Dublin Bus

Bus Service Development Plan

Submission to National Transport Authority

Public Service Contract

Draft

05.03.2013

1.0 Executive Summary

Over the next seven years Dublin Bus will operate in an environment where economic and infrastructure changes will have a significant impact on public transport. Over the lifetime of this plan an opportunity exists to increase Dublin Bus customer numbers and improve key stakeholders' views of public transport. This period will see a return to business growth for Dublin Bus and public transport in general.

Dublin Bus' strategy will ensure that the company is best placed to shape its future while improving the public transport experience for customers. This will be achieved in part by building on the positive changes to the bus users experience over the past two years, including Network Direct, RTPI, Leap and Quality service provision. See *appendix 1* for details.

After a period of unprecedented change in the bus network as part of Network Direct, stability has now been established. A return to growth is now being experienced on key routes in the network. This growth needs to be rigorously protected over the short term. However, impacting this will be disruption in the city centre caused by Luas BXD works. A significant multi agency communications campaign should take place keeping customers informed of route changes and also promoting a message of "business as usual" in the city.

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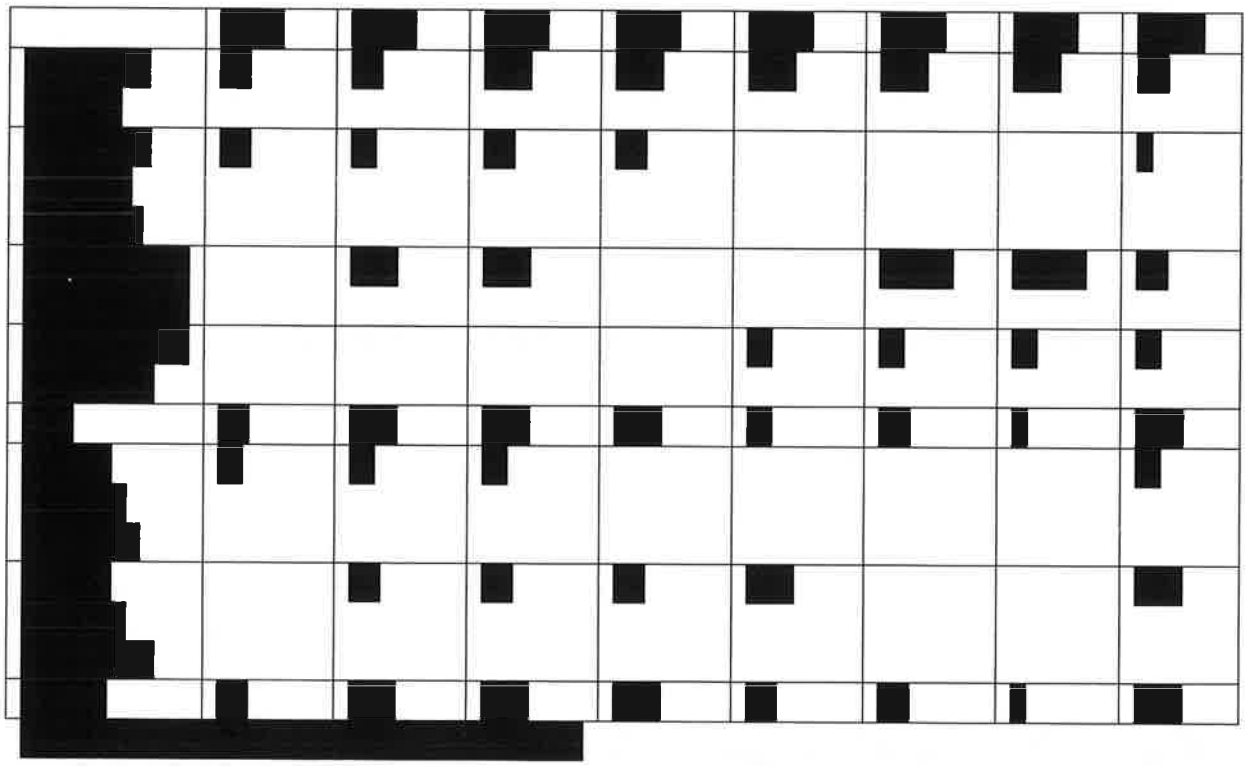

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2.0 Return to customer growth

2.1 Removing Customer Barriers

Dublin Bus customer numbers are closely linked to the economic indicator real GNP confirming that employment and discretional spending will have a direct impact on bus customer usage. In addition to tracking economic indicators, Dublin Bus carried out a comprehensive marketing initiative which clearly identified barriers to use for customers. Since 2009, Dublin Bus has been successfully addressing the removal of these barriers with a view to increasing customer usage through the targeting of strategically identified market segments.

