Submission to the National Transport Authority on the Fingal/North Dublin Transport Study

19th January 2015

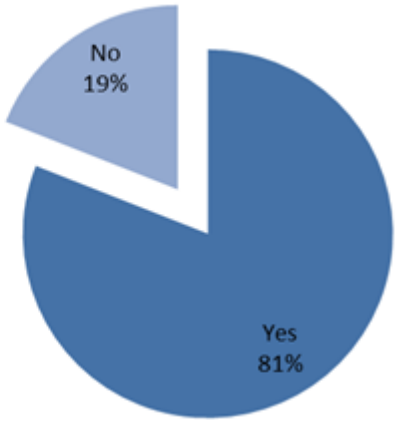
Objective –Transport to enhance competitiveness

In 2013, over 840,000 people were employed in the county of Dublin. This represented more than 40% of the total workforce in Ireland. Employers are dependent on these workers being able to reach them. The existing capacity of the Dublin transport system is due to the downturn in activity since 2008 which pre-crisis was at capacity. Concern is growing amongst businesses that a recovery will now see traffic volumes overcome the system. Dublin's business competitiveness is diminished by this, due to time lost in congestion. The cost is borne by the employer who loses staff hours, or client/delivery numbers.

Indigenous businesses could suffer reduced productivity and lost opportunities at a time when growth is expected to help create an extra 40,000 jobs. From a FDI perspective, one of the key factors influencing a company's decision on where to locate their business is 'ease of travelling around within the city'.[1] The movement of people and goods is being used by international competitor city regions as a differentiator to help them drive their economic growth.

The last year has seen a significant rise in the amount of businesses reporting that they are directly or indirectly seeing costs rise due to congestion. Dublin Chamber's member survey (of 340 respondents) found that 63% were feeling the cost of congestion. An even greater number, four out of five, believe that traffic congestion will become a competitiveness issue for Dublin business.

Dublin Businesses were asked: "***Do you believe that traffic congestion will become a competitiveness issue for Dublin businesses?***"



A strategic, effective and integrated transport system for the next 100 years

The transport plan for Fingal and North Dublin must assess the region's short-, medium-, and long-term transport needs to accommodate the strong population growth forecast for the area. In the short-term, the area is facing a traffic crisis which will impact on the competitiveness of Dublin, its economic growth and job creation. The long-term requires foresight and commitment to pieces of infrastructure that will be used for the next 100 years.

However, any plans for this area must be integrated with a wider transport vision for the Dublin region. Projects should be evaluated based on how they will interact with future projects and the network as a whole. All projects must be placed within a strategic transport network to ensure demand is adequately met and avoid duplication of services. Similarly, ongoing projects must be taken into consideration. For example, the M50 demand management scheme begun in 2013 is expected to affect traffic on a number of regional roads connecting Swords with the N2/Ballymun/Finglas area.

Investment commitment, prioritising and sequencing

In its submission to the Department of Transport on their Land Transport Strategy, Dublin Chamber raised concerns about "the scale of the gap between available funding levels and the level of investment that is necessary to maintain the existing transport network in adequate condition". The

[1] Cushman & Wakefield, October 2011, 'European Cities Monitor 2011'. Senior executives from 501 European companies were surveyed and asked for their views on 36 European cities regarding their relative attractiveness as a business location.

transport capital envelope for Dublin, which the National Transport Authority puts at approximately €150m p.a., is significantly lower than an international city region needs.

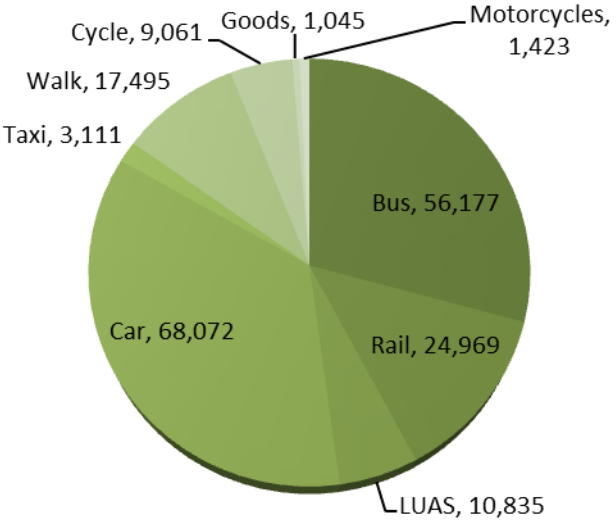
Benchmarking Dublin against other cities on a per capita basis highlights the level of underinvestment: London will invest €462m, and Manchester, €367m. Moreover, this benchmarking ignores that both of these cities have already executed significant investment programmes so they are investing from a much stronger base. Dublin's current investment programme must be doubled at a minimum or tripled to keep competitive pace.

