



**Submission to the National Transport Authority on
the Draft Transport Strategy for the Greater Dublin Area 2016-2035
13 November 2015**

The Dublin Chamber of Commerce welcomes the opportunity to make a further submission on the Draft Transport Strategy for the Greater Dublin Area 2016 – 2035 (referred hereafter as the 2016 Draft Transport Strategy), having made an initial submission in March.

The Chamber's initial submission focused on the principles that the Chamber believes are important for the design of a transport strategy for Dublin. These principles are re-iterated in full at the end of this document. This document seeks to review the draft strategy's compliance with these principles.

The Chamber believes from a Government perspective that two points should be made at the outset. There is a need to adopt a Greater Dublin Area strategy for transport and there is a need to fund this strategy with Capital Investment.

First, it was a policy failure that the last draft Transport Strategy (the 2011 Draft Transport Strategy) was not adopted by Government, which is a decision that has negatively impacted on the GDA's competitiveness and quality of life for those living, working, visiting or learning in the GDA. Businesses are already feeling the impact of this inertia on their activities and it will become of a bottleneck for future economic growth and job creation. Therefore, there is a need for acceleration of the Transport Capital Plan in delivering projects in this strategy rather than a delay in it.

Second, the strategy requires necessary funding to ensure that Dublin can compete with its competitor cities. Other international cities, such as Manchester and London, are getting two and three times as much investment, per head of population. The proposed Transport Capital Plan, while moving towards the target, is still at least a multiple less than what is needed.

The rest of this submission focuses on the following key recommendations based on the Chamber's analysis in the context of its core transport principles:

- Set out a longer term vision (50 to 100 years) for the GDA Transport network.
- Outline the key assumptions regarding the expectations of planning authorities (e.g. land use planning) underlying this strategy.
- Clarify prioritisation and phasing requirements through a clear investment analysis for potential capital funding amounts to ensure maximum strategic impact for each capital allocation achieved.
- Assessment framework of transport investment projects should include all factors impacting on commuters model shift away from private cars (e.g. financial, time, quality, etc.).
- Maximise integration and connectivity to ensure resilience of the transport network.
- Continued improvement in major road linkages to ensure the more efficiently movement of all road users including buses, cyclists, goods, etc.

An investment in ‘economic, social and cultural progress’

The Chamber welcomes and supports the Strategy Purpose set out in the draft strategy document – “To contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods.”

The Chamber believes that a successful transport strategy will improve the city region’s competitiveness and the quality of life for those living, working, visiting or learning in it.

Achievement of this Strategy will enable continued economic and job growth nationally but requires significant funding following a period of low investment to be realised. The transport capital envelope for Dublin recently has been approximately €150m per annum. This is significantly lower than what a major city region needs. For example, benchmarking Dublin against other cities on a per capita basis finds that London will invest €462m p.a. and Manchester will invest €367m p.a. This comparison does not account for the fact that both of these cities have already implemented significant investment programmes.

The business case for this investment is clear by examining the job, economic and tax revenue dependence of the state on activity in Greater Dublin Area.

- 41.9% for Dublin County of national GDP, accord to CSO Regional Gross Value Added data
- 49% of employees are dependent on Dublin businesses, according CSO Business Demography 2012 data
- 55% of Exchequer tax revenue comes from Dublin, up nearly €2bn in 2013 from 2011

Despite these returns for the state, the Dublin region receives lowest level of public capital investment of any region on a per capita basis.¹

The economic capacity of Dublin is invariably linked to the transport system. The 2016 Draft Transport Strategy outlines a number of costs for projects. But the Chamber believes that the strategy include the high cost of doing nothing.

A recent study by Siemens sought to “put an economic value on the cost of inefficient transport to a city’s economy and in turn, the economic benefits investing in transport improvements would bring”.² Some key findings of the study were as follows:

- Cities that invest in transport will reduce economic costs and drive economic growth;
- Cities that have transport plans in place will reduce the economic cost of infrastructure;
- The scale of economic benefits should dictate the level of investment;
- Governance should be effectively integrated to create successful plans and bring them to fruition; and
- Cities should act now and should not be afraid of the upfront investment cost, since the economic benefit is likely to repay that investment many times over.

