


10 November 2017

Submission on National Planning Framework Ireland 2040

A Chara,

I attach my submission in which I call for the substitution of a North City LUAS loop for all mentions of Metro North in Dublin. This should have the highest priority for all investment in transport in Greater Dublin Area.

Metro North is the result of whimsical planning derived from the group think of the Celtic craziness of the early 2000s. It is the result of weak institutions which continue to show a lack of capacity to consider evidence. It is frankly amazing the DART underground is being taken seriously, when nearly half the catchment area for the existing DART services are in the sea.

I would seem that the Director who signed off on the consultant's 2015 report¹ which recommended Metro North was not aware of a major report which was submitted to the consultants carrying out the study commissioned by the National Transport Authority.

Metro North is sustained by the same cast of mind which brought the people of this Republic to a sorry state, from which we have not yet recovered.² This cast of mind appears to rely on hunches in order to limit the consideration of other possibilities which would serve a wider community. We see this in the absence

- creditable statistics on house completions;
- reliable and valid traffic counts in Dublin City.

Is mise


Donal O'Brolchain

¹National Transport Authority/AECOM. 2015 *Fingal/North Dublin Transport Study. Stage Two Appraisal Report*. Dublin. 2015 (NTA /AECOM Fingal/North Dublin 2015)

² *In the past decade, Ireland's approach to fiscal policy, prices, costs and financial regulation were not sufficiently adapted to the disciplines of a single currency.* Press Release from National Economic and Social Council (NESC) on a report "The Euro: an Irish Perspective" 17th August 2010. NESC is 30-person social partnership body made up of representatives of government, business, trade unions, agriculture, community and environment. The Secretary General of the Government chairs NESC. Among the seven Government nominees are the Secretaries-General of five Government Departments.
<http://www.nesc.ie/dynamic/docs/The%20euro%20MEDIA%20RELEASE%20from%20NESC.pdf>

Submission

on

National Planning Framework 2040

This consists of

1. a submission to the Department of Public Expenditure and Reform on the Mid-Term Review of the Capital Programme April 2017
2. *Does Dublin's Core Economic Area need three rail links between the Docklands and Heuston Station/Inchicore?* Published on Irelandafternama on 23 July 2015 accessible here <https://irelandafternama.wordpress.com/2015/07/23/does-dublins-core-economic-area-need-three-rail-links-between-the-docklands-and-heuston-stationinchicore/>
3. *Does Dublin's Core need more rail link?* Paper presented at the Transport section of the Dublin Economic Workshop, Athlone, October 2015

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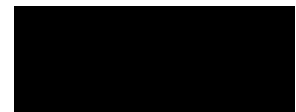
Submission to

Department of Public Expenditure and Reform

on

Mid-Term Review of Capital Programme

Donal O'Brolcáin



30 April 2017

A LUAS loop for North Dublin's Economic Core

Summary

This submission proposes a North Dublin LUAS loop. This is based on (a) specially commissioned maps of Dublin's Core Economic Area and population density (b) travel patterns revealed in reports/studies (c) a review of the relative importance fast public transport access to Dublin Airport and Swords.

It is not good value for money to spend over €2bn on Metro North to give a journey time of 19 minutes between O'Connell Street and Dublin Airport, when National Transport Authority(NTA) data shows that

- nearly half (46%) of Airport passengers have a journey time of less than 30 minutes to the Airport, with 75% having a journey of less than one hour;
- 75% of Airport passengers travel for either leisure or visiting family/friends
- one seventh (14%) of Airport passengers were on business-related trips.
- 42% of Airport passengers have land origin/destinations in Dublin City Centre/North/South;
- peak travel times in the Airport differ from the normal peak travel time for commuters.

Investing in Dublin's transport should be founded on a clear sense of priorities, based on (i) travel patterns and population, (ii) the optimum use of resources available eg.streetspace, land use, finance, (iii) sustainability, particularly air quality.

Metro North does not fit with these criteria. It is clearly a residue of the Celtic craziness era. It appears to be sustained by reports which reflect the group-think which has resulted in so

much social, fiscal and economic hardship.¹ This report did not refer to evidence presented to the study team, misrepresented other options and was tendentious in its approach to developing options. (See Appendix 5)

Metro North was first presented at the launch of Transport 21 in 2005. This list of projects flew completely in the face of the then existing proposals for enhancing Dublin's transport and did not provide any justification for the changes it made to *A Platform for Change*.

This whimsical approach to major investment in public transport in North Dublin repeats how the government decided, in 1998, to build two non-interconnected light rail lines (now LUAS). This ignored reports that the then Government commissioned and another report comparing proposed light rail lines on a socio-economic basis.

The current proposal emerged from a National Transport Authority Fingal/North Dublin Transport study in which options were assessed with the fundamental aim of serving the City Centre, Dublin Airport and Swords, while being technically feasible. This gave no weight to the travel patterns and transport needs of those living in the north part of Dublin City. A Director of the consultancy company (employed to carry out this study) signed off on the

¹ The National Economic and Social Council (NESC) admitted how the political, administrative and financial elites failed over the period 2000-2010.

In the past decade, Ireland's approach to fiscal policy, prices, costs and financial regulation were not sufficiently adapted to the disciplines of a single currency.

Press Release from National Economic and Social Council (NESC) on a report "The Euro: an Irish Perspective" 17th August 2010. NESC is 30-person social partnership body made up of representatives of government, business, trade unions, agriculture, community and environment. The Secretary General of the Government chairs NESC. Among the seven Government nominees are the Secretaries-General of five Government Departments.

<http://www.nesc.ie/dynamic/docs/The%20euro%20MEDIA%20RELEASE%20from%20NESC.pdf>

final report the National Transport Authority commissioned, as a result of which the Government decided to prioritise Metro North. This Director would seem not to have been aware of an alternative to Metro North, which a different consultancy company (Roughan & O'Donovan 2006) prepared for private clients as an alternative to the Metro North and was put forward in 2008.

The 35km North City LUAS loop proposed in this submission would

- serve a greater part of Dublin's Core Economic Area and North City population
- cost, in all probability, less than the €2.2bn estimate for Metro North; due to
 - the 30% variation estimated for Metro North;
 - all of the route being on the surface;
 - most of the route being outside the City Centre, with all that implies for relocation/upgrading utilities, underpinning buildings, cost of acquired land/buildings for the project.
- use streetspace more intensively than is done at present;
- contribute to enhancing human health by reducing traffic emissions at point of use.

With good planning, the North City LUAS loop would start to provide passenger services, as sections are built. In contrast, Metro North is an all or nothing project, which when built will still be incomplete without further very significant investment to enhance the LUAS Green line.

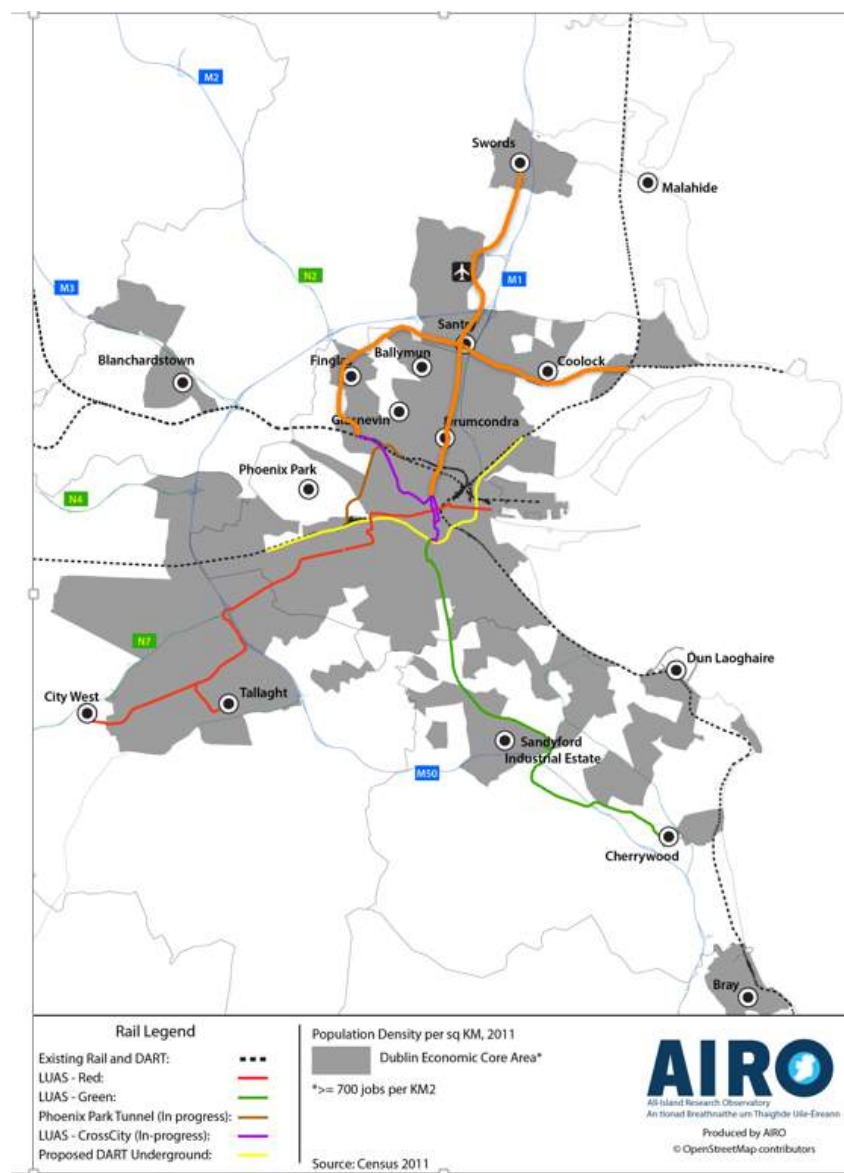
The North City LUAS loop would serve more of the of the deprived economic areas (under the RAPID programme) than Metro North

Personal Note. Apart from my home in Drumcondra, I have no financial or any other interest in any land or company which may benefit from work done on public transport projects.

North City LUAS loop instead of Metro North

Instead of one single channel to the Airport, a north Dublin LUAS loop would be more in keeping travel patterns in Dublin's Core Economic Area and population. This North City LUAS loop is indicated in Figure 1

Figure 1 A LUAS loop serving the North City part of Dublin's Core Economic Area with spurs to the Airport, Howth Junction and Swords



This loop

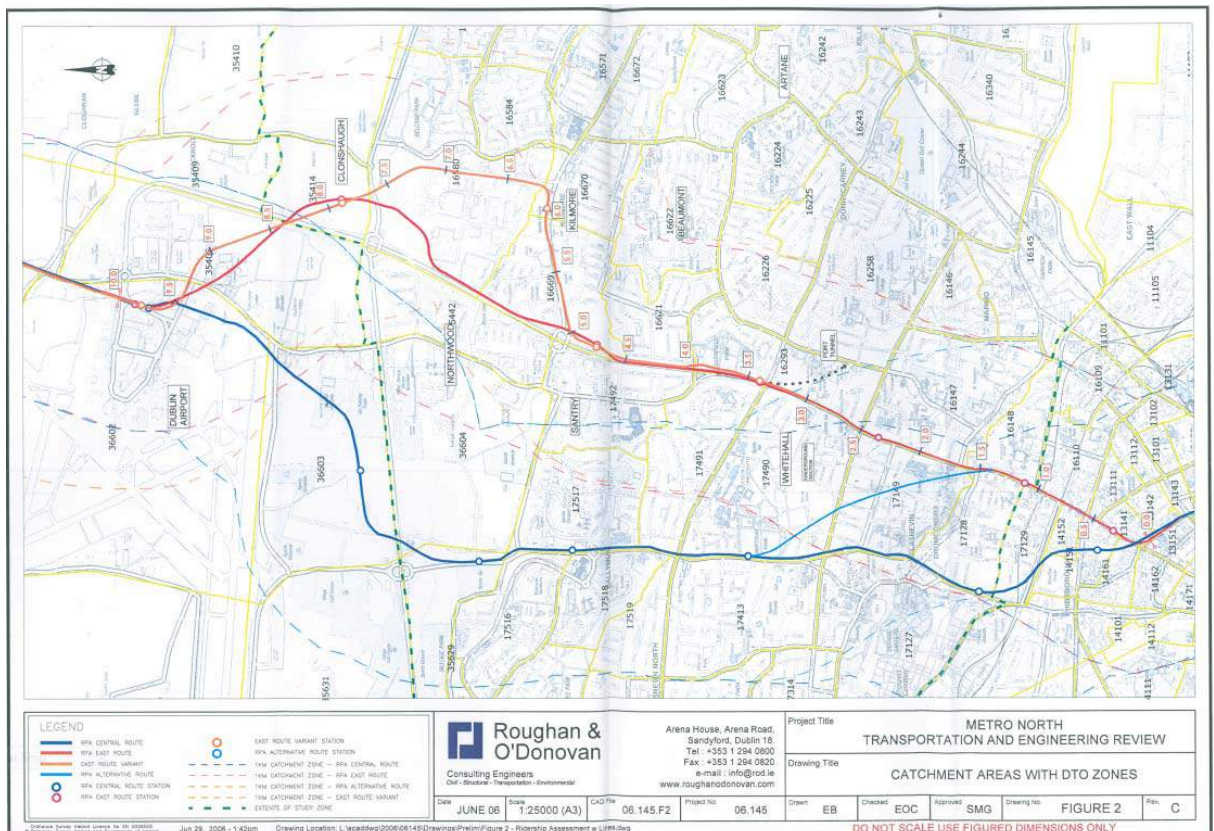
- serves the northern part of Dublin's Core Economic Area and the populated areas comprehensively, taking in
 - Dublin Airport
 - Northwood, Santry, Drumcondra, North East Inner City;
 - Kilmore, Beaumont Hospital, Coolock, Edenmore, Donaghmede, Kilbarrack;
 - Ballymun, Poppintree, Charlestown, Finglas, Cappagh Hospital;
- is Integrated with Dublin 's existing light rail system LUAS, as it extends LUAS CrossCity and could link with LUAS in the Docklands (North and South) using the Samuel Becket Bridge (which is designed to carry LUAS);
- offers two rail-based links between the Central Business District and Dublin Airport
 - directly on LUAS via either Drumcondra or LUAS CrossCity;
 - indirectly using LUAS to get to Howth Junction to connect with
 - DART services to Connolly, Tara, Pearse, Grand Canal stations etc;
- links with heavy rail services
 - at Howth Junction; which has DART and Commuter services;
 - the Maynooth line at both Drumcondra and Broombridge;
- would serve two more RAPID areas in North Dublin (Finglas, Northside) than Metro North while also serving Ballymun, the North East Inner City and South East Inner City;

Two parts of the proposed the LUAS loop have already been studied. These are

1. a route from the City Centre through Drumcondra, Whitehall. Beaumont, Kilmore, Clonsbaugh to the Airport (Roughan & O'Donovan 2006) see Figure 2.

This report was presented to the NTA/AECOM study team. However, the NTA/AECOM reports do not refer to this study explicitly or mention the authors. The NTA/AECOM study misrepresented this report by including it as part of another proposal. This other proposal was dismissed on the grounds that “Very little information is available on this proposal. Its primary purpose is to improve transport links in north Dublin City, rather than to provide a link to the Airport or Swords. As a result, journey times from the City Centre to Dublin Airport and Swords are relatively high.” (NTA/AECOM 2014 par 74. p.90)

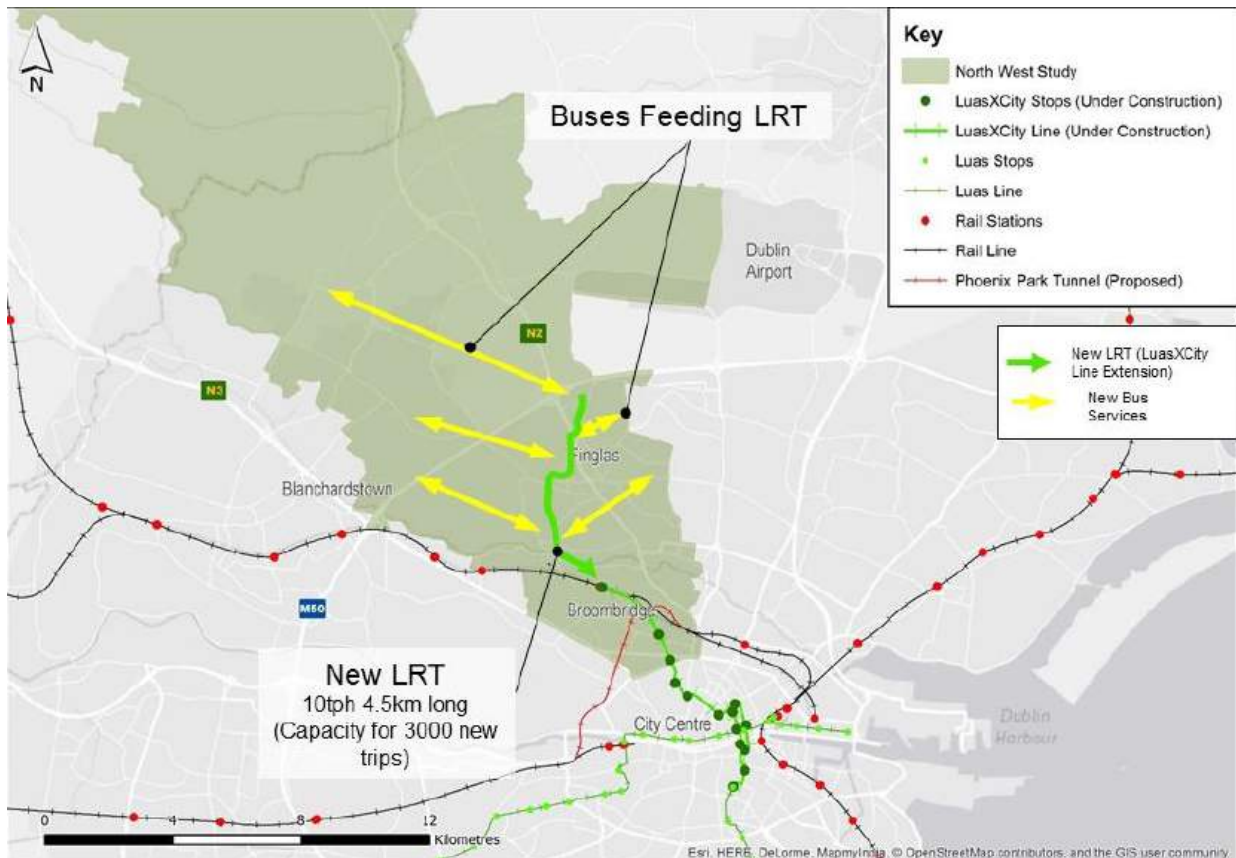
Figure 2 LUAS route option through Drumcondra, Whitehall, Beaumont, Kilmore, Clonshaugh



Source: Roughan & O'Donovan 2006

2. 4.5km extension of LUAS CrossCity from Broombridge through Finglas to a terminus close to the N2/M50 near Charlestown. see Figure 3

Figure 3 LUAS CrossCity extension to Finglas and Charlestown.



Source: National Transport Authority Jacobs Systra. 2015.

In addition to these two studies, some of the more recent work done on SwiftwayBRT may be useful in considering an on-street LUAS line from the City Centre to Drumcondra and northwards. ((NTA Swiftway)

Cost

The indicative costs for this 35km North City LUAS Loop ranges from €1.575bn to €2.2bn, based on LUAS CrossCity costs and an NTA estimate of extending it to Finglas. new Metro

North is estimated to cost €2.2bn, but with a caveat that it could be 30% more expensive or cheaper.

1. Luas CrossCity extension to Finglas.

This was estimated to cost €201m for a 4.5km route. (NTA/Jacobs Systra 2015 par 7.3 p.41). This includes €5m for feeder buses. This works out at just under €45m per kilometre. On this basis, the 35km North City LUAS Loop would cost €1.575bn. This is nearly one-third cheaper than the estimated cost of new Metro North.

2. LUAS CrossCity

LUAS CrossCity is estimated to cost of €61m per kilometre including vehicles and stations. On this basis the 35km LUAS loop would cost just under €2.2bn. This is about the same as the estimated cost of new Metro North (see below). However, building the LUAS North City loop is unlikely to be as costly as LUAS CrossCity which incurred considerable costs of diverting utilities and securing existing buildings particularly in the City Centre.

new Metro North

This is estimated to cost €2.3bn (including VAT at 13.5%) The consultants noted that *“this is a concept stage cost estimate therefore the degree of estimating uncertainty is set at +/- 30% of our estimate value”*(NTA/AECOM 2015 par 8.4.5 p. 134). Given the record of large Irish public sector projects, how likely is it that Metro North will cost less than €2.3bn?

Dublin Airport – who wants or needs fast access between the City Centre and the Airport?

Dublin Airport is a major employment centre with about 15,000 servicing the 28m passengers who travelled through the Airport in 2016.

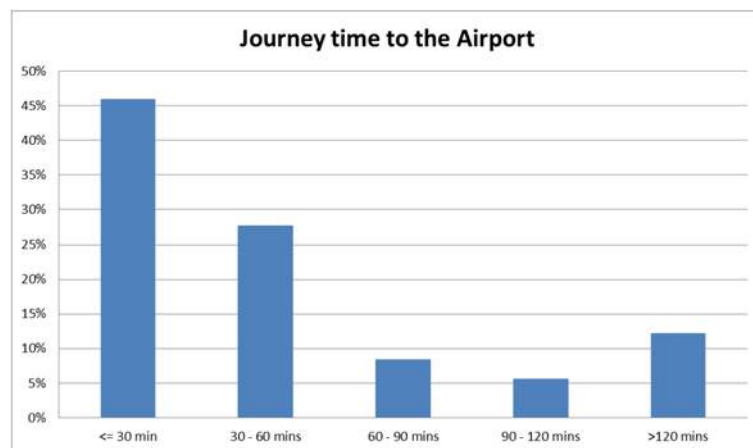
Passengers

An NTA survey of Dublin Airport passengers revealed data that is critical in assessing transport links to/from the Airport. (NTA Airport Survey 2011). This study was not referred to in the NTA report which recommended Metro North (Transport p. 22).

This survey found that

1. almost half (46%) the Airport passengers have a journey time of less than 30 minutes with three quarters (75%) had a journey time of less than one hour to the Airport, with, (see *Figure 4*)

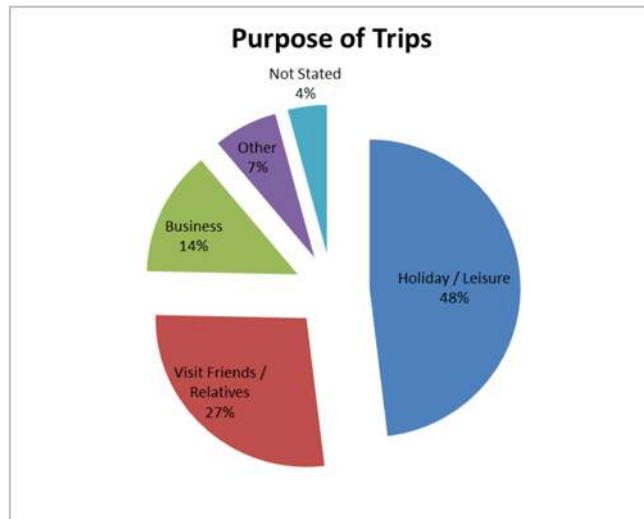
Figure 4 Dublin Airport. How long did passengers originating in Ireland take to get there?



Source: National Transport Authority. 2012. (NTA Airport Survey 2011) Figure 3.5 p.13

2. Three quarters of all trips were either for holiday/leisure (nearly half) or visiting friends/relatives (over one-quarter). see Figure 5. This has scarcely changed since a similar study was done during the late 1990s (CIE/Aer Rianta 1998).

Figure 5 Dublin Airport Why did people travel?

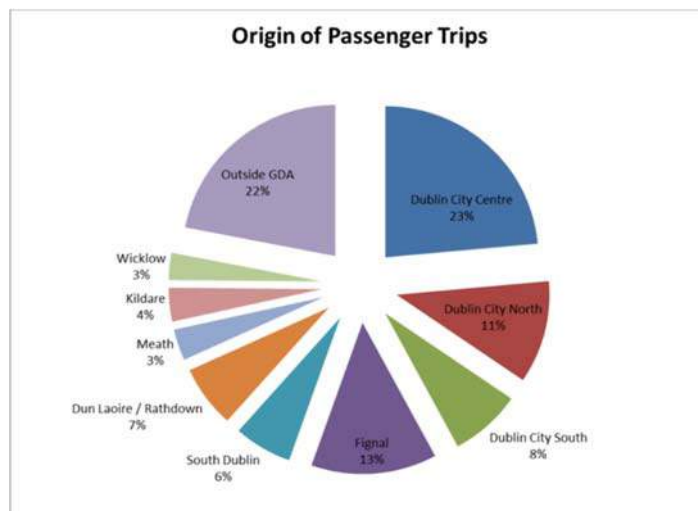


Source: National Transport Authority. 2012. (NTA Airport Survey 2011).Fig.3.11 p.22

3. Less than one seventh of trips (14%) were business related (see Figure 5);
4. Less than one third of the trips originated in City Centre/South part of Dublin City see

Figure 6

Figure 6 Dublin Airport Where in Ireland do the passengers come from?



Source: National Transport Authority. 2012. (NTA Airport Survey 2011) Figure 3.6 p.15

5. The busiest time in Dublin Airport appears to be early in the morning, before the morning peak commuting time of 07.00-10.00

This data suggests that the vast majority of passengers using Dublin Airport are not very time-constrained in how they access the Airport, given the purpose of their trips. Most passengers do not come from Dublin's Central Business District (CBD), as 42% start their trips in Dublin City Centre/North/South.

Those passengers who are time-constrained have the option of taxis (which can use bus lanes) and/or using the Dublin Port Tunnel to access Dublin Airport from Dublin's CBD. The Dublin Port Tunnel is currently operating below its unconstrained capacity, although there appear to be capacity issues with the current road layout at the interface between the Port and the City. As Dublin City Council now owns and controls the East Link bridge outright, it should be possible for the public authorities to manage these issues.

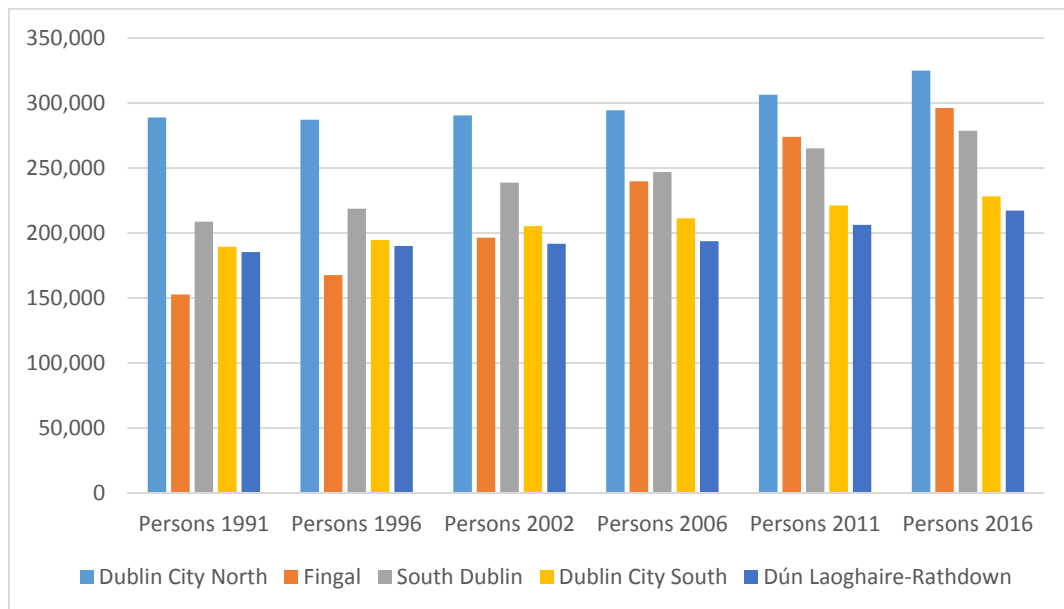
Population

There are more people in the north part of Dublin City than in any of the other parts of Dublin. Why has NTA focused so much attention on Fingal?.

North City has a bigger population than Fingal

More people live in the north part of Dublin City (325,002 in Census 2016) than in either the South City (228,163), Dun Laoghaire-Rathdown (218,018), South Dublin (278,767) or Fingal (296,020). This has been so for the last 25 years, as is clear from *Figure 7*

Figure 7 Population in the major areas the Greater Dublin Area 1996-2016



Fingal – two distinct areas

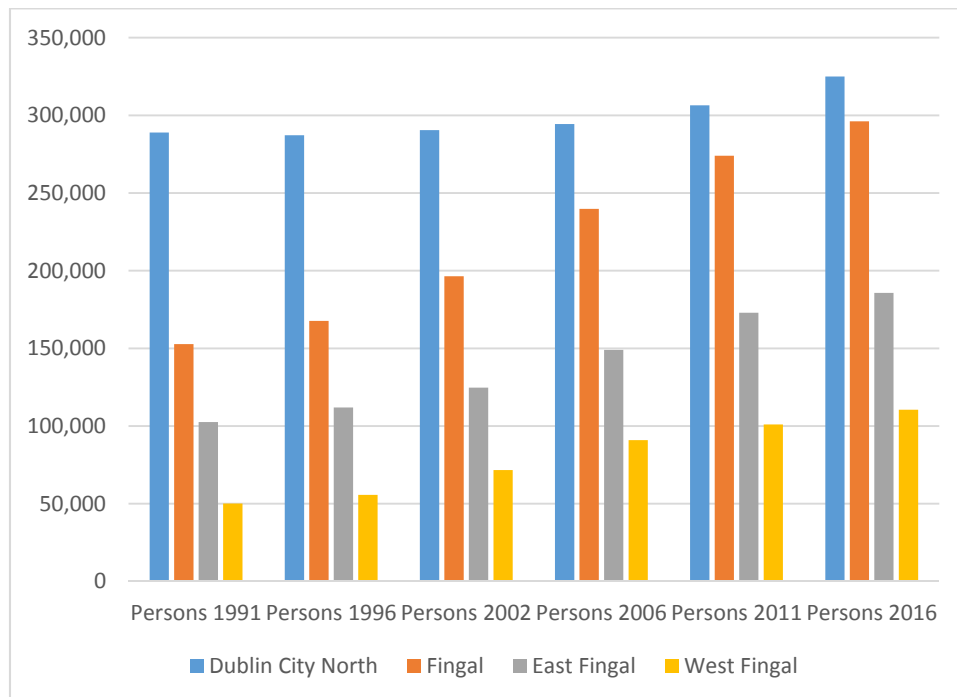
Fingal is the fastest growing county in Ireland. Asserting that alone hides the fact that Fingal is actually two distinct areas, ie Fingal West and Fingal East, using the Ashbourne Road (M2/N2) as the border. (see Appendix 1)

West Fingal (around Blanchardstown) has doubled in population in the last 20 years. In contrast, East Fingal (Balbriggan, Skerries, Malahide, Portmarnock, Swords) has increased by

less than 70% see Figure 8. Why has NTA allocated so many resources to studying one part of Fingal ie. the eastern part?

The title of the study which recommended Metro North is not qualified by any geographical restriction, although the terms of reference clearly are.

Figure 8 Population of Dublin City North, East Fingal and West Fingal 1991-2016



Along with six other urban centres, both Blanchardstown and Swords are designated Metropolitan Consolidation Towns in the Regional Planning Guidelines for the Greater Dublin Area 2010-2022.(RPG 2010 par. 4.6 p.93) .².

In 2016, Blanchardstown had about 75,000 people whereas Swords had about 43,000 people. Both have doubled in population over the past 25 years.

² These are to be strong active urban places within metropolitan areas with strong transport links. In addition to Blanchardstown and Swords, Lucan, Clondalkin, Tallaght, Dundrum, Dun Laoghaire and Bray are also in this category.

Metro North – why is to the west of North Dublin's Core Economic Area and most of the population

To understand how Metro North fits with employment and population in the Greater Dublin Area, in late 2014 I commissioned two maps from the All-Island Regional Observatory (AIRO). Maynooth University based on the 2011 Census. I asked AIRO to superimpose the existing and proposed rail-based transport on maps showing (a) Dublin's Core Economic Area see *Figure 9* and (b) Population Density *Figure 10*.

These rail lines include

- the heavy rail commuter lines including DART shown as broken dotted lines;
- LUAS (Green and Red lines) including LUAS CrossCity (purple line) under construction and due to be operational by the end of 2017;
- the Phoenix Park Tunnel (light orange line) which links the heavy rail lines between Inchicore and Connolly. This opened for passenger services in 2016;
- Metro North – (blue line);
- DART Underground (yellow line) which is planned over the longer term.

Dublin's core economic area is defined as those areas having more than 700 jobs per square kilometre.(see Appendix 2)

It is clear that the routing of Metro North is to the west of the main part of the Core Economic Area in the north city. It does not serve some major trip attractors/generators in the North City eg. Beaumont or Cappagh Hospitals. Metro North provides an underground service on the same route as LUAS CrossCity from Stephen's Green to Parnell Square.

Figure 9 Dublin's Core Economic Area with existing/proposed rail lines superimposed

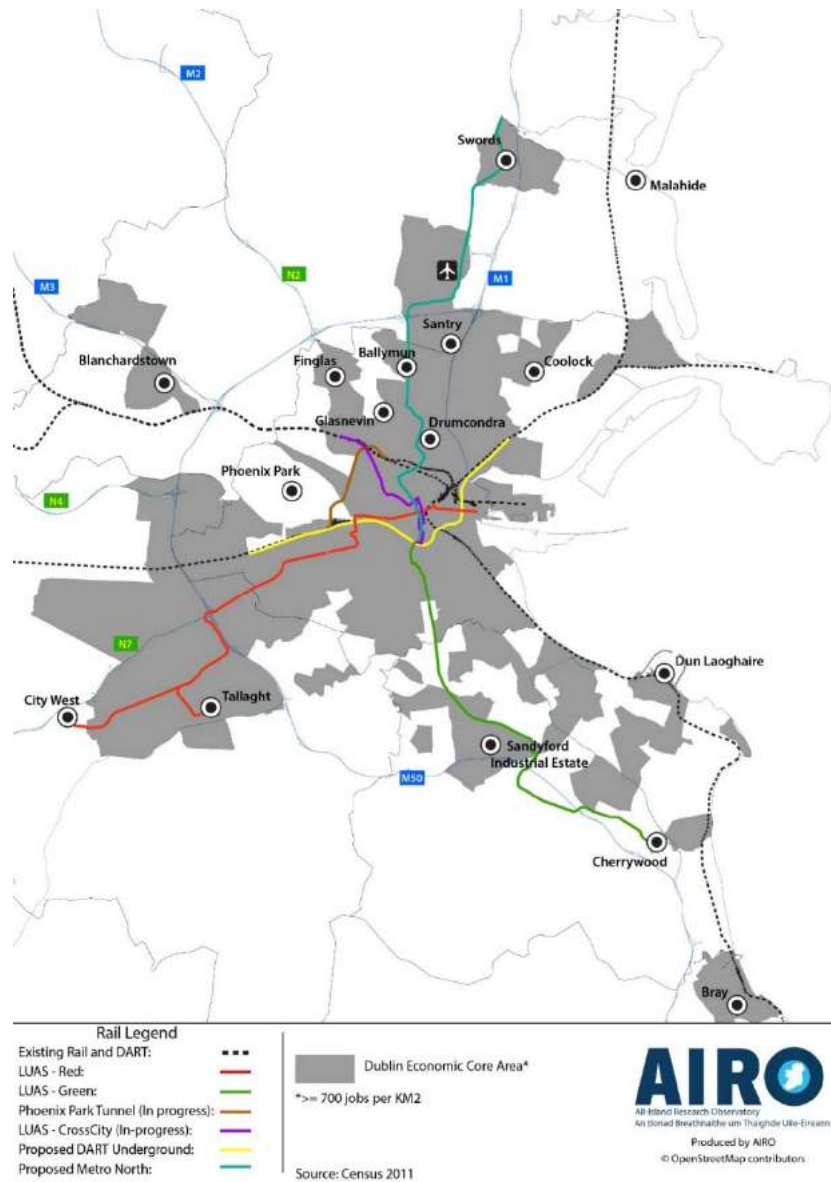
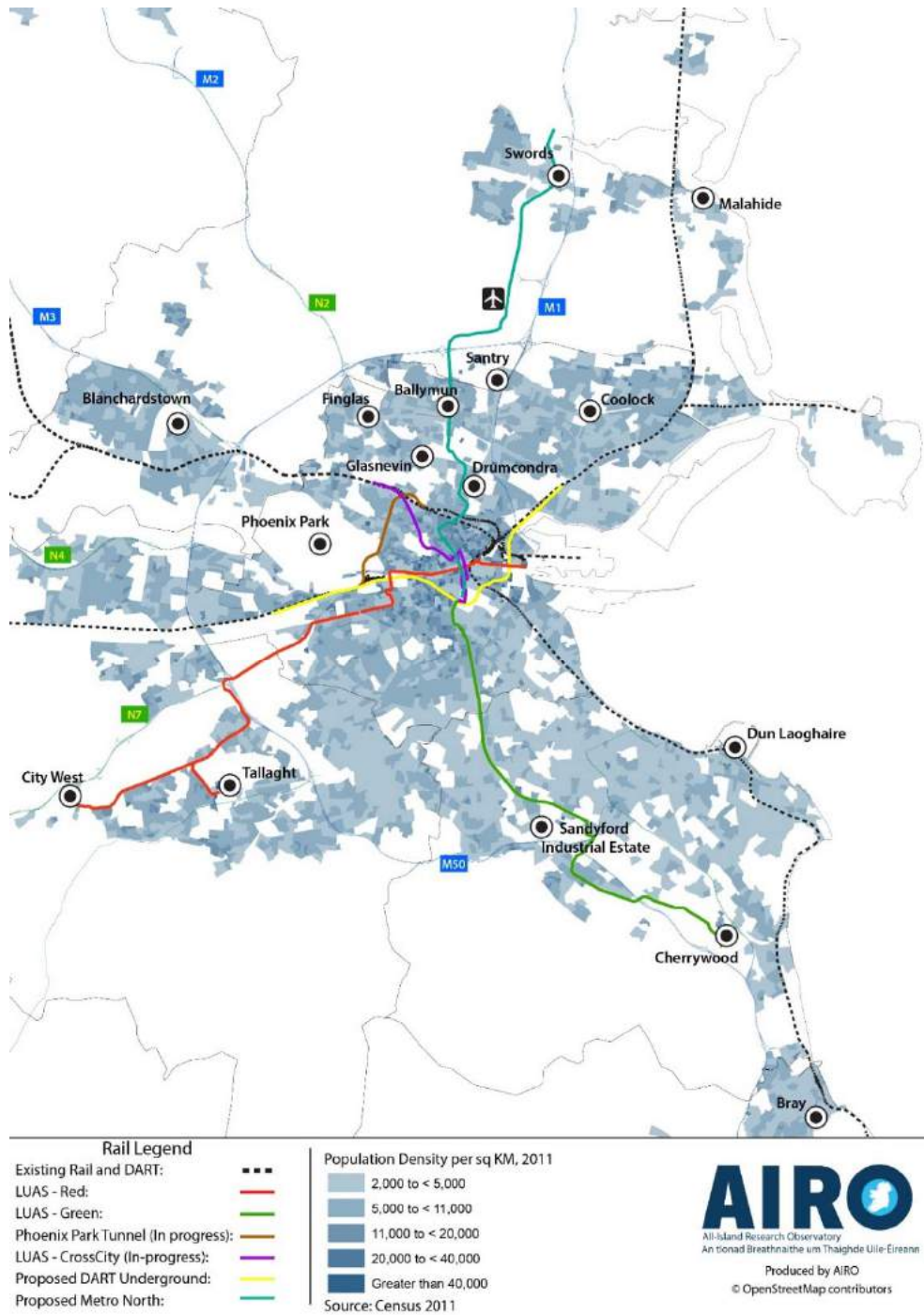


Figure 10 Greater Dublin Area Population Density (2011 Census with existing/proposed rail lines superimposed)



Enhancing Public Transport in North Dublin, without/pending Metro North

In 2011, it seemed that Metro North was deferred indefinitely. NTA started to work on enhancing transport the Northern Corridor ie. Swords –Airport-City Centre by commissioning a series of studies.