As part of this submission, Dublin Chamber hoped to provide a priority and sequencing strategy. However, this proved impossible due to the limited information provided in the study with regard to expected capacity and max capacity (demand on passengers per direction per hour basis) and a clear indication of the probability of modal shift for each route.

The Fingal/North Dublin Transport Study sets out a menu of options for the area to provide a link between Dublin City Centre, Dublin Airport and Swords by 2035. To ensure delivery, the final plan will need to be re-assessed and checked against progress at least every 5 years.

The selected project(s) should aim to achieve maximum modal shift and high capacity. As outlined in the report, private car is currently the dominant mode of travel within Fingal / North Dublin. A shift away from this mode to public transport will largely be driven by shorter commute times. If a proposed project can reduce journey time, and offer reliable service and a pleasant environment, commuters are likely to switch. Furthermore, any transport project considered should be 'affordable' for the end user. Projects which fail to meet these essential criteria should not be progressed.

Numbers of People Crossing the Canal Cordon by mode of Travel (2013)



Indeed it is vital to understand the motivations behind commuters' choice of transport mode. For example, Dublin Airport Authority's survey of staff mobility offers revealing insights into some North Dublin commuters' habits and preferences.[2] The NTA may consider conducting a wider study to determine the factors that influence a person's decision to switch modes, and Dublin Chamber would be happy to work with more of its member companies to achieve this.

The Chamber wishes to note that it is extremely difficult to usefully compare the various options in the absence of data on expected demand for the services. Catchment area is not a sufficient indicator, and the Authority should carry out an in-depth demand assessment to ensure that all projects are adaptable for maximum and minimum demand scenarios.

Challenges

There are a number of challenges which complicate the preparation of a long term plan for a strategic, integrated transport system in Dublin.

Population growth

The CSO's population forecast indicates that nearly two-thirds of the State's growth to 2031 will be in the Dublin region. Such growth would be in keeping with the global trends of urbanisation and could help to generate the productivity and innovation needed to help create a sustainable economy in Ireland. North Dublin has seen significant development in recent years and it is likely that such