Table 2.1 Key barrier removal projects

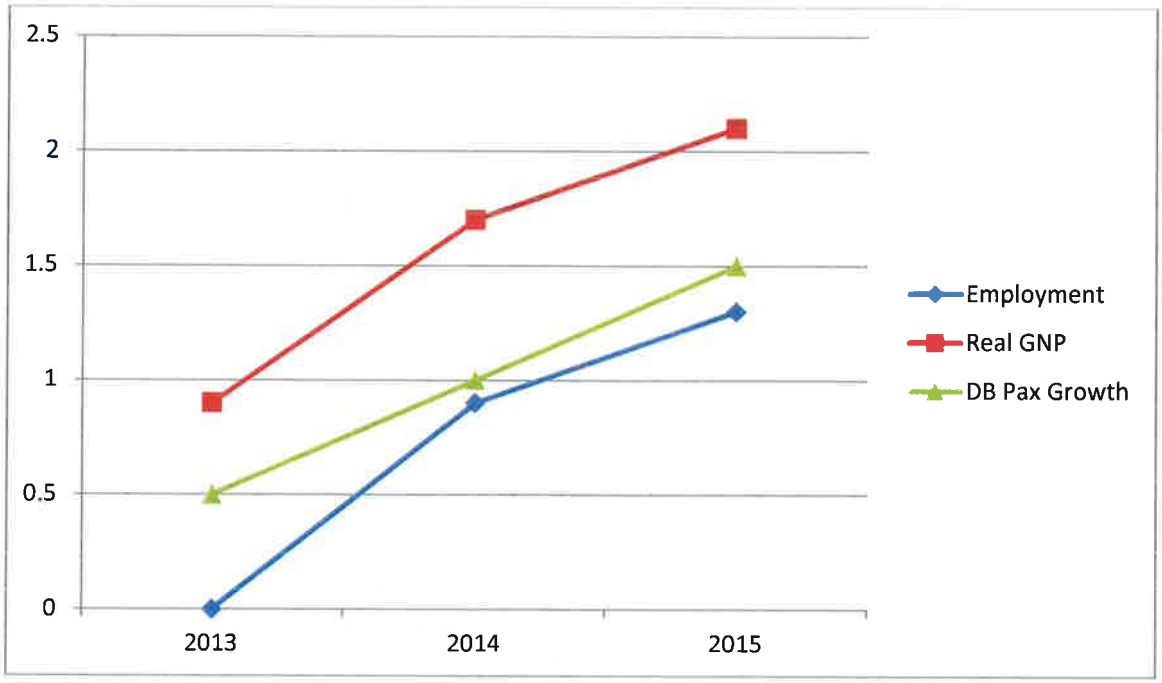
Barrier to use	Action
Complex Network	Network Direct (simplified network with 34% reduction in routes)
Understanding fare structure	Leap & own branded smart cards
Non customer focused timetables	All timetables redesigned and integrated – easier to read and understand
Reliability / Predictability	AVLC & RTPI, apps, journey planner, fare calculator

While the implementation of Network Direct has significantly reduced the operating costs of the business, it was also a key driver of growth, providing a common platform for a tactical marketing campaign, linking in with the introduction of Leap, RTPI and Journey Planner. Essentially, the network is now easier to use, from the routes to the apps.

2.2 Economic Indicators

This current network of routes and complimentary service enhancements outlined above in Table 2.1 (RTPI, Leap, apps etc.) provide a platform for Dublin Bus to increase customer use over and above real GNP growth indicators. Projected real GNP from 2013 to year end 2015 shows an average annual increase of 1.6%, with a high of 2.1% growth in 2015 *(Table 2.2).* However a conservative approach on customer growth is being taken given infrastructure changes due to take place over the period of this plan (e.g. Luas BXD construction).