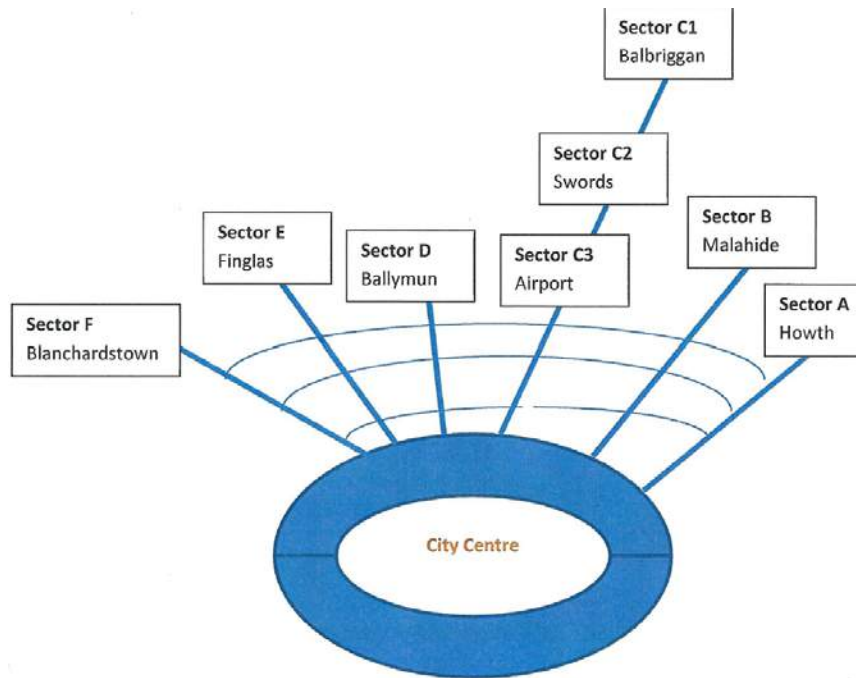
Fingal Corridors Study

NTA has not published this study which was completed in April 2012 (NTA Fingal Corridors 2012). It was not cited in the NTA/AECOM North Dublin Transport Study which Building on Progress cited as recommending Metro North. I obtained it using Access to Information on the Environment regulations. A senior NTA official has assured me that the April 2012 Draft is the final version of the report of that work. (for further details, see Appendix 3)

This study focused on patterns of travel from each of eight sectors to the other seven sectors and of particular importance, the relationship to the City Centre. (NTA Fingal Corridors 2012). see Figure 11. In this study, the city centre included the area inside the canals, the Docklands areas and two Ballsbridge zones (just south of the canals) that included significant office-based development.

Two of sectors chosen (Ballymun, Finglas) are within the Dublin City Council area. Note that other sectors within the Dublin City area (Coolock, Santry, Drumcondra) on these corridors were not chosen for analysis. For each sector chosen, this study looked at travel demand during the morning peak, based on 2006 Census data supplemented by the preliminary results of the 2011 Census.

Figure 11 Main Fingal corridors in advance of Metro North



Source: National Transport Authority. April 2012 par. 2.1 p.6 (NTA Fingal Corridors 2012)

The data in this study is presented in Table 1. The column Other refers to trips from the sectors named (including the City Centre) to other parts of the Greater Dublin Area which are not included in those shown in Figure 11.

It is striking that Swords and Balbriggan have the lowest percentage of trips to the City Centre. Both also have a very high level of internal trips, as do Blanchardstown and the City Centre. Only 22% of the trips (about 1,600 people) from the Airport during the morning peak were to the City Centre while there were about 2,500 trips in the opposite direction. More than two-thirds of trips from the Airport are to areas outside the sectors studied. During the morning peak, Blanchardstown has over twice as many trips (55,719) as Swords (26,039). Of these trips, almost three times more people from Blanchardstown had City Centre destinations (10,586) than those going from Swords to the City Centre (3,645). It is

also striking that there were more trips from Swords to Malahide (2,083) than there were to the Airport (1,562). The report focuses on Swords, but notes that Blanchardstown will be the subject of a separate study later. It is not clear that such a study has been done.

Table 1 Trip destinations from each Fingal sector to the other sectors studied during the morning peak (07.00-10.00)

	Howth	Malahide	Balbriggan	Swords	Airport	Ballymun	Finglas	Blanchardstown	City Centre
No of Trips	10,633	25,594	25,232	26,039	7,218	12,937	14,419	55,719	81,824
Destinations									
Internal	36%	34%	48%	44%	1%	35%	31%	46%	61%
City Centre	26%	20%	15%	14%	22%	19%	20%	19%	
Howth		9%	1%	1%	1%	1%	1%	0%	0%
Malahide	2%		3%	8%	2%	1%	0%	0%	0%
Balbriggan	0%	1%		1%	1%	0%	0%	0%	0%
Swords	1%	6%	5%		2%	1%	1%	1%	1%
Airport	2%	3%	3%	6%		3%	2%	1%	3%
Ballymun	1%	1%	1%	1%	1%		7%	1%	1%
Finglas	1%	1%	1%	1%	1%	5%		2%	0%
Blanchardstown	1%	1%	1%	2%	2%	2%	4%		1%
Other	30%	24%	22%	22%	67%	33%	34%	30%	33%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

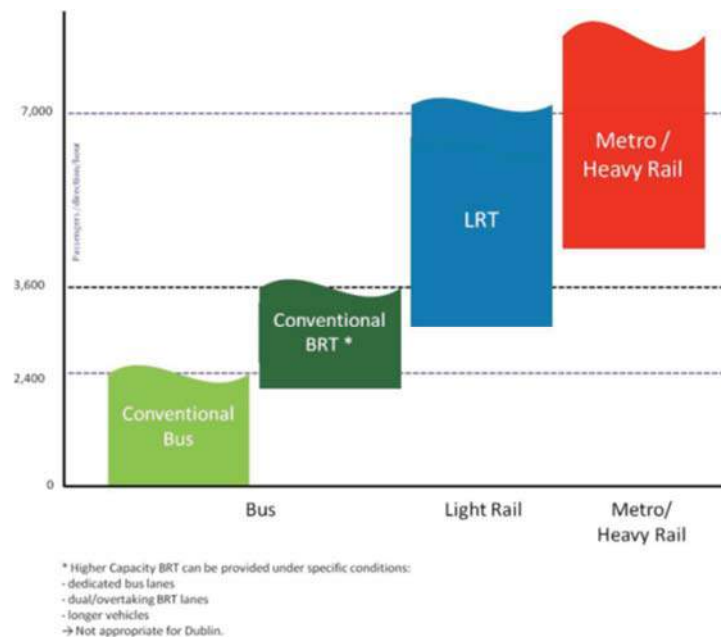
Source: National Transport Authority. April 2012 (NTA Fingal Corridors 2012)

Note This Table was compiled from the data given in each pie-chart for the different sectors. In five sectors (Malahide, Swords, Finglas, Blanchardstown, City Centre) there was a discrepancy between data in the table and the data in pie chart printed with the table. In all sectors, the pie-chart numbers added to 100%. The differences between the data in the tables and pie-charts do not appear to be significant.

Bus Rapid Transit

In October 2012, NTA published a study on a Core Dublin Network for Bus Rapid Transit (BRT). (NTA BRT 2012) This compared Bus Rapid Transit systems with LUAS type system and Metro/Heavy Rail see *Figure 12*. The report pointed out that higher capacity Bus Rapid Transit was not appropriate for Dublin. The report looked at three cross city corridors ie. Blanchardstown to UCD, Clongriffin to Tallaght, Swords to Tallaght through Santry and Drumcondra. The analysis found that there was a peak line flow demand at St. Patrick's College of 5,900 ppdph. This greatly exceeds the 3,600 ppdph capacity for BRT. The report noted that *"The Swords to City BRT section has not been brought forward to the later costing and appraisal sections of this feasibility study report"* NTA BRT 2012 par 4.7 p54

Figure 12 Public Transport Passenger Capacities per mode passengers per direction per hour (ppdph)



Source: National Transport Authority. 2012. (NTA BRT 2012 Figure 3 p.4).

Swiftway Bus Rapid Transit

Despite the earlier statement about the lack of capacity using BRT to meet passenger demand on the Swords -City Centre corridor, NTA published a major study in October 2014

on this corridor. (NTA Swiftway) No equivalent work appears to have been done on the two BRT routes which the NTA BRT report of 2012 recommended for further study.

This NTA Swiftway report confirmed the findings of the NTA BRT 2012 report on the lack of capacity of BRT to cater for the passengers forecast on the Swords-Dublin Airport-Drumcondra-City Centre corridor. The report notes *"It is anticipated that demand will increase following a reorganisation of Dublin Bus Routes"*

With one exception, passengers forecast exceed the proposed BRT capacity even with the existing bus network still in place. These forecasts assumed that the existing Dublin Bus network remained place, not just on North Dublin roads, but also in the City Centre.³

In 2015, BRT was not brought forward for economic appraisal on the grounds that it did not provide sufficient capacity to meet the long terms needs of an area studied for Metro North. (NTA /AECOM Fingal/North Dublin 2015 par. 9.7 p.147). It is not clear that this assessment

³ This report assumed two separate BRT services south of the Airport, with maximum capacity of 2,700 ppdp. This implied 22.5 BRT vehicles/hour on the existing roads from Dublin Airport through Drumcondra to the City Centre ie. one BRT vehicle every 2.7 minutes. This is 50% higher than the 15 vehicles/hour cited for BRT. With one exception, these options lack adequate capacity for the passengers forecast ie.

1,800 .ppdp (4 minute frequency) is **exceeded by (a)** 40% in 2018 - the opening year for this proposed BRT; (b) 80% in 2033 - the forecast year;

2,700 ppdp (2.7 minute frequency) **exceeded by** 22% in 2033, the forecast year while being at 95% capacity in 2018, the opening year for the proposed BRT.

NTA Swiftway Volume 1. Summary tables 10.5 and 10.6 p. 187

spells the end of BRT on the Swords-Airport-Drumcondra-City Centre Corridor, as the Greater Dublin Area Transport Strategy maintains the necessity for greater public transport capacity in advance of Metro North. (NTA 2016 par 4.2.1 p.53).

It is clear that on City Centre Drumcondra-Airport corridor needs far more public transport capacity than can be provided by buses.

Blanchardstown - why so little attention?

The division between Fingal West and East is clear in the very few trips between Blanchardstown and the other sectors studied in (NTA Fingal Corridors 2012) .see Table 3 above. Despite the title, the NTA report which recommended new Metro North was focused on the eastern part of Fingal, with a cut-off just north of the Malahide estuary. As in the Fingal Corridors report, North Dublin included that part of the Centre City inside the canals and other parts east of Finglas. (North Dublin 2014. par 1.1 p.1)

Based on population and travel patterns during the morning peak, It is clear that Blanchardstown merits more attention from those responsible for transport planning and investment in the Greater Dublin Area than does Swords.

During the morning peak, there are 10,500 people travelling to the City Centre from Blanchardstown. This is nearly three times the number making the trip from Swords to the City Centre (3,700) ,as is shown in Table 3. The population of Blanchardstown is 70% bigger than Swords.

In Swords, most people making trips during the morning peak stay in Swords (44% of 26,039). It is also clear from the data in Table 3 that there are about 3,700 people (14% of the 26,039 trips) going from Swords to the City Centre during the morning peak, with another 1,600 going to the Airport from Swords.

Swords may get what seems like undue attention from transport planners because it is near the Airport.

Contraflow

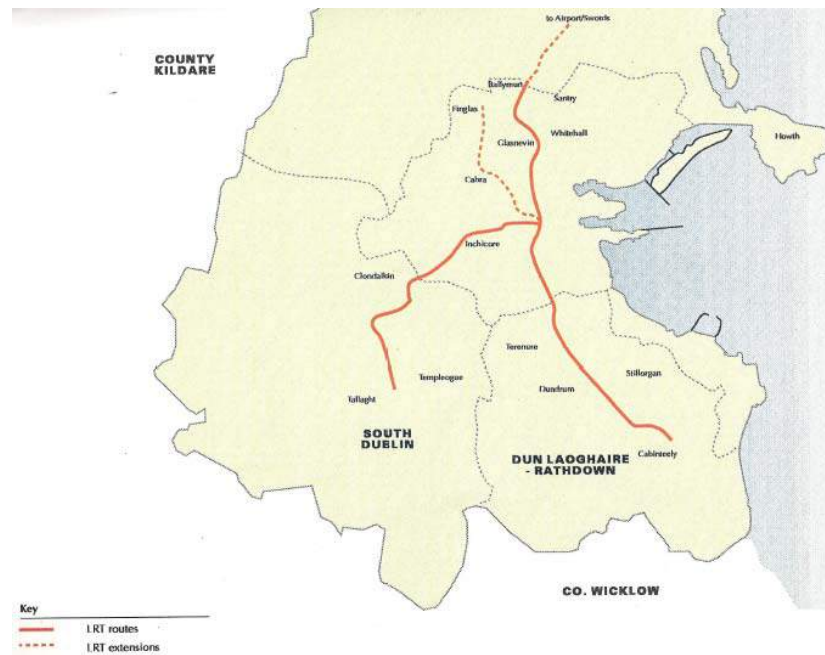
The data in Table 3 shows that there were just under 2,500 going from the City Centre to the Airport during the morning peak, with just under 1,600 travelling the opposite direction.

The NTA survey found that 20% of passenger arrive at the Airport before 08.00. (NTA Airport Survey 2011 p.13). This percentage is very similar to the 22% who make trips from the Airport to the City Centre during the morning peak as shown in Table 1). Two thirds of departing passengers leave after midday. The busiest time for arrivals is between 08.00 and midday.

Background to Light Rail/LUAS and Metro in Dublin (now LUAS)

The Dublin Transportation Initiative (DTI) proposed a light rail system for Dublin as one of a series of mutually reinforcing measures to make it easier for people to move around the Greater Dublin area. (DTI 1995). This was to be an integrated 3-line system from the City Centre to Ballymun, Cabinteely, Tallaght with extensions to Finglas and Airport/Swords. see *Figure 13*. The EU funded DTI was major review of Dublin transport under the Technical Assistance Programme of the Operational Programme on Peripherality 1989-1993.

Figure 13 Dublin Light Rail Network 1995



Source: Dublin Transportation Initiative. 1995.

In 1996, an EU prompted study found that a Light Rail line along a route from the City Centre through Drumcondra to Ballymun had a higher density of trip attractors/generators per route kilometre than either of the Dundrum or Tallaght lines. (see Table 2)

Table 2 Intensity of use indicators for the original three LUAS lines from City Centre to Ballymun, Dundrum, Tallaght

Section	Density of Major Attractors/Generators number per route km	Frontage Density metres per route metre
Tallaght Sq. - Treepark	1.44	0.09
Treepark - Fox & Geese	.44	0.01
Fox & Geese - Davitt	7.96	1.26
Davitt - Inchicore	2.60	1.72
Inchicore - Kilmainham	3.31	2.09
Kilmainham - Heuston	20.00	1.88
Heuston - Chancery St.	18.32	1.42
Chancery St. - O'Connell St.	21.56	2.73
Tallaght Route	7.79	1.91
O'Connell St. - Trinity College	3.33	2.02
Trinity College - Harcourt	21.33	1.96
Harcourt - Charlemont	20.00	1.85
Charlemont - Dundrum	0.00	0.00
Dundrum Route	7.81	0.68
O'Connell St. - Parnell	30.36	1.42
Parnell - Gardiner	15.7	1.91
Gardiner - St. Alphonsus	7.27	1.81
St. Alphonsus - St. Patrick's	3.90	2.49
St. Patrick's - Griffith	4.92	2.16
Griffith - Collins	15.12	1.55
Collins - DCU	2.86	1.89
DCU - Glasnevin	1.59	2.22
Glasnevin - Ballymun	9.68	2.59
Ballymun Route	9.61	2.00

Source: Department of Transport, Energy & Communications.1996

However, the Government ignored that finding. In 1998, the Government decided to build two non-interlinked lines (Red, Green) which primarily serve the south city. Both these lines have been extended since starting operations in 2004. Luas CrossCity extends the Green line to Broombridge to the west of North Dublin's Core Economic Area (see *Figure 1* also *Figure 9* *Figure 10*) and is due to open in late 2017.

In 1998, the Environmental Impact Statement for the Dublin Port Tunnel assumed that the maximum benefits would accrue to the north city when on-street light rail line was built to link the City Centre to Drumcondra, Ballymun and the Airport. This LRT was to be an integrated three lines serving Tallaght and Cabinteely. (DC/GA 1998 Table 4.1 p.52) see

Table 3

Table 3 Extract from Dublin Port Tunnel Environmental Impact Statement 1998

Dublin Port Tunnel		Volume 1 - General	Appraisal Method
<p>Table 4.1: Principal Highway and Public Transport Schemes Within the DTO Forecast Year Do-Strategy Model 2006/2016</p>			
Highway Schemes		Public Transport	
• Northern Cross Route (M50)	• Blackhorse Avenue	• QBC City Centre to Bray	
• Northern Cross Route extension to Malahide Road(M50)	• Ballybrack	• QBC City Centre to Churchtown	
• Southern Cross Route (M50) inc. Green Route	• Ratoath Road	• QBC City Centre to Tallaght	
• South Eastern Motorway Southern Section	• Coombe Relief Road	• QBC City Centre to Clondalkin	
• Northern Motorway, Airport to Five Roads (M1)	• Cork Street to Dolphin's Barn	• QBC City Centre to Lucan	
• Lucan to Kilcock (N4)	• Dundrum Relief Route	• QBC City Centre to Blanchardstown	
• N7 Interchanges	• Macken Street Bridge	• QBC City Centre to Finglas	
• Kilmacanogue - Glen O'Downs (N11)	• Naas Road - Blessington Road	• QBC City Centre to Swords	
• Tallaght By-Pass Extension (N81)	• Newlands/Fonthill Road	• QBC City Centre to Malahide	
• Dublin Port Tunnel	• Nangor/Fox & Geese	• LRT City Centre to Ballymun /Airport	
• North Road Finglas (N2)	• Walkinstown - Saggart	• LRT City Centre to Tallaght	
• White's Cross - Knocksinna (N11)	• Grange Road	• LRT City Centre to Cabinteely	
• Ballinlea/Wyatville Road	• Kilmahadrick Road		

QBC - Quality Bus Corridor.
LRT - Light Rail Transport

with 50% Tel Coll. though George (DPT) confirmed that Nassau St Bridge is not part of DPT model runs!

Dublin Transportation Initiative

In 1995, the Dublin Transportation Office (DTO) was set up to implement the integrated transportation strategy recommended in the Final Report of the Dublin Transportation Initiative (DTI). Late in 2001, DTO set out an integrated strategy covering the Greater Dublin Area for the period 2000-2016. (DTO 2001). This included two new rail-based projects for North Dublin, as part of an integrated rail-based network for the Greater Dublin Area. (see Figure 14). This rail network was part of a public transport system, with redesigned bus

services including many Quality Bus Corridors. The aim was to promote modal shift to more sustainable modes of transport in our capital city.

Figure 14 Greater Dublin Area Rail Network Schematic. A Platform for Change



Source: Dublin Transportation Office. 2001.

There was to be an on-street LUAS line through Drumcondra which then split into two lines one going to the Airport via Ballymun and the other to Howth Junction. There was also to be LUAS lopp around the Docklands. see Figure 15

Figure 15 North/Centre City rail links DTO 2002



Source: DTO A Platform for Change Summary of an integrated transportation strategy for the Greater Dublin Area 2000 to 2016 November 2001. published 1Jan2002 Fig. 7

There was also to be a Metro Network as is clear from Figure 14. . This included an southwestern LUAS line starting at Tallaght, going underground in the Kimmage area to the city centre (including under Tara Street Station) to a disused rail line at Broadstone, onto Finglas and onto the Airport and Swords. LUAS CrossCity is now being built on that railway line at Broadstone and on to Broombridge where it terminates.

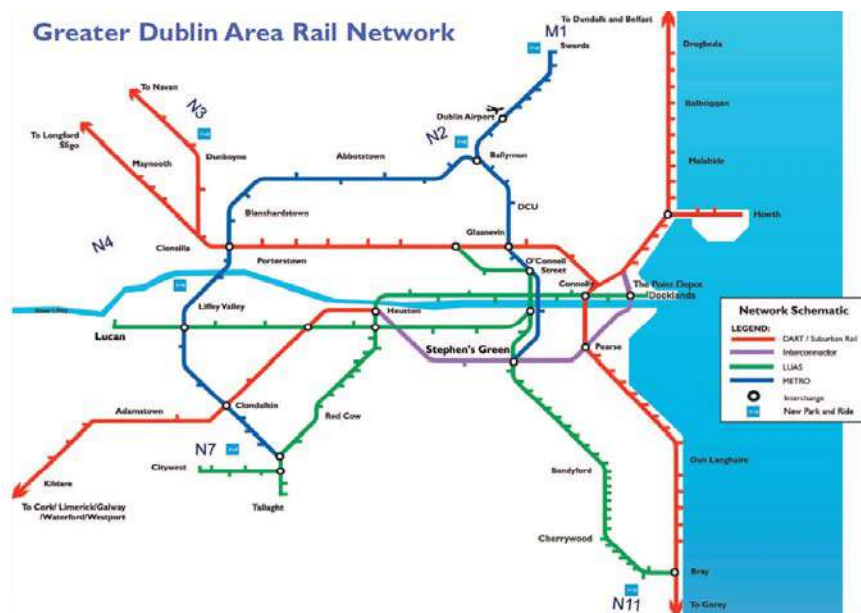
National Transport Authority

In December 2009, the National Transport Authority (NTA) was established and took over the responsibilities of the Dublin Transportation Office, in addition to certain functions of the then Department of Transport.

Metro North

Metro North was first publicised at the height of the Celtic craziness. Transport 21 was an infrastructure investment programme announced in November 2005 and abandoned in May 2011.⁴ Comparing the DTO Rail Network Schematic (Figure 14) with the Transport 21 Greater Dublin Area Rail Network in () shows clearly that Metro North did not correspond in any way whatsoever with the DTO strategy. It left a void, for enhanced public transport in a big section of the north part of Dublin city. As is cedar from Figures 1 and 2, the public authorities have overlooked what the DTO recognised. in 2001, as is clear from Figures 14 and 15.

Figure 16 Transport 21 Greater Dublin Area Rail Network



Source: Transport 21. 2005

⁴ Martin Cullen TD, then Minister for Transport, announced Transport 21 on 1 November 2005 at a Press Conference. Apart from the texts of the Ministerial speeches, documentation on Transport 21 consisted of one page of statistics, three maps and one page of project completion dates for various projects.

Given that Transport 21 was decided before the economic crisis, it is difficult to find any justification for the change in strategy set out only four years previously. This is particularly true of investment aimed at enhancing public transport in the Greater Dublin area and thereby making more intensive use of existing streetspace.

Apart from the schematic in, there was no other documentation or evidence of any analysis to support this change. No explanation was offered for setting aside of the extensive work done during the Dublin Transportation Initiative summarised in *A Platform for Change* (DTO 2001). It was bizarre that the following statement appeared in a 2011 National Transport Authority document "*Transport 21 included major investment in greater Dublin area public transport (largely based on the proposals contained in 'A Platform for Change')*". (NTA February 2011 Vision 2030 par. 2.3 Chap 2. p.1)

Metro North 2008 version.

In 2008, the Railway Procurement Agency (RPA) (functions now in Transport Infrastructure Ireland) applied for Planning Permission and a Railway Order for Metro North. In October 2010, An Bord Pleanála (ABP) gave permission for a cut back Metro North. This meant that RPA had to make a new application for the depot for Metro North. In Table 2, these two projects are compared with what the NTA now calls new Metro North.

ABP's reasons for cutting back RPA's proposed 2008 Metro North are worth noting;

1. the absence of a statutory framework for serviced lands north of Swords which were remote from development lands or populations centres. This would lead to an unsustainable use of land unlikely to be supported by future travel demand in the short or medium term. (ABP 2010 p.3)

2. the proposed depot lands at Belinstown were prone to flooding which the RPA had not clearly identified. Nor had RPA justified the extensive land filling need in terms of sustainable development. ABP was not satisfied that the depot works would not exacerbate local flooding. (ABP p.3). ABP refused permission for the depot. RPA had to reapply for permission, which ABP granted in 2011.
3. as regards Swords Metro stops, ABP *"..considered there was overlap between stations and the number of stops proposed was not justified by current or foreseeable population catchments, bearing in mind the need to preserve the operational efficiency of the overall metro service."*(ABP 2010 par 19. p. 13)

Table 4 Metro North projects compared RPA (2008), RPA(2010-11), NTA(2015)

Route	RPA Proposal 2008	An Bord Pleanala Decision on RPA proposal 2010-11	NTA New Metro North 2015
Between and Distance	Stephen's Green Belinstown 18km	Stephen's Green Estuary 15.7	Stephen's Green Estuary 16.5km
Tunnel	10km		8.5km
Surface(At Grade)	8km		8km
Stations	17	14	14
Underground	9	9	6
On surface	8	5	8
Platform Length	94m	No change	60m
Vehicles	45-90m	No change	60m
Frequency of service	4 minutes	No change	2 minutes 30 trams per hour in each direction
Passengers			
On opening	80,000 per day	No change	
Over time	40,000 per hour 20,000 in each direction	No change No change	9,900ppdph
Opening Year			2033

Travel Patterns in Greater Dublin Area

Early in 2015, NTA published Greater Dublin Area Transport Strategy 2011-2030 2030 Vision, dated April 2012. This included figures showing travel patterns in the Greater Dublin Area (see Figure 17 and Figure 18). The data in Figure 17 is not clear as regards the direction of travel. To try to understand these bi-directional patterns, this data is summarised in Table 5. This suggests that travel demand is greatest inside the M50. These areas are the destinations for over two-thirds of people in both 2006 and 2030. These areas were also the origins of 45% of trips in 2006 and will reduce to 39% in 2030.

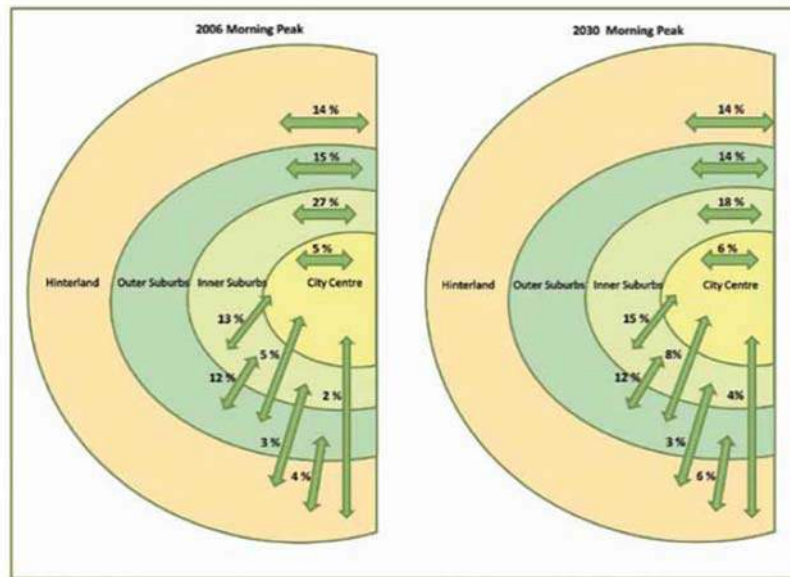
Table 5 Travel Patterns in the Greater Dublin Area 2006 and 2030

	Destination	City Centre <i>(inside Canals)</i>	Inner suburbs <i>(within M50)</i>	Inside M50	Outer Suburbs <i>(outside M50)</i>	Hinterland	All Destinations	
Origin	City Centre <i>(inside canals)</i>	2006	5%	13%	18%	5%	2%	25%
		2030	6%	15%	21%	8%	4%	33%
Inner suburbs <i>(within M50)</i>	2006		27%	27%	12%	3%	42%	
	2030		18%	18%	12%	3%	33%	
Inside M50	2006			45%	17%	5%	67%	
	2030			39%	20%	7%	66%	
Outer Suburbs <i>(outside M50)</i>	2006				15%	4%	19%	
	2030				14%	6%	20%	
Hinterland	2006					14%	14%	
	2030					14%	14%	
All Origins	2006	5%	40%	45%	32%	23%	100%	
	2030	6%	33%	39%	34%	27%	100%	

Source: from National Transport Authority. 2012. (NTA April 2012 Vision). Fig 4.6 Chap 4 p.9

Figure 17 Travel patterns (morning peak period 07.00-10.00) Greater Dublin Area 2006 and

2030



Source: National Transport Authority. 2012. (NTA April 2012 Vision) Figure 4.6 Chap 4. p.9

The spatial extent of these areas is shown in Figure 18

Figure 18 Greater Dublin Travel Area

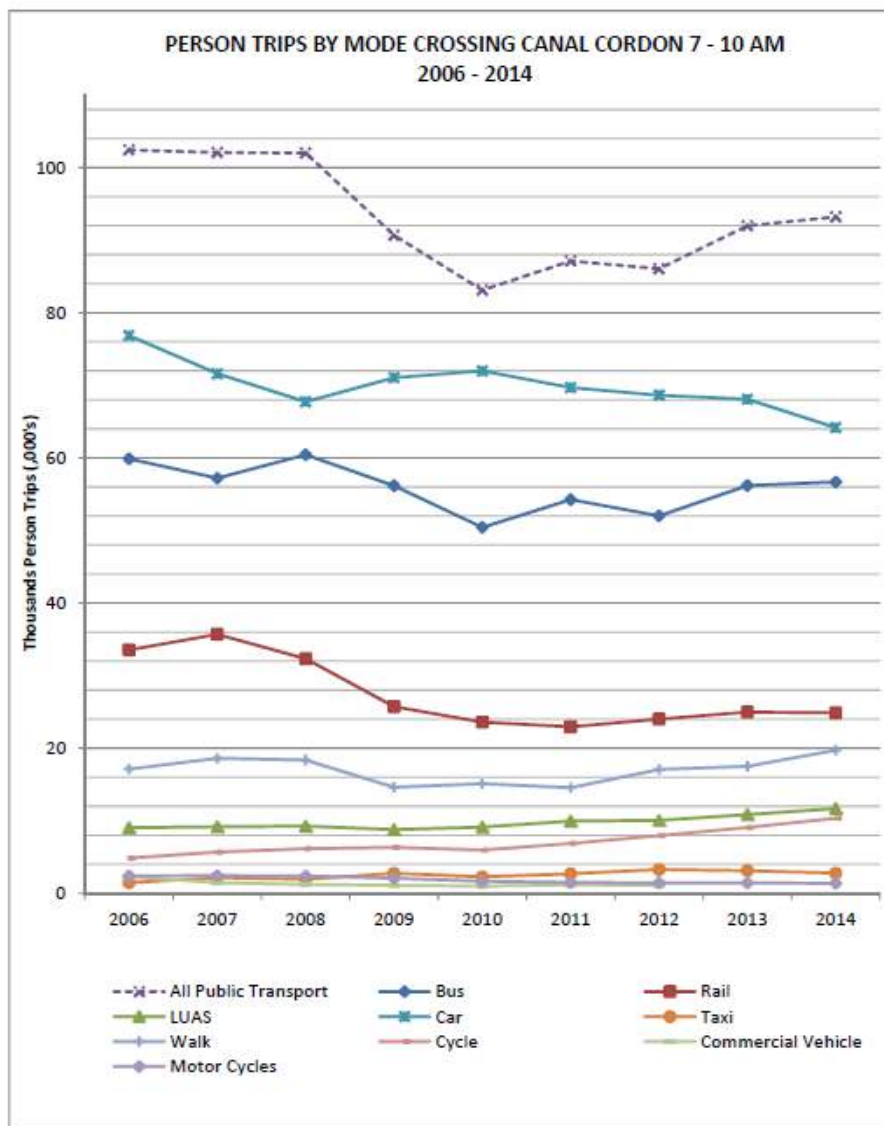


Source: National Transport Authority. 2012. (NTA April 2012 Vision) Figure 4.1 Chap 4. p.3

Streetspace how well used is it?

Most people travel by car, but this has decreased by 16% since 2006. The next largest group travel by bus. Walking has increased such that in 2014 it was at the highest level since 1997 when canal cordon counts started. Both the number of cyclists and the number of people using taxis have more than doubled, even if the share of taxis is small in overall terms. see Figure 19

Figure 19 People crossing the canal cordon during the morning peak by travel mode 2006-2014

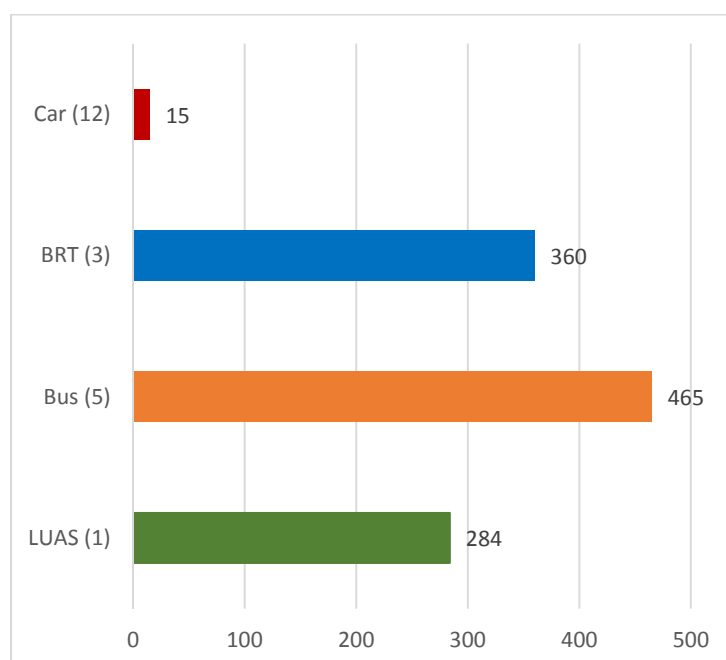


Source: Dublin City Council National Transport Authority. 2014 p.16

Increasing the use of cars as the main mode of travel to work in urban areas is not sustainable given the fixed nature of most streets and roads coupled with the human health and climate effects from emissions of fossil fuelled engines. To indicate these spatial constraints, it is useful to compare the streetspace occupied by cars, buses, the proposed Bus Rapid Transit (BRT) and LUAS. see Figure 20. The street space taken by a 53m tram (to be used on the Green Line/LUAS CrossCity) carrying 75% of maximum passenger capacity (ie. 379), accommodates, at most

- 12 cars (assuming each car is 4.36m long), each of which carries 1.21 people during the morning peak 07.00-10.00 (see Appendix 4)
- 5 of the latest Dublin buses (each 10m long), each of which has a maximum passenger capacity of 93 people;
- 3 BRT vehicles (18m long) of the type proposed for Bus Rapid Transit (BRT), each of which has a maximum passenger capacity of 120 people;

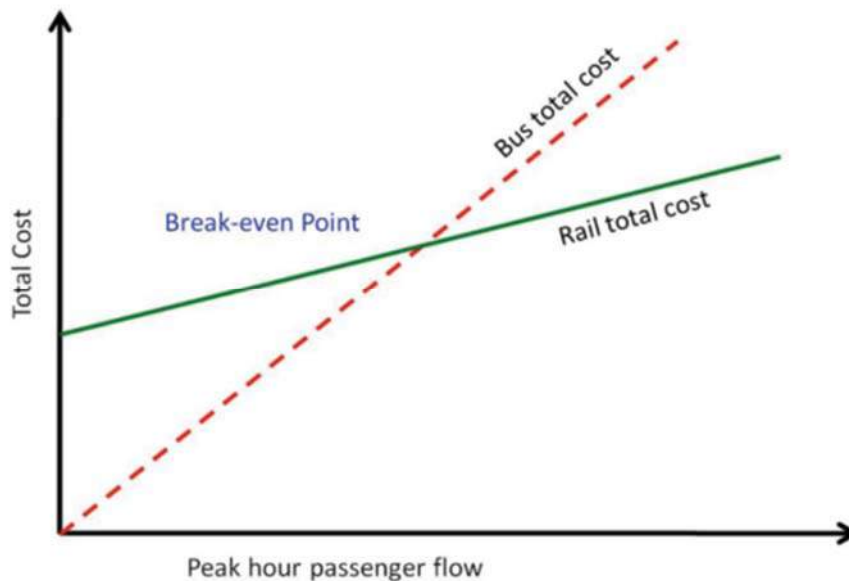
Figure 20 Passengers on one 53m LUAS tram compared with capacity of buses, BRT vehicles and cars using the same streetspace.



In practice, cars/buses/BRT vehicles take more street space as they cannot travel without some assured clear distance ahead between them for accident prevention... Thus this figure overstates the passenger capacity of these vehicles. Those analysing urban rail capacity only allow 75% of maximum vehicle capacity in assessing how many passengers can be carried per direction per hour (ppdph). (NTA /AECOM Fingal/North Dublin 2015 p.61). However driverless technology may make it possible for non-rail based vehicles to travel very close together. If so, they would resemble a long rail-based vehicle.

The higher investment cost in rail-based urban public transport is offset by the lower operating costs, in terms of staffing, vehicle life, etc.

Figure 21 Higher investment costs offset by lower operational costs over the full life cycle



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.21 p. 27

In considering the allocation of streetspace, air quality is important for pedestrians, cyclists and those who live/work on those streets. The current government consultation paper on clean air points out that *“Vehicle emissions are a key source of health impacts from a range*

of air pollutant including NOx, particulate matter, black carbon and VOCs particularly in urban areas. (DeptCCAIE 2017 p.34)

Electrically powered transport pollutes less at point of use. Electricity can be generated in many different ways. It is easier to monitor, control and mitigate the emissions from generation sources than it is from the 2.5m vehicles registered here, 80% of which are private cars.

The National Transport Authority/AECOM Fingal North Dublin Transport Study

The Capital Investment Programme cites this study as the basis on which NTA recommended that a revised metro be selected as the appropriate public transport project to address the transport needs of the Swords/Airport/City-Centre Corridor (NTA/ AECOM Fingal/North Dublin 2014, 2015)

In assessing options, the key criteria were City Centre-Airport journey times and capacity in terms of people per hour per direction (pphpd). No basis is set out for this assumption by reference to other studies that the NTA has done eg the NTA survey of Airport passengers or the Fingal Corridors study. Little or no account was taken of the travel patterns revealed in Table 5 or Table 1

There was relatively no emphasis on integrating with the existing LUAS services (eg. LUAS CrossCity at Broombridge) or developing options which linked to Howth Junction, served by both DART and north-bound commuter services. Metro North is yet another stand-alone non-interconnected railway project. It shows that our public authorities have not learnt from the experience of building two non-interconnected LUAS lines or from the era when railways were first built in Ireland.

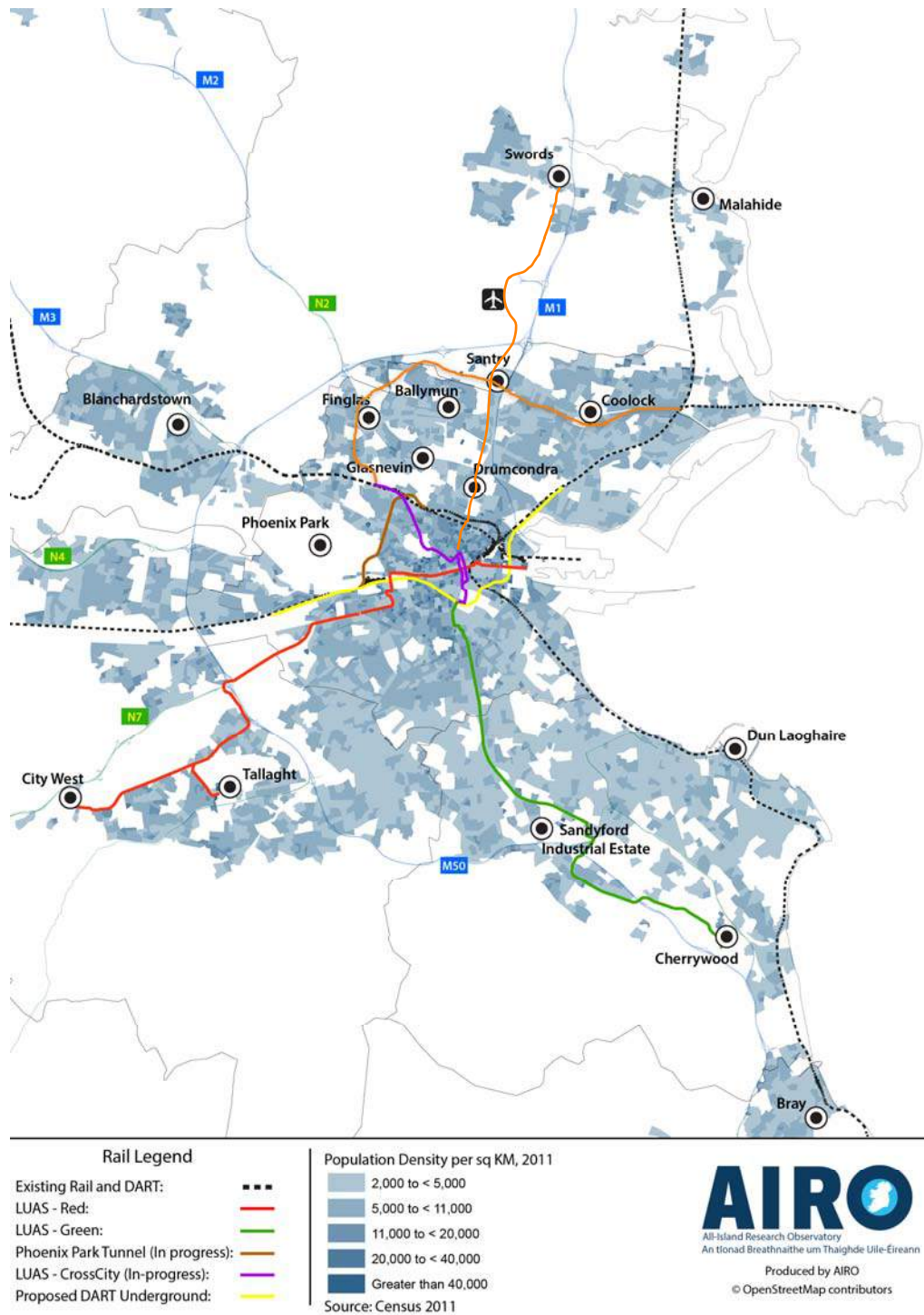
The public transport needs of those living and working in the north city part of Dublin's Core Economic area have not been studied

Conclusion

new Metro North emerged from an assessment process that had the fundamental objective of serving the City Centre, Dublin Airport and Swords (NTA/AECOM 2015 par 4.2.4 p. 37). In doing so, the public authorities gave far less weight to the patterns of travel that emerged from their own studies, the existing population and where Dublin's Economic Core in North Dublin actually is. The LUAS Loop proposed here can be phased in, with sections opening as they are completed. In this way, the long overdue enhancement of public transport in the north city part of our capital city will not be subject to an all or nothing approach needed for new Metro North.