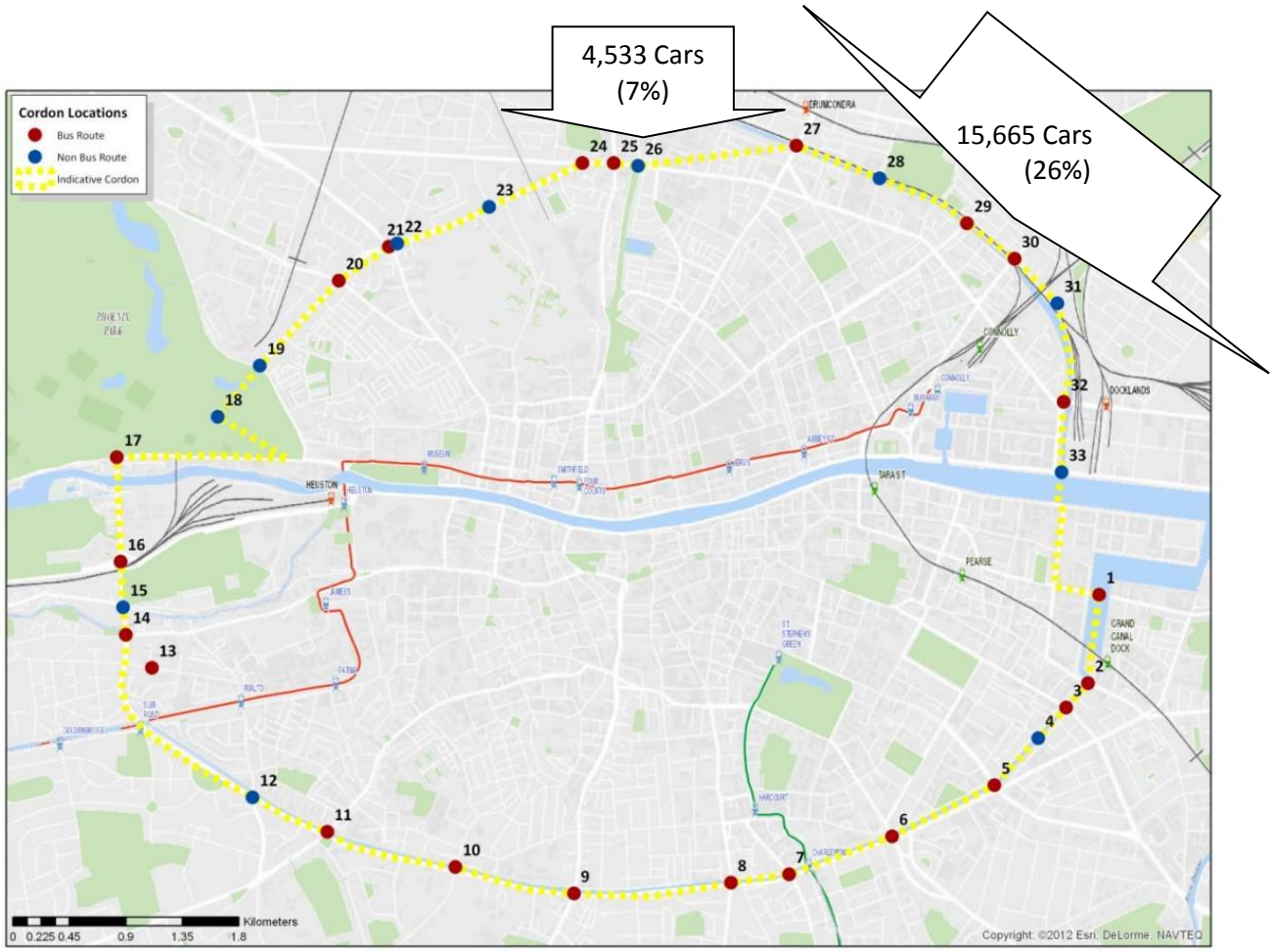
[2] A survey of staff mobility found that the majority of Dublin Airport staff currently drive to work, with the percentage of carpooling decreasing significantly in recent years. Convenience and speed remained the top reasons for choice of transport mode, particularly for car users. Those travelling by bus were more likely to cite not having a car as their main reason for modal choice. When asked what their ideal mode of transport would be, over half of employees said car. However, over 1 in 4 claim they would prefer to travel by Metro/Luas or Bus. The main incentives in encouraging employees to use public transport in the future are more frequent and more direct public transport. Indeed, frequency doubles as an incentive. However, 1 in 3 claim nothing will encourage them to switch modes.

development will continue even as housing supply dries up. Therefore, a mass transport system for this region will only grow in importance.

