29
Rail	38	18
Car	94	57
Weighted Average	76	34

- Public transport will gain an improved share of the market for travel. Public transport will have 63% of the total market for travel in the Greater Dublin Area and 85% of those trips with destinations in the city centre. This compares very favourably to the situation if the Strategy were not implemented, where public transport would carry only 35% of the total market, and 72% of trips with destinations in the city centre.

MODE SPLIT IN THE AM PEAK HOUR (Person Trips)

	1991		1997		2016	
Bus	44,000	26%	47,000	19%	69,000	14%
Rail	18,000	10%	21,000	8%	239,000	49%
Car	110,000	64%	181,000	73%	180,000	37%
Total	172,000	100%	249,000	100%	488,000	100%

- **Environmental** benefits will be significant. Total energy consumed will reduce by 41%, and emissions will reduce by



- 34% compared with the Do-minimum situation.
- **Urban centres** within the Greater Dublin Area will become attractive focal points for business, leisure and retail activities.
- **Residential** areas will be safer and more pleasant places to live, and the negative impacts of car traffic will be reduced.
- **Accidents** will reduce by 35% compared with the Do-minimum situation because there will be less travel by car and a higher proportion of car travel will be on motorways.
- **Road space** will be efficiently organised for the movement of people and goods. The allocation of road space to buses and bicycles will improve the efficiency and reliability of bus services, increasing their market share. Cycling will become safer and more convenient and will therefore be more attractive.
- **Accessibility** to work, leisure and retail opportunities will improve for most people. Accessibility to the City Centre and to Dublin Airport will improve by 22% and 43% respectively in the morning peak period and by 11% and 20% respectively in the off-peak period, compared with the Do-minimum situation.
- The **competitive position** of the Greater Dublin Area as a choice for locating employment will be maintained because of increased accessibility of labour and markets.

8. The Programme

The phasing of the Strategy is designed to address short term transportation needs and to put in place an integrated transportation system which will meet the medium to longer term requirements of the Greater Dublin Area.

In the short term, the aim is to provide additional public transport capacity, primarily on the bus network, and to improve traffic management, including better bus priority. In the medium to longer term, the emphasis will switch to rail-based public transport (LUAS, METRO and DART/Suburban rail) and demand management. The aim is to create an integrated transport network, which has sufficient capacity to meet the transportation requirements of the Greater Dublin Area well beyond the 2016 horizon of this Strategy.

The programme is divided into four phases:

- **PHASE 1:** from the beginning of 2001 to the end of 2003;
- **PHASE 2:** from the beginning of 2004 to the end of 2006 (the end of the National Development Plan);
- **PHASE 3:** from the beginning of 2007 to the end of 2010;
- **PHASE 4:** from the beginning of 2011 to the end of 2016 (the horizon year of the Strategy);

The phasing of the programme is influenced by a range of factors, including:

- the urgency of the transportation demand (is the investment required to address a demand for transport which exists now or one which will exist at some future date?);
- land use considerations (is the investment required to serve an existing development, a new development or to influence the pattern of future development?);
- the current state of preparedness of the project (is the project only at the conceptual stage or has detailed planning and design been completed?);
- operational issues (will the construction of the project interfere with existing transport services?);
- the physical scale and capital cost of the particular project;
- the lead time required for the planning, design, consultation and statutory approval process;
- whether the project involves the improvement of an existing infrastructure, facility or service or the provision of a new one.

The following table sets out an indicative programme for the period 2001-2016.