To promote competitiveness and social cohesion, Dublin needs integrated and sustainable public transport. Achieving this needs quiet, consistent competence to bring working and living conditions to the levels of well-run European cities. It would be a start if our public authorities drew the appropriate conclusions from their own reports and invested accordingly.

Figure 22 A LUAS loop serving the north city population



References

An Bord Pleanála. 2010 .Board Direction on Metro North proposal as submitted by the Railway Procurement Agency (now merged with Transport Infrastructure Ireland). An Bord Pleanála. Ref: 06F.NA.0003 Board Direction approved on 22nd and 26th October 2010.

<http://cspwprdfc.cloudapp.net/documents/directions/NA0/SNA0003C.pdf> accessed 21

March 2017 (ABP 2010)

CIE/Aer Rianta. 1998. *Dublin Airport Air-Rail link Study. Final Report*. Dublin

Department of Communications, Climate Action and Environment. 2017. *Cleaning Our Air.*

Public Consultation to inform the development of a National Clean Air Strategy. Dublin.

(DeptCCAEE 2017)

Department of Public Expenditure and Reform. 2015. *Building on Recovery: Infrastructure and Capital Investment 2016-2021*. Dublin. (DeptPER 2015)

Department of Transport, Energy & Communications/Oscar Faber. 1996. *A Comparative Socio-Economic Evaluation of the Tallaght-Ballymun/Dundrum Light Rail Lines. Final Report*.

Dublin. (DeptTEC/Oscar Faber 1996)

Dublin City Council/National Transport Authority.2014. *Report on trends in mode share of vehicles and people crossing the Canal Cordon 2006 to 2014*. Dublin. (DCC/NTA 2014)

Dublin Corporation/Geoconsult-Arup JV. 1998 *Dublin Port Tunnel. Environmental Impact Statement. Volume 1*. Dublin. (DC/GA 1998)

Dublin Transportation Initiative. 1995 *Technical Volume 6 Light Rail Transit (LRT)*. Prepared by Steer Davies Gleave. Dublin Stationery Office. (DTI 1995)

Dublin Transportation Office. 2001. *A Platform for Change. Summary of an integrated transportation strategy for the Greater Dublin Area 2000 to 2016*. Dublin. (DTO 2001)

National Transport Authority. 2011. *Greater Dublin Area. Draft Transport Strategy 2011-2030 2030 Vision*. Dublin (NTA February 2011 Vision)

National Transport Authority. 2012. *Bus Rapid Transit (BRT) Core Dublin Network*. Dublin (NTA BRT 2012).

National Transport Authority. 2012. *Greater Dublin Area. Draft Transport Strategy 2011-2030 2030 Vision*. Dublin (NTA April 2012 Vision)

National Transport Authority. 2012. *Survey at Dublin Airport 2011*. Dublin (NTA Airport Survey 2011)

National Transport Authority. April 2012. *Draft Study of Transport Options for Fingal Corridors in advance of Metro North*. (NTA Fingal Corridors 2012). Unpublished. Obtained using Access to Information on the Environment Regulations

National Transport Authority. 2016 *Transport Strategy for the Greater Dublin Area 2016-2035*. Dublin. (NTA 2016)

National Transport Authority/AECOM. 2014 *Fingal/North Dublin Transport Study. Stage One Appraisal Report*. Dublin (NTA/ AECOM Fingal/North Dublin 2014)

National Transport Authority/AECOM. 2015 *Fingal/North Dublin Transport Study. Stage Two Appraisal Report*. Dublin. 2015 (NTA /AECOM Fingal/North Dublin 2015)

National Transport Authority/Jacobs Systra. 2015. *Draft Transport Strategy for the Greater Dublin Areas. North West Corridor Study. Version 4*. Dublin. (NTA/Jacobs Systra 2015)

National Transport Authority/Roughan & O'Donovan/AECOM/ARUP. 2014. *Swiftway Bus Rapid Transit. Swords/Airport to City Centre Route Options Assessment Volume 1 Main Report. Volume 2 Environmental Report*. Dublin (NTA Swiftway)

Roughan & O'Donovan 2006. *Metro North Transportation and Engineering Review. Final Revision*. Dublin (Roughan & O'Donovan 2006)

The Regional Planning Guidelines Office, Dublin Regional Authority Mid-East Regional Authority. 2010. *Regional Planning Guidelines for the Greater Dublin Area 2010-2022* (RPG 2010)

Transport 21. 2005 The then Minister for Transport, Martin Cullen TD announced Transport 21 on 1 November 2005 at a Press Conference.

Appendix 1

Fingal East and West

Using an Ordnance Survey map of Dublin Administrative Counties, District Electoral Divisions (DED) were allocated as follows (Number preceding each DED is that given the Census tables)

East Fingal

001 Airport, 002 Balbriggan Rural, 3 Balbriggan Urban, 004 Baldoyle, 005 Balgriffin, 006 Ballyboghil, 007 Balscadden, 018 Clonmethan, 019 Donabate, 020 Dubber, 021 Garristown, 022 Hollywood, 023 Holmpatrick, 024 Howth, 025 Kilsallaghan, 026 Kinsaley, 028 Lusk, 029 Malahide East, East Fingal (continued), 030 Malahide West, 031 Portmarnock North, 032 Portmarnock South, 033 Rush, 034 Skerries, 035 Sutton, 036 Swords-Forrest, 037 Swords-Glasmore, 038 Swords-Lissenhall, 039 Swords-Seatown, 040 Swords Village, 042 Turnapin.

West Fingal

008 Blanchardstown-Abbotstown, 009 Blanchardstown-Blakestown, 010 Blanchardstown-Coolmine, 011 Blanchardstown-Corduff, 012 Blanchardstown-Delwood 013 Blanchardstown-Mulhuddart, 014 Blanchardstown-Roselawn, 015 Blanchardstown-Tyrrelstown, 016 Castleknock-Knockmaroon, 017 Castleknock-Park 027 Lucan North, 041 The Ward

Appendix 2

Dublin's Economic Core Area

The map showing Dublin's Economic Core is based on the 2011 Census using the same methodology described in *Cormac Walsh, Brendan Williams and Ian Boyle Mapping the true extent of Dublin's functional urban region – What the best available evidence tells us.*

Posted 21 December 2010 on irelandafternama

<https://irelandafternama.wordpress.com/2010/12/21/mapping-the-true-extent-of-dublins-functional-urban-region-what-the-best-available-evidence-tells-us/>

Appendix 3

Fingal corridors

National Transport Authority. April 2012 Study of Transport Options for Fingal Corridors in advance of Metro North. April 2012. (NTA Fingal Corridors 2012) Unpublished. Obtained using Access to Information on the Environment Regulations

This study aimed to undertake an analysis of three key transport indicators as follows

- overall travel demand and the patterns of travel;
- Public transport versus car mode shares (for trips to the city centre)
- Public transport versus car mode times (for trips to the city centre)

The City Centre is defined as the area inside the canals, the Docklands and two Ballsbridge zones (just south of the canals) that include significant office based employment.

Balbriggan includes Skerries. Malahide includes Clongriffin, Portmarnock and Donabate.

Swords includes the town centre, the residential and industrial parts. Ballymun includes

Silloogue Park and Santry Demesne, both of which are in Fingal.

Using preliminary data from the 2011 Census and the latest CSO data on employment levels in the Greater Dublin Area, an estimate was made of the changes in travel demand for each of identified sectors.

Appendix 4

Car lengths

I have taken 4.36m as the average length of the top 10 selling passenger car models in Ireland during 2016. The top selling 10 cars account for 76% of total new registrations including imports.

Hyundai TUCSON 4.475m, Volkswagen GOLF 4.255m, Ford FOCUS 4.36m,

Skoda OCTAVIA 4.659m , Nissan QASHQAI 4.379m, Ford FIESTA 3.969m,

Toyota COROLLA 4.385m, Toyota YARIS 3.95m, Volkswagen PASSAT SALOON 4.767m

Kia SPORTAGE 4.44 m

Sources:

- 1) Society of the Irish Motor Industry (SIMI) Motorstats

<http://www.beepbeep.ie/stats?sYear%5B%5D=2016&sYear%5B%5D=&sRegType=1&sMonth%5B%5D=1&sMonth%5B%5D=12&x=48&y=10>

- 2) Data on each model – from motor manufacturer's websites.

Data on average occupancy of cars during the morning peak is given in

Dublin City Council/National Transport Authority. 2014. *Report on trends in mode share of vehicles and people crossing the Canal Cordon 2006 to 2014*. Dublin. (DCC/NTA 2014 p. 16)

Appendix 5

Submission (19 January 2015)

to

National Transport Authority

following publication for consultation

of the

National Transport Authority /AECOM

Fingal/North Dublin Transport Study

Stage One Appraisal Report

November 2014

19 January 2015

National Transport Authority
Dun Scéine
Harcourt Lane
Dublin 2.

Re. Fingal/North Dublin Transport Study
Stage one appraisal Report Nov 2014 produced by AECOM

A chara,

I call for this report to be rejected in full as

- The terms of reference set by the National Transport Authority are flawed
 - It excludes Blanchardstown, which is part of Fingal;
- The consultants fail to meet even these flawed terms of reference
 - eg. they ignore Finglas and Ashbourne which are part of the study area
- the report is seriously misleading in its presentation of options
 - it ignores the privately developed Metro East proposal of which the consultants doing this study were fully aware;
- the report is tendentious in its assessments of the options presented
 - the consultants developed at least one option of their own, but did not apply this policy to possible light rail options for North Dublin;
- the conclusions do not match the complete terms of reference.

This latest report continues the pussyfooting that the public authorities have engaged in for years as they persist in trying to placate the many feuding baronies now involved in public transport in our capital city. This report leaves a lot to be desired in terms of the quiet competence we need.

Dublin still needs the Drumcondra **CITY ACCESS TRANSIT CAT** which involves

1. Two mainly on-street light rail lines looped around the North City, including the Airport and Swords;
2. A Docklands loop linking the existing Green and Red on-street LUAS lines;
3. A light rail link from the proposed North Dublin loop to Howth Junction;
4. A complete redesign of bus services Dublin area;
5. Serious consideration to having another north-south road tunnel

instead of going ahead with the not-fit-for purpose Bus Rapid Transit between the City Centre-Drumcondra-Dublin airport- Swords

The public authorities must get a grip to ensure on this situation to ensure that our city achieves and sustains an internationally attractive place in which to live, work, play and visit.

I attach my submission.

Is mise



Donal O'Brolchain

Submission to National Transport Authority

on

Fingal/North Dublin Transport Study

Stage one appraisal Report Nov 2014 produced by AECOM

I call for this report to be rejected in full as

- The terms of reference set by the National Transport Authority are flawed;
- The consultants fail to meet even these flawed terms of reference
- the report is seriously misleading in its presentation of options;
- the report is tendentious in its assessments of the options presented;
- the conclusions do not match the complete terms of reference.

1. Flawed Terms of Reference

1.1. The terms of reference

On 23rd September 2014, the consultants (AECOM) invited me to meet them to discuss the Drumcondra CITY ACCESS TRANSIT(CAT) proposal. Prior the meeting which took place on 6th October 2014 AECOM sent (at my request) the terms of reference of the project¹

The Introduction and Background to these terms of reference are:

The National Transport Authority (the "Authority") is proposing the development of a Bus Rapid Transit (BRT) scheme along the Swords / Airport to City Centre corridor, with a projected opening year of 2017.

The purpose of this feasibility study is to assimilate the transport planning work previously carried out in relation to this sector of Dublin and to identify the appropriate long-term public transport solution along the general scheme corridor, which is represented by the area bounded by:

- R107 Malahide Road in the east (but including the Northern Rail line);
- Dublin City Centre (Grand Canal) in the south;
- R135 / N2 Finglas Road / North Road in the west; and
- Lissenhall Junction (on the M1 motorway) and Ashborne in the north.

References in this Schedule B to the "General Scheme Corridor" shall be taken to be references to the above defined area.

¹ Email from AECOM (Elaine Brick) 3rd October 2014

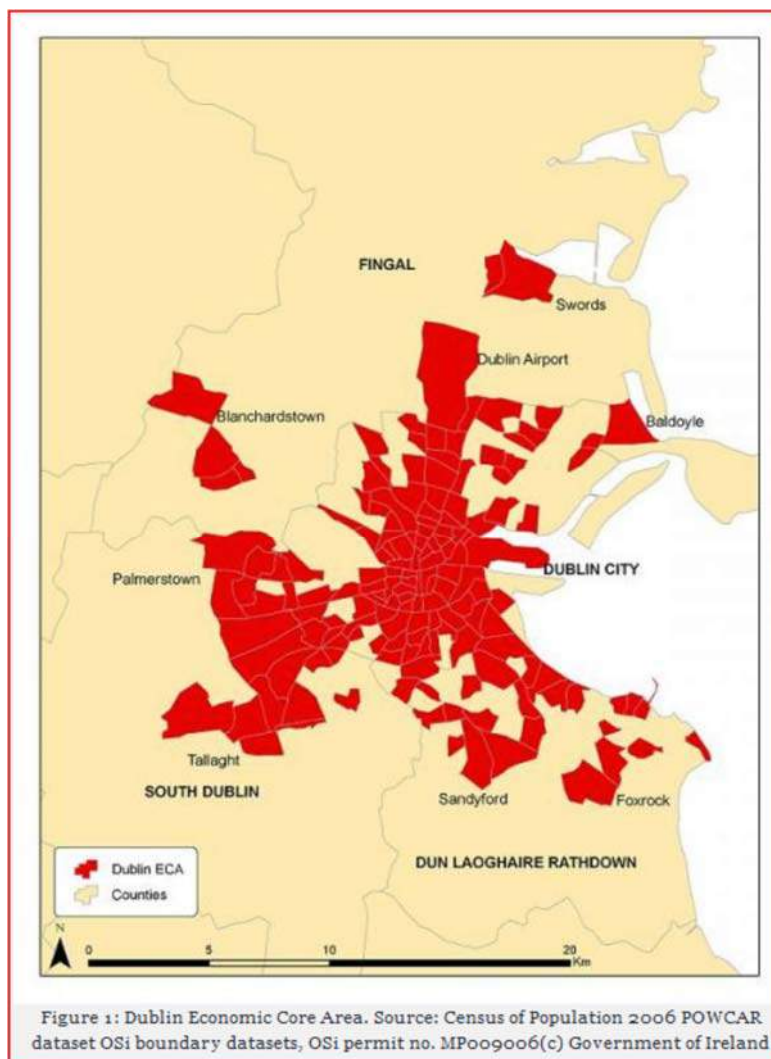
The focus of the study shall be the north south radial movements connecting the key origin / destination points in the General Scheme Corridor including connecting to and from Dublin City Centre. The horizon year for the study should be 2035.

The overall objective of the study is to identify the optimum medium term / long term public transport solution connecting to Dublin City Centre, which serves the key destinations in the General Scheme Corridor, including, in particular, Dublin Airport and Swords.

1.2. The major flaw in these terms of reference is that the focus is oriented to both Swords (one part of Fingal) and Dublin Airport.

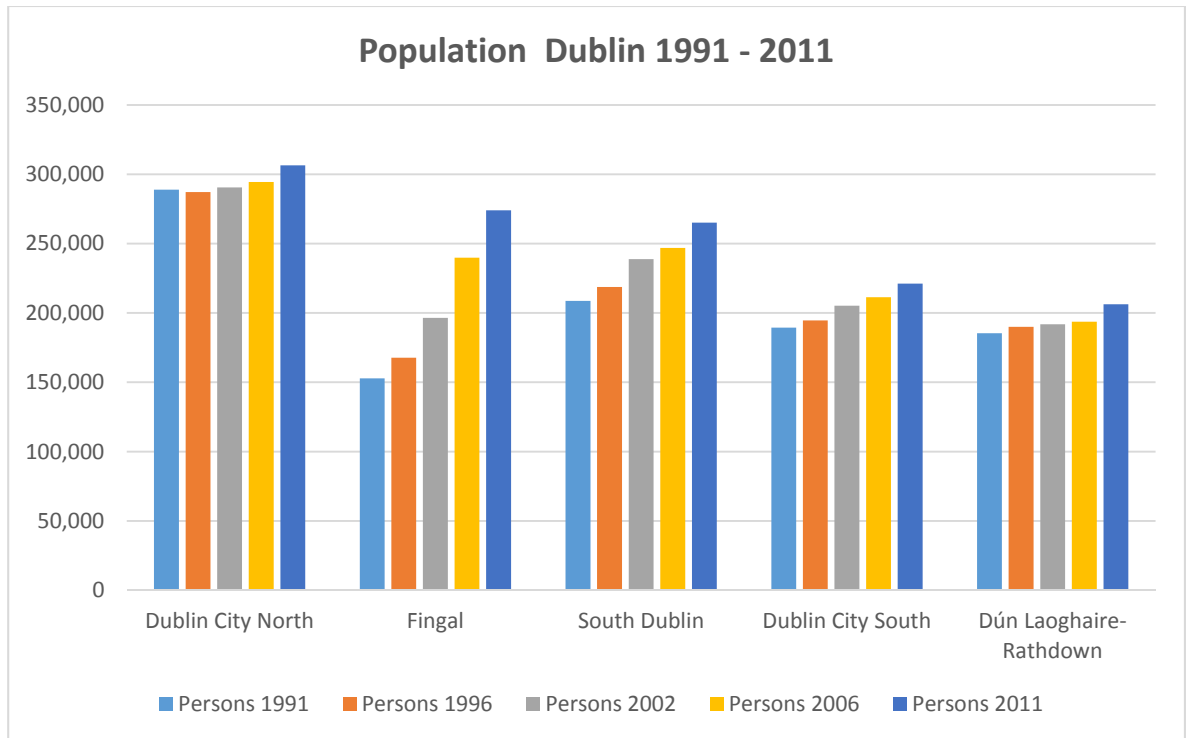
1.2.1. It is clear that this and other NTA studies have placed an exaggerated focus on Swords. It is clear that Swords is important. But is it any more important that other parts of Fingal eg. Blanchardstown which is not part of this study, even though it too is a major employment and residential part of Fingal?

1.2.2. It is highly debatable that Swords is uniquely and specially more important that the whole corridor between the City Centre and Dublin Airport as is clear from this figure



1.2.3. North Dublin City is and has been more heavily populated than South Dublin City, Fingal, Dun Laoghaire-Rathdown and South Dublin (see Fig. 1). By focusing on one corridor only, it limits consideration of how to optimise the modal shift to public transport in the complete North City in order to implement Government policy.

Figure 1 Population of North Dublin compared to other parts of Dublin 1996-2011



1.2. Basic Assumption does not make sense ie proposed Bus Rapid Transit(BRT) along the Swords/Airport to City Centre Corridor

Every map in the report shows a Bus Rapid Transit on the Swords-Dublin Airport-Drumcondra-City centre corridor. National Transport Authority studies show that this proposal is completely without merit. It is clear that the proposed Bus Rapid Transit will not meet the demand forecast on this “scheme corridor”.

The consultants (AECOM) were involved in a recent report (October 2014) which made that clear². This report shows that, with one exception, passengers forecast exceed the proposed BRT capacity even with the existing bus network still in place. This report assumes two separate BRT services south of the Airport, with maximum

² National Transport Authority Swords/Airport to City Centre. Route Options Assessment Volume 1 : Main Report (October 2014)
http://www.nationaltransport.ie/wp-content/uploads/2014/10/Route_Options_Assessment_Report.pdf

capacity of 2,700 ppdph. ie. 22.5 vehicles/hour on the Dublin Airport-Drumcondra-City Centre route, instead of the 15 vehicles/hour cited for BRT³. These lack adequate capacity for the passengers forecast ie.

1. 1,800 passengers per direction per hour (ppdph@4 minute frequency) is **exceeded by**
 - 40% in 2018 - the opening year for this proposed BRT;
 - 80% in 2033 – the forecast year.
2. 2,700 ppdph (@2.7 minute frequency) **exceeded by**
 - 22% in 2033 – the forecast year

while being

 - at 95% capacity in 2018, the opening year for this proposed BRT.

This assumes that the existing Dublin Bus Network remains in place. But is also states that **it anticipates that demand will increase following a re-organisation of Dublin Bus Routes**⁴. (my emphasis)

This follows an earlier National Transport Authority study which found

*It is on the northern section of this corridor – between Swords and the City Centre – that the high levels of demand arise. The southern section – Tallaght to City Centre – is within BRT capacity. This section of the corridor is common to the Clongriffin to Tallaght proposal which is dealt with in subsequent paragraphs. **Overall, the link between the city centre and Swords has demand levels that exceed the capacity of a moderate capacity BRT system, in the longer term. While BRT may provide an interim partial transport solution in the shorter term, a higher capacity rail solution, such as a metro system, will ultimately be required on this corridor. In light of this, the Swords to City Centre BRT section has not been progressed to the later costing and appraisal sections of this feasibility study report.***⁵ (my emphasis)

It is incredible that any public authority should decide to allocate public funds to study an option which their own study decided not to progress any further.

Why shoehorn a new transport system which cannot meet demand onto streets already shared with other transport systems?

³National Transport Authority Swords/Airport to City Centre. Route Options Assessment Volume 1 : Main Report (October 2014) Transport Demand Analysis (Summary tables 10.5 and 10.6 p. 187) gives the result for the opening year 2018 and the forecast year 2033 for 2 route options.

⁴National Transport Authority Swords/Airport to City Centre. Route Options Assessment Volume 1 : Main Report (October 2014) Transport Demand Analysis Summary tables 10.5 and 10.6 p. 187 footnotes.

⁵ National Transport Authority. Bus Rapid Transit Core Network Report. Oct 2012 p. 50

<http://www.nationaltransport.ie/wp-content/uploads/2011/12/Bus-Rapid-Transit-Core-Network-Report.pdf>

1.3. Strategic Context.

1.3.1. Modal Shift

Because the consultants worked with flawed terms of reference, it is clear that this report does not contribute to promoting Government policy which *favours modal shift away from private car use and promotion of public transport.*⁶

Furthermore the report points out that *“Modelling of passenger demand was not possible at this preliminary appraisal stage”*⁷

No explanation is given for this failure to comply with the terms of reference which set out clearly that such modelling is to be done.

The Consultant shall undertake transport modelling using the Authority’s GDA Transport Model to identify the transport impacts of the various identified options.

In utilising the Authority’s GDA Transport Model, the Consultant will be provided with access to the Authority’s model in the Authority’s offices. The model that will be used will be the NTA 2006 model which has been updated to reflect the current day transport network and 2011 matrices based on the 2011 POWSCAR data. However, the Consultant will be required to further check and refine the model in the vicinity of the Project corridor, focussing in particular on checking and ensuring that key junctions and road links along the corridor are correctly coded.

The Consultant shall model the current year scenario and a future assessment year of 2035 (or such other alternative year that may be agreed with the Authority).

The Consultant shall carry out do-nothing model runs (both the am peak period and the off-peak period) for the existing year to reflect the current situation and do-minimum model runs (am peak period and off-peak period) for the future assessment year, incorporating the above transport schemes.

Thereafter for each option under assessment, the Consultant shall carry out do-something model runs for each identified feasible transport option, comprising both the peak period and the off-peak period.

In respect of the base case do-something model runs, the Consultant shall do equivalent model runs for one alternative lower population/growth scenario and one alternative higher population/growth scenario. The Authority shall provide the model demand matrices to be used in these two sensitivity scenarios.

⁶ National Transport Authority AECOM Fingal/North Dublin Transport Study Stage One ~Appraisal Report November 2014. P.3

⁷ National Transport Authority AECOM Fingal/North Dublin Transport Study Stage One ~Appraisal Report November 2014. P.79

The failure to model passenger demand is puzzling, given that such modelling appears to have been done for other NTA studies which focused on this corridor. Is this an example of policy –driven evidence making?

1.3.2. Compatibility with Land Use planning policy

The key assumption (ie. existence of an inadequate BRT on the main corridor) in the terms of reference is further undermined by the uncertainty of the impact of BRT on land use distribution, which this report notes.

A further consideration is the extent to which different options have the capacity to deliver the required land use distribution. Land use decisions are made by private decision-makers, whether property developers or consumers such as house buyers or companies setting up commercial premises. While there is a general consensus that rail systems have land use impacts that ordinary bus services do not, it is not clear that this conclusion holds for BRT services.⁸

Given our experience in Dublin of the impact rail-based system on land use distribution, it is not using public monies to good effect that the acceptability of BRT is still maintained as an unquestioned assumption in this study.

2. Finglas/Ashbourne – ruled out although explicitly mentioned in terms of reference.

The consultants conclude by proposing an option (C1) which completely ignores Finglas and Ashbourne. This is flawed. It is highly questionable that the option proposed is based on the analysis contained in other parts of the report, tendentious though that analysis is.

They seem to have arrived at this conclusion by failing to be consistent in applying the same freedom to propose options that they seem to have done in respect of other possibilities. Examples of this are

- A heavy Rail link from Malahide to the Airport via Swords (option HR3. p.17-18);
- A heavy rail link from Maynooth Line (Broombidge) to Swrods via Airport (option HR7 p.27-28);
- A combination of bus rapid transit options (option BRT 5 p. 74-75)

⁸ National Transport Authority AECOM Fingal/North Dublin Transport Study Stage One ~Appraisal Report November 2014. P.78

3. Options Presented

3.1. Schemes presented for Appraisal – incomplete and misleadingly presented.

The report included 25 public transport options in what it termed its “sketch appraisal” (par 1.5. p. 5). These are listed on Table 1.2 (p.8). The report claims to present each in a similar format, including “details of the scheme promoter or developer” (p. 7).

The report also states that it held a workshop for key stakeholders on 27 August 2014 (p. 5). From Table 1.1 (p.5), it could be inferred that “Drumcondra 2005” was present at this workshop. Drumcondra 2005 was not present at this workshop. As one of those heavily involved in Drumcondra 2005, I only became aware of this work when I got an unsolicited letter from AECOM (dated 23rd September 2014) inviting me to present the Drumcondra CITY ACCESS TRANSIT (CAT) to AECOM. Following this invitation, I attended one meeting with AECOM on Monday 6th October 2014 (see agreed record of meeting attached in Appendix 1).

It is significant that the list of schemes in Table 1.2 (p. 6) omits the Metro East proposal which was presented by the promoters to AECOM at that meeting. This proposal was developed by the Howard brothers in 2005/6 as a response to the Metro North proposal. The Howards did not have any involvement whatsoever in Drumcondra 2005, at any stage.

3.2. Light Rail

In Section 3.0 of this report (on Light Rail p. 39), the report states

The following sections present a series of light rail options which have been proposed either by the RPA or AECOM for the study area and in general build on the planned LRT network for the City.

Despite the criteria which AECOM set out to describe each option, the consultants do not present who the promoters are for LR2 (Broombridge to Swords via Dublin Airport and Finglas see. P.42-43) and LR3/4/5 (Route Options for LUAS Line D2).

This failure to explicitly follow their own criteria leaves a lot to be desired. No promoters are given for

- Seven (7) of the 10 Heavy Rail options reviewed;
- All of the 5 BRT options reviewed;
- One of the 6 Light rail options reviewed.

As set out above, the consultants did not describe or separately assess the Metro East light rail proposal developed by the Howard brothers.

4. Assessment of light rail options to Airport through Drumcondra, including Metro East and City Access Transit(CAT) is tendentious

4.1.Cast of mind

In assessing Light Rail options, AECOM has

- Completely ignored the Metro East proposal,
- Chosen to assess only one aspect of the Drumcondra CAT;

neither of which were proposed by RPA or AECOM. which was stated be a criterion fore assessing light rail projects.as set down on p. 39;

- Not developed any Light Rail option on their own initiative, as they did for one Heavy Rail option (HR3 p. 17-18) and also for

4.2.Metro East

- 4.2.1. During the period 2005-2006 Michael J. Howard and his brother developed this proposal for a light rail linking the City Centre, Drumcondra, Whitehall, Coolock, Clonshaugh and Dublin Airport. In doing so, they employed the services of professional engineering companies (ie. Roughan and O'Donovan), experienced town planners and others. Drumcondra 2005 was not involved in any stage of this process nor to my knowledge, was anyone previously active in Drumcondra 2005.
- 4.2.2. This resulted in a seriously developed proposal which was documented. This resulted in meetings with the Railway Procurement Agency(RPA) which was then heavily committed to Metro North. As far as I know, the Howards submitted this proposal to An Bord Pleanála for consideration during the Bord's assessment of the original Metro North proposal (see LR6 p.51-55).
- 4.2.3. When AECOM invited me to present the Drumcondra CAT , having asked AECOM staff if I could ask others (unspecified) to join me, I asked the Howards to join me for the meeting in AECOM offices (Grand Canal Street) on Monday 6th October 2014.
- 4.2.4. During that meeting, Micheal Howard outlined the Metro East proposal to AECOM staff. He also handed over a copy of the full Metro East proposal and another document given the RPA at that time to the consultants. This is noted in the record of that meeting (see Appendix 2)
- 4.2.5. It is completely unacceptable that AECOM did not consider this proposal, on its own, in compliance with the terms of reference for this study. This suggests a lack of professionalism which does not do support the credibility of this report.

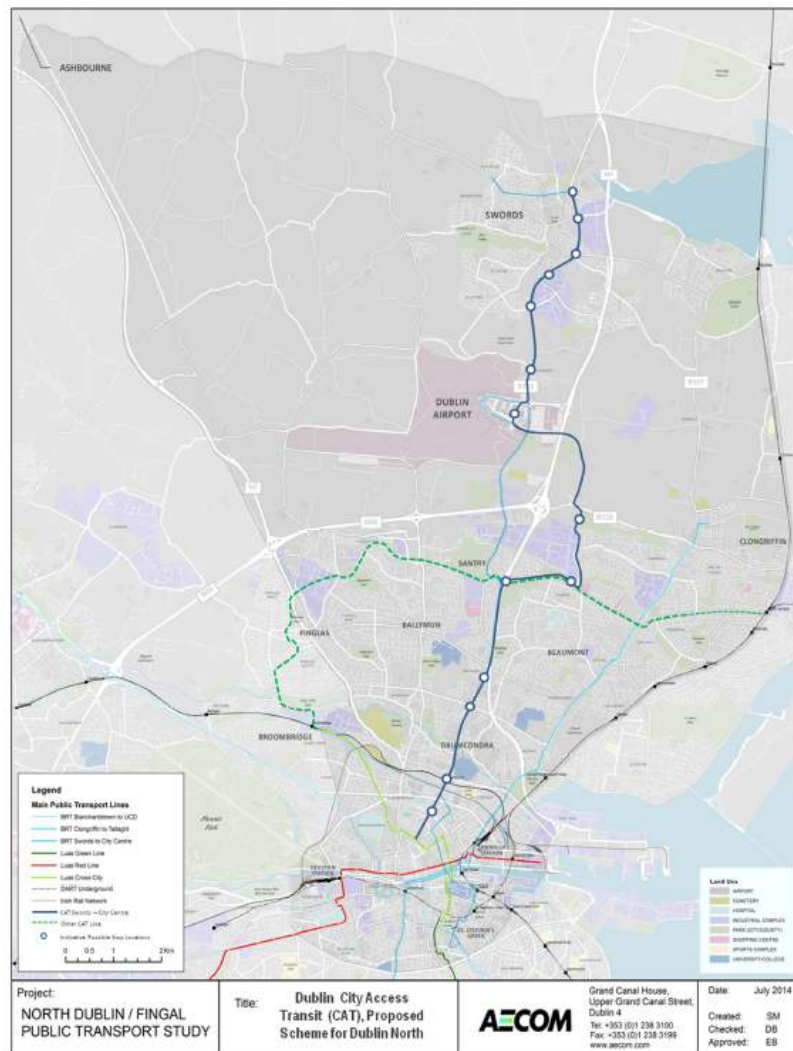
4.3. Drumcondra CITY ACCESS TRANSIT (CAT)

- 4.3.1. In March 2001, the Strategy Development Unit of the then Light Rail Project Office published an invitation for written submissions on the Dublin Light Rail (LUAS) and Metro Systems (attached in Appendix 2).
- 4.3.2. In May 2001, I submitted the Drumcondra CAT in response to this invitation. From the signatures of those then involved in Drumcondra 2005 (all dated between 14 and 20 May 2001), it is clear that this proposal was made long before there was any public mention of Metro North.
- 4.3.3. Prior to the October 2014 meeting, I sent the text of the 2001 Drumcondra CAT submission to AECOM (see Appendix 3).

4.4. AECOM description and general assessment of Drumcondra CAT.

- 4.4.1. The consultants have considered this as LR8 described in par. 3.12 (p. 80) together with a map (p. 61) which I agreed with AECOM (see emails in Appendix 4)..

Figure 3.9: LR8 – City Access Transit (CAT)



4.4.2. From the preceding paragraphs, it is clear that the consultants were aware of the date and origins of this proposal. Yet the report states that it was proposed as an alternative to Metro North, which was not in the public domain when CAT was proposed in the spring of 2001.

4.4.3. Furthermore, the consultants do not describe the proposed CAT accurately. They describe what I considered to be an integral part of the proposal as *a secondary routing in order to link the Finglas and Ballymun areas to the wider public transport network, through a further extension of the Luas Cross-City at Broombridge (Liffey Junction)*. (par. 3.12.2). Note that the LUAS Cross City proposal was not in the public domain in the 2001, when CAT was proposed. This clearly misrepresents the following part of the CAT proposal ie. *CAT serves Dublin Airport directly. It does so from two directions, as the Airport is on a loop. One part of this loop is mostly off street ie. from Harold's Cross to the Airport via Rathmines, Ranelagh, Tara Street, Broadstone, Cabra, Finglas. This would make it easy to run express and/or limited stop services to/from the Airport. This means a predictable travel time to and from the Airport. It shortens the total journey time, including the time spent looking for parking at Dublin Airport. CAT gives people another option on the cost and inconvenience of Airport parking.*

4.4.4. The consultants chose to confine their assessment of CAT to what they termed *The primary corridor, via Drumcondra, meets the brief in that it links the City Centre with the Airport and Swords. Therefore only the primary route would be considered as part of this assessment.* (par 3.12.2 .p.59). This statement

- ignores the brief which was clear that the study area was bounded by R135 / N2 Finglas Road / North Road in the west;
....and Ashbourne – which is on the N2 to the north;
- is not compatible with their consideration of some light rail(LR1 and LR2) and heavy rail projects (HR 7) which are not on what they chose to call the *primary route*.

4.5. Other options

4.5.1. **Why did the consultants choose to confine the assessment of Drumcondra CAT to one corridor instead of doing what they had chosen to do in respect of both heavy rail and bus rapid transit options ie. create and assess new light rail options?**

4.5.2. The consultants clearly had the freedom to assess any options, including those that they developed on their own initiative. This is clear from option HR3 (p. 17) which was *developed by AECOM*. Having

- assessed a Light Rail option connecting Broombridge to Swords via Dublin Airport and Finglas (LR2. p. 42);
- mapped the Drumcondra CAT option (LR8 p. 61) in such a way that it would not take any significant effort to combine it with Option LR2 (see map above);

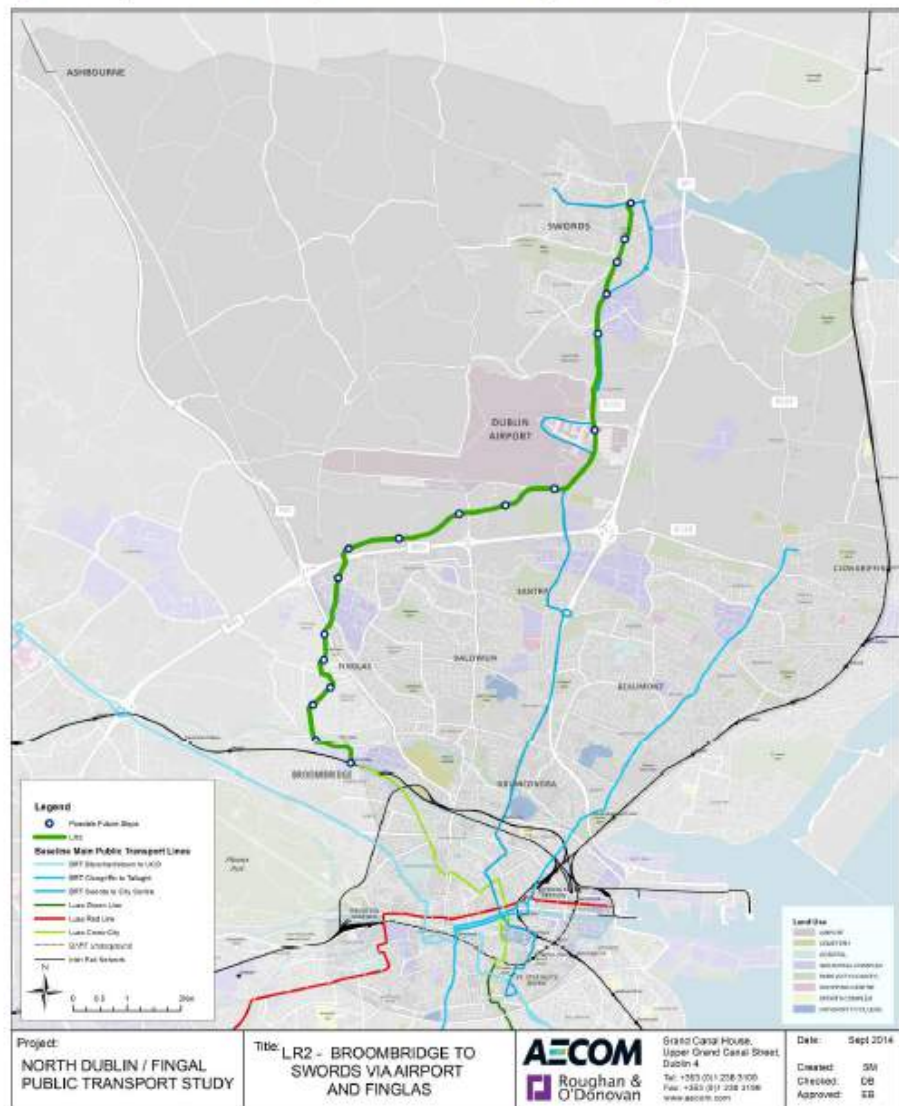
why did the consultants not develop their own light rail option, given the data available in

- the 1996 Oscar Faber study of alternative options for light rail in North Dublin
- the Metro North work of the RPA;
- the Metro East report prepared by Howards;
- studies done in connection with BRT?

AECOM

National Transport Authority
Fingal / North Dublin Transport Study

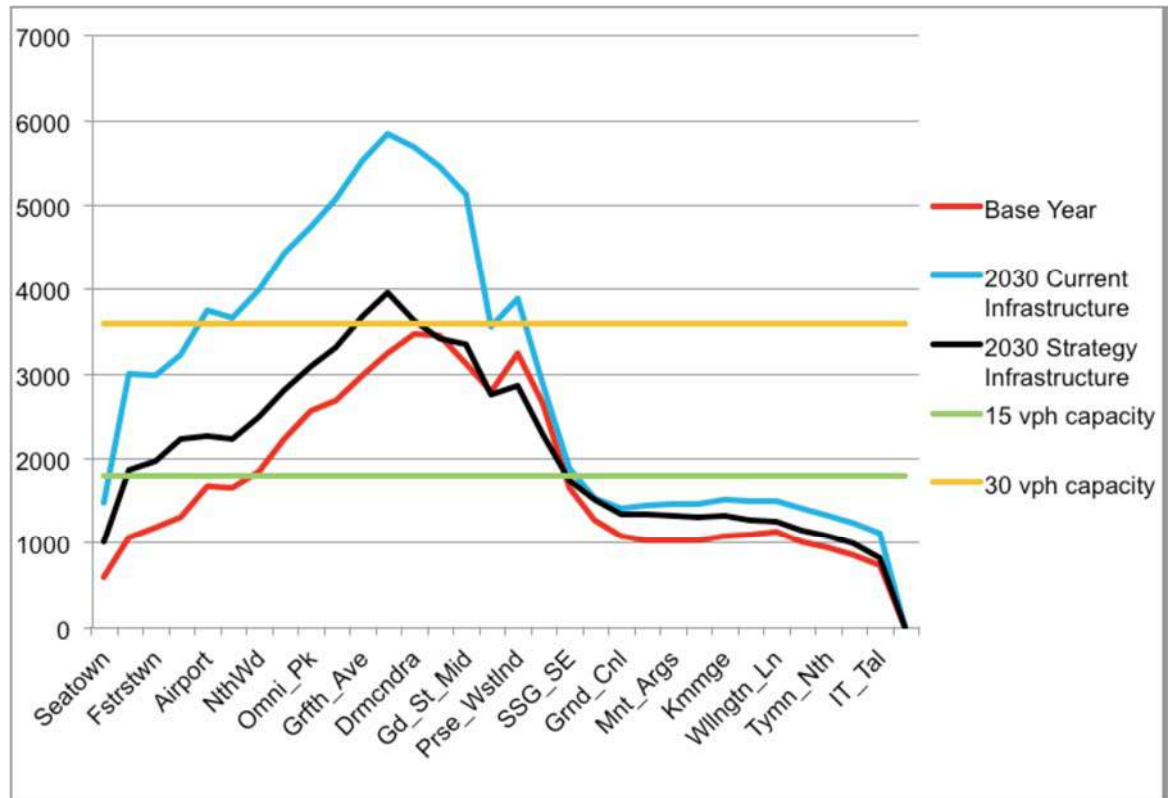
Figure 3.3: Option LR2 Broombridge to Swords via Dublin Airport and Finglas



4.5.3. Other NTA studies (including at least one in which AECOM was involved) have reported on work done on the Swords-Airport-Drumcondra- City Centre route. Why then does AECOM refuse to use this work to assess the Drumcondra CAT proposal?