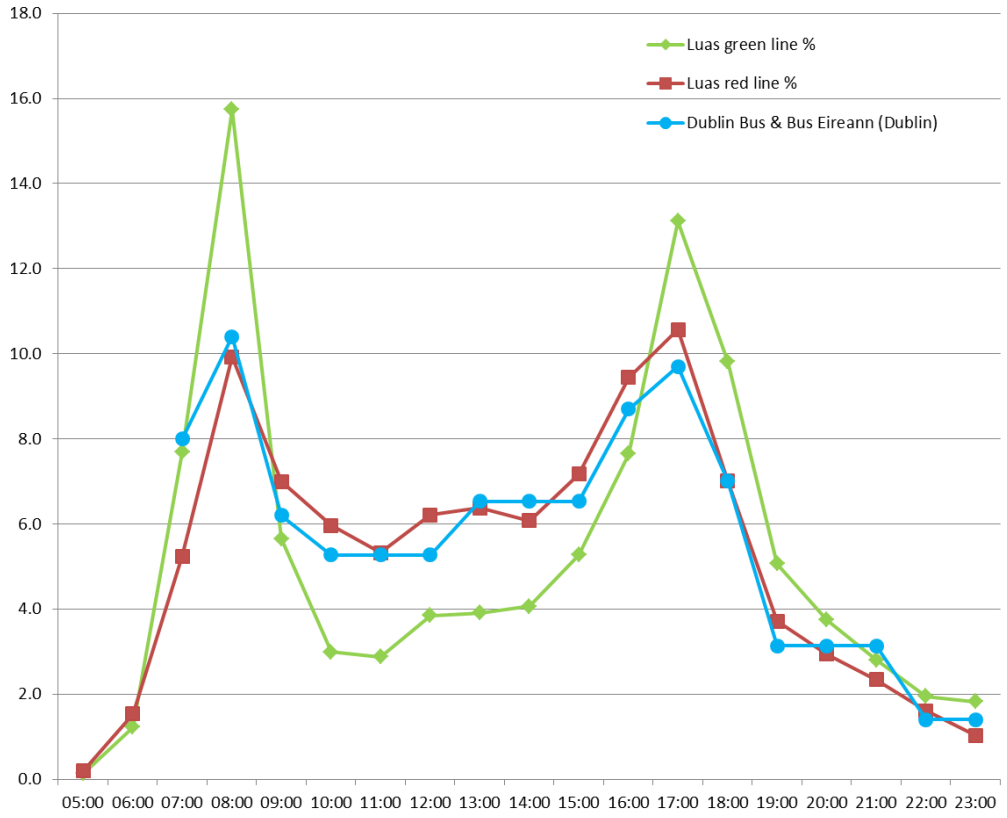
Commercial expansion
Dublin has seen considerable commercial expansion in recent years, with CSO figures showing that around one quarter of the 60,000 new jobs created were in tourism-related sectors of the economy, including hotels, food and retail. Indeed, Dublin was recently voted one of the best shopping cities in the world. The lack of office space in prime locations also points to economic resurgence. Last year the take up of commercial space across Dublin was 2.5 million sq ft, up from 2 million sq ft in 2013.

Land use planning
It is important that the issue of future transport in Fingal/North Dublin is addressed before commercial and population growth necessitates rapid development in the area. A clear transport system investment plan would inform the land use plans of the local authorities, ensuring better coordination in residential and business zoning.

Volumes into city centre by private car
About a third of all people entering the Canal Cordon are travelling by private car and entering from points North and North-east of the canal. The map below, based on 2012 canal cordon data by each of the points, illustrates the scale of the flow – three of the top four highest volume areas of vehicle entry into the centre city are in the Fingal/North Dublin area.



Peak time usage
Journey time is the chief concern for commuters, especially at peak hours in the morning and evening. Any chosen transport solution will be judged according its ability to get the commuter into and out of work more quickly than other options. This in turn will improve competitiveness. The graph below illustrates this, using Luas and bus data from the CSO.



Average daily flow of Luas and Dublin Bus & Bus Eireann passengers by, 2013

Financing

There is a prevailing perception that finance will be difficult if not impossible to secure, and that there is no 'real' return on the investment for the Exchequer. In the context of constrained funding, the Juncker investment funds from the European Commission could be considered. This could allow delivery of vital transport solutions without impacting on the Government balance sheet. The use of bonds rather than loans for financing could stretch out the financing to a point that makes these 100 year investments more affordable for a cash-flow conscious Exchequer.

Staying 'open for business'

The assessment of the projects needs to ensure that works will allow customers of retail, hospitality and other businesses feel that the local businesses are 'open for business' during enabling works, construction and operation. Businesses are supportive of the work the work that is being undertaken at the moment as part of the Luas Cross City, because all the key stakeholders to the project understand this principle. This is an important consideration that could impact on the cost and demand (if done poorly so as to kill off a business area). The Chamber as a county wide business organisation is willing to continue to play a leadership role in engaging businesses that would be impacted.

Criteria

In reviewing the options set out in the study, the Chamber aimed to use the data provided to assess the route options. However, the assessment work highlighted the limitations of the data available in the study, and informed the following recommendations for the next appraisal phase.

Modal Shift

As outlined above, the Chamber believes the key focus needs to be on peak time ('rush hour') transport for those commuting to work or school. The bulk of the traffic volumes causing congestion arise from this cohort and so the criteria for assessment must be focused there. The study provided figures regarding the population of the catchment area, which provides a good start to the appraisal process but falls short of the more rigorous analysis needed.

- ***Speed and journey time***

One of the key factors in modal shift is the time of the journey. The table below gives a summary of the expected existing journey times for key locations across the various modes.