Indicative Implementation Programme 2000 to 2016

National Development Plan/Blueprint ● Additional DTO Strategy projects ●

	4 2003	4 2006	4 2010	4 2016
QBC/Bus Priority Projects				
Establish QBN Project Office and develop implementation plan	●			
Planning of bus services	●			
Completion of original 11 QBCs and Ballymun QBC	●			
Completion of City Centre QBN	●			
Bus Priority links between rail and QBC networks and major suburban employment centres including Sandyford, Tallaght West, Blanchardstown and Mulhuddart	●			
Bus shelters	●			
Local bus services and bus priority in Metropolitan and Hinterland town/retail/development centres	●	●		
Additional orbital and radial QBN measures	●	●		
Additional buses for the Metropolitan Area	●	●		
Additional buses for the Hinterland Area	●			
Replacement buses for the Metropolitan Area and the Hinterland Area	●	●	●	●
Additional bus depots	●	●		
DART/Suburban Rail				
DART and coastal suburban upgrade project	●	●		
Maynooth line upgrade project	●	●		
Kildare suburban line upgrade project	●	●		
Construct additional track from Connolly to north of Howth Junction	●	●	●	
Restrict level crossings south of Grand Canal Dock and resignal	●	●	●	
Greystones to Arklow upgrade	●			
Plan and design (to Railway Order stage) the Interconnector Tunnel from Heuston via Pearse to Docklands	●	●		
Construct Interconnector Tunnel from Heuston via Pearse to Docklands		●	●	
Plan and design the Navan rail line to Railway Order stage	●	●		
Construct rail line from Clonsilla to Dunboyne (Navan line phase 1)		●	●	
Extend rail line from Dunboyne to Navan			●	
Electrify the Maynooth and Sallins rail lines for suburban services		●	●	
Construct extra tracks west of Hazelhatch to Sallins		●	●	
Purchase additional DART/Arrow cars	●	●	●	
Provide additional stabling and depot facilities	●	●		
LUAS				
Construct Tallaght to Connolly line via city centre	●			
Construct Sandyford to St Stephen's Green line via Dundrum	●			
Construct line from south inner city to Ballymun	●	●		
Develop new LUAS lines to Light Rail Order stage	●	●		
Extend Tallaght line to Point Depot	●	●		
Extend line from Sandyford to Cherrywood	●	●		
Purchase additional rolling stock for Lines A,B and C	●	●		
Construct line from Lucan to Docklands via south city		●	●	
Extend line from Ballymun to Sillogue			●	
Construct branch line from Whitehall to Kilbarrack DART Station			●	
Extend Ballymun line southwards from south inner city to Rathfarnham and Dundrum		●	●	



National Development Plan/Blueprint ● Additional DTO Strategy projects ●

	4 2003	4 2006	4 2010	4 2016
METRO				
Plan and design METRO system to METRO Order stage	●	●		
Construct Ranelagh to Airport and Swords line including City Centre Tunnel		●	●	
Upgrade Sandyford/Cherrywood line to METRO and connect to City Centre Tunnel		●	●	
Construct line from Finglas to Tallaght via Blanchardstown and Clondalkin with spur to Tallaght West		●	●	
Construct line from Tallaght to city centre via Kimmage and connect to Sandyford/Swords line		●	●	
Extend line from Cherrywood to Shanganagh				●
Integration				
Implement integrated ticketing	●	●		
Review and provide Park & Ride at strategic locations	●			
Provide cycle parking at rail stations	●	●	●	●
Provide real time travel information system	●	●	●	
Identify and establish key public transport interchange nodes	●	●		
Integrated Framework Plans	●	●		
Public transport service and timetable information	●	●		
Cycling				
Complete the DTO Strategic Cycle Network	●			
Develop local networks and links to important trip destinations	●	●	●	●
Provide extensive cycle parking facilities in city centre and major retail and employment centres	●	●	●	●
Review and extend Strategic Cycle Network	●	●		
Walking				
Review of pedestrian facilities	●	●		
Commence pedestrian facilities improvement works	●	●		
Demand Management				
Develop Demand Management policy	●			
Implement Demand Management in step with improvements in public transport supply		●	●	●
Traffic Management				
Develop a Traffic Management Strategy for the Metropolitan Area and implement through an integrated traffic control system	●			
Freight and goods vehicle study	●			
Environmental Traffic Cells	●	●		
Safer Routes to School	●	●		
Develop and implement on-street parking controls in Greater Dublin Area	●	●	●	●
Motorway management	●	●	●	●
Enforcement	●	●	●	●