4.5.4. These studies (eg. the BRT Core Network Study) show clearly that there is a very high potential passenger demand for public transport on the City Centre-Drumcondra-Dublin Airport corridor. This is shown clearly by the following taken from that study

Figure 2 Transport Demand City Centre-Drumcondra-Dublin Airport-Swords



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Figure 37 p.50⁹

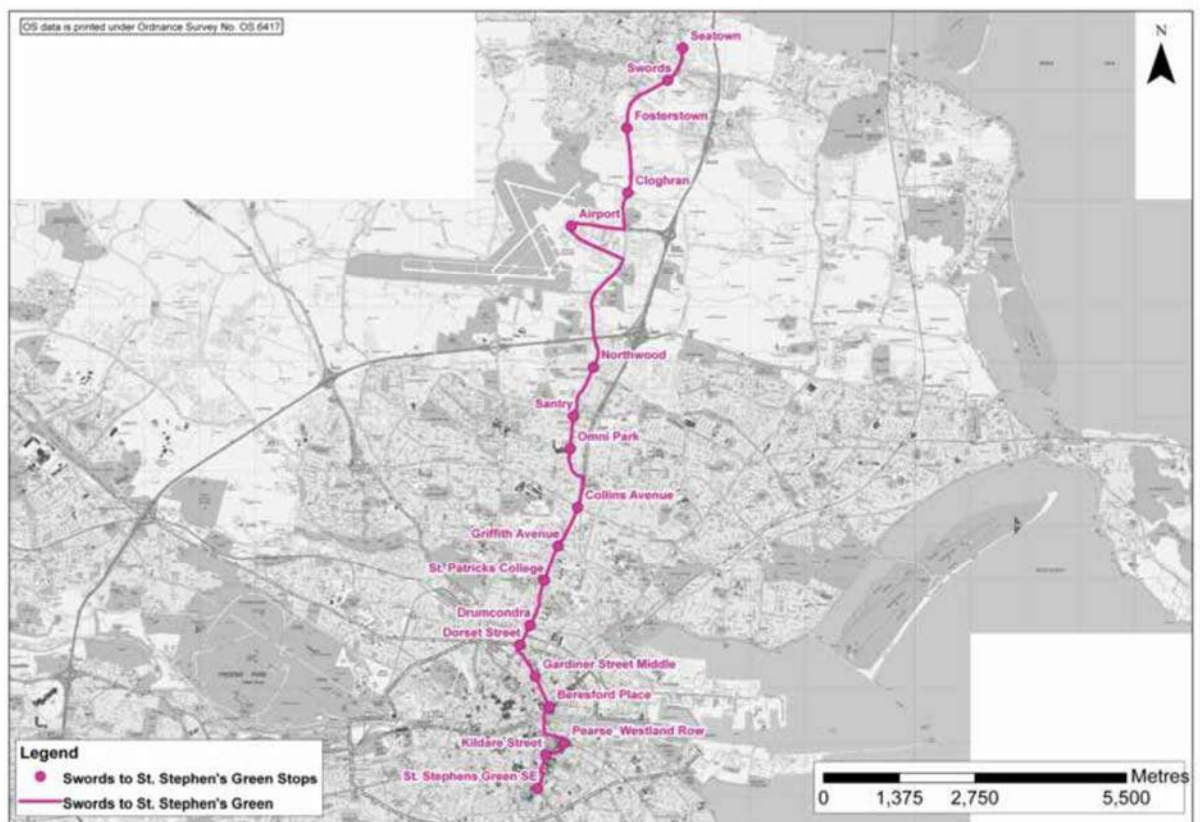
⁹ <http://www.nationaltransport.ie/wp-content/uploads/2011/12/Bus-Rapid-Transit-Core-Network-Report.pdf>

Table 1 North Dublin Passenger Demand

Alignment	Scenario	Peak Lineflow	% above 15vph Capacity (1,800)	% above 20vph Capacity (2,400)	% above 30vph Capacity (3,600)	AM Peak Boardings
Blanchardstown to UCD	Base Year	3,369	87%	40%	-6%	9,482
	2030 Curr Inf	3,877	115%	62%	8%	14,577
	2030 Strategy Inf	2,564	42%	7%	-29%	11,838
Swords to Tallaght	Base Year	3,482	93%	45%	-3%	17,224
	2030 Curr Inf	5,845	225%	144%	62%	22,120
	2030 Strategy Inf	3,963	120%	65%	10%	17,828
Clongriffin to Tallaght	Base Year	2,754	53%	15%	-24%	11,899
	2030 Curr Inf	3,954	120%	65%	10%	14,618
	2030 Strategy Inf	3,638	102%	52%	1%	12,792

Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012.
Figure 41 p.53¹⁰

Figure 3 BRT route proposed for which passenger demand has been assessed



¹⁰ <http://www.nationaltransport.ie/wp-content/uploads/2011/12/Bus-Rapid-Transit-Core-Network-Report.pdf>

¹⁰ <http://www.nationaltransport.ie/wp-content/uploads/2011/12/Bus-Rapid-Transit-Core-Network-Report.pdf>

Extract from NTA BRT Core Network Report

In general it can be said that higher investment costs in LRT are offset by lower operation costs.

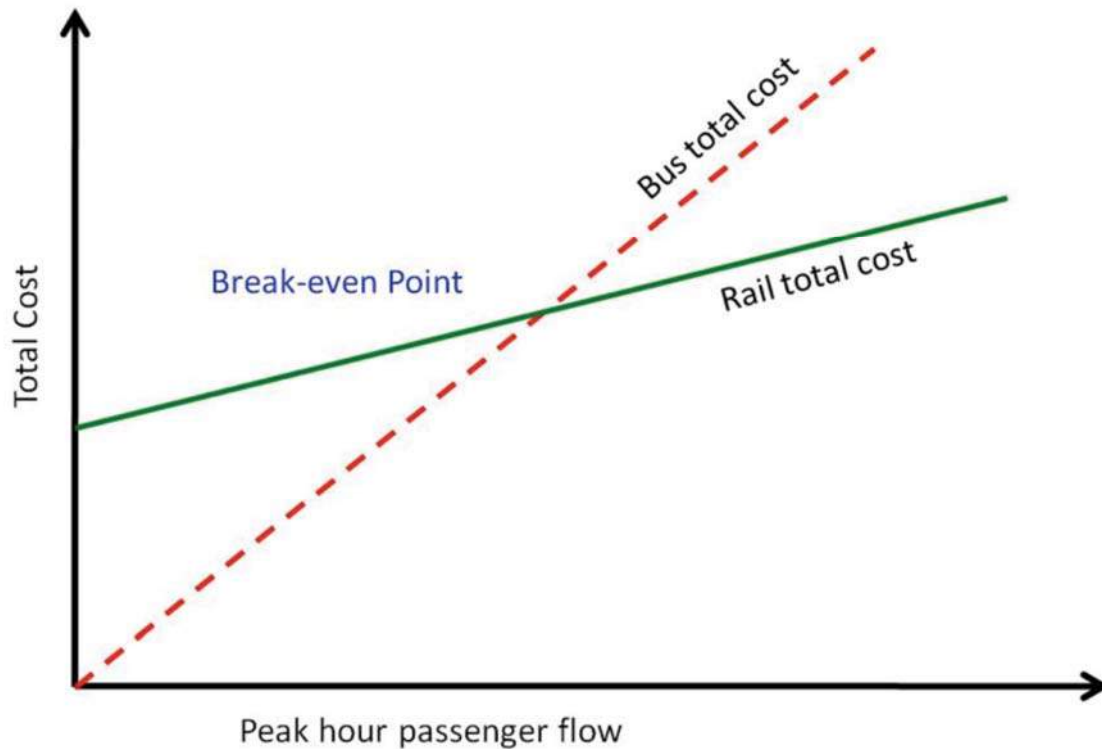
When choosing the appropriate mode for particular corridors efficient ratios of passengers per driver result in lower operation costs. The driver numbers are dictated by the number of vehicles required to operate the system, and this is directly proportional to the capacity of the vehicles proposed. For example, to carry 10,000 ppdp in the order of 90 bus drivers would be required against 30 tram drivers for LRT versus 10 metro drivers.

Figure 21 illustrates that if demand justifies it, higher investment costs will be offset by lower operating costs over the full life cycle.

Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. p. 26-7¹¹

¹¹ <http://www.nationaltransport.ie/wp-content/uploads/2011/12/Bus-Rapid-Transit-Core-Network-Report.pdf>

Figure 4 Public Transport Passenger Demand versus Cost



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.21 p. 27¹²

With this wealth of data from authoritative sources, it is simply incredible that the consultants did not propose an additional light rail option along what the *central corridor* as an alternative to the clear inadequacies of the proposed BRT. As the German writer Brecht put it.

Intelligence is not to make no mistakes, but quickly to see how to make them good

It is extraordinary that the overview appraisal table on 8 Light Rail options (Table 7.2 p.91) shows all options for light rail to have high degrees of natural heritage/environmental constraints. This assessment is not supported by the descriptions of these light rail options on p.38-81.

Dublin Airport

Similar consideration apply to the way in which Dublin Airport is described (eg. par 3.9.3 p. 46). It is noted that a one-way LRT loop could be looked at. Surely, this should be looked at, even if it does result in a reduction of some road capacity. If the aim is to promote modal shift, then reducing road capacity is normal when road

¹² <http://www.nationaltransport.ie/wp-content/uploads/2011/12/Bus-Rapid-Transit-Core-Network-Report.pdf>

space is allocated to cyclists (eg. along the Grand Canal in Dublin), QBCs, LUAS and even the proposed BRTs.

In a lecture in Dublin in June 1999, the then Deputy director of the Zurich Transport Authority noted that

The future of urban transport policy lies not in expansion but in the intelligent use of existing traffic areas. The objective of ensuring mobility for people when travelling to work and shopping and during leisure time requires imaginative urban traffic management based on modern information technology.

In deciding to the Drumcondra CAT in the way chosen, the consultants assert that *the route is relatively circuitous...leading to journey times in the area of 1 hour from the City Centre to the Airport. This could not provide a competitive service as journey times are expected to be in the region of 40 minutes by bus and 20 minutes by taxi (par. 3.12.6 p. 60).*

While this may be true, it should be noted that an NTA study of Dublin Airport found that

- Three quarters (75%) of all trips were either for holiday/leisure (nearly half) or visiting friends/relatives (over one-quarter) (see fig. 5).
- Less than one quarter of the trips originated in City Centre (23%)(see Fig. 6). Even if one includes other areas of Dublin, just over 40% of Airport trips could be originating in the business districts of Dublin City.¹³

This suggests that the vast majority of passengers using Dublin Airport may not be very time-constrained in how they access the Airport. As the consultants point out, those that are time-constrained have the option of using taxis.

In summary, the consultants ignore other evidence available in the public domain. This is simply not an acceptable basis on which to assess public transport options for North Dublin.

¹³ <http://www.nationaltransport.ie/wp-content/uploads/2012/04/NTA-Survey-at-Dublin-Airport-20112.pdf>

Figure 5 Dublin Airport Passengers. Purpose of trips.

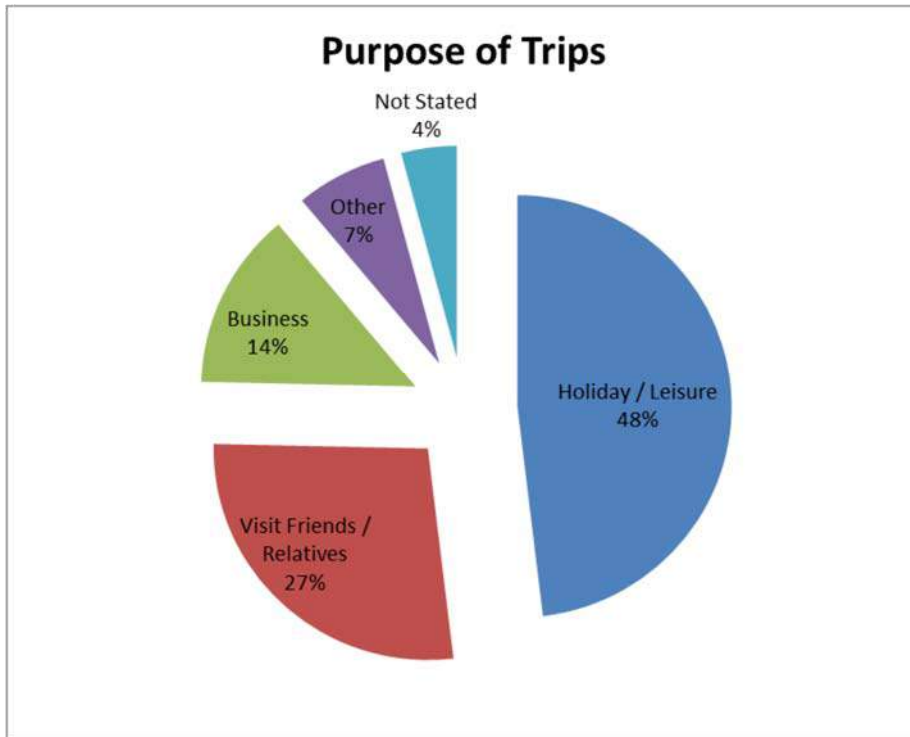
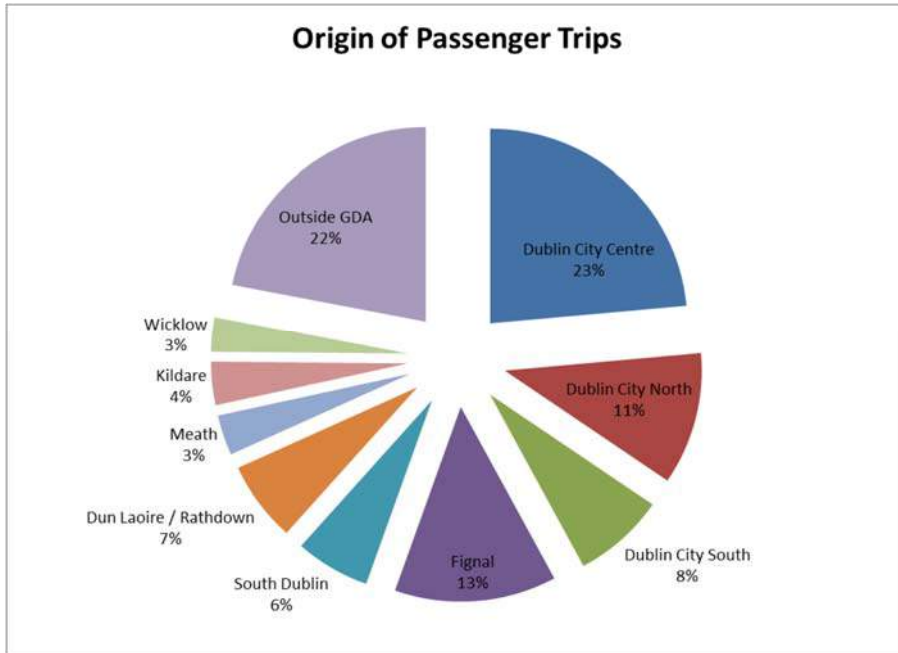


Figure 6 Dublin Airport Passengers. Origins



4.6. Other considerations

4.6.1. The assessment of *Infrastructural considerations* (par 3.12.3 p. 59) leaves a lot to be desired.

It is strange that a study aimed at implementing a government policy to promote modal shift states that *“The implementation of a light rail scheme along this route would require the full removal of the QBC/BRT lanes along Dorset Street and Drumcondra Road, and would also require the removal of (mainly) right turning facilities at many junctions. While physically possible to provide the LRT route along this corridor the traffic impact would be significant, particularly for local movements due to the reduction in the number of turning facilities.*

NTA studies on BRT on this route (in which AECOM has been involved) show clearly that BRT capacity is not fit for purpose on this route, which is heavily congested. Yet, there has been little acknowledgement that the implementation of the inadequate BRT would also give rise to constraints and costs, similar to those needed for a light rail option to be installed on this corridor.

These assertions do not suggest that public funding is being used to good effect on this project or on a previous NTA sponsored project on which these consultants (and others) worked ie. BRT Swords/Airport to City Centre Route Options Assessment October 2014. This report blandly states that *As the route south of Santry to the Royal Canal (F1) is a fixed section where no feasible alternative exists, the ‘Stage 2’ assessment considers Santry route options only.*¹⁴

It is extremely puzzling that the proposed BRT (which is not fit for purpose) is not subject to the same level of analysis as the consultant applied to the Drumcondra CAT and also LR 5 (par 3.9 p45-47, 49).

4.6.2. There is also another statement that does not bear comparison with practice elsewhere ie. *In addition, the trees along this section of the route would be negatively impacted by the overhead cables and the possible widening of the carriageway.*

- Why is that the widening of the carriageway on this corridor is not needed for BRT?
- Where else in Dublin has the corridor been widened to accommodate on-street LUAS/light rail?

¹⁴ NTA and others. Swords/Airport to City Centre. Route Options Assessment volume 1: Main Report (page 100). Oct 2014 http://www.nationaltransport.ie/wp-content/uploads/2014/10/Route_Options_Assessment_Report.pdf

- Why can Helsinki have light rail on narrow tree-lined streets shared with other traffic as shown the following photographs?
- Are those who govern us and the consultants they employ incapable of the same degree of care and attention to the provision of fit-for-purpose public transport as those who govern another small country at another edge of Europe?

Figure 7 Helsinki Light Rail 1



Figure 8 Helsinki Light Rail 2



Figure 9 Helsinki Light Rail 3



4.6.3. It lacks merit to assert that *Construction impacts on Dorset Street and Drumcondra Road would be very significant as space to facility diverted traffic is not available over much of its length.* (par 3.12.4 p. 60). This simple assertion shows a lack of attention to the possibilities of using routes for diverted traffic while the means to promote modal shift are put in place eg.

- *Dublin Port Tunnel;*
- *Malahide Road;Clontarf and Alfie Byrne Roads*
- *Ballymun Road and Botanic Avenue*
- *Even the M50 for south Dublin bound traffic.*

Appropriate city-wide traffic management could lessen the inconvenience of having to divert traffic by eliciting the co-operation of other public authorities.

- Tolls throughout Dublin could be dropped during the construction period;
- Public transport fares could be moderated to give people options on how they travel and even when they travel.

It is significant that the proposed cross-city on-street BRT routes are not subject to the same comments, particularly when they converge on the city centre.

4.6.4. It is not acceptable that this report assumes that a light rail on this route would be *central running*. No basis is given to support this assertion. It is completely unprofessional to overlook our experience of light rail lines in Dublin city centre. LUAS is not constrained by *central running* on

- Abbey Street;
- Harcourt Street;
- Stephen's Green;
- LUAS Cross City now being built eg. Dawson Street, O'Connell Street.

Conclusion

Dublin still needs the Drumcondra [CITY ACCESS TRANSIT CAT](#) which involves

1. Two mainly on-street light rail lines looped around the North City, including the Airport and Swords;
2. A Docklands loop linking the existing Green and Red on-street LUAS lines;
3. A light rail link from the proposed North Dublin loop to Howth Junction;
4. A complete redesign of bus services Dublin area.

Only thus can Dublin become easier to move around in for all those who live and work in here in addition to those who visit our capital city for business or leisure or some other reasons.

This latest report continues the pussyfooting that the public authorities have engaged in for years as they persist in trying to placate the many feuding baronies now involved in public transport in our capital city. This report leaves a lot to be desired in terms of the quiet competence we need.

The public authorities must get a grip to ensure on this situation to ensure that our city achieves and sustains an internationally attractive place in which to live, work, play and visit.

Appendix 1.

Agreed Record of meeting with AECOM Monday 6th October 2014

Meeting with AECOM 2pm Monday 6th October 2014
Grand Canal House, Grand Canal Street Upper, Dublin 4

Report

Present: Joe Seymour, AECOM (JS)
Dónal Ó Brolcháin (DÓB)
Tom Coffey (TC)
Michael N Howard (MNH)
Michael J Howard (MJH)
Brian MacEochaidhin (BMacE)
John Roden (JR)

The meeting arose from an invitation from Ms. Elaine Brick, Associate Director, Transportation, AECOM to DÓB to present the City Access Transit (CAT) proposal.

As Ms. Brick was unable to attend, Joe Seymour (JS), Regional Director, AECOM, took the meeting, as he is Project Manager for the study AECOM is currently carrying out into public transport options for the North Dublin area on behalf of the NTA.

DÓB introduced himself, followed by the others who joined the meeting at Donal's invitation, following Elaine's prior agreement.

JS explained the scope of the current AECOM study, which is focussed on public transport options between Dublin City Centre, Dublin Airport and Swords. He stated that all possible options were being considered, across all transport modes, and that so far his team had identified 24 different options.

These were being developed at a general, conceptual level. By Nov 2014 they hope to have narrowed these down to 5 or 6 routes, with a "Preferred Option" selected by early 2015.

Options included variations to the Metro North proposal, "light metro", heavy rail, light rail, bus rapid transit, and indeed a combination of modal options. Many different routes are also being considered.

JS acknowledged that the Swords – Airport – City Centre BRT route being currently developed by the NTA (upon which public consultation is to begin in the next two weeks) is only a short-term solution, in its current form, but a larger scale BRT is part of the options being considered for medium to long term solution. AECOM's current work was on developing medium- to long-term solutions in this area.

JS indicated that their work assumes the introduction of the DART Underground project. BMacE asked if their interpretation of this included the proposed heavy rail link to Dublin Airport, and JS responded that it did not.

DÓB then presented the Drumcondra City Access Transit (CAT) proposal. This presentation showed how the NTA's own data indicated that a BRT scheme did not have adequate capacity for the passengers projected on the Swords – Airport – City Centre corridor. DÓB's view is that this calls for two new LUAS lines looped around the northside. This loop would continue from the LUAS CrossCity terminus at Broombridge to take in Finglas, Charlestown, Ballymun, Santry, Clonshaugh, Coolock and back to the city centre via Whitehall and Drumcondra. There would be a spur to Dublin Airport and Swords as well as another to link with DART and Commuter services at Howth Junction. This would serve people in Dublin's north city, as well as Dublin Airport passengers and staff. The presentation emphasised, using previous DTI and DTO data, how similar LUAS proposals have been in existence for many years, and yet have been repeatedly ignored by government.

The presentation highlighted the ongoing transport void in the Dublin north city area, which has the highest number of people in the Dublin area and has had for the last 20 years. It also showed that because only 14% of Airport trips were business-related, a dedicated high-speed metro-standard link was not actually required, and that LUAS would be a far better fit for City Centre – Airport journeys. [Other options exist for those who need fast access to the Central Business District and IFSC.](#)

MJH presented the Metro East proposal, developed in 2005/2006. This proposed a route from the City Centre through Drumcondra to Whitehall, Santry, Kilmore, Clonshaugh, the Airport and Swords. This privately funded proposal includes economic, land use and engineering data they had commissioned at the time, from Roughan O'Donovan and other consultants. (JS commented they often worked with them). MJH gave JS a copy of the Proposal, accompanied by a Submission made to the RPA at the time.

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Concerned that AECOM may be focussing on a narrow "single corridor" approach, BMacE commented that the strong message coming through was that both the Beaumont / Kilmore / Clonshaugh and Ballymun / Finglas areas had to be served by high-quality public transport and that the standard approach was to consider a core route with one or more branches, a core route with a loop, or two or more distinct routes, rather than trying to follow a "one size fits all" approach.

JS asked DÓB about disruption in Drumcondra caused by LUAS construction. DÓB pointed out that there will always be objections and outlined his experience of [campaigning, on behalf of residents' associations, for the Dublin Port Tunnel project.](#)

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TC outlined how the Dublin City Business Association (DCBA) (from which he has recently retired) supported on-street LRT from its inception. DCBA looked beyond the short-term disruption caused by its construction to the great benefits it conferred on retailers [and life in the city centre](#). He also explained how younger people, especially today, were becoming more urbanised, preferring to live in cities like Dublin, or emigrating abroad, and more and more did not need or want access to cars in urban areas, preferring instead high-quality public transport and taxis.

There was further discussion on additional routes for northside LUAS, such as linking the proposed line through Drumcondra, Whitehall, Kilmore and Clonshaugh to the Airport with Howth Junction via Oscar Traynor, Tonlegee and Kilbarrack Roads.

BMacE also circulated an outline map that synthesised the CAT and Metro East proposals, illustrating how these could be implemented in LUAS form.

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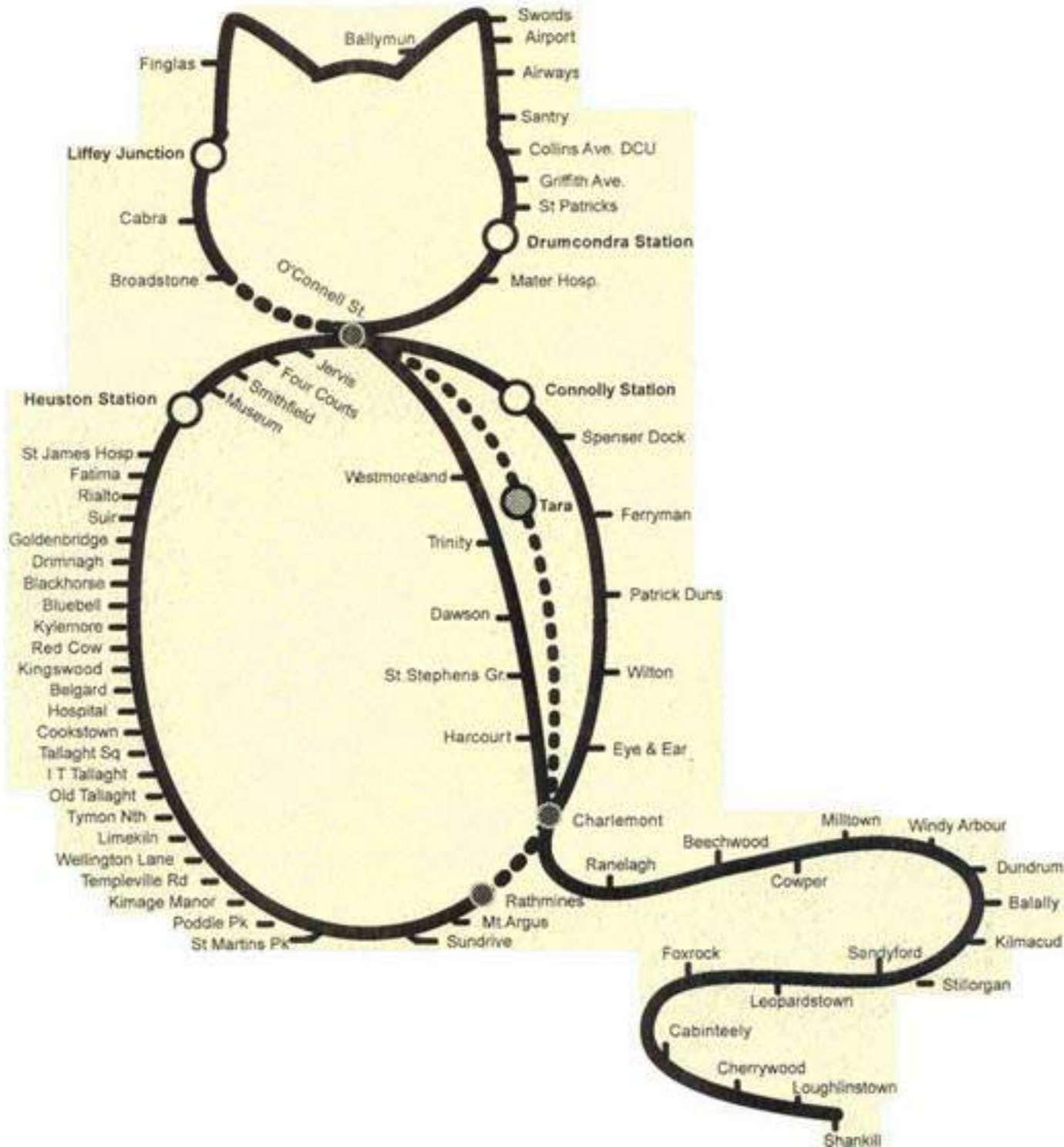
Appendix 2.

Drumcondra CITY ACCESS TRANSIT(CAT)

A ten year project to help shape the future of Drumcondra and its associated districts

CITY ACCESS TRANSIT

The public authorities have been pussyfooting on public transport for Dublin for years. Our capital needs a CITY ACCESS TRANSIT (CAT) system with a coherent design. The CAT proposed here hits the ground running as 20 per cent of it is based on that part of LUAS which the Government has already approved. Dublin can purr with this CAT.





May 2001

Strategy Development Group
The Light Rail Project Office
Heuston Station
Dublin 8.

Further to your recent advertisements, we demand that the proposed Light Rail line from Ballymun to the City Centre be routed through our areas to O'Connell Street to connect directly with the already approved lines to Tallaght and Sandyford.

We strongly object to the proposed routing away from the city centre to Broadstone and west. None of the many bus routes going through our areas take such a route. Neither do the Quality Bus Corridors follow such a route.

We want a CITY ACCESS TRANSIT with a coherent design, as the DTI proposed and as set out in the attached. We draw your attention to the 1996 Oscar Faber report which showed that a LRT line through our areas had more trip attractors/generators than did the Tallaght or Dundrum lines.

We point out that the DTO refused to give us data justifying the rerouting of the line through our areas away from the city centre.

In addition, we ask that you immediately propose to Government a city centre surface line to connect the already approved Tallaght and Sandyford lines. Otherwise, you will be repeating the mistakes made about 150 years ago when railways were first built in Dublin.

Handwritten signatures and dates:

- Henry Kelly - Chairman, Bessford Residents Association 19-05-01*
- SECRETARY, Drumcondra 2005 20-05-01*
- L. W. Grogan, Chairman, Gracepark Community Assoc. 19/5/01*
- Jim W. Hedden, Chair, Gaeltacht Park Ass. 19/05/01*
- Patricia Lee, Chair, Drumcondra 2005 19/05/01*
- Robbie Dale, CHAIR, ALL HALLOWS 20/5.01*
- Kathryn Mulheady, Secretary, All Hallows Area Assoc. 19/5/01*
- Brian McLough, CHAIR, I. D. R. A. 14/5/01*
- Joseph W. Hanrahan, CHAIR, COURTLANDS RESIDENTS ASSOC. 20-5-01*
- Cian Chan, CHAIR, DRUMCONDRA RES. ASSOC.*

City Access Transit

SUMMARY

CAT is **street wise and clean**. It offers a coherent framework for

- **Park 'n Ride sites on all the main national roads**
- **Interchange with DART, Arrow and other mainline rail services**
- **access to Dublin Airport and Port**
- **redesigning bus services**
- **becoming fatter, with bells, whiskers and even kittens.**

CAT serves all the main road, rail and air access points to Dublin. It links many industrial, office and commercial areas with residential areas. The network also links many educational and cultural institutions as well as hospitals. CAT makes it easy to run continuous services in a single system.

Dublin's public transport (including buses) needs **a current cost subsidy** at the same level as other European capitals. A Dept. of Public Enterprise paper reported that Dublin's public transport gets less than one quarter of the subsidy rate in Helsinki and Stockholm. Other studies suggest that European capital cities have public transport subsidy rates of about 50 per cent.

We need **quiet competence - not grand gestures**. We must have a coherent strategy for the next 20 years. During that time, further options for the future can be developed, studied, designed, costed, debated and decided. By having three different policies in the three years since it took office, this government has shown itself incapable of coherent thought, competent planning and considered action on Dublin transport. Consider the following

- The proposal for a LUAS line linking Ballymun, Drumcondra to Broadstone! At present buses from these areas go into the city centre. If Broadstone did not exist, who would create this place well away from the city centre!
- The proposed LUAS link with DART near Shankill. This seems to assume using an old rail junction. This area is now built up. Does this new plan imply demolition of houses in Shanganagh?
- "The future of urban transport policy lies not in expansion but in the intelligent use of existing traffic areas. The objective of ensuring mobility for people when travelling to work and shopping and during leisure time requires imaginative urban traffic management based on modern information technology". Ernst Joost, Deputy Director, Zurich Transport Authority, speaking in Dublin in June 1999.

Both the **motoring and taxi lobbies want better public transport** instead of more parking charges and road-pricing. Judge Sean O'Leary, Inspector for the LUAS public inquiries, found that **buses alone cannot do the job**. John Henry, DTO Director told the same inquiries that light rail has a proven capacity to attract car drivers. As citizens of the Celtic Tiger, CAT **improves our standard of living** by making it easy to travel around our capital in **less polluting** ways.

CAT links different parts of Dublin using a mainly surface light rail transit. Many centre city stops are those already approved for the Tallaght and Sandyford lines, as are the stations on those lines. Government consultants studied a line linking Tallaght to Kimmage, going underground to Rathmines, Ranelagh, Tara St, O'Connell St and Broadstone. CAT includes that line. The LUAS vehicles already ordered are being built for underground running.

CAT is **cost effective**. Surface LUAS is **costs one-seventh** that of underground (see p. 5). The Government has already committed over 20 per cent of the cost by deciding to build the Tallaght and Sandyford LUAS lines at a cost of £353m for 23km. This CAT will cost £1.628bn. as follows:

On-street LUAS 70kms @ £15m per km	=£1,050m
Underground LUAS 6kms @ £38m per km	= £228m
Underground stations say 5 @ £70m each	= £350m

GET ON WITH IT!

CLEAN AND HEALTHY

Being electric-powered, CAT pollutes less at point of use and is quieter. Given the different ways of generating electricity, CAT need not contribute to climate change, as it does not emit any environmentally damaging greenhouse gases directly.

CAT will help Dublin to become a healthier city. Traffic is now the largest single air pollutant in urban areas. Some have estimated that traffic-generated air pollution causes over 20,000 deaths in Europe every year.

PARK 'N RIDE ON THE MAIN ROADS.

CAT provides a clear framework for Park 'n Ride sites. It links all the main roads into Dublin with much of the city, as follows

- Airport/Belfast road(N1) at Swords, the Airport, Collins Ave and Drumcondra;
- Ashbourne/Slane/Derry road (N2) at Finglas;
- Navan/Cavan road(N3) at Cabra;
- Lucan/Maynooth road(N4) along the quays e.g. Museum on the Tallaght LUAS;
- Naas/Kildare road(N7) between Red Cow and Grand Canal (with stations at Kylemore Road, Bluebell and Blackhorse on the already approved Tallaght line)
- Blessington/Tullow(N81) road at Tallaght;
- Bray/Wicklow(N11) at Loughlinstown and Cabinteely;
- M50 at two places, ie. between Kingswood and Red Cow(on the Tallaght line), between the Airport and Finglas between CAT's ears.

INTERCHANGE WITH DART, ARROW AND OTHER RAIL SERVICES

CAT has direct interchanges to the existing rail services at four different places. It links with

- DART by underground stations at Tara St or Connolly (Tara St station cannot cope with existing peak hour passengers. It is not clear that CIE's development plans for Tara St. include increasing the capacity for passengers).
- Heuston. This links with Kildare Arrow services and mainline rail services from Dublin to all parts of Ireland.
- The Western line at Drumcondra Station and a proposed station at Liffey Junction. Liffey Junction is between Cabra and Finglas. It where the railway line under the Phoenix Park joins the Western Suburban (Kilcock-Maynooth-Barrow St) line. This serves such rapidly growing areas as Blanchardstown in North-West Dublin and Leixlip in North Kildare.

DUBLIN AIRPORT

CAT serves Dublin Airport directly. It does so from two directions, as the Airport is on a loop. One part of this loop is mostly off street ie. from Harold's Cross to the Airport via Rathmines, Ranelagh, Tara Street, Broadstone, Cabra, Finglas. This would make it easy to run express and/or limited stop services to/from the Airport. This means a predictable travel time to and from the Airport. It shortens the total journey time, including the time spent looking for parking at Dublin Airport. CAT gives people another option on the cost and inconvenience of Airport parking.

For years, all Governments have ignored key facts about the Airport in planning Dublin transport. A recent Ove Arup report confirmed what the Dublin Transportation Initiative found in 1993 - that there is a lot of traffic **to** the Airport during the morning peak commute hour. This complements the city bound flow making this an ideal route for public transport.

A 1998 Aer Rianta/CIE Air-Rail study reported that over three-quarters of Dublin Airport passengers are making journeys for leisure purposes.(see p.6) Passengers who want non-stop Airport access would have the options of their own cars or taxis or bus services. All could use either the Port Tunnel or the complete M50 or the Eastern By-Pass, if it is ever built!

BUSES

Dublin needs a redesign of bus services. Bus drivers need comfortable places to work from and in which to take breaks. One Dublin Bus depot (Broadstone) is on CAT, while another three (Ringsend, Summerhill, Cunningham Rd) are very near it. This would help get rid of bus parking on city centre streets.

A FATTER CAT - BELLS AND WHISKERS, EVEN KITTENS

By adding bells and whiskers, and a kitten or two, CAT could serve other areas. One obvious area is between the M1 and the northern railway line. This whisker would take in industrial areas at Clonshaugh and Coolock in addition to Northside Centre and Beaumont Hospital. An extra bell could take in the Point, East Wall and the ferry terminal at Dublin Port, perhaps connecting with the Coolock whisker! Similarly, a west side kitten could take in Clondalkin and Citywest.

BEING STREET WISE,

CAT makes better use of the space available. (see p.7). A 30m CAT vehicle carries 60 people seated in the same street space as 6 cars. These 6 cars carry less than 9 people as each car carries an average of 1.42 people during the morning peak in Dublin according to the DTO.

100,000 new vehicles were registered in Dublin between January and October. Traffic planners allow over 5 metres per car. This suggests that Dublin needs over 12 km (7.5 miles) of street space each week to cater for these vehicles. On this basis, you might have to go to Cork to park!

CAT OR A WOMBAT?

CAT is a single network. As all parts are connected, there will be no need to build maintenance depots for the separate lines needed by this government's policy. Why build two separate depots for the Tallaght and Sandyford lines? The present policy does not to connect these lines. This repeats the mistake made when railways were first built in Ireland. The lines into Dublin did not interconnect then. Continuing this is a *waste of money, brains and time - a wombat*. Approving this "in principle", means dithering! This indecisiveness drives up costs. It makes life uncomfortable and unpleasant!

A PURRING CITY

All public transport has to be pleasant, easy to use, predictable and reliable. This means easy access for all and being clean.

Ease of use will be greatly enhanced when the Dept. of Public Enterprise brings in **integrated ticketing** for public transport. Smart cards (like telephone call cards) may be used. This will allow people to use a single card for any public transport journey within the Greater Dublin area, regardless of how many changes of mode (eg. from CAT to bus, DART, Arrow or suburban and vice versa) are needed.

Predictability means having up-to-the-minute information on the next service arriving at each public transport stop. DART has this. But CAT will run mainly on streets, where traffic conditions can make time tables more aspirational than real. **Real-time information** is necessary at each stop as in cities like Gothenburg.

Reliability demands that all public transport (CAT, buses) in Dublin must get **automatic priority at traffic lights**. Dublin Corporation staff resist this, despite the lessons of wealthy cities like Zurich.

GET ON WITH IT!*

CAT is one of a set of mutually-reinforcing measures which should make it easy for people to move around the Greater Dublin Area. We need the Government to get on with CAT by deciding, immediately, to

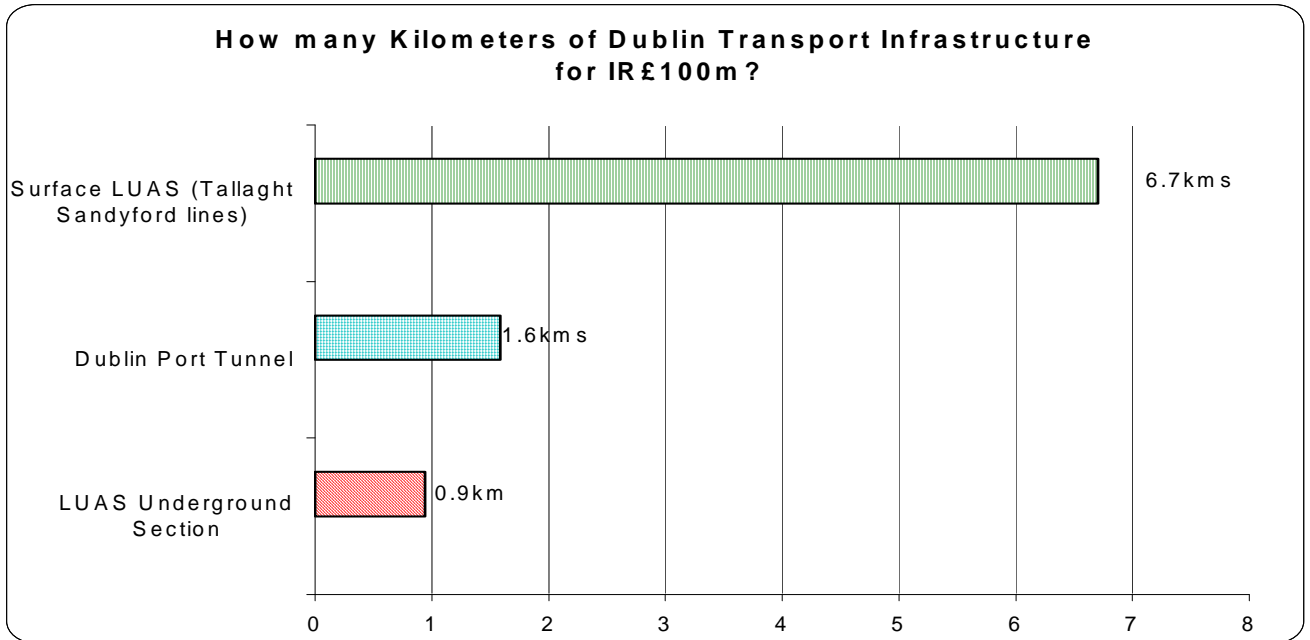
1. hold a public inquiry on a surface link (via Dawson, Nassau, Grafton and Westmoreland Streets) between the Sandyford and the Tallaght lines
2. fund full detailed design on
 - the northside loops serving the Airport, Swords and the suburbs between them and the city centre;
 - the Docklands loop linking Connolly to Ranelagh via the new Guild Street - Macken St. bridge;
 - a new line from Tallaght (via Templeogue, Kimmage, Harold's Cross Rathmines) to the city centre and Broadstone outlined by Atkins in 1998. This includes a tunnel from Mount Argus through to Broadstone (with underground stations at Rathmines, Ranelagh, Tara Street);
 - extensions to City West, Clondalkin, Coolock, East Wall and the Dublin Port passenger terminal.
3. Provide an operational cost subsidy of at least 50 per cent for all mass public transport - regardless of who owns or operates it.