Above all, these findings highlight the importance of developing and implementing a long term strategy. This is why the NTA’s consultation on the GDA is so welcome and timely. For many of the cities assessed in the Siemens report, the economic cost of transport is forecast to increase by 2030. Where cities have not already put plans in place to react to increased demand by 2030, or where current plans are insufficient, transport costs will consume an increasingly larger portion of economic output. Dublin must not allow itself to fall into this trap.

¹ This analysis was concluded in a Department of Transport, Tourism and Sport commissioned paper entitled “Investing in Our Transport Future: A Strategic Framework for Investment in Land Transport” by Edgar Morgenroth, ESRI.

² *The Mobility Opportunity*, available at <http://www.siemens.com/press/pool/de/feature/2014/infrastructure-cities/2014-06-mobility-opportunity/Study-mobility-opportunity-preview.pdf>, Siemens 2014

Long term vision beyond 2035 - take a 100 year view

The Chamber believes it would be useful for the 2016 Draft Transport Strategy to outline beyond the mandated 2035 out to the next 100 years. It is important to recognise that infrastructure delivered in the next ten to twenty years will be used for the next hundred. The passage of time sees the emergence of different mobility trends and demands, and while we cannot predict the future, we can plan for the most likely scenarios. For the GDA, this means planning for growth as all international trends point to the continued success and importance of city regions.

The strategy for the Dublin region must be integrated. Infrastructure projects should be selected on an incremental, complementary basis and 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.

Since the 2011 Draft Transport Strategy for the GDA

The 2011 Draft Transport Strategy provides the base for the 2016 Draft Transport Strategy approach, according to section 1 – “the nature of many of the transport proposals are similar to those set out in the previous draft Strategy”. That previous strategy performed an analysis of the strategic options which was used to determine which projects would be prioritised over the period of the strategy. The Chamber believes there is a need to review the strategic approach (the economy theme, the social/community theme, or the environmental theme) given the importance of this decision and the fact the 2011 Draft Transport Strategy was not previously adopted by the Government.

From the options outlined, it would seem that the Social themed option would receive the highest marks for ‘build and strengthen communities’ and ‘improve economic competitiveness’ compared to the preferred option due to increased travel times and costs for commuters. However, in the analysis of the 2011 Draft Transport Strategy both of these ranked options ranked the same. Given the importance of this strategic approach it is worth re-analysing this decision in the 2016 Draft Transport Strategy.

Based on the feedback received from businesses it is clear that for a certain criterion each theme is better than the others, so the results of a review would not be as clear cut. In section 3.5 of the 2016 Draft Transport Strategy, a number of the transport shortcomings in terms of supply and demand are identified. The preferred option in our review would either be the economy theme or social/community theme. The environment theme is highly dependent on land use, which is a risk that is external to the National Transport Authority control as section 4.4 identifies. The risk premium placed on the probability of land use alignment with transport strategy does not look to have been factored into the previous analysis.

Land Use Planning

The projected demographic growth of the GDA is placed at over 400,000 by 2031. There are indications that population growth might be higher, as recent CSO data shows an increase of 2.4% 27,300 in the city’s population compared with 2014. The reason for the above is a rising level of inward migration accompanying economic recovery, with Dublin being the destination for 3 out of 4 new residents. Interestingly the analysis of these figures is important to understand future demands as the age breakdown of reveals under 15s grew by 5%. This issue highlights and current issue in regard to the under supply of housing, which needs to be understood by policy makers as connected with transport.

Therefore, land use planning is a major obstacle (or opportunity) for meeting the strategy’s purpose. The 2016 Draft Transport Strategy has identified the strategic reasons for this importance in section 3.6:

- “The zoning and development of land needs to be carried out in a manner which promotes walking, cycling and public transport for all trips and reduces the need for commuting by private car, particularly zoning for schools and large workplaces
- The legacy of historical development patterns will act as a significant constraint on the development of an optimal transport network in the future.”

A number of housing related issues will impact on this strategy which can be simplistically categorised as the start (origin of travel) and the finish (destinations of the traveller as driven on the macro level by agglomeration) of transport. This later point is seems to be well captured in the demand analysis of section 4 and as visualised in figure 9.1. However, it is worth noting that the issue of housing supply if left unaddressed will reduce demand as it will impact on our international competitiveness and reduce job creation.