Stephen's Green from…	Connolly Station	Heuston Station	Swords Pavilion
Bus	18 min	22 min	51 min
Walk	24	40	178
Bike	9	18	51
Car via tunnel			34
Car no tunnel			45

It is fair to assume that commuters will not switch from their preferred mode to a different bus or rail service which takes longer than their current routes. Based on the data provided in the study, the Chamber compiled estimates of the journey times offered by the proposed transport options.

		Estimated Journey Time / Swords Centre (Pavilions) - Dublin City Centre (STG) min	Adjusted time to STG (using estimated bus times)
LR6	Metro North	25	25
LR7	Optimised Metro North	27	27
HR3	Malahide to Airport via Sword	41	41
HR4	North Malahide Estuary to Airport via Swords West	41	41
HR5	Combination HR1 + HR3	41	41
HR6	Combination HR1 + Spur Malahide to Swords	41	41
HR2	Clongriffin to Sword	44	44
C2	Combination of HR1 & BRT Swords-Airport	44	44
LR3	LCC to Swords via Airport, under Glasnevin (Luas D2)	45	45
BRT4	Docklands to Swords via Tunnel	27 (Connolly Station)	45
BRT5	Combination of BRT2, BRT3, BRT4.	27 (Connolly Station)	45
C1	Combination of HR1 & LR3	45	45
HR8	Maynooth Line (Drumcondra) to Airport-Swords, under Glasnevin	28 (Connolly Station)	46
HR9	Heuston to Swordsvia Phoenix Park Tunnel, under Glasnevin	27 (Heuston Station)	49
LR4	LCC to Swords via Airport, via Phisborough (Luas D2)	51	51
BRT1	Clongriffin to Airport via Malahide	33 (Connolly Station)	51
LR5	LCC to Swords via Airport, via Drumcondra (Luas D2)	58	58
HR7	Maynooth Line (Broombridge) to Swords via Airport	43 (Connolly Station)	61
LR2	Broombridge to Swords via Airport and Finglas	68	68
LR8	Dublin City Access Transit (CAT)	71	71

It is difficult to see the viability of the six routes with a journey time of over 51 minutes (in red). The attractiveness of routes between 50 and 45 minutes and those five minutes earlier will be down to frequency and journey time reliability.

- ***Capacity***

The study provides limited figures in regard to the capacity of the routes outlined (LR6, LR7, BRT1, and BRT5) and these are not present in a comparable format. It is necessary for the purposes of an assessment to understand the expected capacity and maximum capacity of the system. The Chamber recommends that in the assessment and the next appraisal publication that these volumes are presented for each route on a passengers per direction per hour (ppdph) basis for expected and maximum volumes.

Deliverability
The Chamber supports the work of the NTA to determine which of the projects has the best opportunity for deliverability. It is worth reiterating the previously made point regarding financing, so that a large up-front capital doesn't disqualify what would be a better project in the long term.

- ***Operating costs***

The costs of the routes are assessed on a capital cost basis. Neither the operational costs over the longer term (20 year or 30 year period) are presented or seem to be assessed in the context of the route assessment. The Chamber sees such costs as relevant when comparing to financing costs of large capital investments. The estimated revenue from the projects would complete the accounting assessment.

Projects

Rail Mass Transit
Dublin Chamber has concluded that a rail project along the lines of the Metro North will prove absolutely necessary as part of Dublin's long term transport plan. Other solutions might provide a cost effective way to address demand issues in the short term, but they put off the inevitable and in the worst case scenario will become redundant in the fullness of the plan. There is little point in pursuing suboptimal solutions when it is clear that substantial investment is required for the area.

Furthermore, the NTA has pointed to a public transport deficit along the proposed Swords route, stating that "if development occurs along this corridor as currently planned, further significant investment in rail-based transportation infrastructure along the corridor will be required, which may include Metro North." The RPA have also proposed plans for heavy rail in Swords and Lucan, while Iarnród Éireann have plans for a heavy rail link to the airport in the form of a spur from the DART line.

- ***Metro North***

The Chamber considers Metro North to be an essential piece of infrastructure which cannot be further delayed. A substantial amount has already been committed to the project through the development contributions. Planning permission for Metro North was granted and made operational at the end of 2010. As long as major work is commenced, not necessarily complete, by 2020, the planning permission remains viable.