Table 2.2 – Economic Indicators 2012 – 2015 & Dublin Bus Target



Source Department of Finance Medium Term Fiscal Statement November 2012.

http://www.finance.gov.ie/documents/publications/other/2012/midtermfiscnov2012.pdf

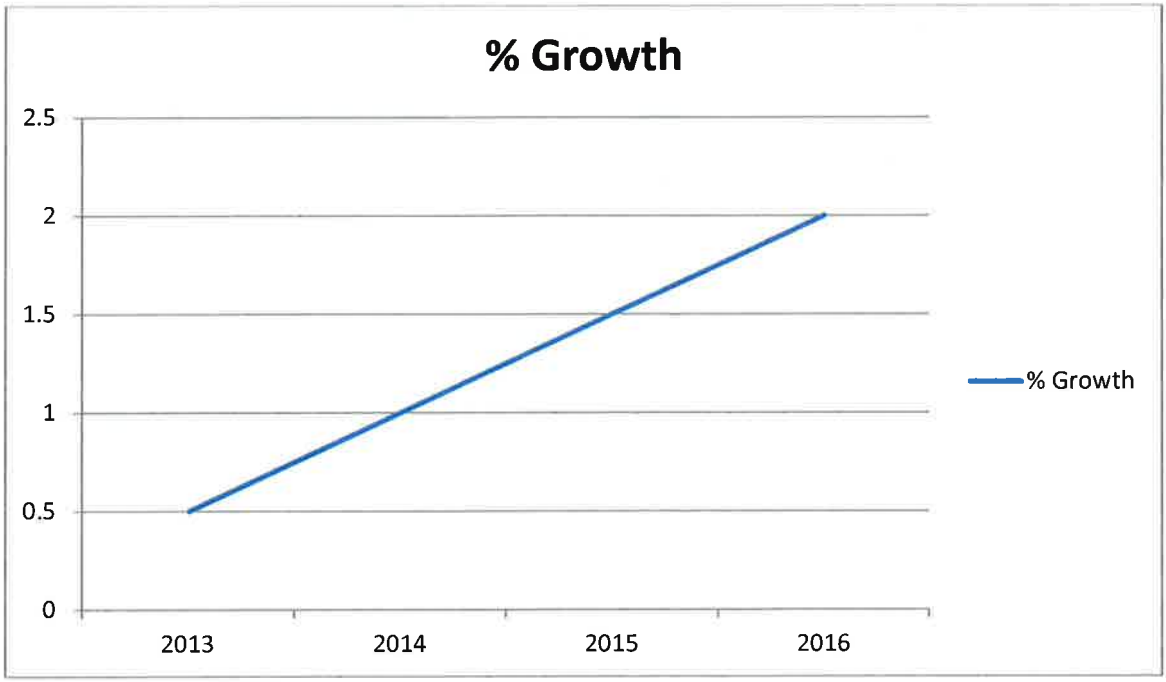
The National Transport Authority (NTA) carried out work on behalf of Dublin Bus providing short term forecasts for population and employment in the Dublin area. The NTA used the main sources of information available (CSO and ESRI). However, the data output is subject to significant constraints as a result of the following:

- Lack of recent economic, employment or unemployment projections publically available beyond 2013
- Populations projections are similarly dated to 2008

Notwithstanding the above, a scenario analysis carried out by the NTA leads to growth in employment in the range 0% to 3.9% to 2016. See *appendix 3.0 & 3.1* for full analysis of economic indicators.

Given the constraints on information relating specifically to the Dublin area, the projections as put forward by the Department of Finance (Table 2.2 above) has been used by Dublin Bus. Based on a revised network, strong marketing activity, service user enhancements and a steady economic environment in line with stated indicators, the current Dublin Bus business plan forecasts growth as follows:

Graph 2.1 – Annual Customer Growth Projections



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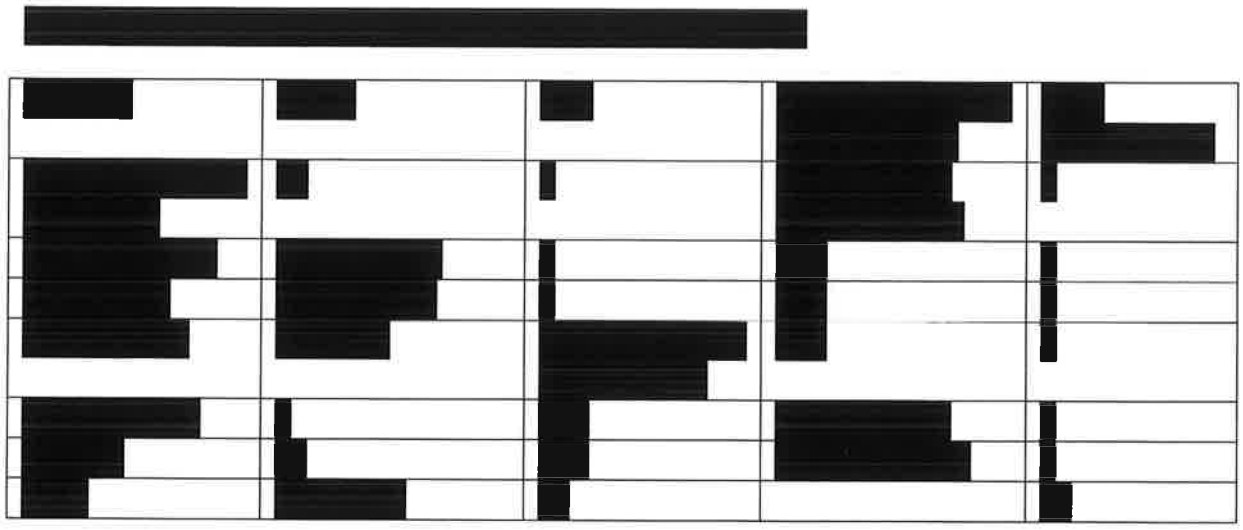

3.0 Enhanced Network Provision

The removal of route legs and a significant improvement in core bus route headway are some of the successful attributes of Network Direct. This has led to simplified bus route alignments allowing for the creation of even headway timetables and a network that customers better understand.

The principals of Network Direct now underpin all service related decisions and ensure that Dublin Bus adapts its service in a timely fashion to customer requirements. While Network Direct as a strategic project is finished the adaption of the bus network to existing and future customer needs is a continuous process.

Analysis of the network reveals the following areas have significant potential to be adjusted through to 2017. These are broken into two distinct sections, Radial/Local services and Orbital services.

Table 3.1 – Enhanced Network Provision – Radial & Local services

Area	Network provision	Comment
Swords / North County Dublin	Dedicated services to Beaumont Hospital.	Improve network integration.
	Remove route 33x/d from network.	Increase frequency of local services to bus interchange in Swords/Dublin Airport. A reduction of 3 buses required.
	Examine provision of local Dublin Bus services in area in place of route 33 (to city).	Full review of network required in this area, taking account of infrastructure and alternative modes of transport.

Broombridge	Integrate with Luas BXD.	Improved interchange possibilities required. The canal bridge requires widening or a stop/go system. Connection to main trip attractors of Finglas, DCU and Beaumont Hospital most feasible.
West Dublin	Remove route 26 from network. Hansfield Rail Station. Connect Hollystown to Bus Network (e.g. Blanchardstown Centre).	Reallocate buses to N4 corridor improving service to Lucan and Leixlip areas. Extension of route 39/a to rail station from Ongar Road. One additional bus required. Terminus required. Low projected patronage, social requirement.
Tallaght	Provide faster service to City Centre via N81. Realign existing bus services (54/, 65 & 65b).	Bus lane required on N81, west of M50. Additional 6 PVR required for high frequency service provision.
North Wicklow / South East Dublin	Realign route 145 from Kilmacanogue closer to Bray. Cherrywood Luas connection.	Suitable turning circle required. Local movement analysis needs to be carried out (Kilmacanogue to Bray). Saving of 1 bus. Improved integration between bus and Luas infrastructure required. A frequent connection b/w Bray, Cherrywood, Loughlinstown and Dun Laoghaire to be assessed in line with all other local bus services. Six additional buses required.

The orbital network plays an important part in providing a full range of travel options for customers. Almost globally, orbital services attract less patronage. This holds true for Dublin and is primarily due to the lack of significant trip generators on route, road infrastructure, frequency of service and commercial/leisure activity being primarily city centre based. However a restructured orbital network based on revised alignments and improved frequency can significantly enhance the benefits of the entire bus network.