In terms of housing location, there will be a number of issues that cause a challenge over the next five year period and beyond. They include a declining headship rate (number of people living in each household), normal levels of obsolescence (homes falling into disrepair), addressing immediate undersupply of housing unit and continued population growth.

Translating the above factors in to a meaningful analysis for the 2016 Draft Transport Strategy is a significant undertaking but one the Chamber believes would provide more details on the practicality of achieving the targets. For example, if the hinterland and outer metropolitan area are used to quickly address these needs coupled with the growth trends expect then realising the targets in regard to cycling and walking will be unlikely. Such a scenario is not unlikely, as section 3.3.1 points out the ‘donut city’ is a reality with Fingal, Meath and Kildare growing at over three times the rate of the city centre.

The Chamber emphasises the need for the Dublin City Development Plan to meaningfully increase the number of residents in the city centre so such short journey options are preferable, and in so doing relieves pressure on the public transport network.

In assessing this aspect of the strategy, the NTA must be careful in balancing ambition and realism. The NTA should assess the strategy options with their associated projects against potential land use and capital funding (a point to be raised in the prioritisation section) scenarios that are outside their control. The best option might that which produces the least detrimental outcomes to all the criteria.

Key Infrastructure

The Chamber welcomes the 2016 Draft Transport Strategy acknowledged critical importance of the port and airport.

Dublin Port is the largest port in the country and handles over 40% of the cargo by weight. Its Masterplan provides insights that are useful in its growth plan until 2040. The Dublin Tunnel has proven extremely useful when used in tandem with the HGV ban in the city centre to improve the quality of city.

In regard to Dublin Airport, the Chamber asks that the figures be updated in the 2016 Draft Transport Strategy. By the end of 2015, Dublin Airport passenger numbers will reach almost 25 million. The following figures are part of their mobility study for 2015:

- 33% of passengers travel by private car
- 4.5% of passengers use rental cars
- 36% of passengers travel by bus
- 22% of passengers travel by taxi
- 4.5% of passengers travel by motorbike/bicycle/other soft modes

In addition, there is a significant amount of people with direct and indirect employment that takes them into and out of the Dublin Airport area (see <http://www.daainternational.ie/wp-content/uploads/2015/06/Dublin-Airport-Economic-Impact-Study-April-2015.pdf>). Therefore, there is a need to enable private transport to fill any future gap created by public transport alternatives to ensure operations at the airport and other 24/7 facilities.

Incentivise modal shift by private car commuters

In its initial submission regarding the 2016 Draft Transport Strategy, the Chamber discussed the need to reduce the 60% modal share of private cars at peak commuting times. The Chamber welcomes the intention of the NTA to reduce the modal share of private cars to 42% over the twenty years of the strategy. This target provides a level of recognition that there remain some private car movements that it will not be possible to eliminate.

In order to maximise modal shift, the projects must be assessed against the full cost of the different commuting options against that of a private car. Such an assessment should take into consideration the following:

- Travel time
- Fare & other associated cost (e.g. park & ride)
- Crowding levels & ability use time constructively
- Ease of using the network
- Service reliability
- User functionality

The Chamber developed these factors in their previous submission on the 2016 Draft Transport Strategy as well as a submission earlier this year on the Fingal / North Dublin Transport Study. In reviewing such studies in the future, the assessment process should take into consideration not only the travel times of proposed projects but benchmark them against the current car travel times. The Chamber believes this approach would help to achieve the modal shift objective envisioned.

A flawed but easy method to make projects more attractive is to make the alternative less attractive. In the case of transport in Dublin, this often means making it more difficult to drive by private car. There is an assumption that it is just too quick to get into Dublin by car so public transport can't compete. The logic of this argument ignores that in many cities which have efficient public transport system travel times are equal to (if not faster) than private vehicles covering the same distance in non-congested areas. Therefore, a strategic objective for this strategy would be to reduce average travel time as record in the Census.

Demand management will only be acceptable to business on car-based traffic when there is a practical alternative available on public transport. In this regard the Strategy must set out how it will progress from today's baseline towards a car-based modal share of 45%.