While the construction of major infrastructure inevitably involves some disruption, this can be managed and the city can be kept an attractive place to visit during the course of the metro works. Metro North is essential to the long term viability of the city centre. Traffic congestion has been choking the city centre for many years, and if not addressed, the commercial life of the city centre will permanently lose out to the satellite shopping malls located in suburban centres along the M50.

Whatever the final outcome of this report, the NTA must provide clarity on the question of Metro North. If it is clear that the project will not be delivered in the next ten years, the local authorities should end the collection of development levies for the project.

- ***Heavy rail from STG to Near Donabate via Airport & Swords***

Dublin Chamber suggests that as part of the next stage of review that the NTA review the feasibility of a proposal to make the Metro North route a heavy rail line, which would eventually connect to the Malahide rail line near Donabate. In considering the other heavy rail options, the Chamber felt there was merit in considering such an approach amongst the options analysed. This route would create greater rail integration and allow for easier access to lines heading north towards Belfast.

- ***Rail Spur to Airport***

Dublin Airport is major employment centre for the North Dublin area. The volume of movements is large with between 30,000 and 40,000 people working in the area surrounding Dublin Airport in addition to the 21.7 million passengers that were served through the airport. However, the Chamber is concerned that this approach of using a spur (HR3 or HR6) may not address the objectives of transport for the region.

Bus Services
It is important to recognise that bus services continue to be the predominant public transport mode in terms of network coverage throughout the Greater Dublin Area. In the Chamber's submission to the National Transport Authority's consultation on 2014 Bus Public Service Contracts, it stated that quality of service (i.e. reliability, comfort and frequency) and cost efficiency must be the main priorities in the tendering process for the Public Service Obligation for bus services in Dublin. We reiterate this objective in the review of any bus based services and would seek clarity in relation to any options being reviewed impact on existing bus services.

The use of buses offers to two key opportunities in the formulation and implementation of a constantly developing transport plan for Dublin. With buses, the NTA can test the viability of route demand while addressing immediate demand issues. As stated above, Dublin is reaching a point of crisis in terms of traffic volumes, and the flexibility that the bus system offers is significant. The implementation of Network Direct by Dublin Bus as well as the growth of private bus operators in Dublin needs to be considered in bringing volume to mass public transport systems with the objective of maximising their capacity.

- ***Bus Rapid Transport***

Dublin Chamber recognises the opportunities available through Bus Rapid Transit and believes it can be implemented as a short-term solution on busy routes such as those operating between Dublin Airport and Dublin City Centre. However, it is absolutely critical that BRT is not seen as a long-term solution for these routes.

The option to run a BRT line through the Port Tunnel was not included in the NTA's recent 'Swiftway' consultation, to which the Chamber also responded. The Tunnel is severely underutilised and the reduction in journey time that it could bring to BRT should be considered.

Furthermore, due consideration should be given to the Commercial Bus Operators already operating private express buses along this route. Is there a real need for the NTA to provide another service along this route? Duplication of services must be avoided, and investment funds must be allocated to the project which addresses the greatest need.

- ***Orbital Bus Routes***

The use of buses to test and pilot orbital routes is of particular interest to the Chamber. For routes that might not have viability as light rail, such as the Metro West (from Tallaght to Dardistown), the creation of one of the rail routes above could be coordinate with an orbital bus route to drive demand for high capacity systems.

Further projects to consider

Any transport projects selected as part of the plan will have knock-on effects on projects in the Greater Dublin Area. For example, a decision to proceed with BRT through the Port Tunnel would impact traffic on the proposed Gut Bridge linking Sir John Rogerson Quay and the EastLink. This illustrates the need to integrate the transport plans for all areas of Dublin. In line with Chamber's vision for an integrated transport system for Dublin, the below projects should also be considered as part of the plan.

Dublin City Centre Traffic Plan
Dublin Chamber has communicated its concerns regarding the lack of a single model for traffic movements in and around Dublin post-Luas Cross City. The proposal of particular transport projects is difficult without such a model in place. The impact that various proposals might have is not fully understood (e.g. the impact of BRT routes on existing city centre bus services, implementation of Docklands traffic improvements, changes to traffic routing on the Quays, revised tolling of EastLink & Dublin Tunnel, etc.).

DART Underground
In November 2011, Government announced its intention to defer commencement of DART Underground. A month later, An Bórd Pleanála granted the railway order which would permit construction works on the project to begin. If completed, DART Underground would link Heuston Station to the DART line for the first time with a 7.6km underground line servicing underground stations at Spencer Dock, Pearse Station, Christchurch, St. Stephen's Green and Heuston.