	4 2003	4 2006	4 2010	4 2016
Advice and Strategy Promotion				
Strategy promotion campaigns	●	●	●	●
Advice Notes and manuals for local authorities	●	●	●	●
Monitoring Projects				
Monitoring of implementation of DTO Strategy on a quarterly basis	●	●	●	●
Monitoring the performance of DTO Strategy measures	●	●	●	●
Surveys and data collection	●	●	●	●
National Road Projects - Metropolitan Area				
M1 Northern Motorway (Airport to Five Roads)	●			
N2 improvement from M50 to north of Ashbourne	●	●		
N4 Leixlip to M50	●	●		
N7 Naas Road improvements	●	●		
N11 junction improvements	●			
M50 South Eastern Motorway	●	●		
M50 upgrade and junction improvements	●	●		
N81 Tallaght By-pass to N82 improvement	●	●		
Dublin Port Tunnel	●	●		
Eastern By-pass	●	●	●	
National Road Projects - Hinterland Area				
M1 Drogheda By-pass	●			
N3 Clonee to north of Kells	●	●		
M4 Kinnegad to Kilcock	●	●		
N7 Naas Road improvements (Kildare)	●	●		
M7 Kildare By-pass	●	●		
M7 Monasterevin By-pass	●	●		
N9 Kilcullen to Carlow	●	●	●	
N11 Glen of the Downs	●			
N11 Rathnew to Newtownmountkennedy	●	●		
N11 Arklow By-pass to Rathnew	●	●		
N51 Slane to Navan			●	●
N78 Athy Relief Road	●	●		
N81 Blessington to N82 improvement		●		
Drogheda/Navan/Newbridge Orbital - establish alignment and construct	●	●	●	



National Development Plan/Blueprint ● Additional DTO Strategy projects ●

	4 2003	4 2006	4 2010	4 2016
Non-National Road Projects - Metropolitan Area				
Blackhall Place Bridge	●			
Cork Street/The Coombe	●			
East Wall Road (Tolka Quay to Sheriff Street)	●	●	●	
Macken Street Bridge	●			
North King Street	●			
Cruiserath Road	●			
Donabate By-pass	●	●		
Jamestown Road to St Margaret's Road	●	●		
Ongar Road	●			
Outer Ring Road - Lucan to N2			●	●
Ballycullen Road to Killininy	●	●		
Ballyboden Road to county boundary	●			
Firhouse Road improvement	●	●		
Greenhills Road improvement	●			
Outer Ring Road - Cheeverstown to Lucan	●	●		
Walkinstown to Saggart via Ballymount and Cookstown			●	●
Church Road Phase 3	●			
Dundrum Main Street By-pass	●			
Dún Laoghaire Port - improve access			●	●
Monkstown Ring Road	●			
Wyckham By-pass extension	●			
Celbridge interchange and ancillary roads	●			
Greystones Southern Access	●			
Ballymore-Pretty Bush-Mill Road	●			
Non-National Road Projects - Hinterland Area				
Lusk By-pass	●	●		
Balbriggan Inner Relief Road (Stage 2)	●	●		
Trim-Dublin improvement scheme (R154)	●	●		
Trim-Navan improvement scheme (R161)	●	●		
Athlumney (phase 1) (R161)	●			
Plattin-Colp	●			
Trim-Kilcock (R158)	●			
Naas Ring Road/Inner Relief Road	●	●		
Clane Inner Relief Road	●			
Enfield - Edenderry (R402) improvement scheme	●	●		
Barberstown Cross - Maynooth (R406) improvement scheme	●	●		
Sallins - Killcock (R407) improvement scheme	●			
Newtown Relief Road	●			
Blessington Relief Road	●			
Kilcoole Western Relief Road	●			
Wicklow Port Access Route	●	●		



9. The Next Steps

Proposed New Institutional Arrangements for Land Use and Transport

The Ministers for the Environment and Local Government and Public Enterprise recently published a Government consultation paper in relation to the institutional arrangements for land use and transport in the Greater Dublin Area.