The value of time is a consideration for many businesses when determining where to locate. In a recent survey of Dublin businesses it was discovered that businesses have already started moving from Dublin due to congestion in the city. There are two ways in which the 2016 Draft Transport Strategy can support this commitment:

- Development of a reliable, realistic alternative to private car use
- Clear pre-requisites of alternatives to be in place before a demand management system is considered

Orbital routes

The Chamber is highly concerned with the proposal regarding further tolling of the M50. The M50 is not a national 'non-local' road. It is used for the daily commute with 145,000 vehicles daily using the busiest section.

The orbital bus routes do not provide viable alternative, given that the routes are quite circuitous. The recent Dublin Orbital Movement Study illustrates the difficulty of accomplishing such routes, see extracted table below, without a more radical change in approach. For example, the Irish Academy of Engineering has suggested a route that would make use of the M50 itself. However, having failed to create any routes – orbital or radial – where public transport is a competitive option underlines the significant barrier to be overcome before a tolling system could be put in place. Given the analysis of the Dublin Orbital Movement Study, commuters would be faced with significant increases of costs either in terms of time or money.

There is also a need to improve eastern movements of traffic to minimise the volumes coming into the inner orbital route. Improvement of the Eastlink and integration into any proposals for an Eastern bypass should be considered extremely important in the context of the significant rise in commuter movements into the Docklands corridor.

Appendix A from the Dublin Orbital Movement Study

From	To	Driving	PT Orbital		PT Radial		Notes	Quickest Route		
			Time	Service used	Time	Service used		Overall	Orbital?	Radial?
Dun Laoghaire	Dun Laoghaire	0	0	/	0	/	/	/	/	/
	Dundrum	20 min	33 min	Bus 75	1h 8 min	DART 7-Y/13/16, bus 44/61 and walk	Radial via Pearse Station	Driving	v	
	Tallaght	30 min	1h 20 min	Bus 75	1h 24 min	DART 13/16, bus 145 and Luas red line	(Routes already set out on Maps)	Driving	v	
	Blanchardstown	32 min	2h 47 min	Bus 75, 76/7a, 25 and 239	1:39min/1:15min bus/train-bus	Bus 7 and 39/39a, or DART 13/16 and bus 39/39a	Orbital via Tallaght and Lucan	Driving		v
	Swords	36 min	4h 2 min	Bus 75, 76/7a, 25, 239 71a and 41/41b	1:11min/1:09min bus/train-bus	Bus 703 and 41, or DART 13 and bus 43	Orbital via Tallaght, Lucan and Blanchardstown	Driving		v
Dundrum	Dun Laoghaire	20 min	35 min	Bus 75	58 min	Walking, Luas green line, bus 7	Radial via Pearse Station	Driving	v	
	Dundrum	0	0	/	0	/	/	/	/	/
	Tallaght	20 min	43 min	Bus 75	1h 25 min	Luas Green Line, walking and bus 27/77a	Radial via Stephen's Green	Driving	v	
	Blanchardstown	20 min	2h 17 min	Bus 75, 76/7a, 66/66a/66b/67 and 239	1h 31 min	Bus 44 and 39/39a	Orbital via Tallaght and Lucan	Driving		v
	Swords	30 min	3h 30min	Bus 75, 76/7a, 66/66a/66b/67, 17a and 41/41b	1h 35 min	Bus 14 and 500	Orbital via Tallaght, Lucan and Blanchardstown	Driving		v
Tallaght	Dun Laoghaire	31 min	1h 11min	Bus 75	1h 18 min	Bus 65 and DART 9-Y/13	(Routes already set out on Maps)	Driving	v	
	Dundrum	18 min	36 min	Bus 75	1h 19 min	Bus 27/49/54a/77a, walking and bus 44	Radial via Stephen's Green	Driving	v	
	Tallaght	0	0	/	0	/	/	/	/	/
	Blanchardstown	18 min	1h 50 min	Bus 76/76a, 25, 66 DART 14 and walking	1h 32 min	Bus 27/49/54a/77a and 39/39a	Orbital via Tallaght and Lucan	Driving		v
	Swords	29 min	1h 11 min	Luas red line, buses 726 and 41	1h 38 min	Luas red line and bus 500	(Routes already set out on Maps)	Driving	v	
Blanchardstown	Dun Laoghaire	34 min	2h 54 min	Bus 239, 66/66a/66b/67, 76/76a, and 75	1h 36 min	Bus 39/39a and 7	Orbital via Lucan and Tallaght	Driving		v
	Dundrum	19 min	2h 18 min	Bus 239, 66/66a/66b/67, 76/76a, and 75	1h 27 min	Bus 39a and 14	Orbital via Lucan and Tallaght	Driving		v
	Tallaght	19 min	1h 43 min	Bus 239, 66/66a/66b/67 and 76/76a	1h 40 min	Bus 39/39a and 27	Orbital via Lucan	Driving		v
	Blanchardstown	0	0	/	0	/	/	/	/	/
	Swords	17 min	1h 23 min	Bus 17a and 41/41b	1h 30 min	Bus 39a, 151 and 500	(Routes already set out on Maps)	Driving	v	
Swords	Dun Laoghaire	35 min	3h 56 min	Bus 33/41c, 17a, 239, 25, 76 and 75	1:33min/1:06 min bus/bus-train	Bus 500, DART 9-/13	Orbital via Blanchardstown, Lucan and Tallaght	Driving		v
	Dundrum	31 min	3h 21 min	Bus 33/41c, 17a, 239, 25, 76 and 75	1h 31 min	Bus 500 and 14	Orbital via Blanchardstown, Lucan and Tallaght	Driving		v
	Tallaght	31 min	2h 45 min	Bus 33/41c, 17a, 239, 25, 76 and 75	1h 42 min	Bus 500 and 27	Orbital via Blanchardstown and Lucan	Driving		v
	Blanchardstown	18 min	1h 17 min	Bus 33/41c and 17a	1h 40 min	Bus 33/41c and 17a and walking	(Routes already set out on Maps)	Driving	v	
	Swords	0	0	/	0	/	/	/	/	/