*CAT is based on the following:

- the 1994 Dublin Transportation Initiative (DTI) final report.
- the 1996 Oscar Faber comparative study on Dublin's LRT lines.
- the 1997 Dublin Docklands Master Plan
- the 1998 Atkins study on surface/underground options for Dublin's light rail.
- the 1998 CIE-Aer Rianta Air-Rail link Report.
- the 1998 Dublin Corporation Review of Existing Air Quality and proposals for additional monitoring of traffic related emissions in Dublin City. issued by the Office of the Director of Traffic
- the 1998 DTO Final Report on Park and Ride Strategy for the DTI area
- CIE - Light Rail Project Office. Environmental Impact Statements
 1. Line A. Tallaght - Middle Abbey Street. July 1998
 2. Line B. St. Stephen's Green - Sandyford Industrial Estate. December 1998
 3. Line C. Abbey Street - Connolly Station. September 1999
- Findings of Inquiry
 1. Dublin Light Rail Line A. December 1998
 2. Dublin Light Rail Line B. June 1999
 3. Dublin Light Rail Line C. January 2000
- the 1999 Dublin City Development Plan
- the 1999 National Development Plan
- the 1999 Strategic Planning Guidelines for the Greater Dublin Area
- the January 2000 Atkins McCarthy report on the underground section of LUAS/LRT between Stephen's Green and Broadstone.
- the June 1999 lecture Economy and Ecology are not Contradictions - Lessons in Transportation Planning from Zurich by Ernst Joos, Deputy Director, Zurich Transport Authority organised by the Swiss Embassy and others.
- the March 2000 Ove Arup report Dublin Suburban Strategic Rail Review.
- the April 2000 UCD report Comparison of Subvention levels for Public Transport Systems in European Cities, commissioned by the Dept. of Public Enterprise.
- the April 2000 report by Environmental and Transport Planning (UK)

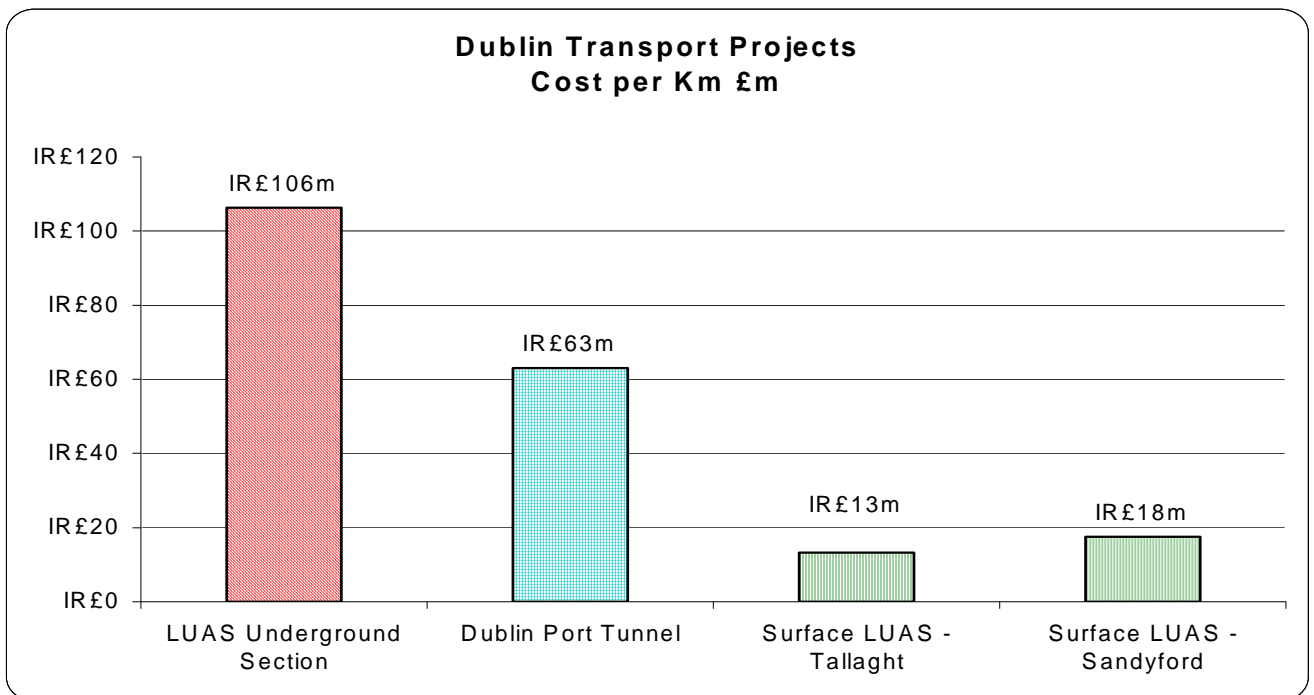
Bus or Light Rail: Making the Right Choice.
- the May 2000 Dept. of Public Enterprise report on Regulation of the Bus Market in the Greater Dublin Area. prepared for the Cabinet Committee on Infrastructural Development and Public Private Partnerships.
- the June 2000 Dublin Corporation proposal for a bridge in the Docklands
- the September 2000 article on Public-health impact of outdoor and traffic-related air pollution: a European assessment Lancet (UK) 2 Sept 2000 (Vol. 356 No.9232)
- the September 2000 DTO Platform for Change Strategy 2000-2016
- the October 2000 National Greenhouse Gas Strategy published by the Minister for the Environment and Local Government.

**It is still cheaper to put cars/trucks underground than to put LUAS/Metro underground, even with the doubling of the cost of the Port Tunnel!
Putting LUAS/Metro underground is the most expensive option.**



Sources:

LUAS Underground Section:	3 underground and 2 surface stops.	2.85kms	€303m
	Atkins McCarthy report for CIE. January 2000		
Dublin Port Tunnel:	Dual carriageway with 4.5km in tunnel.	5.6kms	€353m
	Dublin Corporation Press Release. 11 October 2000		
Surface LUAS:	Tallaght-Middle Abbey St line.	14kms.	€185m
	Dáil Debates. 29 March 2000		
	Sandyford-Stephens Green	9kms	€158m
	Mary O'Rourke, TD Minister for Public Enterprise. 31 July 2000		
	CIE. Environmental Impact Statements.		



DUBLIN AIRPORT

Profile of Passengers (1)

1999 Passengers (excluding transit)(2) 12,657,047
(say 12.65m.)

Purpose of Journey(3)	Business	Leisure
	24.4%	75.6%
Irish	(11.7%)	(33.3%)
Non-Irish	(12.7%)	(42.3%)

Origin/Destination of Air Travellers(4)

Dublin	50.7%	(say 6.42m)
Leinster	23.9%	
Munster	11.7%	
Connacht	7.9%	
Ulster	5.8%	

Dublin Area 'air passenger'(5)(subject to note)

Contiguous to DART network	45%	(say 2.89m.)
Northside	15%	(say 960,000)
Southside	30%	(say 1,925,000)

Note. "A closer review of the Dublin area airport 'air passenger' traffic highlights that approximately 45 per cent of the traffic is contiguous to the DART network... Similar information is not available for 'non-Irish' travellers through the Airport. However, market research indicates that up to 70 per cent of foreign travellers visit Dublin at some stage of their Irish trip. A review of the 1996 Bord Fáilte approved hotels and guest houses in Dublin highlights the very high concentration of bed spaces in the central area and the south east quadrant. The distribution of beds within these areas is summarised in Table 4.2 below. It is clear from this table that the south east city centre area (Dublin 2) along with the Ballsbridge and Donnybrook areas (Dublin 4) are the prime locations in terms of accommodation availability." (from par 4.3 of Source 1. Below)

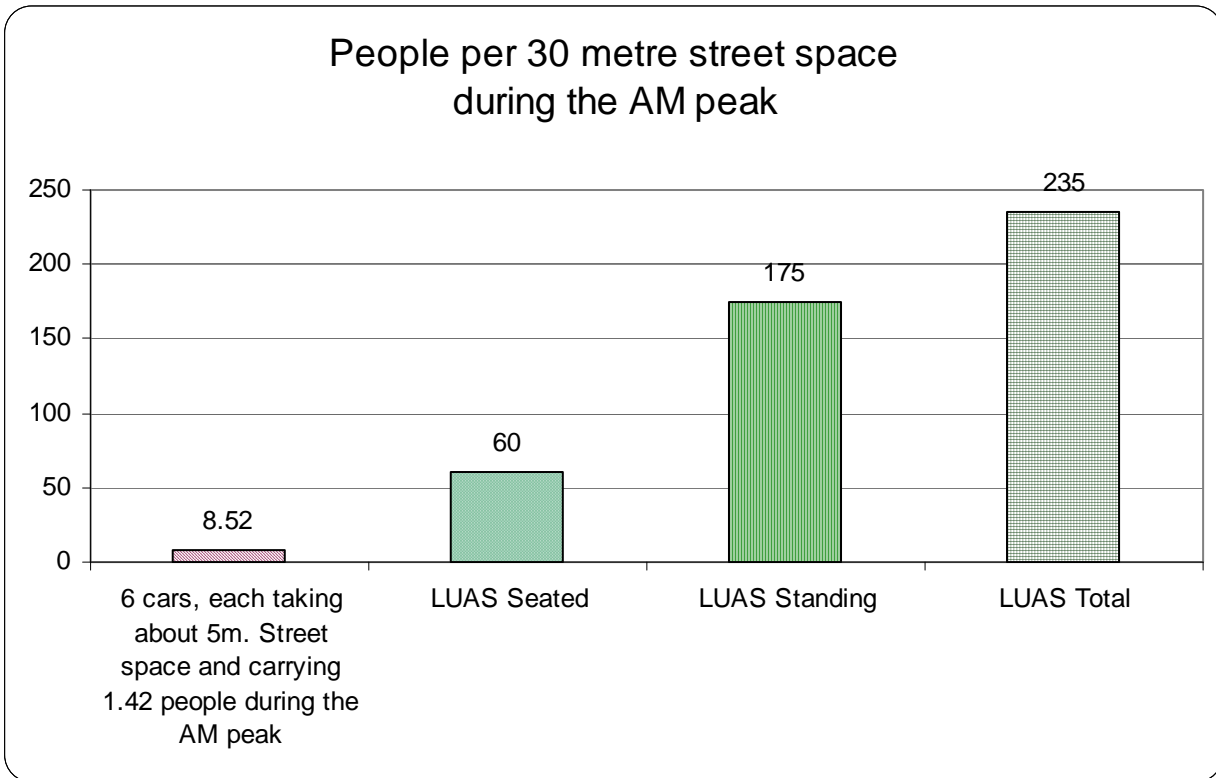
Surface Access (mode of use) by Air Passengers(6)

Private Car	67.6%
Taxi	12.2%
Bus/Coach	19.2%
Other (HGV, Motorcycle)	1%

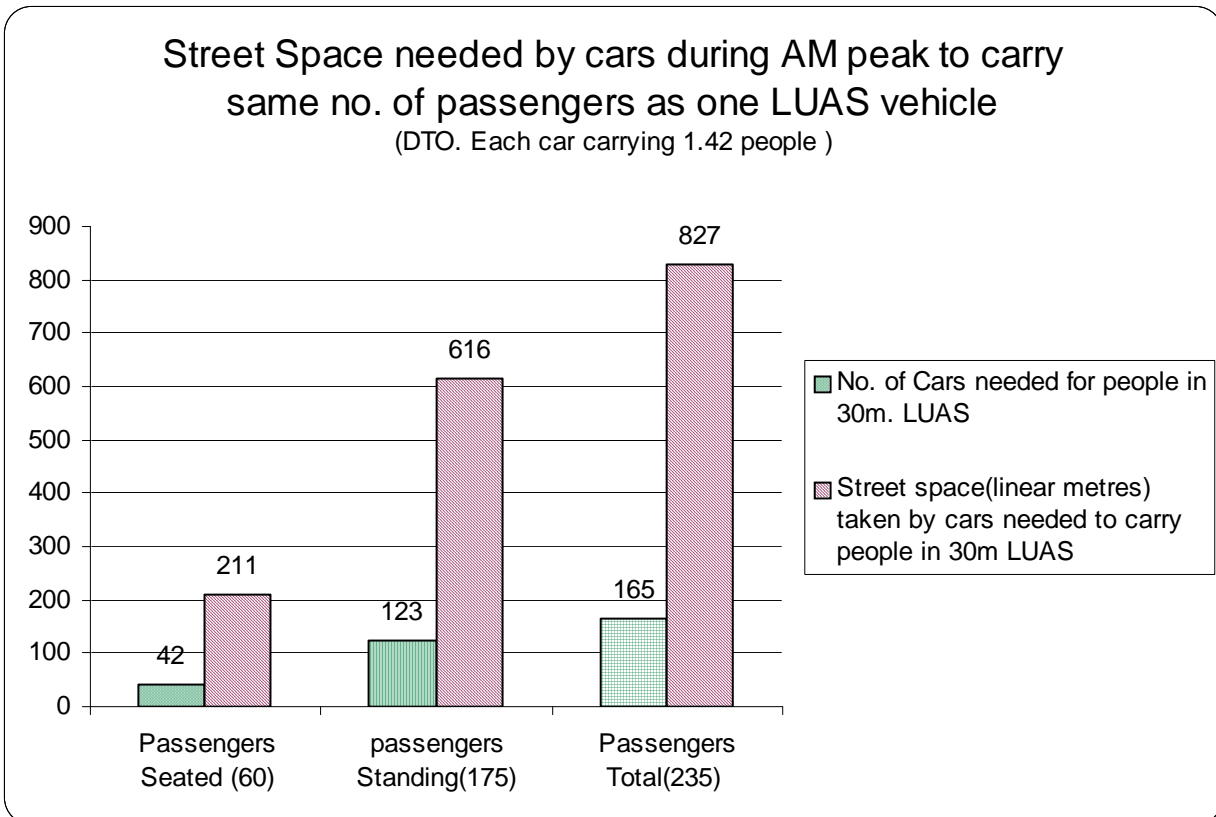
Sources

1. Drawn from CIE/Aer Rianta. Dublin Airport Air-Rail Link Study. Final Report. April 1998. (Air-Rail Link Study)
2. Aer Rianta Press releases on 1999 Passengers through its Airports. 28th January 2000
3. Air-Rail Link Study. Table 3.4. p.12
4. Air-Rail Link Study. Figure 4.1 p.19
5. Air-Rail Link Study. Section 4.3. p.19
6. Air-Rail Link Study. Table 4.4. p.25

STREETWISE!



If 1,000 new cars are being bought every week in Dublin, then these occupy 5km (3 miles) of street space. It is cheaper to provide new street space underground, in road tunnels, than it is to put LUAS/Metro/Rail/CAT underground (see p. 5)



Appendix 3

**Exchanges (email) with AECOM re Drumcondra
CAT before and after meeting of 6Oct2104**

Donal O'Brolchain

From: Donal O'Brolchain <[REDACTED]>
Sent: 25 September 2014 14:19
To: [REDACTED]
Subject: RE: Fingal/North Dublin Transport Study
Attachments: CITY ACCESS TRANSIT Drumcondra 2005 Submission 2001.pdf

[REDACTED]

Being unaware of what you may know of the Drumcondra CAT, I attach the original submission made in 2001.

I will also have some more material. BTW, if I bring a very short presentation on a USB, I trust that you have facilities to show it.

It is not clear to me that the reasons we put forward to support CAT then have lost any of their force – despite the emphasis on grand gestures by some public authorities, as opposed to the persistent quiet competence which is the only way to build public transport infrastructure and to sustain services.

All for discussion on Monday 6th October next.

Regards

Donal

[REDACTED]

Sent: 25 September 2014 12:45
To: Donal O'Brolchain
Subject: RE: Fingal/North Dublin Transport Study

Hi Donal,

The purpose of the meeting is really just for you to present the CAT option, to tell us more about it and its technical feasibility.

I think 1.5 hours should be enough?

I have no problem with you bringing additional people.

Regards,

[REDACTED]

AECOM
Ground Floor, Grand Canal House,
Grand Canal Street Upper, Dublin 4

Donal O'Brolchain

From: Donal O'Brolchain <[REDACTED]>
Sent: 28 November 2014 07:08
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Drumcondra CAT a response to the long-term neglect of Dublin North City by the public authorities

[REDACTED]

A few things about your final report on options for public transport serving North Dublin

1. **Population:** the existing Northern part of Dublin city has the highest number of people living in it
2. **A Platform for Change** Dublin Transport Office ; this should get detailed consideration document, given that so much else that followed during the 2000s claimed to be based on the work summarised in that document, including the distortion that is Metro North;
3. **Metro East;** this should get a complete chapter, given that it was developed to a very high standards by the Howards on their own initiative and using their own resources – an option which fits with A Platform for Change;
4. **Docklands LUAS link:** the need for to serve that business/residential district – set for further investment by NAMA - by linking the two existing LUAS lines
5. **LUAS CrossCity** – a comment showing how this rushed project closed off options set out in the 1998 Atkins report;
6. **Between the canals:** The need for another plane for transport within the canals eg.
 - a. the overstreet heavy rail link between Pearse and Connolly stations;
 - b. The Dublin Port Tunnel;
 - c. The Phoenix Park heavy rail tunnel, due for reopening over the next two years.
7. **Buses:** the need for complete recasting of the routes – way beyond any policy-driven evidence making shown engaged in by the National Transport Authority advocacy of Bus Rapid Transit proposals
8. **CAT Proposal:** I would appreciate it if you included the original the 2001 CAT proposal as an appendix in your report.

Your sincerely

Donal O'Brolchain

From: [REDACTED]
Sent: 10 November 2014 08:16
To: Donal O'Brolchain
Subject: RE: Drumcondra CAT a response to the long-term neglect of Dublin North City by the public authorities

Donal

Thanks for reply.

Regards

From: Donal O'Brolchain [REDACTED]
Sent: 10 November 2014 00:17
To: [REDACTED]
Subject: RE: Drumcondra CAT a response to the long-term neglect of Dublin North City by the public authorities

Thanks for forwarding your map showing the Drumcondra CAT.

A couple of comments.

1. The Drumcondra CAT was drawn up to show that the Dublin area needs an integrated Light Rail based core City Access Transit;
2. This called for a Northside LRT loop, consisting of two linked lines, linked to the existing Red and Green lines, but also to other loops and some spurs.
3. Your map does show this basic idea
4. But omits some critical elements ie
 - a. There is no Docklands Loop, as was presented in the DTO *Platform for Change* ;
 - b. The spur to link with the DART was to Howth Junction, along Coolock Lane, the Oscar Traynor, Tonlegee and Kilbarrack Roads
Reason: Howth Junction is a stop for commuter heavy rail services (eg. from Dundalk, Drogheda) as well as being the point at which the Howth and Malahide DART services separate in contrast to Raheny shown in your map. In short, Howth Junction would serve as the functional equivalent to say Broombridge, with the possibility of passenger interchange between LUAS CrossCity - as extended in the CAT thinking and heavy rail based commuter services on that Western Line;
 - c. Your map only provides for an East-West transport plane in the central area ie. DART Underground;
 - d. I suggest that there are still major commuter North – South flows particularly towards the East of the Greater Dublin Area.
5. Showing BRT routes on this map lacks merit, as does the whole BRT concept (see attached submission)
BRT is far from the kind of radical overhaul of Dublin bus routes that we advocated in 2001 and which is still needed.

Yours sincerely

Donal O'Brolchain

From: [REDACTED]

Sent: 04 November 2014 09:16

To: Donal O'Brolchain

Cc: [REDACTED]

Subject: RE: Durmcondra CAT a response to the long-term neglect of Dublin North City by the public authorities

Donal

As part of our report development we are preparing images that are consistent with each other. Could I ask you to review the attached and indicate if it is a reasonable interpretation of your CAT Proposal (north side study area only). Your help would be much appreciated.

Regards

[REDACTED]
Regional Director, Transportation

Ireland after NAMA

July 23, 2015

Does Dublin's Core Economic Area need three rail links between the Docklands and Heuston Station/Inchicore?

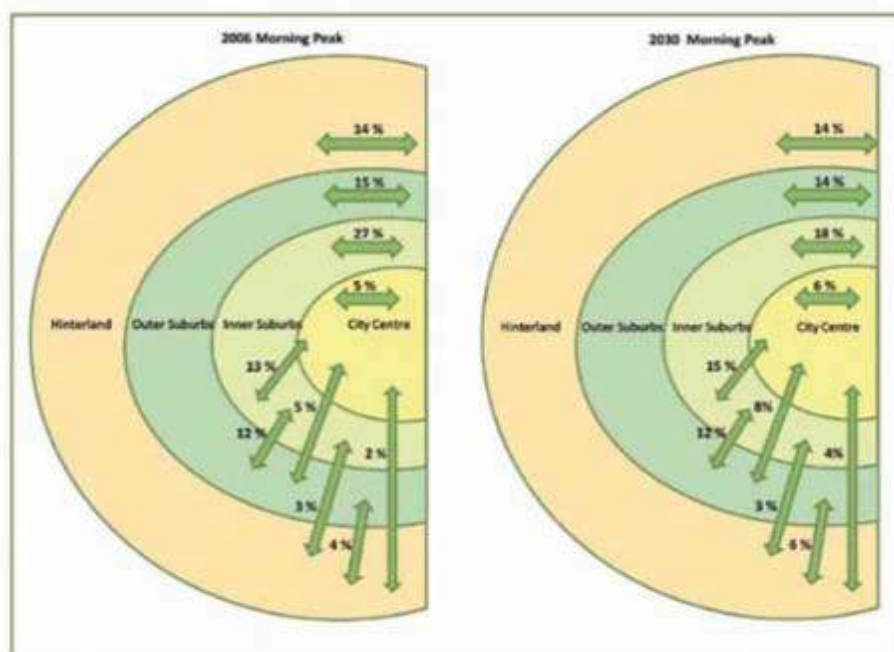
Posted by irelandafternama under [Uncategorized](#) | Tags: [Dublin](#), [transport](#) | [\[2\] Comments](#)

The planning of Dublin's transport should be founded on a clear sense of priorities, based on (a) travel patterns and population, (b) the optimum use of resources available eg. street space, land use, finance, (c) investing in sustainability.

One would expect the National Transport Authority (NTA) to pay particular attention to the implications of the data in reports it has commissioned. However, recent work by the NTA pays scant regard to the public transport needs of those living between the City Centre and Dublin Airport. Despite NTA evidence, there is still an obsession with a City Centre-Airport rail link and journey times on this corridor.

An NTA report has shown travel demand is greatest inside the M50 during the morning peak ie. 1. between the canals and the M50 – the Inner Suburbs – with 27% of journeys in 2006 and 18% in 2030; 2. inside the canals – between the Inner suburbs and the City Centre – with 13% in 2006 and 15% in 2030. (see Figure 1).

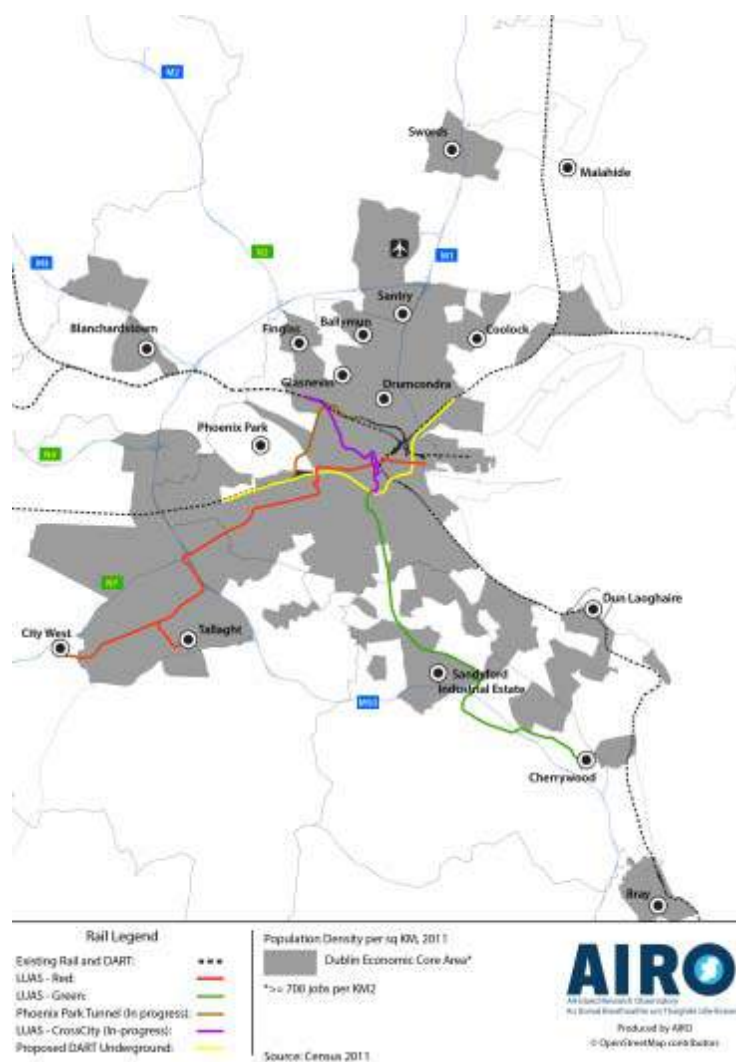
Figure 1: Travel Demand in Dublin Morning Peak 2006 and 2030



Source: National Transport Authority Greater Dublin Area Draft Transport Strategy 2011-2030 2030 vision April 2012. Chap 4 p.9 ([link](#))

This travel demand reflects activity in Dublin's Core Economic Area as shown in Figure 2 (prepared by Justin Gleeson, based in Maynooth University). However, in its do-minimum planning for enhanced public transport, the NTA has not focused on Dublin's Core Economic area. The NTA's current Do-Minimum assumes DART Underground (the Yellow line on the map) as well as Bus Rapid Transit (BRT) to link the City Centre with the Airport and Swords. Neither will enhance public transport within the Core Economic Area, nor enhance access to the Airport from the central business district.

Figure 2: Dublin Core Economic Area, 2011



DART Underground

This is a proposed 8.6km line from Docklands to Inchicore, mostly tunnelled, costing up to €4bn. This will add another rail link between the Docklands and Heuston/Inchicore. These areas are already linked by LUAS (Red line in Figure 2). There will be another rail link between these areas when the Phoenix Park rail tunnel (Orange line in Figure 2) is opened for use by commuter trains in 2016.

It is not at all clear this €4bn investment will enhance development potential. Much of the DART catchment (dotted line along the coast in map) area is coastal. DART Underground itself will not improve public transport links between the Airport and the Central Business District.

Bus Rapid Transit (BRT) link City Centre – Drumcondra- Airport-Swords

The NTA also plans to link Dublin Airport/Swords to the City Centre with a BRT service through Drumcondra. A public consultation on this concluded in November 2014. (see [here](#))

This is puzzling, as a previous NTA report found that this route *has forecast demand that greatly exceeds the capacity of BRT in the current 2030 infrastructure scenario and also exceed the 3600 pppdph in the 2030 scenario.* (see Figure 1) This 2012 report concluded that *a BRT solution does not cater for the public transport needs of the northern section of this corridor over the longer term....the Swords to City Centre section was not progressed further within this report.* (my emphasis)

Table 1: Bus Rapid Transit Demand Analysis

Alignment	Scenario	Peak Lineflow	% above 15vph Capacity (1,800)	% above 20vph Capacity (2,400)	% above 30vph Capacity (3,600)	AM Peak Boardings
Blanchardstown to UCD	Base Year	3,369	87%	40%	-6%	9,482
	2030 Curr Inf	3,877	115%	62%	8%	14,577
	2030 Strategy Inf	2,564	42%	7%	-29%	11,838
Swords to Tallaght	Base Year	3,482	93%	45%	-3%	17,224
	2030 Curr Inf	5,845	225%	144%	62%	22,120
	2030 Strategy Inf	3,963	120%	65%	10%	17,828
Clongriffin to Tallaght	Base Year	2,754	53%	15%	-24%	11,899
	2030 Curr Inf	3,954	120%	65%	10%	14,618
	2030 Strategy Inf	3,638	102%	52%	1%	12,792

Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Figure 41 p.53 ([link](#))

An NTA 2014 Route Options Assessment on the Swords/Airport-City Centre BRT shows that, with one exception, passengers forecast exceed the proposed BRT capacity. This report assumes that the present bus network will still be in place. This means that regular bus services will still run on the same roads as the two separate BRT services on the Dublin Airport/Sword-Drumcondra-City Centre route.

(see Summary tables 10.5 and 10.6 for the result for the opening year 2018 and the forecast year 2033 for 2 route options. National Transport Authority Swords/Airport to City Centre. Route Options Assessment Volume 1 : Main Report (October 2014) p. 187 ([link](#))

This report also states that *It is anticipated that demand will increase following a reorganisation of Dublin Bus routes.*

BRT may appear to be a cheap option. It is nasty on two grounds

1. it will be overflowing from the day it starts;
2. being diesel powered, it contributes to air pollution and thus damages human health.

In a recent article (Irish Farmers Journal 30 May 2015), Colm McCarthy pointed out that “...recent studies have been showing that air pollution in European city streets has worsened and the shift to diesel (cars) is being blamed...Diesel engines produce lower levels of carbon dioxide but also emit two other nasties. These are low-level pollutants in the form of particulate matter (think of soot) and nitrogen dioxide and these do not disappear into the upper atmosphere... He pointed out that “Policy makers have long been aware that high emissions in built-up areas of either particulates or nitrogen dioxide are damaging to human health, aggravating respiratory conditions including asthma”

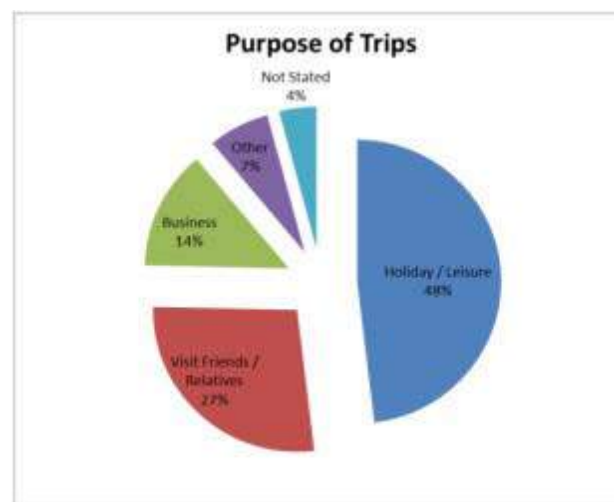
Airport

NTA commissioned yet another study to appraise longer term options for Fingal/North Dublin (NTA AECOM November 2014). A key criterion in assessing options is the journey time between the Airport and the City Centre.

However, another NTA study of Dublin Airport passengers found that:

- Three quarters (75%) had a journey time of less than one hour to the Airport, with almost half (46%) having a journey time of less than 30 minutes;
- Less than one seventh of trips (14%) were business related;
- Three quarters of all trips were either for holiday/leisure (nearly half) or visiting friends/relatives (over one-quarter);
- Less than one third of the trips originated in City Centre/South part of Dublin City.

Figure 3: Dublin Airport passengers – Purpose of travel



Source: National Transport Authority Survey at Dublin Airport 2011. Fig. 3.11 p. 22 ([link](#))

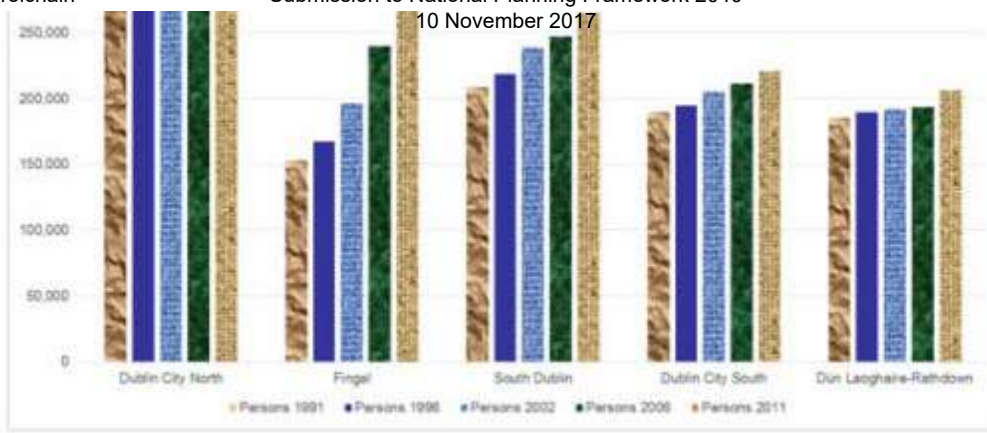
This suggests that the vast majority of passengers using Dublin Airport may not be very time-constrained in how they access the Airport. Most passengers are not bound for our capital's Central Business District. Those passengers who are time-constrained have the option of taxis (which can use bus lanes) and/or using the Dublin Port Tunnel to access Central Business District. Consequently, in assessing options for public transport in north Dublin, travel times between the City Centre and the Airport should not be the sole or even the major criterion.

North Dublin city not being provided with enhanced public transport

The NTA is pursuing a do-minimum strategy for that part of Dublin's Core Economic area between the Royal Canal and the M50. It seems to be forgotten that more people live in the north part of Dublin city (306,425 in Census 2011) than in either the south city (221,186), Dun Laoghaire/Rathdown (206,261), South Dublin (265,205) or Fingal (273,991). This has been so over the past 20 years, as is clear from Figure 3.

Figure 4: Population Dublin 1991 – 2011

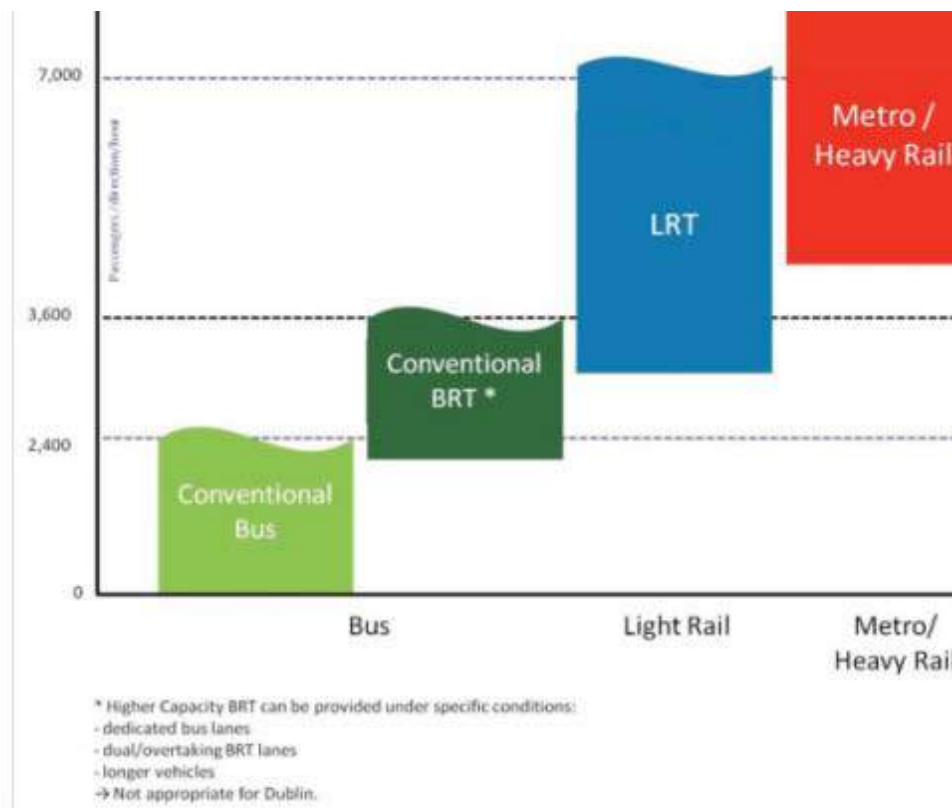




The singular focus on BRT shows that the public authorities have learnt very little from the first LUAS line from Tallaght to Abbey Street. The late Judge Sean O’Leary was the Inspector appointed by the government to consider for the first LUAS planning applications. In 1998, he reported that *“Having considered the evidence, the Inquiry is satisfied that in order to create similar condition of loading and unloading, ease of access and certainty.... that buses do not represent a viable alternative to the proposal”* (for on-street light rail).

The BRT Core Network Report supports this assessment. A comparison of the passenger carrying capacity of BRT with light rail and metro summarised is shown in Figure 5. Note that this states that higher capacity BRT is not appropriate for Dublin.

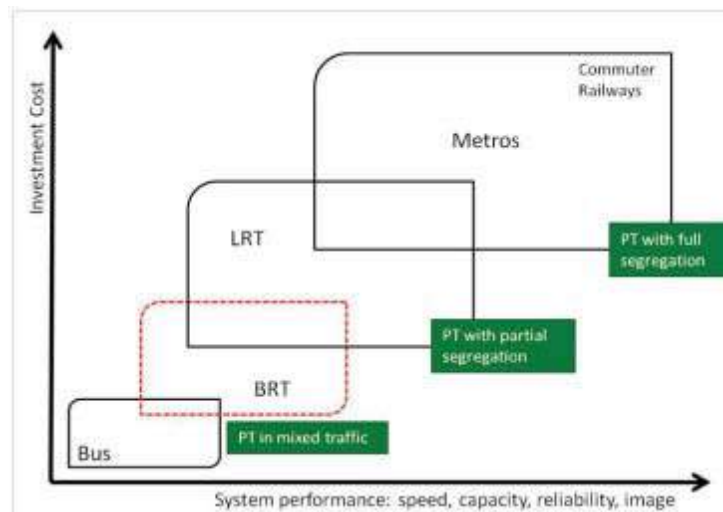
Figure 5: Public Transport Mode Capacities



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.3 p.4 ([link](#))

Comparative investment costs for different public transport modes are indicated in Figure 6.

Figure 6: Comparative Investment costs – buses, BRT, LRT/LUAS, Metro



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.2 p.3 ([link](#))

Neither the proposed BRT nor the single LUAS line on the route now advocated by the Railway Procurement Agency (see Sunday Business Post 3 May 2015) can provide sustainable public transport for this part of Dublin. This proposed LUAS line goes under Glasnevin Cemetery in a new tunnel. This adds to the cost of a LUAS line that will not serve the centre of Dublin's north city core economic area shown in the map. Moreover, it is well away from important major trip attractors/generators eg. Mater Hospital, Mountjoy Prison, Croke Park, St. Patrick's College, Whitehall, Santry, Beaumont Hospital.

This RPA proposal ignores the results of a 1996 Dept. of Transport report which compared three LUAS lines then being considered. It is clear from Table 2 that a LUAS from the city centre through Drumcondra to Ballymun had much better potential for passengers than the two LUAS lines which were actually built. This confirms the results of recent NTA work which suggests that passenger demand can best be met by an on-street LUAS line for this central route in the north part of Dublin's Core Economic Area.

Table 2: A Comparative Socio-Economic Evaluation of the Tallaght-Ballymun/Dundrum Light Rail Lines. Final Report 1996. Oscar Faber.