The consultation paper proposes the establishment of a Strategic Body for the Greater Dublin Area which will prepare long-term strategies for land use and transport, monitor and enforce compliance with these strategies by the implementing agencies and allocate Exchequer finance for transport, other than national roads.

The new Strategic Body will act as the independent regulator of all Dublin public transport, setting detailed service requirements and standards and procuring the provision of services through franchising, public service contracts and licensing. The governance structure of the proposed Body will be similar to the Dublin Docklands Development Authority. A 3 to 5 member Executive Board is proposed which will be responsible for the day-to-day work of the Body, including the regulation of public transport and there will be a larger representative Council responsible for policy.

The planned Railway Procurement Agency will operate on a stand-alone basis but will only undertake projects which are consistent with the strategy adopted by the new Strategic Body and in accordance with the regulatory framework set by it.

The National Roads Authority will continue to carry out all its national road functions in the Greater Dublin Area, but will be obliged to adopt and implement a programme which is consistent with the strategy adopted by the new Strategic Body.

The paper also proposes a number of important reforms relating to programme and project implementation, particularly in relation to traffic management and enforcement and suburban rail:

- **Traffic/demand management policy would be decided by the new Strategic Body. This would include the demand management strategy and traffic management strategy that the DTO will develop following more detailed studies.**
- **The paper endorses the decision of the DTO and the Dublin local authorities that a single dedicated QBN project team be established by the Director of Traffic to implement the Quality Bus Network on a 'whole route' basis for the Dublin area.**
- **Implementation of some other strategic or regional traffic management measures will be allocated to the Director of Traffic (acting for the Greater Dublin Area or just Dublin City and County as appropriate). A review will be conducted to identify appropriate functions.**
- **Local traffic management functions will remain with the local authorities but they will be asked to review their implementation arrangements, having regard to the experience of the Director of Traffic.**
- **Measures to increase enforcement resources are proposed including more use of contracting-out, automated systems and administrative sanctions and the ring fencing of Garda manpower. The Strategic Body will regularly report to the Government on the adequacy of enforcement.**
- **A number of initiatives are already underway to address suburban rail delivery (including a high level review of Iarnród Éireann, an internal Iarnród Éireann restructuring programme and the recruitment of project management expertise).**

A cross Departmental team has been established to consider the outcome of the consultation process, prepare the necessary legislation and address the detailed administrative arrangements for the new Strategic Body.

The Dublin Transportation Office welcomes the Government proposals which are broadly in line with the recommendations it set out in the outline document 'A Platform for Change', published in October 2000. The DTO will work with Government in the development and implementation of these proposals and will do everything it can to ensure a smooth transition to the new Strategic Body.

Implementation

The DTO Strategy provides an overall planning framework for the development of the transport system in the Greater Dublin Area. It is not, nor was it ever intended to be, a detailed blueprint for each of the individual projects and programmes recommended for implementation. Each project will now have to be taken through a detailed planning process involving, as appropriate, route selection, technical feasibility studies, economic and environmental evaluations, detailed design, public consultation and statutory approval procedures.



The Short Term Action Plan, which is being prepared by the DTO, will set out a detailed planning and implementation programme for the major projects in the Strategy. In addition, the Government consultation paper proposes significant institutional and administrative reforms that will strengthen the arrangements for project planning and delivery.

The Short Term Action Plan will also identify a lead agency for each major project and programme. A dedicated project team has been, or will be appointed, with responsibility for planning and implementing individual projects.

This Strategy contains five major infrastructural projects and it is proposed that each should have a project team led by a particular agency:

DART/Suburban Rail	Iamród Éireann
METRO	Light Rail Project Office/ Railway Procurement Agency
LUAS	Light Rail Project Office/ Railway Procurement Agency
QBC/Bus priority	QBN Project Team (Director of Traffic)
Roads	National Roads Authority (national roads) and Local Authorities (non-national roads).