Milestones

The use of five year milestones will serve to focus attention on this aim over a shorter time-frame than that of the entire strategy, but also will allow the flexibility of not using annual milestones. Where progress is behind schedule, this will serve to highlight areas where the strategy is not succeeding in its aims.

Further, it will show to what degree additional investment is required. As advocated below in this submission the implementation of the projects should be prioritised. With a prioritised list and five year milestones, it will be easier to rapidly adapt the implementation of the strategy if decreases in the modal share of the private car are not as rapid as required to achieve the twenty year goal.

Priority

The Chamber's principles for developing a transport strategy for the GDA are:

- Competitiveness, modal shift and *integration with the long term plan* are the major criteria for evaluating projects; and,
- Short term, low cost solutions should *support long term planning*.

A common feature of both of these principles is the long-term nature of their context. The GDA strategy operates over a medium term-time frame, and provides useful detail on the forecast development of demand over the 20 year time-frame. However, projects covered in the strategy are presented as required by 2035, without any priority as to what order they should be completed in.

Ranking the projects in order of priority would have the following benefits:

- Allow for deviations/changes to be better analysed;
- Allow for more accurate appraisal of the cost benefit analysis of projects as they integrate with the network;
- Counter-act delayed/cancelled projects in times of strained exchequer finances.

By prioritising the projects in terms of how they would best be implemented, the strategy document can better highlight the value of each project, as it will account for the positive network effects. In the event that a project must be altered, postponed, or cancelled, the true impact on other projects will be more apparent.

During times of strained exchequer finances, capital expenditure is reduced. A priority order would prevent the most important projects (from the point of view of the improvement of the whole network) from being cancelled.

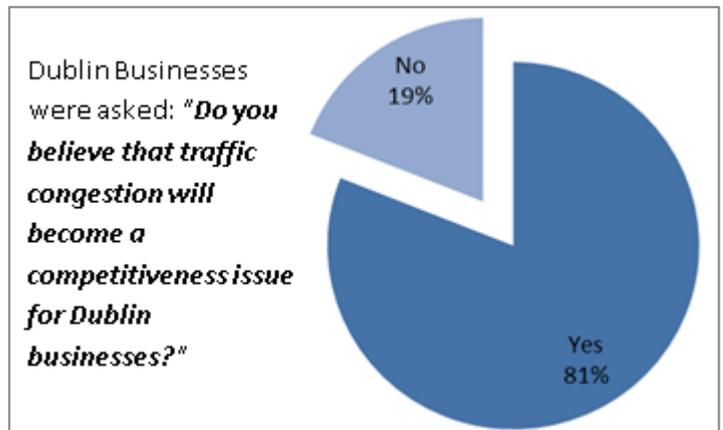
Competitiveness

In terms of prioritisation, the Chamber reiterates the points it raised in its initial submission regarding the growing concern amongst businesses that the economic recovery will 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'.³ The movement of people and goods is being used by international competitor city regions as a differentiator to help them drive their economic growth.