Table 4.3 Intensity of Use Indicators

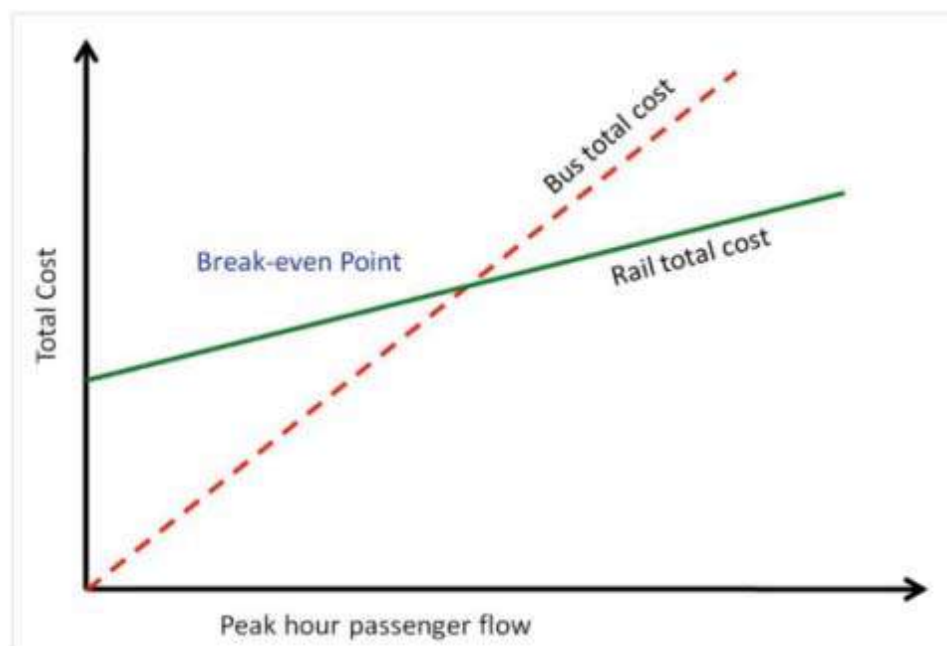
Section	Density of Major Attractors/Generators number per route km	Frontage Density metres per route metre
Tallaght Sq. - Treepark	1.44	0.09
Treepark - Fox & Geese	.44	0.01
Fox & Geese - Davitt	7.96	1.26
Davitt - Inchicore	2.60	1.72
Inchicore - Kilmainham	3.31	2.09
Kilmainham - Heuston	20.00	1.88
Heuston - Chancery St.	18.32	1.42
Chancery St. - O'Connell St.	21.56	2.73
Tallaght Route	7.79	1.01
O'Connell St. - Trinity College	3.33	2.02
Trinity College - Harcourt	21.33	1.96
Harcourt - Charlemont	20.00	1.85
Charlemont - Dundrum	0.00	0.00
Dundrum Route	7.81	0.68
O'Connell St. - Parnell	30.36	1.42
Parnell - Gardiner	15.7	1.91
Gardiner - St. Alphonsus	7.27	1.81
St. Alphonsus - St. Patrick's	3.90	2.49
St. Patrick's - Griffith	4.92	2.16
Griffith - Collins	15.12	1.55
Collins - DCU	2.86	1.89
DCU - Glasnevin	1.59	2.22

Glasncvin - Ballymun	10 November 2017	9.68	2.59
Ballymun Route		9.61	2.00

Source: Department of Transport, Energy & Communications. A Comparative Socio-Economic Evaluation of the Tallaght-Ballymun/Dundrum Light Rail Lines. Final Report 1996. Oscar Faber.

NTA notes that the higher investment costs of light rail (LUAS) are offset by lower operation costs. (see Figure 7). Light rail (LUAS) vehicles carry more passengers than buses. Thus less drivers are needed than for bus-based systems carrying the same number of passengers. Buses have a shorter life than LUAS vehicles, even if the maintenance costs are higher. Buses are also less energy efficient and pollute more at point of use.

Figure 7: Public Transport – Investment v Operating Costs



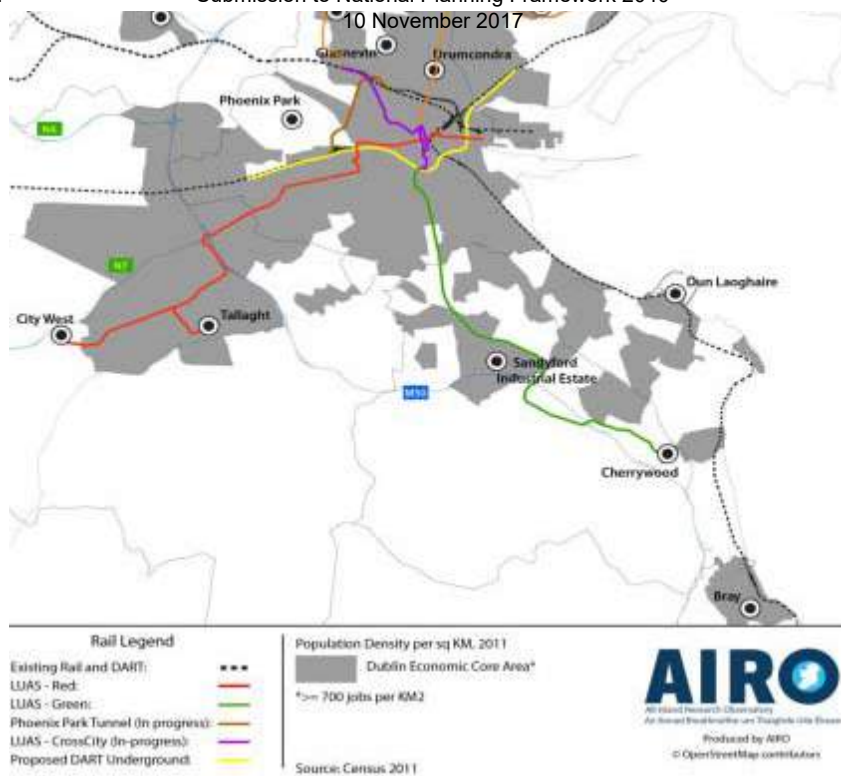
Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.21 p.27 ([link](#))

The capital expenditure envisaged for DART Underground and BRT would be much more cost-effective if invested in

- extending LUAS CrossCity (now under construction) to create a north city LUAS loop (taking in Finglas, Charlestown, Poppintree, Ballymun, Santry, Beaumont, Drumcondra) with spurs to the Airport and to DART at Howth Junction (see Figure 8);
- A Docklands loop to link the existing Green and Red on-street LUAS lines as put forward by the Dublin Transportation Office in 2002.

Figure 8: Dublin Core Economic Area with proposed north city/Airport-Swords proposed LUAS lines superimposed (orange line)





Our public authorities are still using arbitrary criteria for planning public transport. The feuding public sector baronies are still stuck in the property development whimsies of the early 2000s. This is not the evidence-based transport planning which Robert Watt (Secretary General of the Department of Public Expenditure and Reform) claimed as an example of civil service reform. (*Commentary on public service reform is mired in the past* Sunday Business Post 22 February 2015).

We deserve better. To promote competitiveness and social cohesion, Dublin needs integrated and sustainable public transport. Achieving this needs quiet, consistent competence to bring working and living conditions to the levels of well-run European cities. It would be a start if our public authorities drew the appropriate conclusions from their own reports and invested accordingly.

Ireland After Nama Guest blog post by Donal O'Brolchain

Donal O'Brolchain lives in Drumcondra, Dublin 9. He has been active in residents' association for the past 25 years. As Secretary of Drumcondra 2005, he led residents' support for the Dublin Port Tunnel during the 1990s, as part of a set of mutually reinforcing measures to improve transport in Dublin. This included a core light rail/LUAS system in Dublin. This support was to implement a local area plan for Drumcondra district which seven residents' association commissioned and funded from their own resources. This was launched in 1994.

Advertisements 10 November 2017



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The advertisement features the Microsoft logo at the top left. Below it, the text reads 'Get the latest Office 365 for your business.' followed by 'Access & edit your files from anywhere'. To the right, a circular badge contains the price 'Now only €10.70 per user/mo.'. At the bottom right, there is a red button with the text 'CLICK HERE' and a right-pointing arrow. The background of the ad shows a computer monitor and a smartphone displaying the Office 365 interface.

2 Responses to “Does Dublin’s Core Economic Area need three rail links between the Docklands and Heuston Station/Inchicore?”

1. John Atkinson Says:



July 23, 2015 at 2:42 pm

Great report, Sadly though you are right, decisions are made to spend taxpayers (our) money based on whim rather than evidence. Such a pity.

It seems our money is spent so that our Politicians and mandarins can tell their visitors how to get to see them in the city centre. Of course their pride prefers to tell their visitors “jump on the underground” rather than “jump on the bus” They much prefer to send them in a nice shiny underground, especially if it is empty.

My recent personal experiences of airport to city centre travel are varied. Munich- train- 45 minutes from airport. Beijing, 115 minutes by car at 0500 to go 40 km to city centre (ish). Paris 90 minutes by underground from near Versailles to CDG. Dublin- taxi 30 minutes to D4 Hotel and about 25 minutes by bus to Bus Aras. So Dublin at the moment (imo) is well in front of Paris, Munich and Beijing in terms of travel time.

Reply

2. Dublin City Transport Study | Navan Road Community Council Says:



July 28, 2015 at 11:56 am

[...] <https://irelandafternama.wordpress.com/2015/07/23/does-dublins-core-economic-area-need->

Donal O'Brolchain

Submission to National Planning Framework 2040

10 November 2017

105 of 142

[three-rail-li… \[...\]](#)

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Does Dublin's Core need more rail links?

Donal O'Brolchain

Dublin Economic Workshop Athlone 17th October 2015

The planning of Dublin's transport should be founded on a clear sense of priorities, based on (a) travel patterns and population, (b) the optimum use of resources available eg. street space, land use, finance, (c) investing in sustainability.

Dublin's economic core is set out in Figure 1¹. This is one of two maps I commissioned from the All-Island Research observatory in NUI Maynooth when I was trying to understand what the National Transport Authority (NTA) was actually doing about enhancing public transport in the north part of our capital city (see p. 3). At the time it seemed not to be planning transport in accordance with evidence, as claimed the Robert Watt, Secretary General of the Department of Public Expenditure and Reform as evidence of civil service reform. (*Commentary on public service reform is mired in the past* Sunday Business Post 22 February 2015).

I asked AIRO to superimpose the existing and proposed railway lines in Dublin. This included

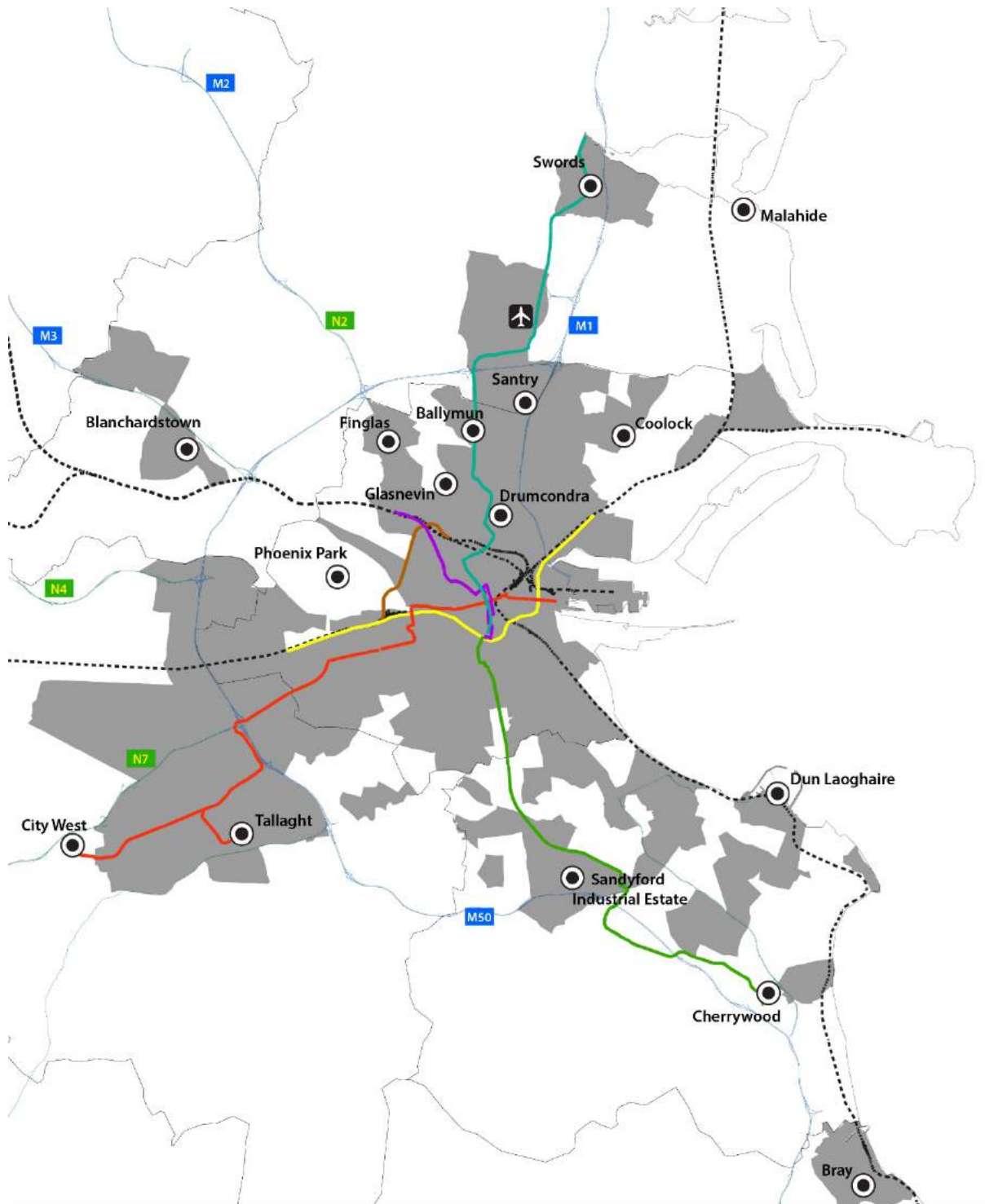
- the heavy rail commuter lines including DART;
- LUAS including LUAS Cross City now being built;
- the Phoenix Park Tunnel which is due to reopen for passenger services next year;
- the now deferred DART Underground. At the time, I had been led to believe that the public authorities had decided on this project.

Last week, I asked AIRO to update this map by adding Metro North.

Note that Metro North goes to the west of the main part of the Core Economic Area in the north city.

¹ The Dublin Economic Core definition is effectively a 2011 update of the work done by Cormac Walsh and Brendan Whelan in UCD. See *Cormac Walsh, Brendan Williams and Ian Boyle* Mapping the true extent of Dublin's functional urban region – What the best available evidence tells us. Posted 21 December 2010 on IrelandafterNama : <https://irelandafternama.wordpress.com/2010/12/21/mapping-the-true-extent-of-dublins-functional-urban-region-what-the-best-available-evidence-tells-us/>

Figure 1 Dublin's Core Economic Area Census 2011



Rail Legend		<p>Dublin Economic Core Area*</p> <p>*\geq 700 jobs per KM2</p>
Existing Rail and DART:		
LUAS - Red:		<p>Source: Census 2011</p>
LUAS - Green:		
Phoenix Park Tunnel (In progress):		
LUAS - CrossCity (In-progress):		
Proposed DART Underground:		
Proposed Metro North:		

National Transport Authority's odd behaviour

In an October 2012 report on Bus Rapid Transit(BRT), NTA stated

*It is on the northern section of this corridor – between Swords and the City Centre – that the high levels of demand arise.... **Overall, the link between the city centre and Swords has demand levels that exceed the capacity of a moderate capacity BRT system, in the longer term.** While BRT may provide an interim partial transport solution in the shorter term, a higher capacity rail solution, such as a metro system, will ultimately be required on this corridor. **In light of this, the Swords to City Centre BRT section has not been progressed to the later costing and appraisal sections of this feasibility study report.***

The demand on the Swords to City section greatly exceeds the capacity that can be provided by a BRT system. Based on this level of demand a BRT solution does not cater for the public transport needs of the northern section of this corridor over the longer term. Accordingly, the Swords to City Centre section was not progressed further within this report

Bus Rapid Transit (BRT) Core Dublin Network (BRT Report). National Transport Authority October 2012. <http://www.nationaltransport.ie/wp-content/uploads/2012/11/Bus-Rapid-Transit-Core-Network-report.pdf>

The September 2012 NTA Board Minutes noted

*The Authority will **now start work** with a view to securing statutory approval in 2013 for **two cross-city BRT corridors which have been identified as feasible**. The implementation of those corridors will be subject to the availability of the necessary funding in the future*

<http://www.nationaltransport.ie/wp-content/uploads/2012/04/Minutes-of-Board-Meeting-21st-September-1.pdf>

Less than one year later, the June 2013 NTA Board minutes report that

4. Serving Swords by Bus Rapid Transit

*Mr Gallagher outlined the work currently being undertaken by the Authority to upgrade the existing Quality Bus Corridor **between Swords and Dublin City Centre, which is one of the busiest bus corridors in Dublin**. An outline business case has been completed and is very positive. Detailed planning work, including the preparation of an Environmental Impact Statement will now be progressed in preparation for the submission of an application to An Bord Pleanála under the Strategic Infrastructure Act.*

<https://www.nationaltransport.ie/wp-content/uploads/2013/04/Minutes-of-Board-Meeting-June-21st.pdf>

Two years later, NTA stated

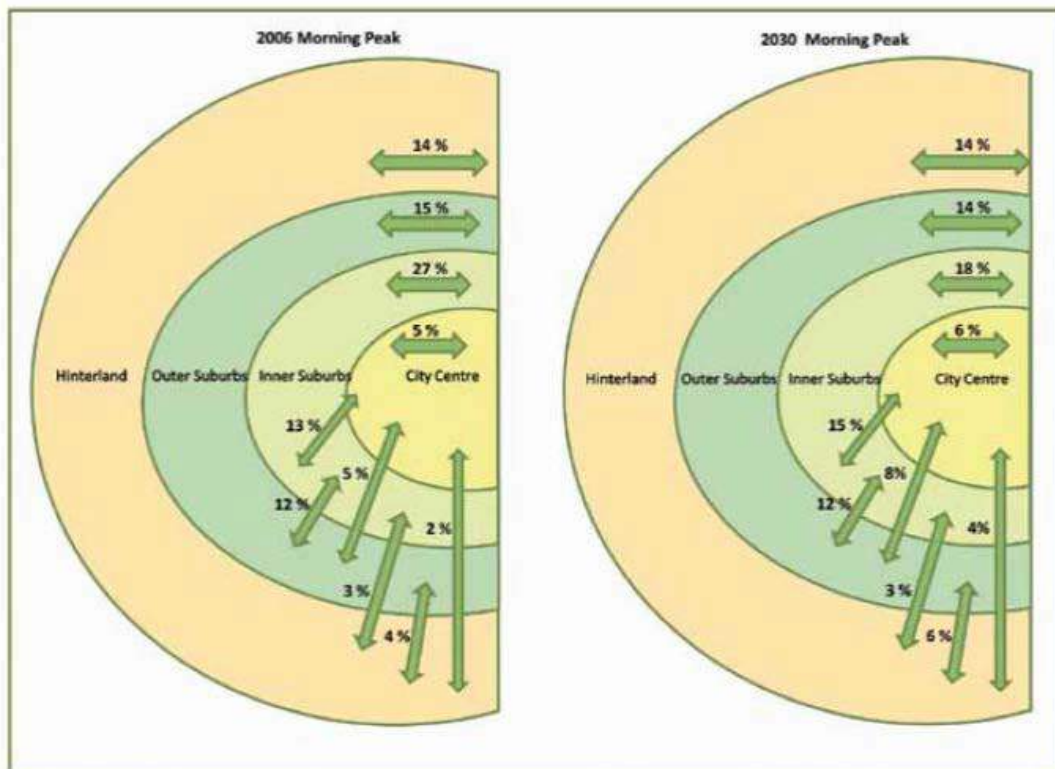
*Later in 2014, **we will apply for permission to An Bord Pleanála for the Swords/Airport to City Centre scheme**, with applications for the Blanchardstown to UCD and the Clongriffin to Tallaght schemes to follow in 2015.*

NTA employed three major consulting engineering firms to draw up a Route Options Assessment Report for BRT on the Swords/Airport-Drumcondra-City Centre.

What are the broad travel patterns within Dublin's Core Economic Area?

Earlier this year, NTA sought comments a re-published *Greater Dublin Area Transport Strategy 2011-2030 2030 Vision*, first published in April 2012^{2 3}

**Figure 2 Travel Patterns in the Greater Dublin Area (morning peak period)
2006 and 2030**



Source: National Transport Authority Greater Dublin Area Draft Transport Strategy 2011-2030 2030 vision April 2012. Chap 4 p.9
https://www.nationaltransport.ie/wp-content/uploads/2011/12/Draft_Transport_Strategy_for_the_Greater_Dublin_Area_2011-2030.pdf

This NTA report (Figure 2) shows that travel demand is greatest inside the M50 during the morning peak ie.

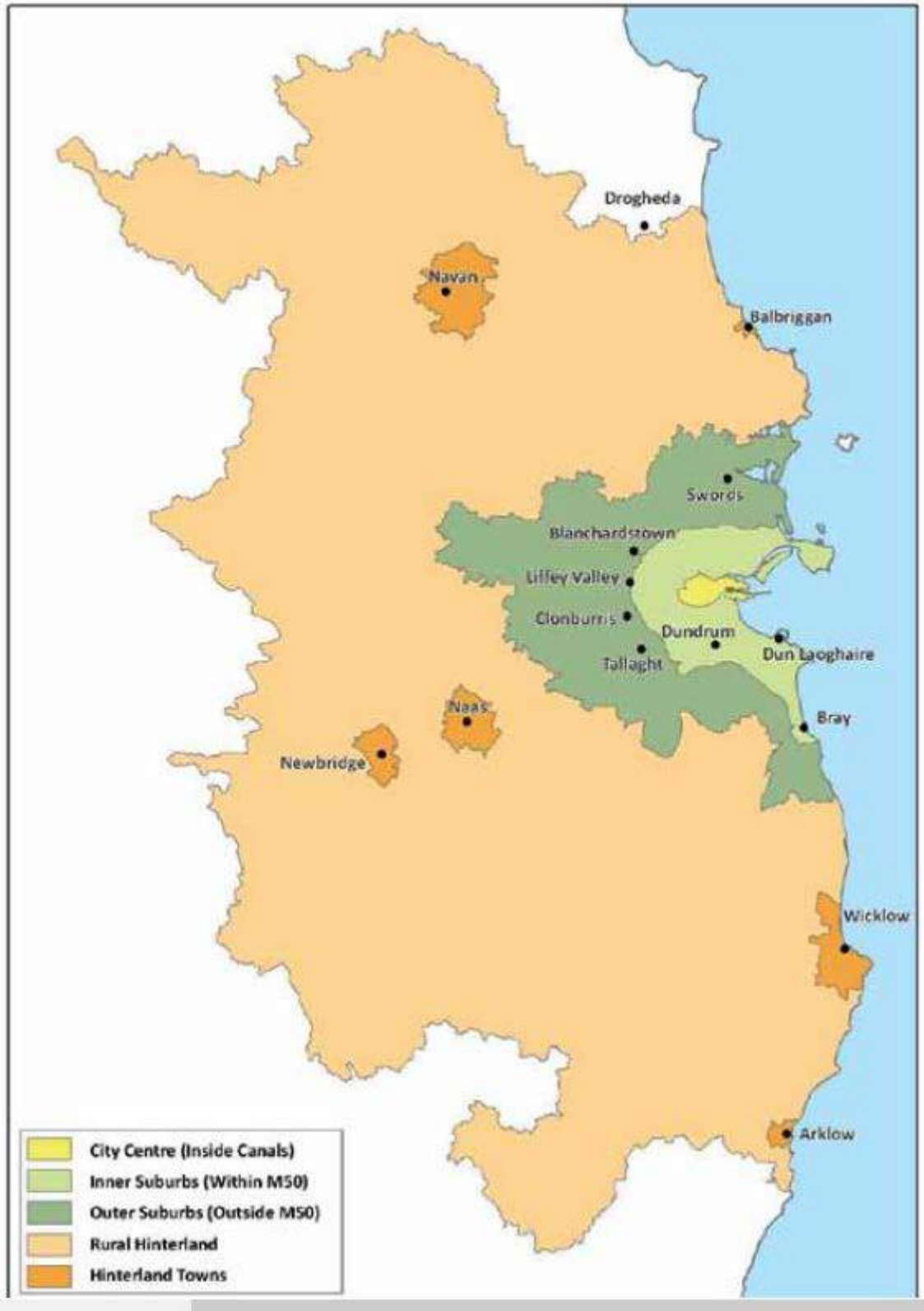
1. between the canals and the M50 - the Inner Suburbs - with
27% of journeys in 2006;
18% in 2030;
2. inside the canals - between the Inner suburbs and the City Centre with
13% in 2006;
15% in 2030.

Figure 3 shows what these areas are, in spatial terms.

²www.nationaltransport.ie/consultations/public-consultation-on-the-preparation-of-a-new-transport-strategy-for-the-greater-dublin-area/

³ www.nationaltransport.ie/wp-content/uploads/2011/12/Draft_Transport_Strategy_for_the_Greater_Dublin_Area_2011-2030.pdf

Figure 3 Greater Dublin Area

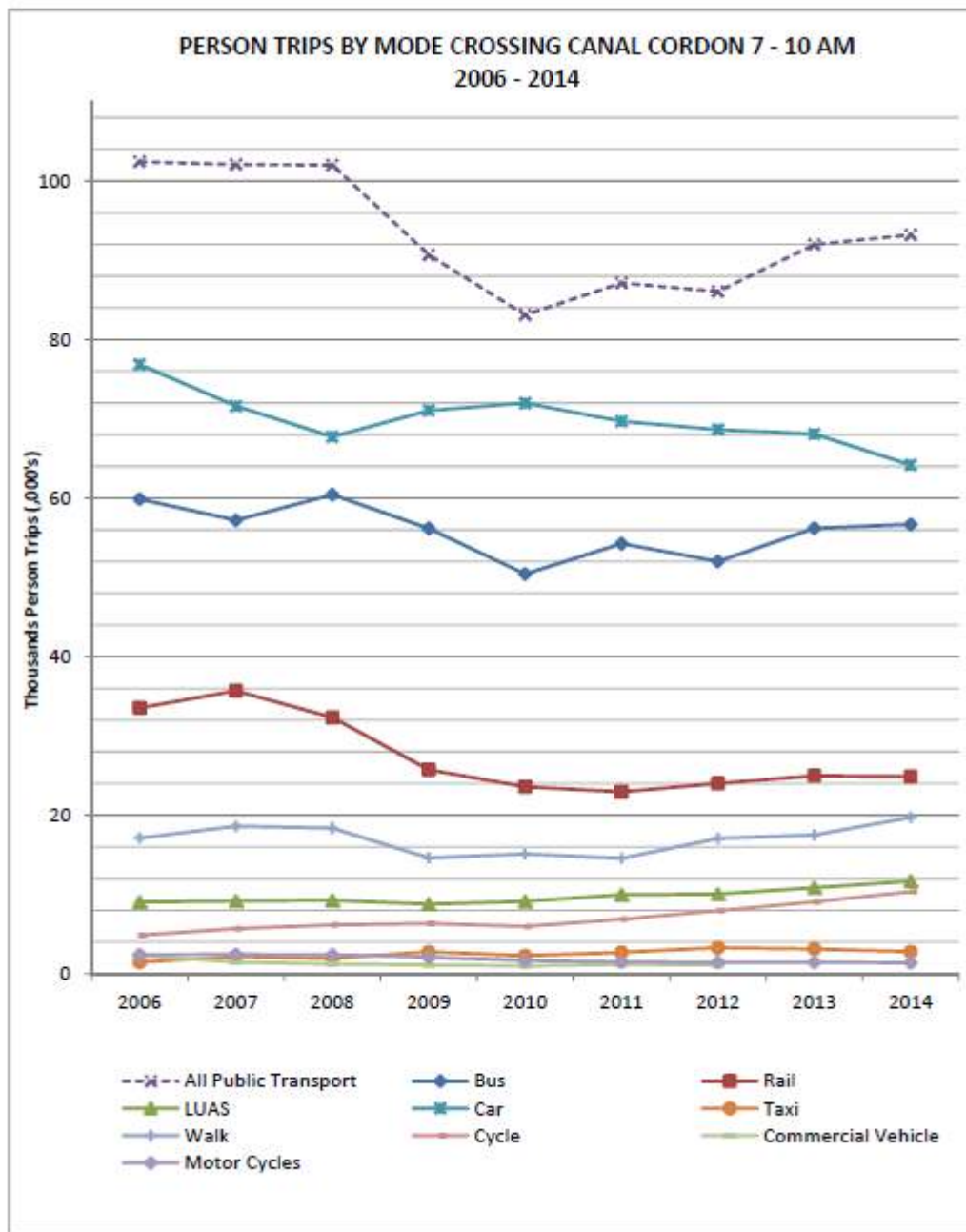


Source: National Transport Authority Greater Dublin Area Draft Transport Strategy 2011-2030 2030 vision April 2012. Chap 4 p.3
[https://www.nationaltransport.ie/wp-content/uploads/2011/12/Draft Transport Strategy for the Greater Dublin Area 2011-2030.pdf](https://www.nationaltransport.ie/wp-content/uploads/2011/12/Draft%20Transport%20Strategy%20for%20the%20Greater%20Dublin%20Area%202011-2030.pdf)

So how are people travelling?

The largest single group travel by car, but has decreased by 16% since 2006. The next largest group travel by bus. Walking has increased such that in 2014 it was at the highest level since the 1997 Cordon Canal Count started. Both the number of cyclists and the number of people using taxis have more than doubled, even if the share of taxis is small in overall terms. This is summarised in Figure 4

Figure 4 How people crossed the canal cordon during morning peak 2006-2014



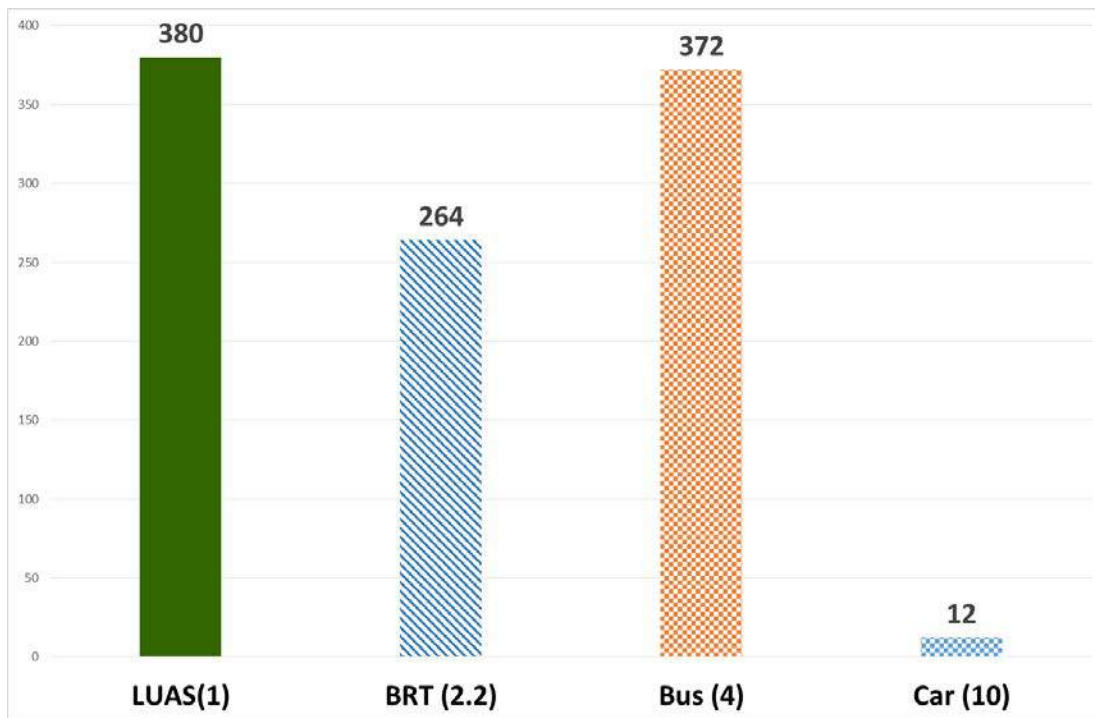
Source: Dublin City Council National Transport Authority. Report on trends in mode share of vehicles and people crossing the Canal Cordon 2006 -2014 March 2014 Fig. 2.3 p.14

https://www.nationaltransport.ie/wp-content/uploads/2013/10/Report_Canal_Cordon_Trends_2006-2014.pdf

Most people are travelling by car.

Let us just compare the use of streetspace by cars, buses the proposed Bus Rapid Transit and LUAS. See Figure 5

Figure 5 Passengers on one 40m LUAS tram compared with capacity of buses, BRT vehicles and cars using the same street space.



Basically, in the street space taken by a 40m tram(as used on the Green Line) carrying 380 people, we can get

- just under 2.2 buses (18m long) of the type proposed for Bus Rapid Transit (BRT), each of which carries 120 people;
- 4 of the latest buses (each 10m long) which Bus Átha Cliath bought, each of which carries 93 people;
- 10 cars (assuming each car is 4m), each of which carries 1.21 people⁴ ⁵.

⁴ Based on the average length of the top 10 selling cars in Ireland. Independent 4 May 2015 (VW Golf 4,255m, Ford Focus 4,36m, Nissan Qashqai 4.379m, Toyota Corolla 4.385m, Skoda Octavia 4.659m, Hyundai ix35 4.41m, Ford Fiesta 3.969m, VW Passat Saloon 4.767m, Toyota Yaris 3.95m, Kia Sportage 4.44m)

⁵Source: Dublin City Council National Transport Authority. Report on trends in mode share of vehicles and people crossing the Canal Cordon 2006 -2014 March 2014 p.16

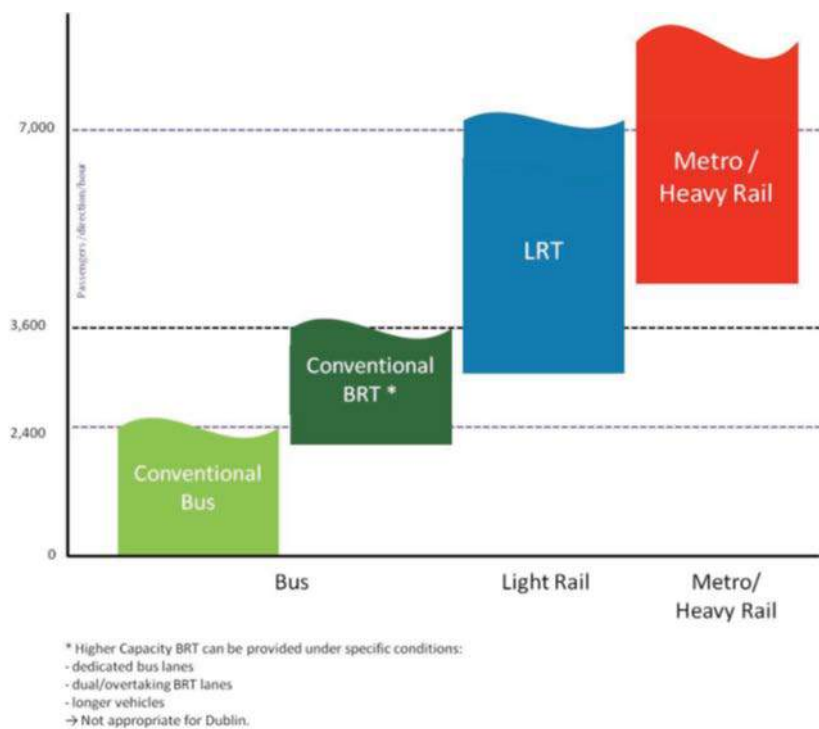
This comparison shows that there are higher operational and maintenance costs for buses (eg. more drivers needed to provide the same capacity as one tram, the life of a bus is not as long as a tram, other current costs are high).

In addition, being electrically driven, trams pollute less than t point of use. There are options for generating electricity, the emissions of which can be measured and controlled at point of generation.

The issue then becomes how best to allocate the limited street space, including consideration of adding another plane to that space and not ignoring the extra investment needed for both BRT and LUAS.

Figures 6 – 8 set out a basis for comparing various public transport modes in urban areas.

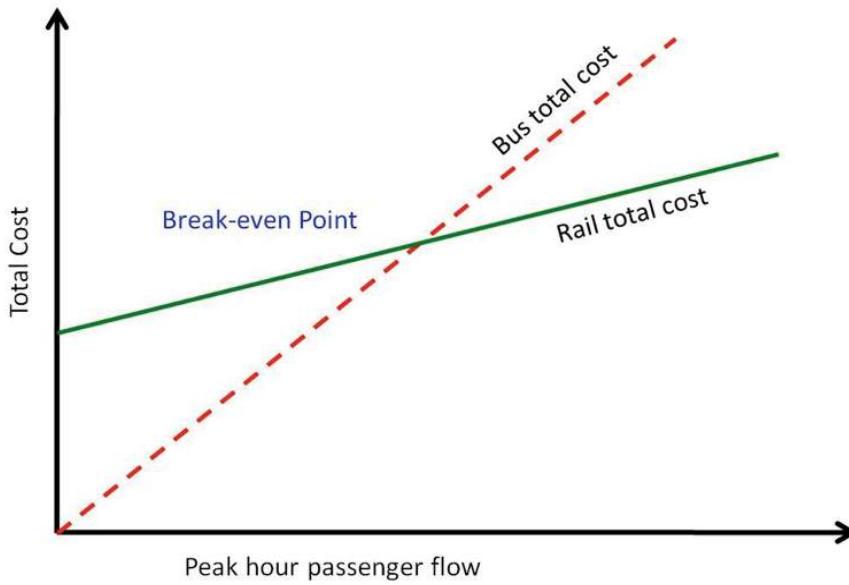
**Figure 6 Passenger Capacity of urban public transport
(passengers per direction per hour ppdph)**



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.3 p.4
<http://www.nationaltransport.ie/wp-content/uploads/2012/11/Bus-Rapid-Transit-Core-Network-report.pdf>

At some point, the total cost of investing in and operating trams is justified by the extra carrying capacity compared to buses.

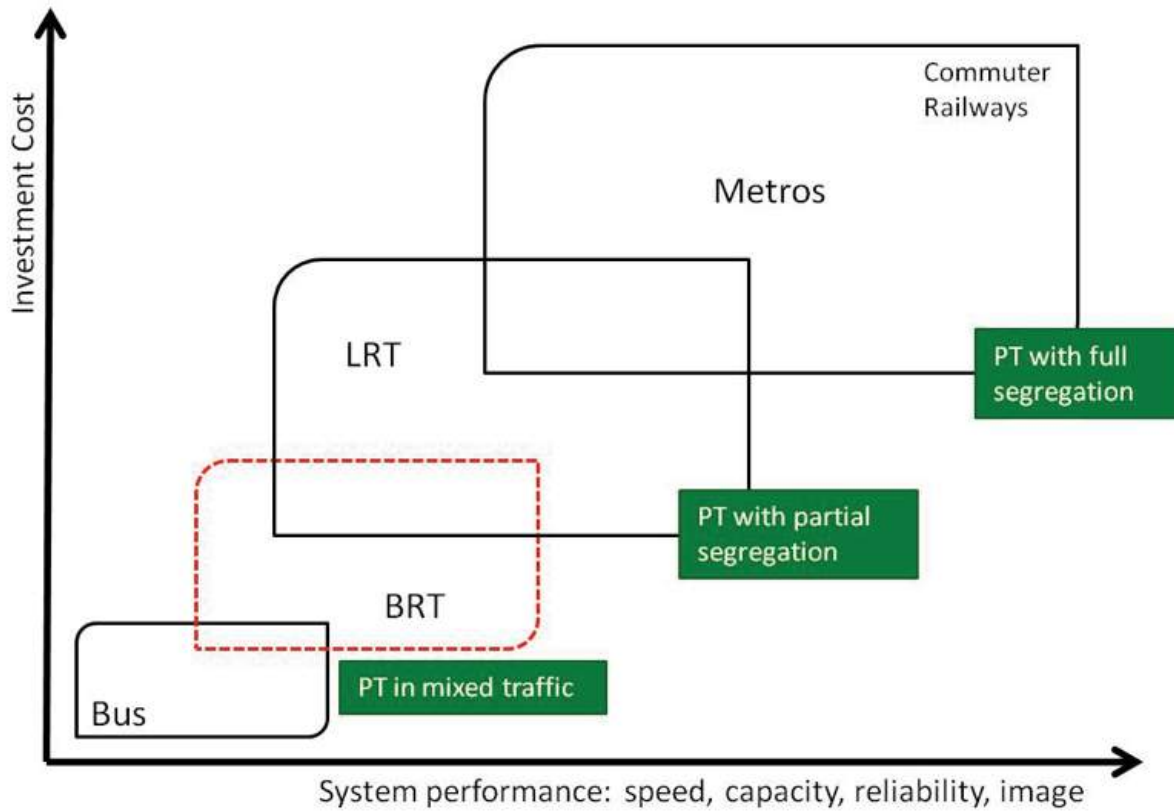
Figure 7 Cost of Peak Hour Passenger Flow Rail v Bus



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.21 p. 27

<http://www.nationaltransport.ie/wp-content/uploads/2012/11/Bus-Rapid-Transit-Core-Network-report.pdf>

Figure 8 Investment cost versus performance (speed, capacity, reliability)



Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Fig.2 p.3

<http://www.nationaltransport.ie/wp-content/uploads/2012/11/Bus-Rapid-Transit-Core-Network-report.pdf>

Figure 9 Transport Demand on Swords-Airport-Drumcondra-City Centre-Tallaght Corridor

4.6 Summary of Results

Figure 41 presents a summary of the results of the demand analysis. These results include the AM peak hour demand presented in the previous section together with a summary of the % above or below different capacities. The AM peak period boardings are also included.