Public Private Partnership (PPP)

A number of major projects are suitable for implementation on a public private partnership (PPP) basis involving an appropriate combination of design, build, maintain, operate and finance. It will be important for the PPP procurement process to ensure that project design, operation and management is consistent with the DTO Strategy. The Government has published legislation that provides for the establishment of a Railway Procurement Agency to procure PPPs for public transport. In the meantime, the Department of Public Enterprise and the Light Rail Project Office are carrying out preparatory work. The NRA has already put in place effective arrangements for the delivery of PPPs for national roads.

The Government has already decided that the following projects should be implemented on a PPP basis:

- **LUAS lines from Tallaght to Abbey Street and from Sandyford to St Stephen's Green (operation only);**
- **METRO (a combination of design, build, finance and/or operate).**

The following projects are also recommended by the DTO as PPP projects:

- **The Eastern By-Pass;**
- **N3 – Clonee to Kells;**
- **M4 – Enfield to Kinnegad;**
- **the additional LUAS lines;**
- **the rail link to Navan;**
- **integrated ticketing and information systems.**



Appendix: Steering Committees

DTO Steering Committee

Mr. Conor McCarthy (Chair)

Mr. Derek Brady

Mr. Niall Callan

Mr. John Henry

Mr. Joe Horan

Mr. Frank Kavanagh

Mr. Owen Keegan

Asst. Commissioner Jim McHugh

Mr. Pat Mangan

Cllr. Olivia Mitchel TD

Prof. Simon Perry

Mr. William Soffe

Mr. Michael Tobin

Dr. Alan Westwell

Dublin Transportation Office

Dún Laoghaire-Rathdown County Council

Department of the Environment and Local Government

Dublin Transportation Office

Meath County Council

South Dublin County Council

Dublin Corporation

Garda Síochána

Department of Public Enterprise

DTO Advisory Committee

DTO Advisory Committee

Fingal County Council

National Roads Authority

Córas Iompair Éireann

Steering Group for Strategy Update

Mr. Pat Mangan (Chair)

Mr. Tim Brick

Mr. Michael Cahill

Mr. John Devlin

Mr. Owen Keegan

Mr. Conor McCarthy

Mr. Peter McEvoy

Mr. Donal Mangan

Mr. William Murray

Mr. Jim O'Brien

Mr. Michael Reidy

Mr. Fintan Towey

Department of Public Enterprise

Dublin Corporation

National Roads Authority

Department of the Environment and Local Government

Dublin Corporation

Dublin Transportation Office

Department of the Environment and Local Government

Córas Iompair Éireann

Dún Laoghaire-Rathdown County Council

Department of Finance

Córas Iompair Éireann

Department of Public Enterprise



DTO Advisory Committee

Prof. Simon Perry (Chair)
Alderman Martin Brady
Cllr. Sean Kenny
Cllr. Gerry Lynam
Cllr. Margaret Richardson
Cllr. Paul Gogarty
Cllr. Charles O'Connor
Cllr. Maria Corrigan
Cllr. Olivia Mitchell TD
Cllr. Oliver Brooks
Cllr. Patsy O'Neill
Cllr. Michael Lawlor
Cllr. Derek Mitchell
Mr. Clive Brownlee
Mr. Tom Coffey
Ms. Karen Gannon
Mr. Hugh Geraghty
Mr. Joe Jones
Mr. Frank King
Ms. Tonia McMahon
Cllr. Eamon Ryan
Ms. Julie Twoomey
Ms. Mary Warren-Darley
Ms. Christine Whyte

Transport Studies Group – TCD
Dublin Corporation
Dublin Corporation
Fingal County Council
Fingal County Council
South Dublin County Council
South Dublin County Council
Dún Laoghaire-Rathdown County Council
Dún Laoghaire-Rathdown County Council
Meath County Council
Meath County Council
Wicklow County Council
Wicklow County Council
Dublin Chamber of Commerce
Dublin City Centre Business Association
IBEC
ICTU
Dublin Port
Federation of Road Transport Operators
Earthwatch/VOICE
Dublin Cycling Campaign
Irish Wheelchair Association
Royal Town Planning Institute
National Disability Authority