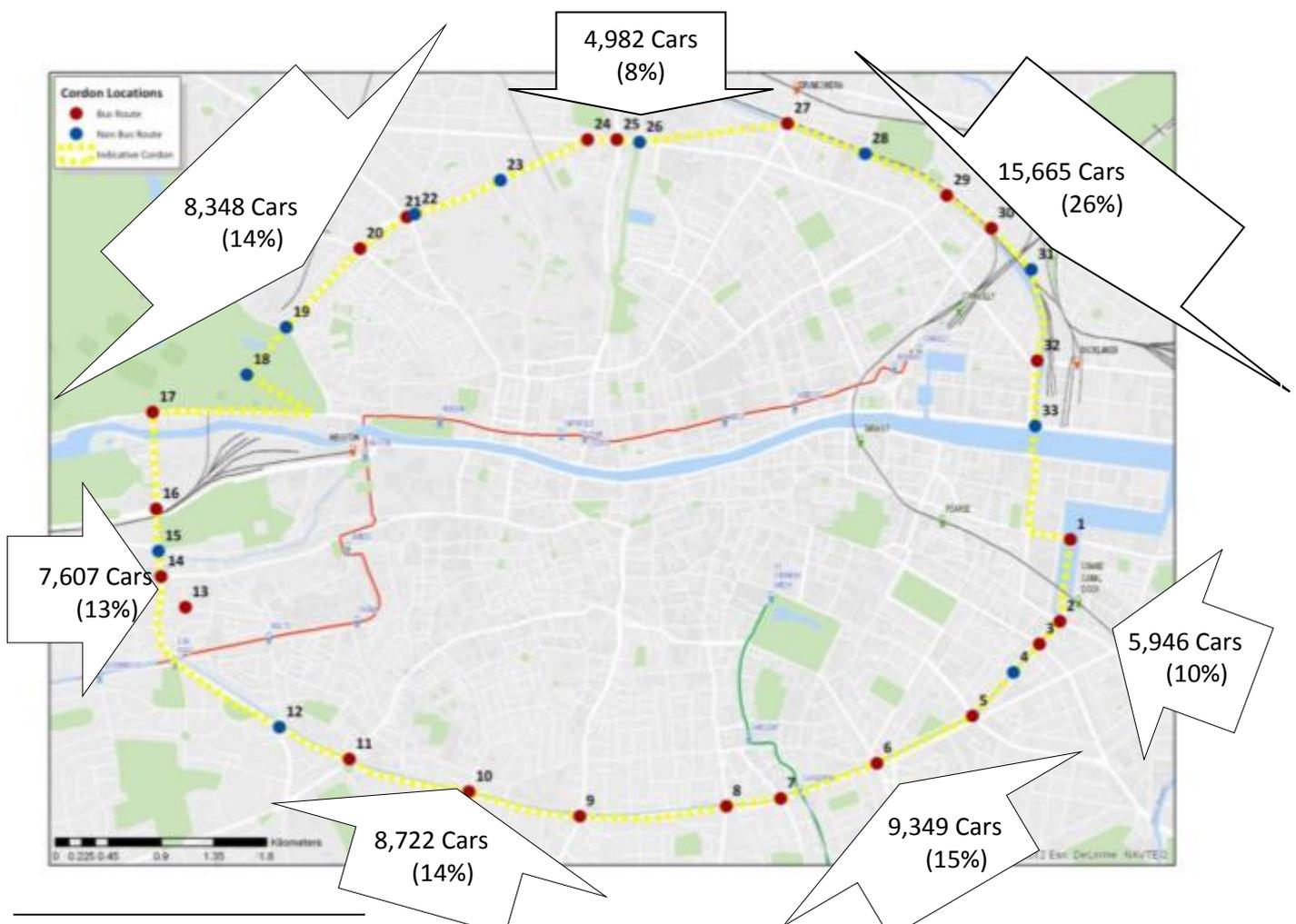
Concern is growing amongst businesses that the economic recovery will see traffic volumes overcome the system. The past year has seen a significant rise in the amount of businesses reporting that they are directly or indirectly seeing costs rise due to congestion. Dublin Chamber's member survey (of 340 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.