Alignment	Scenario	Peak Lineflow	% above 15vph Capacity (1,800)	% above 20vph Capacity (2,400)	% above 30vph Capacity (3,600)	AM Peak Boardings
Blanchardstown to UCD	Base Year	3,369	87%	40%	-6%	9,482
	2030 Curr Inf	3,877	115%	62%	8%	14,577
	2030 Strategy Inf	2,564	42%	7%	-29%	11,838
Swords to Tallaght	Base Year	3,482	93%	45%	-3%	17,224
	2030 Curr Inf	5,845	225%	144%	62%	22,120
	2030 Strategy Inf	3,963	120%	65%	10%	17,828
Clongriffin to Tallaght	Base Year	2,754	53%	15%	-24%	11,899
	2030 Curr Inf	3,954	120%	65%	10%	14,618
	2030 Strategy Inf	3,638	102%	52%	1%	12,792

Figure 41 Summary of Results

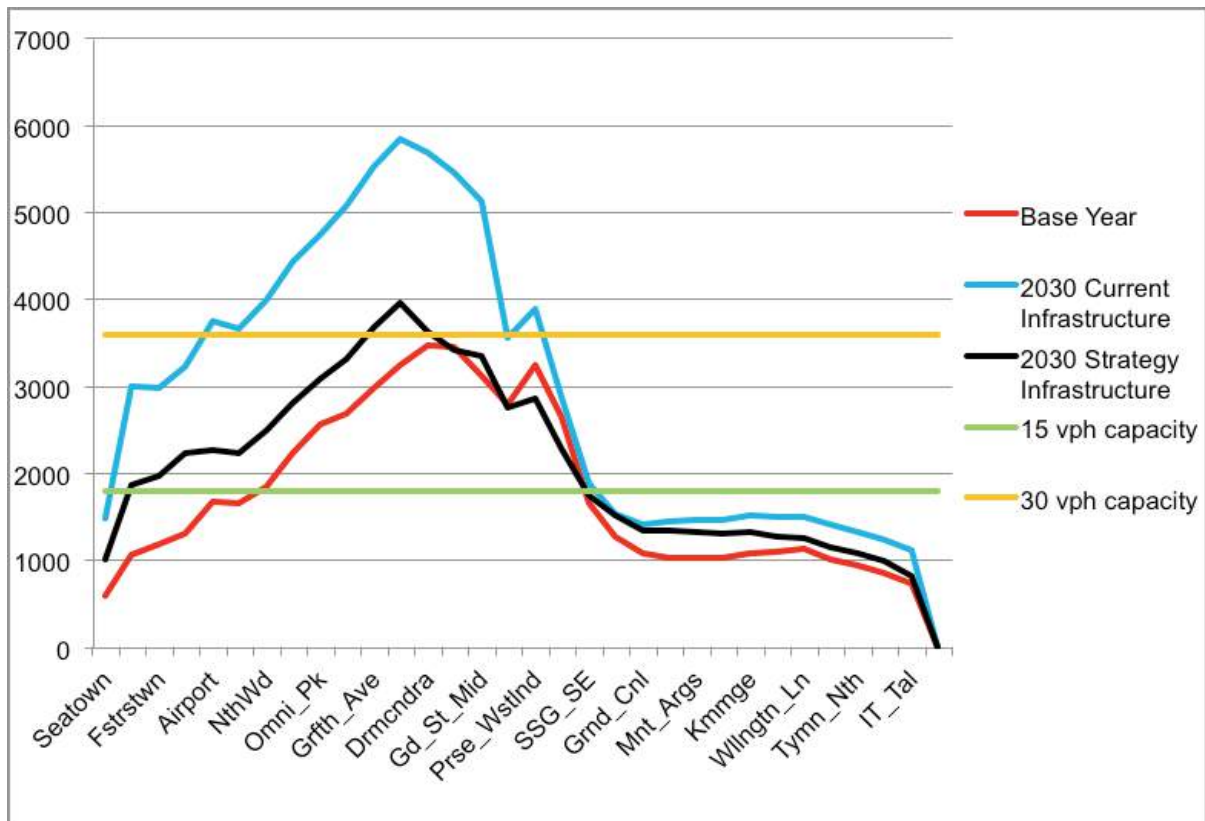
The results show that the Swords to Tallaght cross city alignment has the highest overall forecast demand, particularly in the 2030 Current Infrastructure scenarios. Demand to/from the Swords area and the Airport is high in these scenarios, resulting in a peak demand of nearly 6,000 ppph, which far exceeds the capacity of the proposed BRT service. Forecast demand on the Clongriffin to Tallaght and the Blanchardstown to UCD service also exceeds capacity in the 2030 Current Infrastructure scenario by 8% and 10% respectively. The Blanchardstown to UCD service has the lowest demand of the alignments tested.

Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Figure 41 p.53
<http://www.nationaltransport.ie/wp-content/uploads/2012/11/Bus-Rapid-Transit-Core-Network-report.pdf>

Figure 9 summarises the passenger demand on options which NTA studies in its Core Network Report for a Bus Rapid Transit system in Dublin. A later study (ie.a Route Options Assessment on the Swords/Airport-City Centre BRT November 2014) shows that, with one exception, passengers forecast exceed the proposed BRT capacity. This report assumes that the present bus network will still be in place. This means that regular bus services will still run on the same roads as the two separate BRT services on the Dublin Airport/Sword-Drumcondra-City Centre route.⁶ Figure 10 shows that Drumcondra is the point with the highest peak for passengers on the Swords-Dublin Airport-Drumcondra – City Centre corridor.

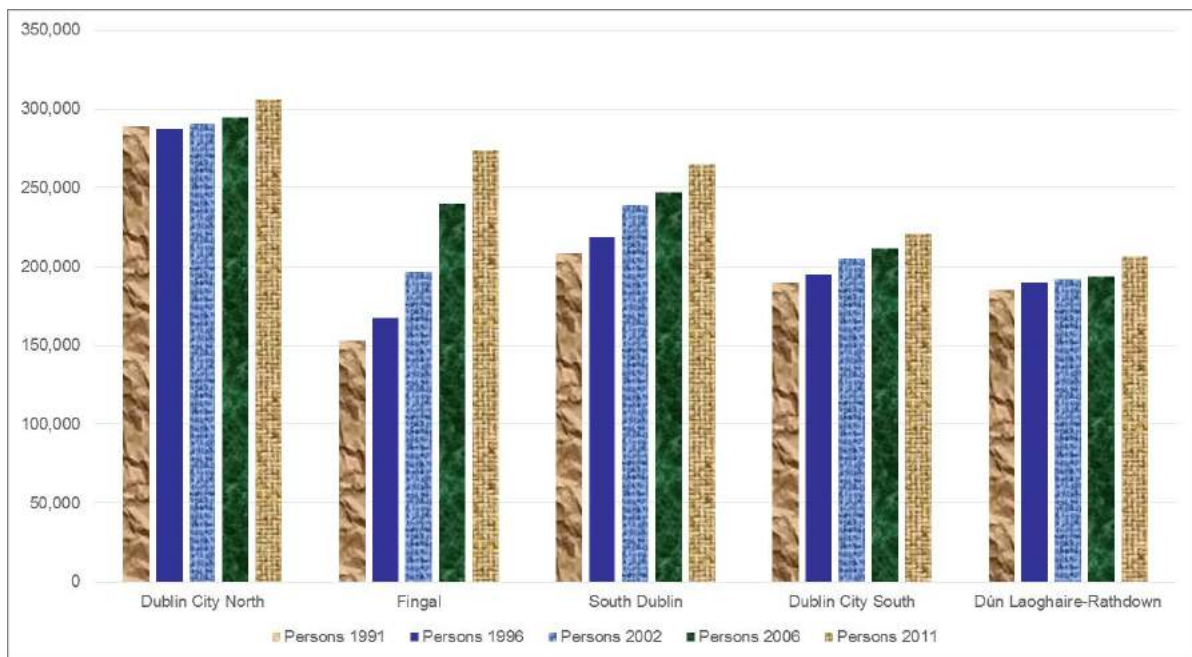
⁶ Summary tables 10.5 and 10.6 for the result for the opening year 2018 and the forecast year 2033 for 2 route options. National Transport Authority Swords/Airport to City Centre. Route Options Assessment Volume 1 : Main Report (October 2014 p. 187
http://www.nationaltransport.ie/wp-content/uploads/2014/10/Route_Options_Assessment_Report.pdf

Figure 10 Transport Demand in key North Dublin corridor



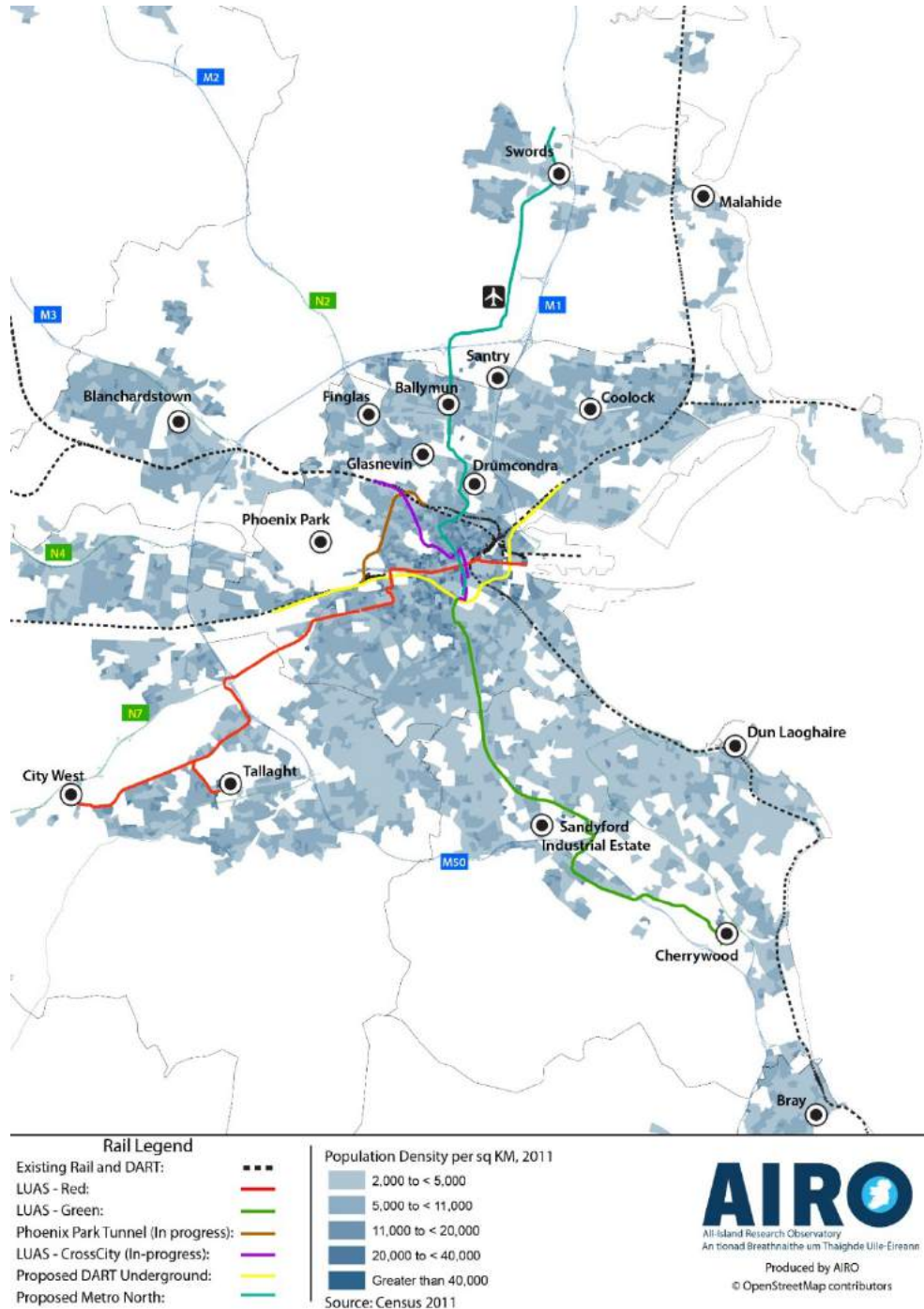
Source: National Transport Authority: Bus Rapid Transit (BRT) Core Dublin Network. October 2012. Figure 37 p.50
<http://www.nationaltransport.ie/wp-content/uploads/2012/11/Bus-Rapid-Transit-Core-Network-report.pdf>

Figure 11 GDA Population 1996-2011



More people live in the north part of Dublin city (306,425 in Census 2011) than in either the south city (221,186), Dun Laoghaire/Rathdown (206,261), South Dublin (265,205) or Fingal (273,991). Figure 11 shows that this has been so for the last 20 years.

Figure 12 Population Density (2011 Census)

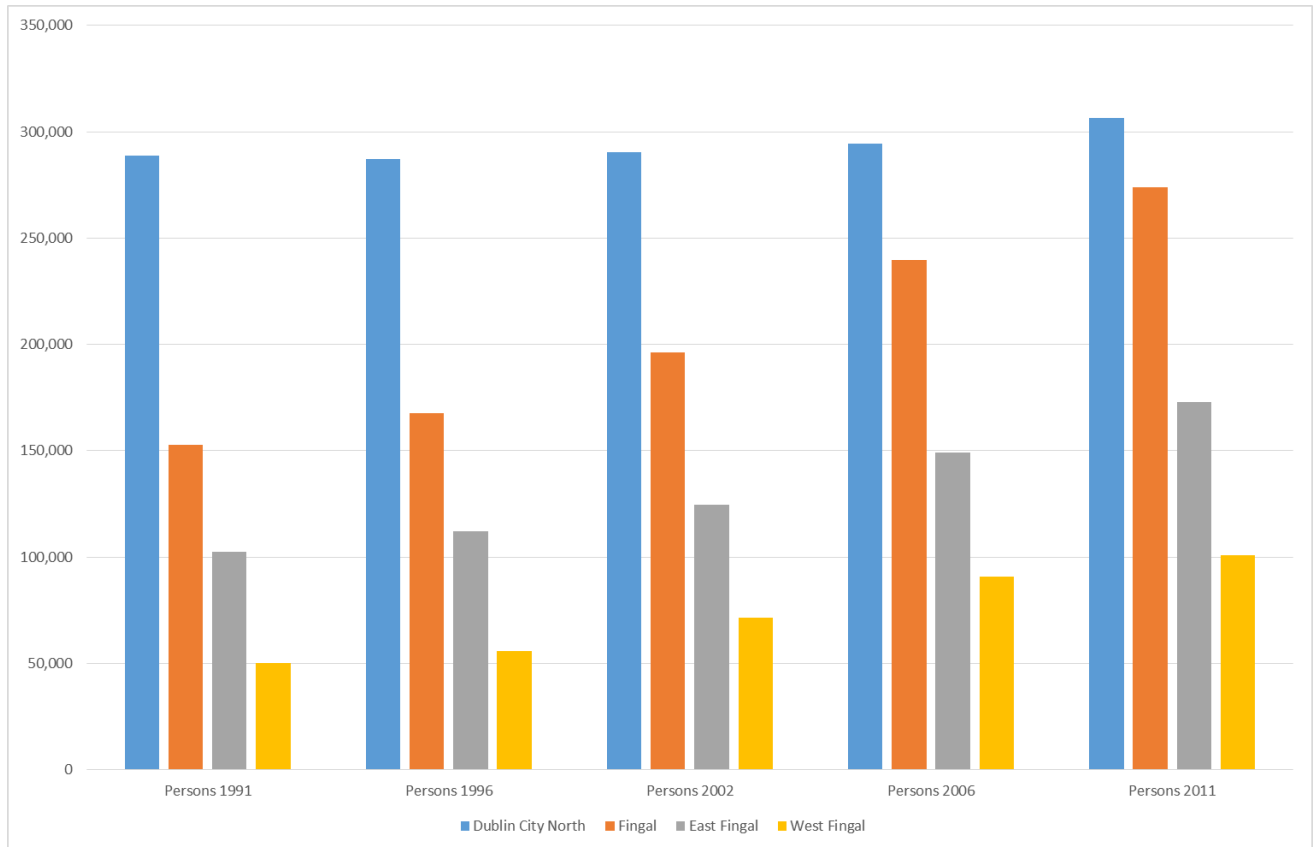


One justification for Metro North is that Fingal is the fastest growing county in Ireland. True. Asserting that alone hides the fact that Fingal can actually be split in what I call Fingal West and Fingal East, using the Ashbourne Road (M2/N2) as the border. Fingal East is the

only part of Fingal which the NTA focused on when it commissioned the Fingal/North Dublin Dublin Transport Study.

Note that West Fingal has doubled in population in the last 20 years. Blanchardstown has nearly 70, 000 people whereas Swords has 40,000 people.

Figure 13 Population Dublin City North, Fingal East and West



Swords is obviously *noisier* than Blanchardstown. Despite the origins of urban transport policy making in elections, how is it that this government won one of the two by-elections in West Dublin since 2011, without promising to electrify the Maynooth commuter line ie. bringing the DART to Blanchardstown?

Many of you realise that

- DART - the first electrification of rail transport in the Republic was promised in the first direct elections to the European Parliament in 1979;
- DART was extended to Greystones as a result of a by-election in Wicklow in 1995⁷;
- The LUAS we got – the early 21st century non-networked phenomenon was the result of the 1998 North Dublin by-election following the resignation of Ray Burke. This came about as the PDs – then in government- introduced a Dublin Transport policy for that election, despite not having any transport or environmental policy in the 1997 General Election manifesto. This audience will be amused when I tell that the ad-hoc transport policy had about a page and half entitled covering economics and finance. But there were no figures or calculations in that section.

Dublin Airport

Swrods gets attention because it is near Dublin Airport. Dublin Airport is a major employment centre with about 15,000 servicing the 22m passengers who travelled through the Airport in 2014

An NTA study of Dublin Airport passengers found that:

1.
 - a) Less than one seventh of trips (14%) were business related;
 - b) Three quarters of all trips were either for holiday/leisure (nearly half) or visiting friends/relatives (over one-quarter);
See Figure 14
2. Less than one third of the trips originated in City Centre/South part of Dublin City;
See Figure 15
3. Three quarters (75%) had a journey time of less than one hour to the Airport, with almost half (46%) having a journey time of less than 30 minutes;
See Figure 16

All this suggests that the vast majority of passengers using Dublin Airport may not be very time-constrained in how they access the Airport. Most passengers are not bound for our capital's Central Business District. Those passengers who are time-constrained have the option of taxis (which can use bus lanes) and/or using the Dublin Port Tunnel to access Central Business District.

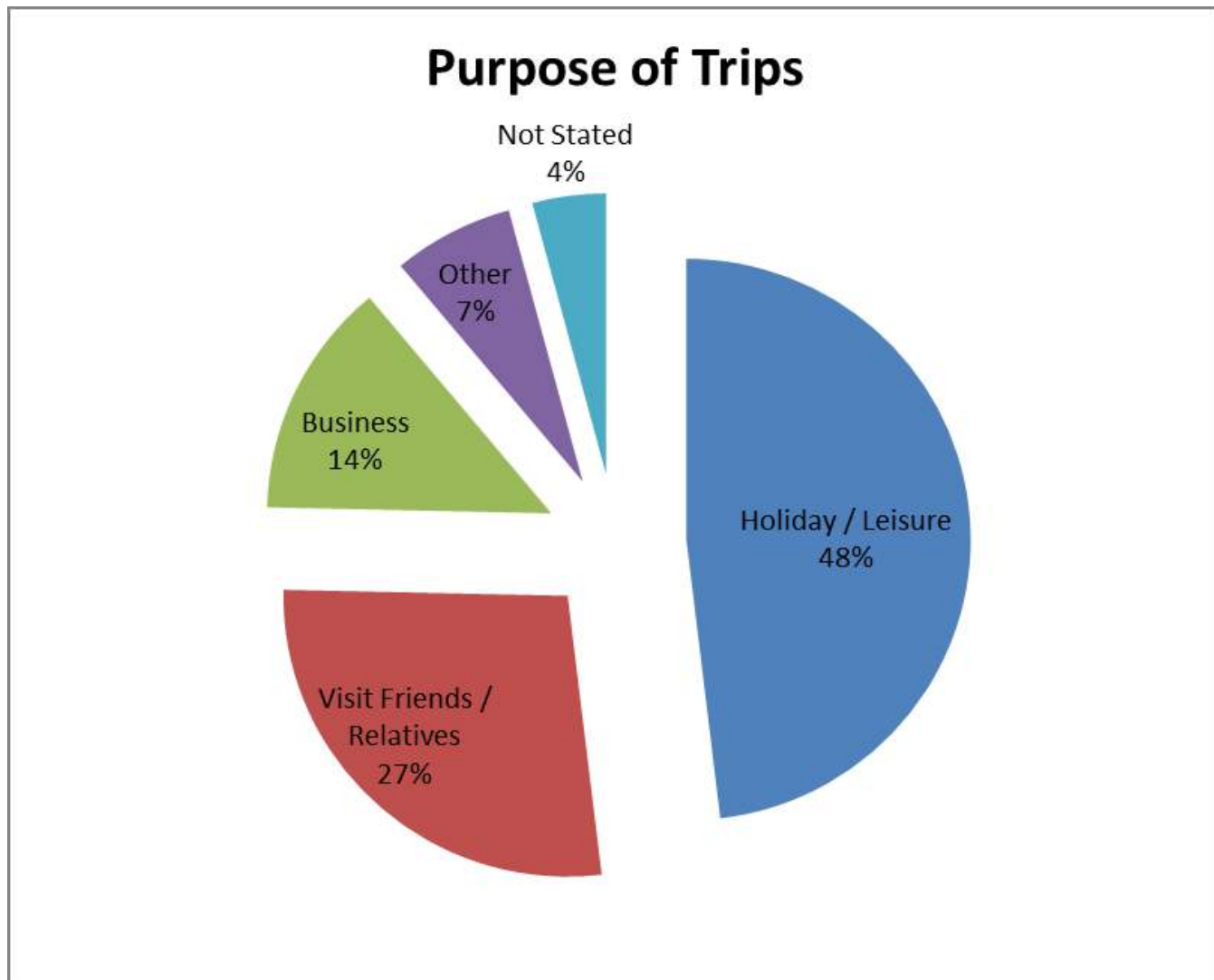
⁷ In July 1995, I wrote about this in an OpEd piece in the Irish Times. While I cannot be sure, I gather it this article had three effects. 1) Nora Owen, then Minister for Justice and living in Malahide set about ensuring that DART was brought to Malahide. 2) Bertie Ahern saw to it that Drumcondra Station (on the Maynooth line) was reopened. 3) Some nudging from the EU commission led to a study of the planned LUAS system which found that there were more trip attractors/generators on the proposed line from the City Centre through Drumcondra to Ballymun than there were on the then planned networked lines Dundrum through the City Centre to Tallaght. Department of Transport, Energy & Communications. A Comparative Socio-Economic Evaluation of the Tallaght-Ballymun/Dundrum Light Rail Lines. Final Report 1996. Oscar Faber. Table 4.3

Why do the public authorities insist that travel times between the City Centre and the Airport should be the major criterion, if not the sole criterion?

Is it really worth spending €2.5bn on a single channel which is to the west of the central part of the Dublin's Economic Core?

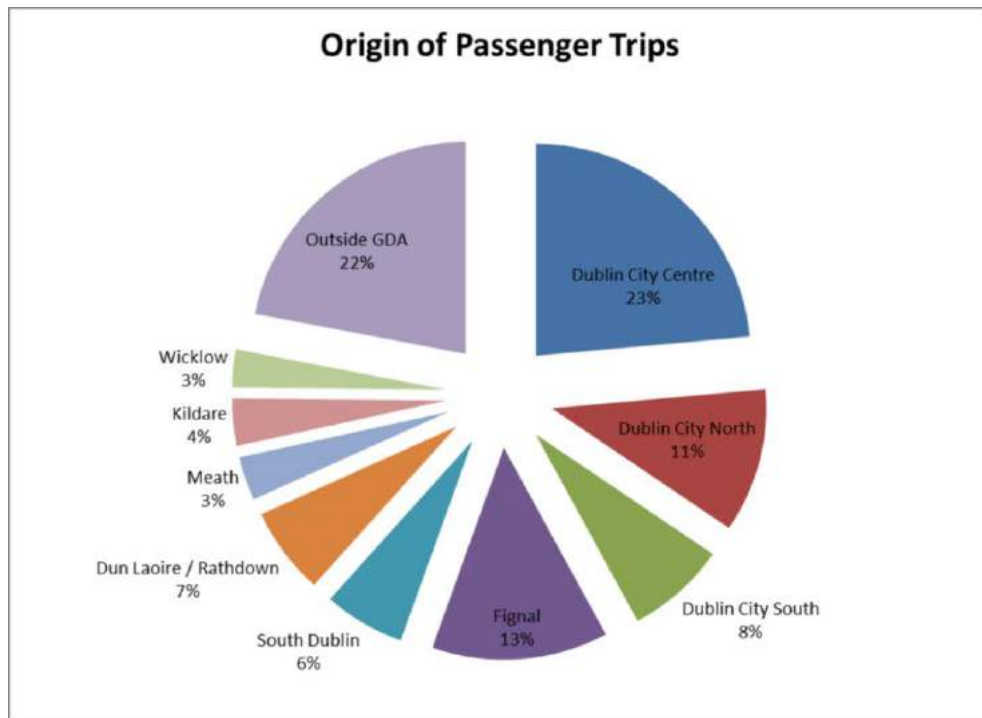
What is it about our transport policy makers that they opt to build yet another non-networked urban transport railway in our capital city?

Figure 14 Dublin Airport Why did people travel?



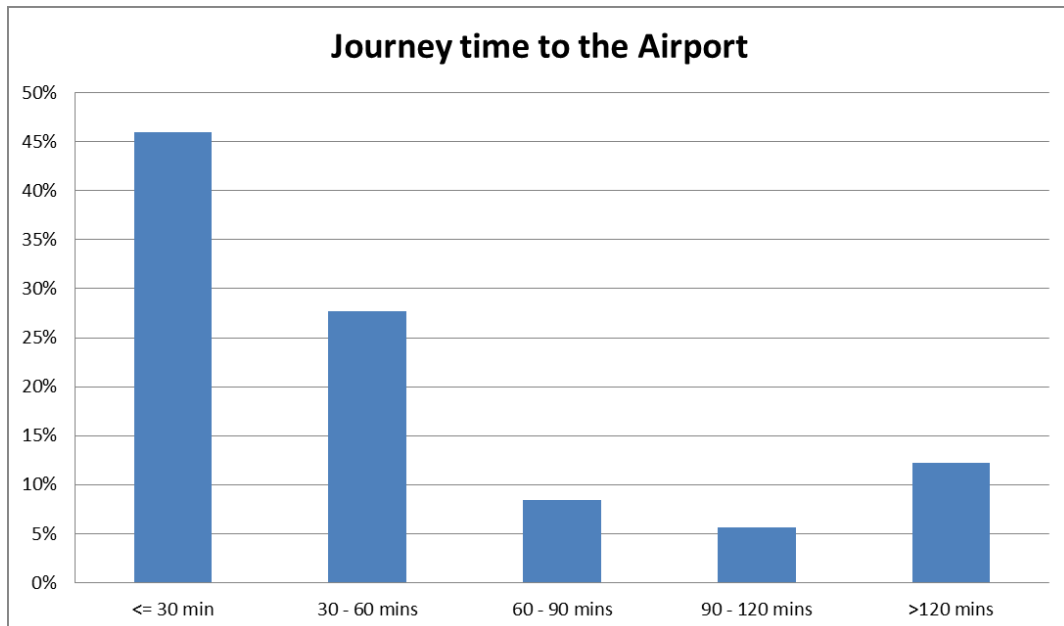
Source: National Transport Authority Survey at Dublin Airport 2011. Fig. 3.11 p. 22
<http://www.nationaltransport.ie/wp-content/uploads/2012/04/NTA-Survey-at-Dublin-Airport-20112.pdf>

Figure 15 Dublin Airport. Where in Ireland do they come from?



Source: National Transport Authority . Survey at Dublin Airport 2011 Figure 3.6 p. 15
<http://www.nationaltransport.ie/wp-content/uploads/2012/04/NTA-Survey-at-Dublin-Airport-20112.pdf>

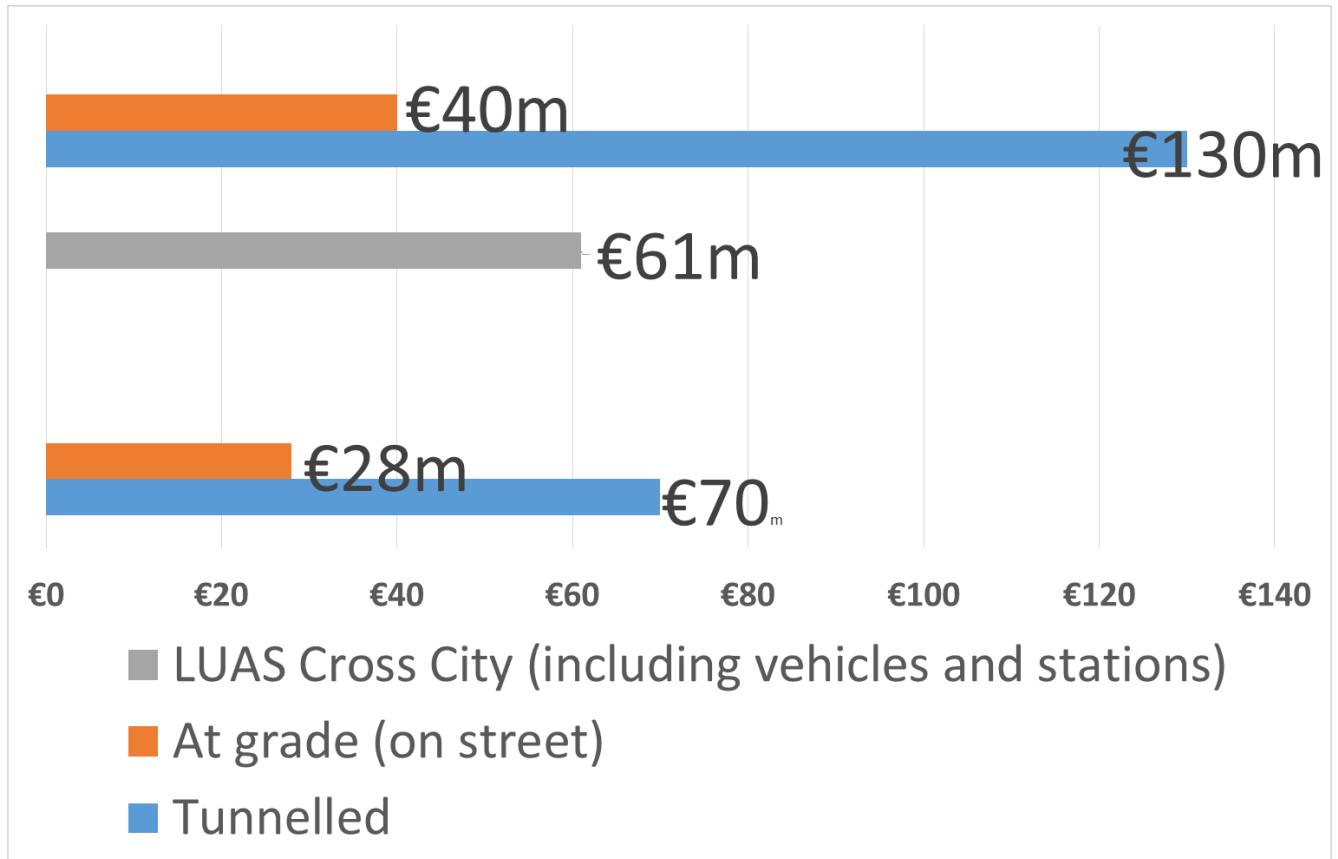
Figure 16 Dublin Airport. How long to get there?



Source: National Transport Authority . Survey at Dublin Airport 2011 Figure 3.5 p. 15
<http://www.nationaltransport.ie/wp-content/uploads/2012/04/NTA-Survey-at-Dublin-Airport-20112.pdf>

Assume that €2.5bn is the budget for enhancing public transport in Dublin’s Core Economic Area with a focus on Airport-City Centre links, what could be done for the money?

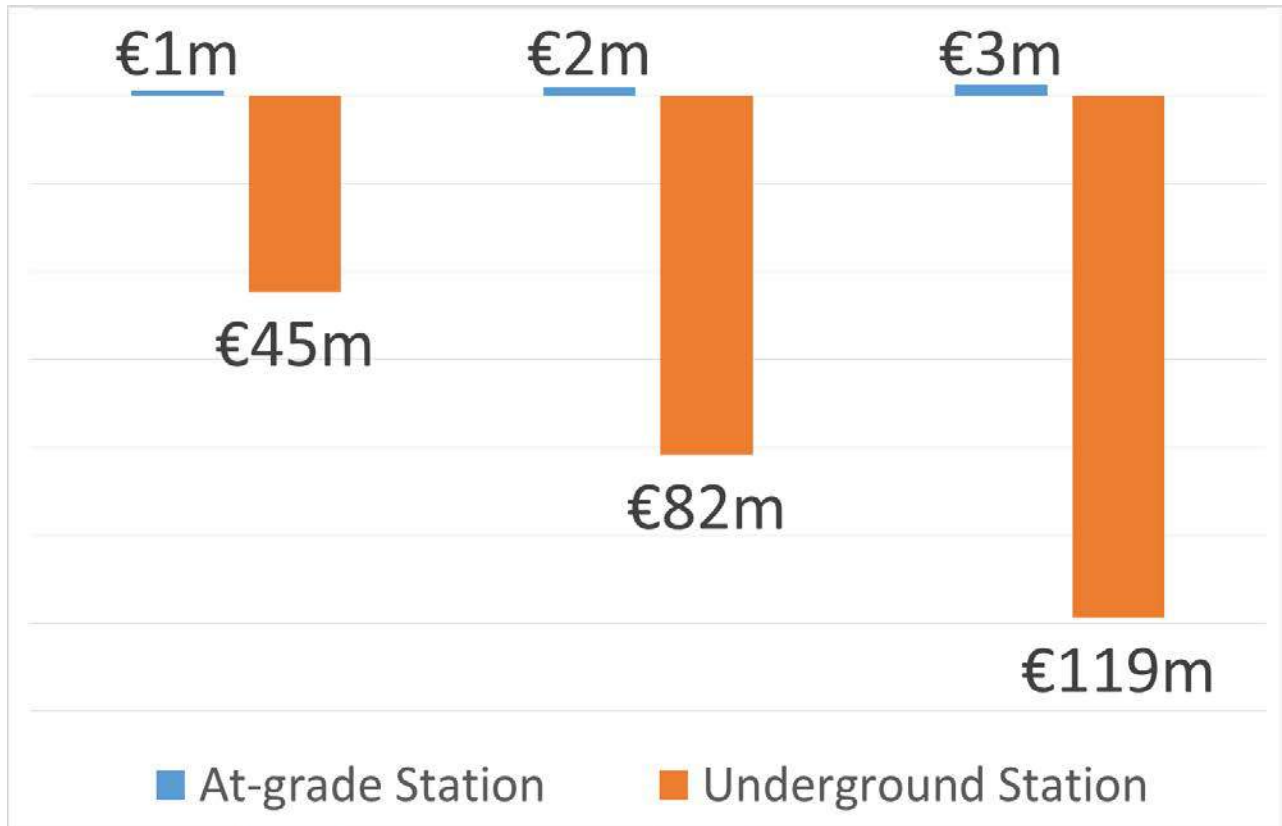
Figure 17 Comparative costs. LUAS CrossCity (including vehicles and stations) with estimated costs for on-street and tunnelled rail (excluding vehicles and stations) (€m/km)



Source: National Transport Authority AECOM. North Dublin/Transport Study. Stage One Appraisal Report Nov 2014. Table 6.5 p. 82

Figure 17 compares the max and minimum costs (€m/km) of on-street and tunnelled LUAS (as set in an NTA AECOM report) with the reported costs of LUAS Cross City now being built. While LUAS Cost City costs include stations and trams, the NTA/AECOM estimates do not. The costs of stations and vehicles have to be added to costs which the NTA/AECOM estimated. Figure 18 shows the comparative costs of stations only. Suffice to say that an underground station costs 40 times more than an on-street station. Of course the less stations you have, the less attractive it is for passengers.

Figure 18 Comparative Costs of LUAS stations onstreet and Metro stations underground



Source: National Transport Authority AECOM. North Dublin/Transport Study. Stage One Appraisal Report Nov 2014. Table 6.5 p. 82

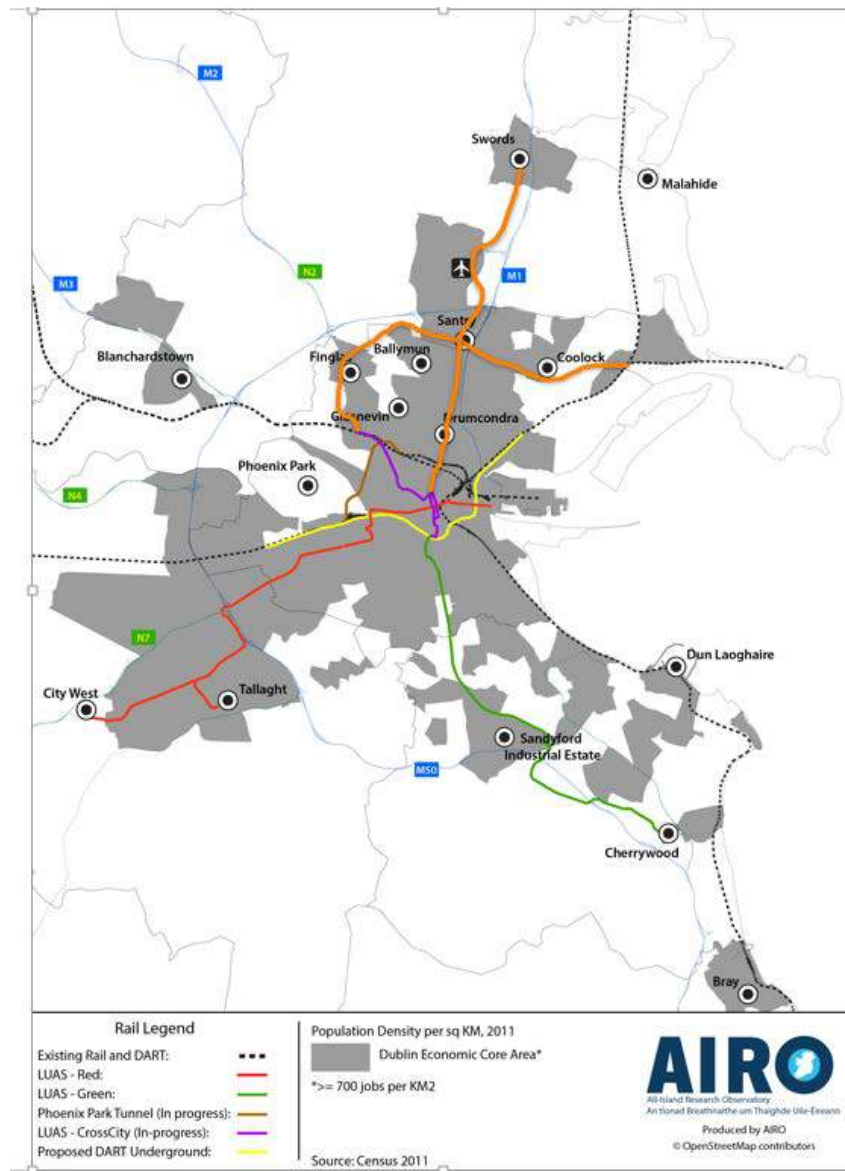
In Figure 19, I present a LUAS loop around North Dublin, with spurs to Airport, Swords and Howth Junction. Howth Junction is the station where the DART to Howth splits from the main northern line. It is also a station at which non-DART commuter services (eg. Skerries, Drogheda, Dundalk) stop.

Using the LUAS CrossCity cost of €61m per kilometre (including vehicles and stations), I estimate that this 35km line would cost just under €2.2bn.

The advantage is that

- It serves the northern part of Dublin's Core Economic Area comprehensively;
- Integrated with what already exists;
- It offers 3 rail-based ways of getting to/from the City Centre from the Airport;
- It links with
 - DART at Howth Junction;
 - Northern Commuter services also at Howth Junction;
 - The Maynooth line at both Drumcondra and Broombridge;

Figure 19 A North Dublin on-street LUAS Loop with spurs to Airport, Swords and Howth Junction



To promote competitiveness and social cohesion, Dublin needs integrated and sustainable public transport. Achieving this needs quiet, consistent competence to bring working and living conditions to the levels of well-run European cities. It would be a start if our public authorities drew the appropriate conclusions from their own reports and invested accordingly.

The case for extending LUAS in North Dublin is very well summarised in Figure

Figure 20 The case for extending LUAS throughout North Dublin.

AECOM

National Transport Authority
Fingal / North Dublin Transport Study

Expansion of the current light rail system to serve the Study Area could present significant benefits as follows:

- Light rail is a high quality product with high capacity that has already been well received within the City;
- Expansion of the network would present significant integration benefits and maximise the overall offer presented by the network;
- Light rail integrates well into the urban environment which will be important for areas like the north inner city and Swords;
- Light rail has a proven ability to drive urban renewal and economic growth which is an important objective within the current Study Area;
- Light rail, unlike heavy rail, can have shared use sections where space is limited, although ideally it should be segregated as much as possible;
- Light rail presents a suitable option where the level of demand is between bus and heavy rail capacities;
- The current light rail network includes a number of Park and Ride facilities that will further encourage a shift from car mode for commuting trips;
- Light rail is highly legible with a high commuter awareness of routes, catchment areas as well as facilities to enable ease of utilisation; and
- Emissions from light rail are low and remote from the vehicle.