The connectivity of the DART Underground to a Metro North or similar at St. Stephen's Green is of importance to the business case of both projects. The value of any one rail route is multiplied through connections to another, particularly when so central to the hub of the transport network.

With respect to the perennial problem of funding sources, Dublin Chamber believes there is funding vehicles at EU level that should be fully investigated and exploited by the NTA and Government.

Pipeline to Dublin Airport
The Dublin Port Tunnel offers one of the few additional entry points into the city by road and the Chamber suggests that it is worth while exploring if this could be maximised. The capacity available might be increased if the proposed pipeline between the port and airport to transport fuel comes to fruition.

EastLink
The proposal to connect the EastLink and Sir John Rogerson Quay (South Docks) is highly recommended by the Chamber. The NTA should consider how this project can maximise impact on the movements of the private car users. Serious consideration should also be given to removing the toll on the EastLink thereby encouraging cross-city traffic to use a more orbital route than may currently be the case.

Eastern By-Pass
As a high level priority for future iterations of the NDP, Government should give serious consideration to building a Dublin Eastern By-Pass that would close the existing 11km gap that exists on the south-eastern side of the city between the Dublin Port Tunnel and the M50. If economic forecasts are correct and the economy does experience a strong resurgence in the coming decade, the projected costs of between €3.95 billion and €4.35 billion for the Eastern By-Pass could prove to be a manageable burden.[3]

Furthermore, benefits would easily exceed the anticipated costs. From a strictly economic perspective, a study published by the National Roads Authority (NRA) indicated that the benefit to cost ratio would be in excess of 2 and highlighted the ease of access to the Dublin Port area that an Eastern By-Pass would provide.[4] The inherent value and merit of the Eastern By-Pass as an infrastructural proposition is not a matter of debate – the sole restriction is the State's economic constraints. Once this obstacle has been overcome, the provision of an Eastern By-Pass should inform Government's transport strategy for Dublin.

Outer Orbital Route
The construction of an orbital route would represent an unqualified boon for the GDA. This new road link would connect Navan, Drogheda, Naas, Newbridge and Kilcullen which are all key focal points in the commuter belt. An operational outer ring road would ensure shorter journey times for road users and greater route integration, both of which would be hugely beneficial to businesses and commuters alike. Significant economic advantages would also arise from an outer orbital route. A feasibility study commissioned by the NRA calculated that this road link would generate benefits in excess of costs of €535 million in Net Present Value terms and entail a Benefit Cost Ratio of 2.[5]

This study placed the cost estimate for an outer ring road on a scale between €1.4 billion and €2.2 billion which was predicated on the assumption that the opening year would be 2016.[6] Evidently, a 2016 opening date is no longer a realistic prospect and so costs could be higher if the project obtained approval. In that context, Dublin Chamber reiterates the point it articulated in relation to the Eastern By-Pass: when the economy has recovered and sufficient funds are at the disposal of Government, it should proceed with this worthwhile infrastructural project.

[3] National Roads Authority (2007) *Dublin Eastern By-Pass Feasability Study Report*, 3,4
[4] Ibid, 5
[5] National Roads Authority (2007) *Leinster Orbital Route Feasibility Study*, ix
[6] Ibid, ix

Conclusion

In this submission, the Chamber has laid out its overarching objective of an integrated transport system for Dublin that protects and boosts the city's competitiveness.

Increased investment is required to deliver this, such that the capital funding plan for Dublin is in line with other major cities across Europe.

In the study, the NTA has put forward a number of North Dublin transport solutions for consideration. While it is difficult to evaluate the different options in the absence of data on expected demand and capacity, the Chamber has outlined the key criteria by which any solution should be assessed. The potential for modal shift from private car should be a top priority, as well as improved journey times. Detailed capacity studies must accompany project plans, and the NTA should also account for deliverability.

Dublin Chamber considers Metro North and DART Underground to be absolutely vital to the city's future. These projects should be considered in tandem with those on the table for North Dublin, as well as in light of proposals for a comprehensive Dublin City Centre Traffic Plan, an Outer Orbital Route, the Eastern By-Pass, the bridge linking Sir John Rogerson Quay to EastLink.