Corridor prioritisation

Prioritisation by corridor is a valuable approach. Private cars are currently the dominant mode of travel within the GDA. Furthermore, car occupancy levels for trips to work have decreased. As the illustrated map below shows, there are some areas where private car traffic is particularly intense. Priority should be focused on these areas. The strategy should identify these so that the implementation plans that follow have a clear set of projects that they should address.

Private Vehicle Count through 33 canal cordon points into Dublin City Centre (2013)

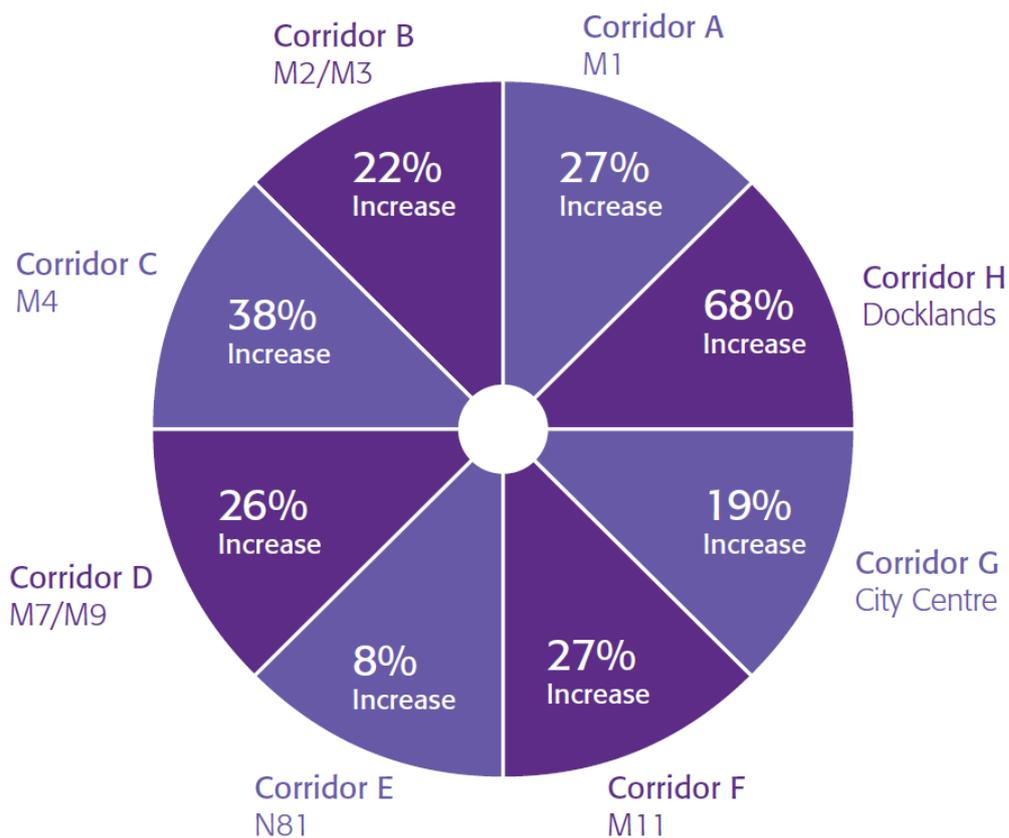


³ Cushman & Wakefield, October 2011, 'European Cities Monitor 2011'. Senior executives from 501 European companies were surveyed and asked for their views on 36 European cities regarding their relative attractiveness as a business location.

The issue of modal shift is time-based as well. As outlined above, the Chamber believes the key focus needs to be on peak time ('rush hour') transport for those commuting to and from work or school. The bulk of the traffic volumes causing congestion arise at these times and so the criteria for assessment must be focused there. This focus will help relieve unnecessary concern by retailers as the main focus will be on commuters.

Unless commuters are switching from their cars to public transport, walking, or cycling, no real progress will be made. All proposed projects for the GDA should aim to achieve maximum modal shift and high capacity, especially in light of the limited road space available in Dublin's city centre.