Source: National Transport Authority. AECOM Fingal/North Dublin Transport Study. Stage One Appraisal Report November 2014 p.39
https://www.nationaltransport.ie/wp-content/uploads/2014/12/Appraisal_Report_19112014_final.pdf

Appendix 1

Wrong Steer on city's traffic needs

Irish Times 19 July 1995

Wrong steer on city's traffic needs

Donal O'Brolchain

Submission to National Planning Framework 2040
10 November 2017

127 of 142

I. T. O'NEILL WROTE. 19 July 1995

The development of public transport in north Dublin has failed to keep pace with the reality on the road, argues Donal O Brolcháin

THE recent decision to extend the DART to Greystones raises questions on how decisions on Dublin's public transport are made.

By-elections aside, why give Greystones, with a population of 13,000, priority for a DART extension over Malahide/Portmarnock (20,000), Clondalkin (38,000), Blanchardstown (49,000) or Maynooth/Leixlip (19,000)?

And how closely do the public authorities monitor and respond to changes in traffic? Take the situation regarding access to Dublin Airport. Passenger numbers at the airport have increased by over one million in the past year and now

total almost seven million per year.

Since all land access to the airport is by road, it is thought that up to 2,000 *additional* cars used the airport every day last year. And yet the Greystones DART is justified on the grounds that it may take about 600 cars off the roads daily!

What hope does official thinking offer to north Dublin? Not much, if the last available Dublin Transport Initiative (DTI) report is anything to go by. It gave no weight to traffic

generated by Dublin Airport in terms of improved access by road or rail during the current EU-funded National Development Programme.

Yet the DTI noted that the airport was the single largest employment complex in the east region, with 8,000 staff. As DTI has not yet published the annexe on Light Rail (LRT), we still don't know the basis for the Government's apparent decision not to build LRT lines linking the city-centre to Ballymun, Dublin Airport and Swords during the cur-

rent National Development Plan.

Provision of public transport in north Dublin is not keeping pace with developments. In addition to the airport, other developments continue to put pressure on north Dublin's infrastructure. Among these are Beaumont Hospital (2,000 staff, 650 beds and many visitors, suppliers etc) and Dublin City University (over 5,000 students on campus and 650 staff).

Other pressures include the GAA increasing Croke Park's capacity by

15,000 and continuing growth of industry in Santry, Coolock and Swords.

North Dublin is not the only place that transport authorities seem to deal with in a less than balanced way.

It is worth looking at what DTI said about DART. In contrast to other DTI documents, the latest available working copy of the Final Report (May 1994) did not specify any priority regarding DART extension.

The Interim Report (December 1993) noted that "the distances involved between the city-centre and the western towns which are prime candidates for new DART services (approximately 9 km) are *too short* to allow more than a few conveniently-sited intermediate stations on a metro-type system; in consequence, the economics of DART lines to Tallaght, Blanchardstown and Clondalkin are poor."

The question now is this: are the economics of a DART extension to Greystones better than one serving the growing population and industrial centres around Blanchardstown and north Kildare, using the Maynooth line and its intermediate stations? Why did DTI suggest that Leixlip/Maynooth — on a single rail track (just like Greystones) — get an improved diesel service instead of a DART extension?

The rapid growth in north Dublin and north Kildare demands that the Government re-examine the priorities assigned to public transport investment. Improving access to the

country's major international airport is critical, given that the aim of EU cohesion and structural funds is to improve our capacity to trade internationally in the single European market.

Prioritising the north Dublin LRT and DART projects is essential if public investment is properly focused on, and consistent with, securing what DTI called a "European model of the urban region, with a strong city-centre at the heart served by a balanced transportation system in which public transport provides for mass transportation needs".

How does the Greystones DART provide better balance in the transportation system than an LRT linking Ballymun (population 22,000), Swords (population 20,000) and Dublin Airport?

Why not bring the following forward during the current national development programme?

* LRT to Ballymun, Dublin Airport and Swords.

* DART extension to Portmarnock/Malahide with a fast, frequent link (possibly LRT) to the airport and Park 'n' Ride at the proposed Marino/Fairview station.

* Reopening Drumcondra station on the Blanchardstown-Leixlip-Maynooth line.

I see these as complementary to the Northern Cross section of the M50 (now being built) and the four-lane port access tunnel agreed by the Government last October.

At present, it seems that some decisions are being taken without regard to what is happening to traffic on the ground.

Donal O Brolcháin is secretary of Drumcondra 2005, an environmental project organised by seven residents' associations

Appendix 2

The Drumcondra

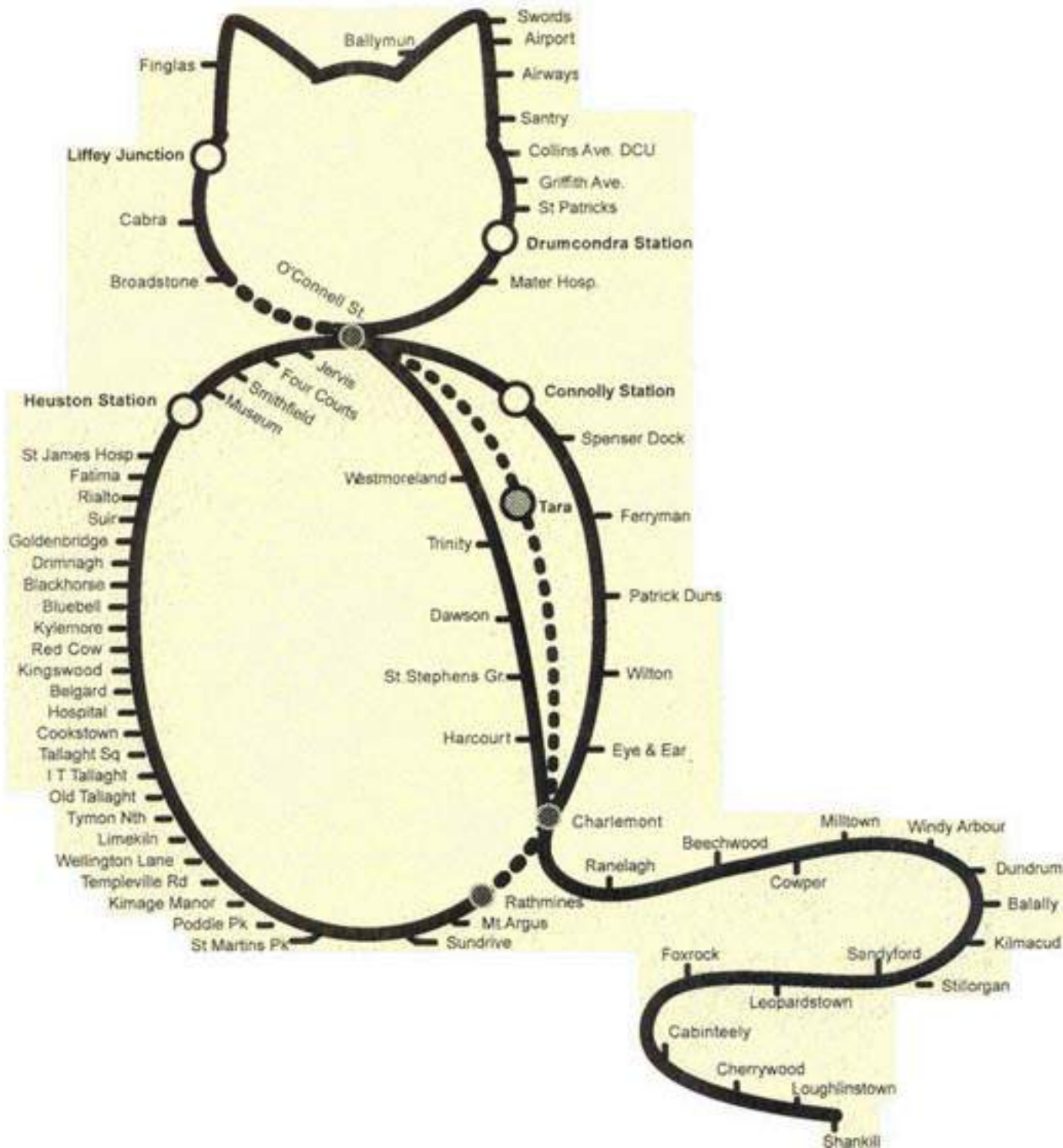
CITY ACCESS TRANSIT (CAT)

A response to a call for submissions in 2001

A ten year project to help shape the future of Drumcondra and its associated districts

CITY ACCESS TRANSIT

The public authorities have been pussyfooting on public transport for Dublin for years. Our capital needs a CITY ACCESS TRANSIT (CAT) system with a coherent design. The CAT proposed here hits the ground running as 20 per cent of it is based on that part of LUAS which the Government has already approved. Dublin can purr with this CAT.





May 2001

Strategy Development Group
The Light Rail Project Office
Heuston Station
Dublin 8.

Further to your recent advertisements, we demand that the proposed Light Rail line from Ballymun to the City Centre be routed through our areas to O'Connell Street to connect directly with the already approved lines to Tallaght and Sandyford.

We strongly object to the proposed routing away from the city centre to Broadstone and west. None of the many bus routes going through our areas take such a route. Neither do the Quality Bus Corridors follow such a route.

We want a CITY ACCESS TRANSIT with a coherent design, as the DTI proposed and as set out in the attached. We draw your attention to the 1996 Oscar Faber report which showed that a LRT line through our areas had more trip attractors/generators than did the Tallaght or Dundrum lines.

We point out that the DTO refused to give us data justifying the rerouting of the line through our areas away from the city centre.

In addition, we ask that you immediately propose to Government a city centre surface line to connect the already approved Tallaght and Sandyford lines. Otherwise, you will be repeating the mistakes made about 150 years ago when railways were first built in Dublin.

Handwritten signatures and names:

- Henry Kelly - Chairman, Bessford Residents Association 19-05-01*
- SECRETARY, Drumcondra 2005 20-05-01*
- L. W. Grogan, Chairman, Gracepark Community Assoc. 19/5/01*
- Jim W. Hedden, Chair, Gaeltacht Park Ass. 19/05/01*
- Patricia Lee, Chair, Drumcondra 2005 19/05/01*
- Robbie Dale, CHAIR, ALL HALLOWS 20/5.01*
- Kathryn Mulheady, Secretary, All Hallows Area Assoc. 19/5/01*
- Brian McLoughlin, CHAIR, I. D. R. A. 14/5/01*
- Joseph W. Hanrahan, CHAIR, COURTLANDS RESIDENTS ASSOC. 20-5-01*
- Cian Chan, CHAIR, BARRAS FORD RESIDENTS ASSOC.*

City Access Transit

SUMMARY

CAT is **street wise and clean**. It offers a coherent framework for

- **Park 'n Ride sites on all the main national roads**
- **Interchange with DART, Arrow and other mainline rail services**
- **access to Dublin Airport and Port**
- **redesigning bus services**
- **becoming fatter, with bells, whiskers and even kittens.**

CAT serves all the main road, rail and air access points to Dublin. It links many industrial, office and commercial areas with residential areas. The network also links many educational and cultural institutions as well as hospitals. CAT makes it easy to run continuous services in a single system.

Dublin's public transport (including buses) needs a **current cost subsidy** at the same level as other European capitals. A Dept. of Public Enterprise paper reported that Dublin's public transport gets less than one quarter of the subsidy rate in Helsinki and Stockholm. Other studies suggest that European capital cities have public transport subsidy rates of about 50 per cent.

We need **quiet competence - not grand gestures**. We must have a coherent strategy for the next 20 years. During that time, further options for the future can be developed, studied, designed, costed, debated and decided. By having three different policies in the three years since it took office, this government has shown itself incapable of coherent thought, competent planning and considered action on Dublin transport. Consider the following

- The proposal for a LUAS line linking Ballymun, Drumcondra to Broadstone! At present buses from these areas go into the city centre. If Broadstone did not exist, who would create this place well away from the city centre!
- The proposed LUAS link with DART near Shankill. This seems to assume using an old rail junction. This area is now built up. Does this new plan imply demolition of houses in Shanganagh?
- "The future of urban transport policy lies not in expansion but in the intelligent use of existing traffic areas. The objective of ensuring mobility for people when travelling to work and shopping and during leisure time requires imaginative urban traffic management based on modern information technology". Ernst Joost, Deputy Director, Zurich Transport Authority, speaking in Dublin in June 1999.

Both the **motoring and taxi lobbies want better public transport** instead of more parking charges and road-pricing. Judge Sean O'Leary, Inspector for the LUAS public inquiries, found that **buses alone cannot do the job**. John Henry, DTO Director told the same inquiries that light rail has a proven capacity to attract car drivers. As citizens of the Celtic Tiger, CAT **improves our standard of living** by making it easy to travel around our capital in **less polluting** ways.

CAT links different parts of Dublin using a mainly surface light rail transit. Many centre city stops are those already approved for the Tallaght and Sandyford lines, as are the stations on those lines. Government consultants studied a line linking Tallaght to Kimmage, going underground to Rathmines, Ranelagh, Tara St, O'Connell St and Broadstone. CAT includes that line. The LUAS vehicles already ordered are being built for underground running.

CAT is **cost effective**. Surface LUAS is **costs one-seventh** that of underground (see p. 5). The Government has already committed over 20 per cent of the cost by deciding to build the Tallaght and Sandyford LUAS lines at a cost of £353m for 23km. This CAT will cost £1.628bn. as follows:

On-street LUAS 70kms @ £15m per km	=£1,050m
Underground LUAS 6kms @ £38m per km	= £228m
Underground stations say 5 @ £70m each	= £350m

GET ON WITH IT!

CLEAN AND HEALTHY

Being electric-powered, CAT pollutes less at point of use and is quieter. Given the different ways of generating electricity, CAT need not contribute to climate change, as it does not emit any environmentally damaging greenhouse gases directly.

CAT will help Dublin to become a healthier city. Traffic is now the largest single air pollutant in urban areas. Some have estimated that traffic-generated air pollution causes over 20,000 deaths in Europe every year.

PARK 'N RIDE ON THE MAIN ROADS.

CAT provides a clear framework for Park 'n Ride sites. It links all the main roads into Dublin with much of the city, as follows

- Airport/Belfast road(N1) at Swords, the Airport, Collins Ave and Drumcondra;
- Ashbourne/Slane/Derry road (N2) at Finglas;
- Navan/Cavan road(N3) at Cabra;
- Lucan/Maynooth road(N4) along the quays e.g. Museum on the Tallaght LUAS;
- Naas/Kildare road(N7) between Red Cow and Grand Canal (with stations at Kylemore Road, Bluebell and Blackhorse on the already approved Tallaght line)
- Blessington/Tullow(N81) road at Tallaght;
- Bray/Wicklow(N11) at Loughlinstown and Cabinteely;
- M50 at two places, ie. between Kingswood and Red Cow(on the Tallaght line), between the Airport and Finglas between CAT's ears.

INTERCHANGE WITH DART, ARROW AND OTHER RAIL SERVICES

CAT has direct interchanges to the existing rail services at four different places. It links with

- DART by underground stations at Tara St or Connolly (Tara St station cannot cope with existing peak hour passengers. It is not clear that CIE's development plans for Tara St. include increasing the capacity for passengers).
- Heuston. This links with Kildare Arrow services and mainline rail services from Dublin to all parts of Ireland.
- The Western line at Drumcondra Station and a proposed station at Liffey Junction. Liffey Junction is between Cabra and Finglas. It where the railway line under the Phoenix Park joins the Western Suburban (Kilcock-Maynooth-Barrow St) line. This serves such rapidly growing areas as Blanchardstown in North-West Dublin and Leixlip in North Kildare.

DUBLIN AIRPORT

CAT serves Dublin Airport directly. It does so from two directions, as the Airport is on a loop. One part of this loop is mostly off street ie. from Harold's Cross to the Airport via Rathmines, Ranelagh, Tara Street, Broadstone, Cabra, Finglas. This would make it easy to run express and/or limited stop services to/from the Airport. This means a predictable travel time to and from the Airport. It shortens the total journey time, including the time spent looking for parking at Dublin Airport. CAT gives people another option on the cost and inconvenience of Airport parking.

For years, all Governments have ignored key facts about the Airport in planning Dublin transport. A recent Ove Arup report confirmed what the Dublin Transportation Initiative found in 1993 - that there is a lot of traffic **to** the Airport during the morning peak commute hour. This complements the city bound flow making this an ideal route for public transport.

A 1998 Aer Rianta/CIE Air-Rail study reported that over three-quarters of Dublin Airport passengers are making journeys for leisure purposes.(see p.6) Passengers who want non-stop Airport access would have the options of their own cars or taxis or bus services. All could use either the Port Tunnel or the complete M50 or the Eastern By-Pass, if it is ever built!

BUSES

Dublin needs a redesign of bus services. Bus drivers need comfortable places to work from and in which to take breaks. One Dublin Bus depot (Broadstone) is on CAT, while another three (Ringsend, Summerhill, Cunningham Rd) are very near it. This would help get rid of bus parking on city centre streets.

A FATTER CAT - BELLS AND WHISKERS, EVEN KITTENS

By adding bells and whiskers, and a kitten or two, CAT could serve other areas. One obvious area is between the M1 and the northern railway line. This whisker would take in industrial areas at Clonshaugh and Coolock in addition to Northside Centre and Beaumont Hospital. An extra bell could take in the Point, East Wall and the ferry terminal at Dublin Port, perhaps connecting with the Coolock whisker! Similarly, a west side kitten could take in Clondalkin and Citywest.

BEING STREET WISE,

CAT makes better use of the space available. (see p.7). A 30m CAT vehicle carries 60 people seated in the same street space as 6 cars. These 6 cars carry less than 9 people as each car carries an average of 1.42 people during the morning peak in Dublin according to the DTO.

100,000 new vehicles were registered in Dublin between January and October. Traffic planners allow over 5 metres per car. This suggests that Dublin needs over 12 km (7.5 miles) of street space each week to cater for these vehicles. On this basis, you might have to go to Cork to park!

CAT OR A WOMBAT?

CAT is a single network. As all parts are connected, there will be no need to build maintenance depots for the separate lines needed by this government's policy. Why build two separate depots for the Tallaght and Sandyford lines? The present policy does not to connect these lines. This repeats the mistake made when railways were first built in Ireland. The lines into Dublin did not interconnect then. Continuing this is a *waste of money, brains and time - a wombat*. Approving this "in principle", means dithering! This indecisiveness drives up costs. It makes life uncomfortable and unpleasant!

A PURRING CITY

All public transport has to be pleasant, easy to use, predictable and reliable. This means easy access for all and being clean.

Ease of use will be greatly enhanced when the Dept. of Public Enterprise brings in **integrated ticketing** for public transport. Smart cards (like telephone call cards) may be used. This will allow people to use a single card for any public transport journey within the Greater Dublin area, regardless of how many changes of mode (eg. from CAT to bus, DART, Arrow or suburban and vice versa) are needed.

Predictability means having up-to-the-minute information on the next service arriving at each public transport stop. DART has this. But CAT will run mainly on streets, where traffic conditions can make time tables more aspirational than real. **Real-time information** is necessary at each stop as in cities like Gothenburg.

Reliability demands that all public transport (CAT, buses) in Dublin must get **automatic priority at traffic lights**. Dublin Corporation staff resist this, despite the lessons of wealthy cities like Zurich.

GET ON WITH IT!*

CAT is one of a set of mutually-reinforcing measures which should make it easy for people to move around the Greater Dublin Area. We need the Government to get on with CAT by deciding, immediately, to

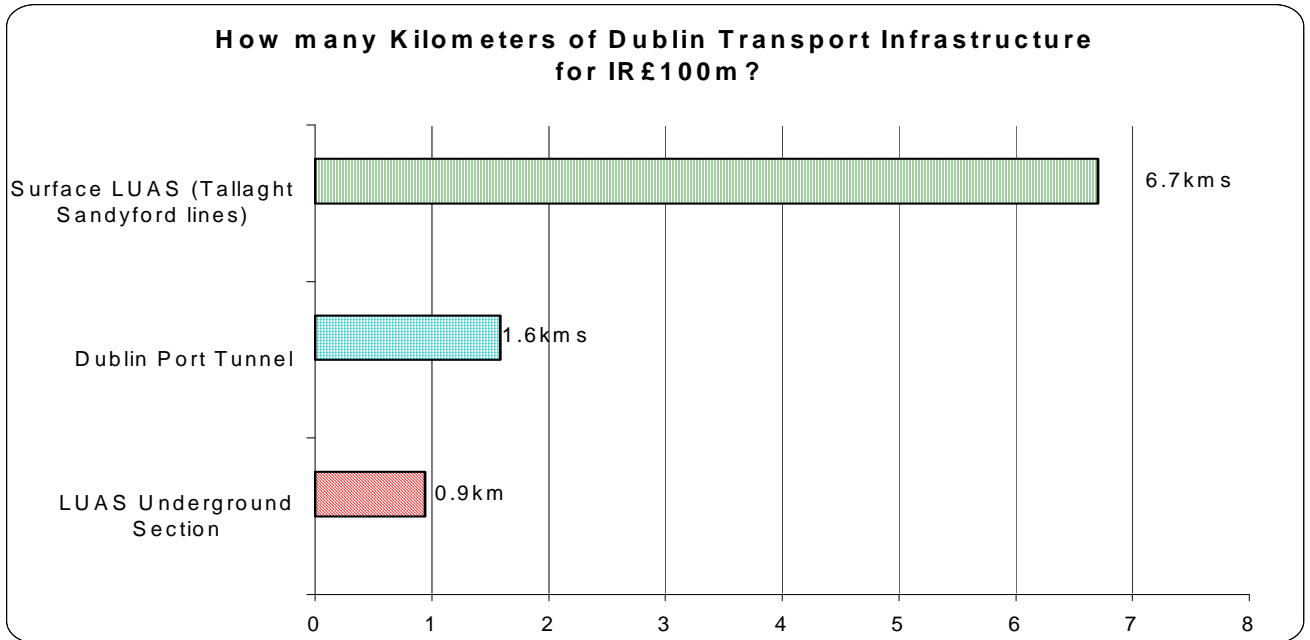
1. hold a public inquiry on a surface link (via Dawson, Nassau, Grafton and Westmoreland Streets) between the Sandyford and the Tallaght lines
2. fund full detailed design on
 - the northside loops serving the Airport, Swords and the suburbs between them and the city centre;
 - the Docklands loop linking Connolly to Ranelagh via the new Guild Street - Macken St. bridge;
 - a new line from Tallaght (via Templeogue, Kimmage, Harold's Cross Rathmines) to the city centre and Broadstone outlined by Atkins in 1998. This includes a tunnel from Mount Argus through to Broadstone (with underground stations at Rathmines, Ranelagh, Tara Street);
 - extensions to City West, Clondalkin, Coolock, East Wall and the Dublin Port passenger terminal.
3. Provide an operational cost subsidy of at least 50 per cent for all mass public transport - regardless of who owns or operates it.

*CAT is based on the following:

- the 1994 Dublin Transportation Initiative (DTI) final report.
- the 1996 Oscar Faber comparative study on Dublin's LRT lines.
- the 1997 Dublin Docklands Master Plan
- the 1998 Atkins study on surface/underground options for Dublin's light rail.
- the 1998 CIE-Aer Rianta Air-Rail link Report.
- the 1998 Dublin Corporation Review of Existing Air Quality and proposals for additional monitoring of traffic related emissions in Dublin City. issued by the Office of the Director of Traffic
- the 1998 DTO Final Report on Park and Ride Strategy for the DTI area
- CIE - Light Rail Project Office. Environmental Impact Statements
 1. Line A. Tallaght - Middle Abbey Street. July 1998
 2. Line B. St. Stephen's Green - Sandyford Industrial Estate. December 1998
 3. Line C. Abbey Street - Connolly Station. September 1999
- Findings of Inquiry
 1. Dublin Light Rail Line A. December 1998
 2. Dublin Light Rail Line B. June 1999
 3. Dublin Light Rail Line C. January 2000
- the 1999 Dublin City Development Plan
- the 1999 National Development Plan
- the 1999 Strategic Planning Guidelines for the Greater Dublin Area
- the January 2000 Atkins McCarthy report on the underground section of LUAS/LRT between Stephen's Green and Broadstone.
- the June 1999 lecture Economy and Ecology are not Contradictions - Lessons in Transportation Planning from Zurich by Ernst Joos, Deputy Director, Zurich Transport Authority organised by the Swiss Embassy and others.
- the March 2000 Ove Arup report Dublin Suburban Strategic Rail Review.
- the April 2000 UCD report Comparison of Subvention levels for Public Transport Systems in European Cities, commissioned by the Dept. of Public Enterprise.
- the April 2000 report by Environmental and Transport Planning (UK)
Bus or Light Rail: Making the Right Choice.
- the May 2000 Dept. of Public Enterprise report on Regulation of the Bus Market in the Greater Dublin Area. prepared for the Cabinet Committee on Infrastructural Development and Public Private Partnerships.
- the June 2000 Dublin Corporation proposal for a bridge in the Docklands
- the September 2000 article on Public-health impact of outdoor and traffic-related air pollution: a European assessment Lancet (UK) 2 Sept 2000 (Vol. 356 No.9232)
- the September 2000 DTO Platform for Change Strategy 2000-2016
- the October 2000 National Greenhouse Gas Strategy published by the Minister for the Environment and Local Government.

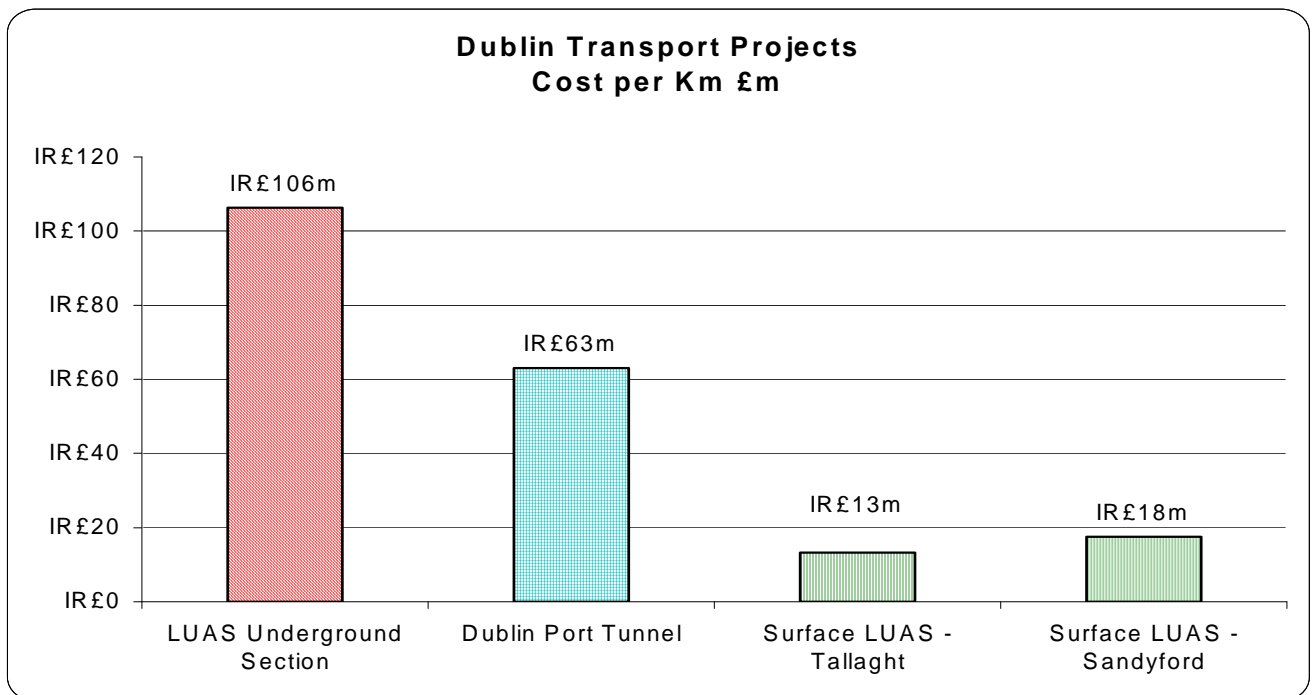
Donal O Brolcain

**It is still cheaper to put cars/trucks underground than to put LUAS/Metro underground, even with the doubling of the cost of the Port Tunnel!
Putting LUAS/Metro underground is the most expensive option.**



Sources:

LUAS Underground Section:	3 underground and 2 surface stops.	2.85kms	€303m
	Atkins McCarthy report for CIE. January 2000		
Dublin Port Tunnel:	Dual carriageway with 4.5km in tunnel.	5.6kms	€353m
	Dublin Corporation Press Release. 11 October 2000		
Surface LUAS:	Tallaght-Middle Abbey St line.	14kms.	€185m
	Dáil Debates. 29 March 2000		
	Sandyford-Stephens Green	9kms	€158m
	Mary O'Rourke, TD Minister for Public Enterprise. 31 July 2000		
	CIE. Environmental Impact Statements.		



DUBLIN AIRPORT

Profile of Passengers (1)

1999 Passengers (excluding transit)(2) 12,657,047
(say 12.65m.)

Purpose of Journey(3)	Business	Leisure
	24.4%	75.6%
Irish	(11.7%)	(33.3%)
Non-Irish	(12.7%)	(42.3%)

Origin/Destination of Air Travellers(4)

Dublin	50.7%	(say 6.42m)
Leinster	23.9%	
Munster	11.7%	
Connacht	7.9%	
Ulster	5.8%	

Dublin Area 'air passenger'(5)(subject to note)

Contiguous to DART network	45%	(say 2.89m.)
Northside	15%	(say 960,000)
Southside	30%	(say 1,925,000)

Note. "A closer review of the Dublin area airport 'air passenger' traffic highlights that approximately 45 per cent of the traffic is contiguous to the DART network... Similar information is not available for 'non-Irish' travellers through the Airport. However, market research indicates that up to 70 per cent of foreign travellers visit Dublin at some stage of their Irish trip. A review of the 1996 Bord Fáilte approved hotels and guest houses in Dublin highlights the very high concentration of bed spaces in the central area and the south east quadrant. The distribution of beds within these areas is summarised in Table 4.2 below. It is clear from this table that the south east city centre area (Dublin 2) along with the Ballsbridge and Donnybrook areas (Dublin 4) are the prime locations in terms of accommodation availability." (from par 4.3 of Source 1. Below)

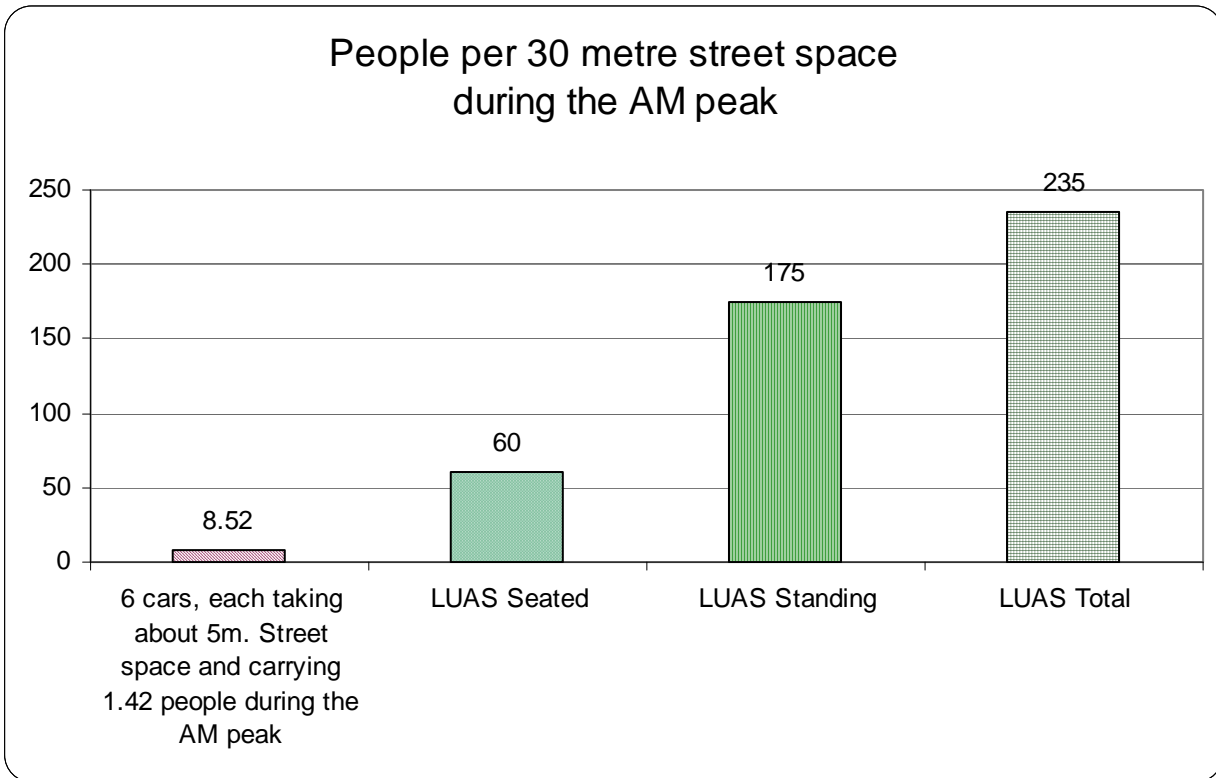
Surface Access (mode of use) by Air Passengers(6)

Private Car	67.6%
Taxi	12.2%
Bus/Coach	19.2%
Other (HGV, Motorcycle)	1%

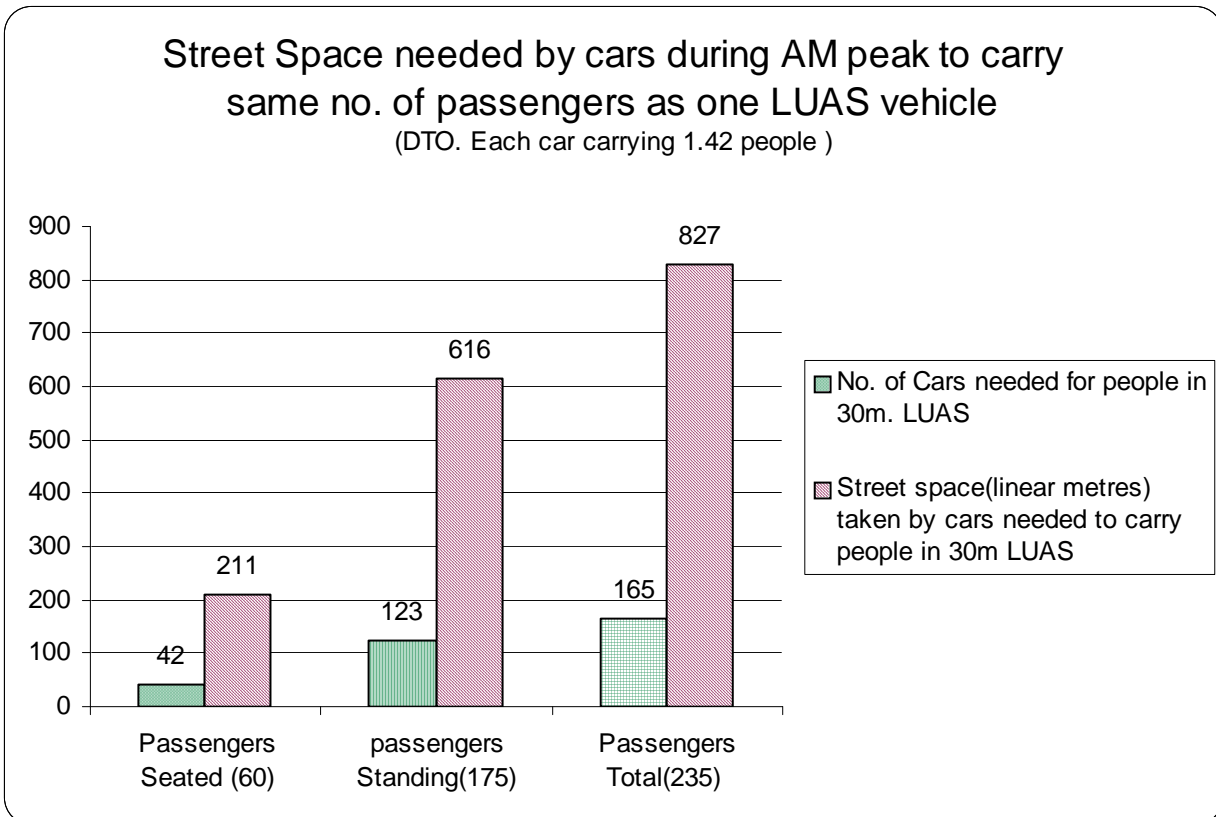
Sources

1. Drawn from CIE/Aer Rianta. Dublin Airport Air-Rail Link Study. Final Report. April 1998. (Air-Rail Link Study)
2. Aer Rianta Press releases on 1999 Passengers through its Airports. 28th January 2000
3. Air-Rail Link Study. Table 3.4. p.12
4. Air-Rail Link Study. Figure 4.1 p.19
5. Air-Rail Link Study. Section 4.3. p.19
6. Air-Rail Link Study. Table 4.4. p.25

STREETWISE!



If 1,000 new cars are being bought every week in Dublin, then these occupy 5km (3 miles) of street space. It is cheaper to provide new street space underground, in road tunnels, than it is to put LUAS/Metro/Rail/CAT underground (see p. 5)



Appendix 3

LUAS needs joined-up thinking

Sunday Times 26th September 2010

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Think tank: Luas needs joined-up thinking

Our governing classes refuse to learn from their mistakes. Spin, hype and bluster cannot disguise the fact that quiet competence is missing

Donal Ó Brolcáin
Published: 26 September 2010

- [Recommended \(1\)](#)



as cannot be a network without integrating the lines (Gareth Chaney Collins)

The property-induced economic crisis has given us an opportunity to scrap Metro North and the proposed Dart Interconnector, and instead expand the Luas system in Dublin. Within the next few weeks, the Railway Procurement Agency (RPA) will open the Luas Green line extension to Cherrywood. This includes two fully equipped stations that will not be used. Recently, Iarnrod Eireann said it will not open a newly built station on the Kildare line. In both cases, the reason is that expected property development did not take place.

Metro North and the Interconnector are also predicated on development assumptions that no longer hold. Meanwhile, the government has dropped plans to link the two existing Luas lines for passenger services. This perpetuates the folly of the decision made in 1998 to build two separate Luas lines.

To meet the aims of government transport policy — to ensure the provision of a well-functioning, integrated public transport system that enhances competitiveness and contributes to social cohesion — I propose an integrated Luas, which would create an on-street loop around the central business district; access Dublin airport from all parts of the network, including a link to Dart; and fill the transport void in north Dublin with three Luas lines, all on the surface and cheaper per kilometre than Metro North.

Luas cannot be a network without integrating the Green and Red lines. This means a full interchange at the O'Connell Street-Abbey Street junction. This is no more radical a suggestion than the RPA-Iarnrod Eireann proposal to uproot St Stephen's Green as part of their plans for two lines (Metro North, Dart Interconnector) underneath that part of Dublin.

Integrating the Green and Red lines needs two tracks on-street from Stephen's Green to Broadstone, as RPA proposes. It would transfer to the unused line that joins the Western line (Maynooth, with the new Dunboyne line) at Broombridge.

Last Friday, An Bord Pleanála was due to hold a preliminary hearing on RPA's application to build another Luas line, one that will not connect the existing lines for passenger services. The plan includes a bridge across the Liffey, joining Marlborough Street and Hawkins Street. This is silly, as it ignores the Samuel Beckett bridge, designed to take Luas vehicles. Why build yet another bridge that does not extend the Luas catchment area? Such a proposal goes against the notion of cost-effective improvement of public transport in the built-up parts of the capital.

The Docklands loop that I am proposing would use the Samuel Beckett bridge to integrate this new city quarter. Running on-street, it would connect the catchment areas of the Green line (Sandyford- Cherrywood) to the docklands, linking up the newly opened National Conference Centre, O2, Busaras, Connolly station and the Abbey theatre. It would connect the Red line (Tallaght-O2) to the south docklands, allowing easier access to the Grand Canal theatre, Shelbourne Park, the Aviva stadium, the Eye and Ear Hospital and National Concert Hall. It would require a new Dart interchange at Barrow Street on the southside, complementing Connolly Station on the northside.

The North Dublin loop would start from the joined-up Luas lines in O'Connell Street, run up Dorset Street, Drumcondra, Whitehall, Collins Avenue/DCU to Ballymun, onto the airport and back through Finglas to join the extended Green line at Broombridge. The airport can be linked to the Dart at Clongriffin, with a Luas line taking in Coolock, Beaumont Hospital and the North Fringe. That would put Dublin airport on a loop connecting it to the central business district from two directions. The airport can be also linked to the Dart at Clongriffin, with a Luas line taking in Coolock, Beaumont Hospital and the North Fringe.

Our governing classes love grand gestures, usually involving the feuding public-sector baronies of CIE companies, the RPA, National Roads Authority, local authorities, government departments and the newly created National Transport Authority. They refuse to learn from the mistakes made when railways were first built in Ireland.

Spin, hype and bluster cannot disguise the fact that quiet competence is missing. Dublin needs an integrated Luas network to show the “joined-up thinking” of which we have heard so much, and to get us out of the crisis caused by reliance on property development.

Donal Ó Brolcáin was secretary of Drumcondra 2005, a group of residents' associations that campaigned to remove through traffic and for more public open space