Figure 9.2 from 2016 Draft Transport Strategy – Growth in Travel Demand in the GDA by Corridor



Linked projects – Metro North & DART Underground

The Chamber believes there is a strong case for both the Metro North and DART Underground projects. While welcoming the decision to take forward the Optimised Metro North proposal, the Chamber is concerned with the significant time until delivery. Perhaps equally worrying is that the DART Underground, which intersects with the Metro North under St. Stephen's Green, is not set for delivery even within the Metro North's extended timeline. This connection point in the city centre has an opportunity to multiply the value of both lines.

Reconsidering Road Projects

As suggested at the beginning of this submission, there is a need to review and re-assess the strategic approach brought forward from 2011 Draft Transport Strategy. The Chamber believes that the projects that would be included under either the social/community or economic focused approaches are important and need to be actively progressed during the life of this strategy. This

would include road projects like Eastern Bypass (linking the Dublin Port Tunnel with the M50 in the Sandyford area) and Leinster Orbital Route (LOR: a new road linking Drogheda (M1), Navan (M3) and Naas (M7/M9)). The delivery of the Leinster Orbital Route (Drogheda/Naas) needs to come more into focus to safeguard the long-term access to the airport and the many industrial parks that housed along the M50. The construction of these routes would secure the high economic value movements of raised as a concern by the 2016 Draft Transport Strategy in section 3.3.6, particular given the problems expressed in the Dublin Orbital Movement Study and the above section of this submission.

Financing Infrastructure Investment

There is a common 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 European Commission's Investment Plan for Europe and other such sources should be considered. This could allow for the 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.

Furthermore, only capital costs appear to be considered and assessed for proposed transport routes. Dublin Chamber considers that the operational costs over the longer term (20-year or 30-year period) are also relevant to account for the total financing costs of large investments. The cost-benefit analysis should also account for additional revenue to the Exchequer arising from increased economic activity as a result of a particular project.

Finally, the absence of a broad plan for financing and analysis is a missed opportunity for the NTA. The financing of capital expenditure is difficult owing to long lead in times and the potential to cut public expenditure in times of recession. With this in mind, the Chamber would welcome the development of a strategy to ear mark and secure funds at an earlier stage.

Summary of Key Principles for a GDA Transport Strategy

1. The strategic plan for transport in the greater Dublin area must be long term - prioritising, integrating and phasing projects that will last 100+ years

- To keep Ireland's largest city region competitive internationally
- To meet needs of population and employment growth
- To prevent damaging business productivity; reduce lost work hours and sales
- To generate economic returns in Dublin which boost Ireland's growth

2. Maintaining & growing economic output is dependent on transport investment that keeps pace with competitor cities

- Movement of people and goods into, out of and around the GDA is how business gets done
- Underinvestment in infrastructure leads to congestion crises which cannot be quickly resolved. This is already occurring in Dublin and will undoubtedly become critical
- Capital investment levels should be pro rata with competitor cities, many of which have already implemented large investment programmes. Dublin's current investment level is one third of that of such competitor cities
- Financing, including private sector financing, is available for infrastructure projects, especially given the historically low cost of capital

3. Competitiveness, modal shift and integration with the long term plan are the major criteria for evaluating projects

- Focus on projects that meet strategic challenges identified in the plan, such as future demand for the movement of people and goods. 'Off-the-shelf' projects promoted by different, often competing, agencies should not set the agenda

- Cost-benefit analysis of projects based on independent assessment of their impact including value in terms of global competitiveness (e.g. connectivity to Dublin Airport, time cost to business of congestion)
- Cost-benefit analyses should be on a 20+ year basis, including build, operate and maintain (e.g. overall cost if a new project reduces road and footpath space etc.)
- Lower the complete cost of transport to the end user, accounting for comfort, journey time, fare, crowding levels, dwell times, ease of using the network, service reliability, user functionality, etc.

4. Prioritise modal shift from private car especially at peak hours and for commuters to the city centre

- Realistic, reliable alternatives will drive a shift away from private car use
- Focus on routes with proven demand and high frequency, high volume public transport routes into the city centre
- Building capacity through new tunnels, rail or bridges will benefit generations

5. Short term, low cost solutions should support long term plan

- Continuous improvement of existing bus service, which is the workhorse of GDA transport
- Improve intra-city centre movement via walking and cycling supports
- Develop incentives for modal shift to support better demand management