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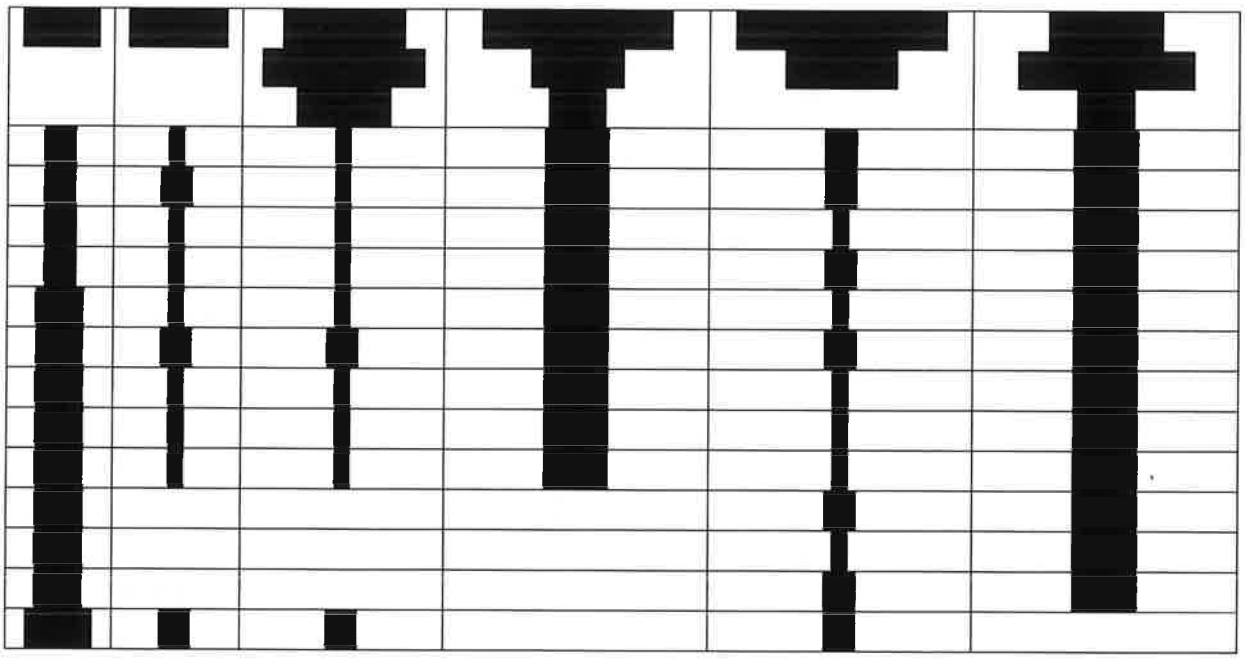
The medium term service development proposal for orbital services is to realign where necessary to areas of increased demand. [redacted]



4 Luas BXD – Construction and Operation

4.1 Luas Construction

The construction of Luas BXD presents a communications challenge for key stakeholders in Dublin City Centre throughout the construction period, (transport companies, retailers, employment areas etc...). A positive message must be communicated indicating that it is business as usual for transport, work and retail alike. The bus is a key enabler in keeping the city vibrant through the construction phase. It is essential for Dublin Bus that, at a minimum, current customers are maintained. However a real opportunity exists to convert new bus users into advocates, increasing overall customer usage.

Through a strong strategic communication campaign, coupled with a resolute pro-public transport traffic management plan, the construction of line BXD can provide a real shift in the customers' perception of public transport. The potential to attract new customers exists and with robust support of the bus service, sustainable benefits can accrue with long term modal shift a real possibility. The potential is there to increase peak and off peak travel, improve the traffic environs of the city centre with less private vehicle usage and benefit the environment. Some off peak frequencies will need to be more attractive on key corridors to provide consistency for customers in this regard.

Maintaining peak capacity in the morning is viewed as a do minimum approach. Increasing the availability of peak capacity is needed to help offset bus speed reductions and should significant modal shift be generated in the short term.

With careful management the NTA and Dublin Bus can aim to diminish any negative impact on customers as a direct result of construction works (which will result in less favourable route alignments, less bus stops in key areas, slower speeds, reduced reliability etc...). Early estimates predict a minimum of an additional five minutes journey time required to traverse the city centre.

In order to provide the same level of service on the existing bus routes through the construction of Luas BXD, twenty additional buses will be required during these works. With the provision of a strong communications campaign prior to BXD construction, the twenty additional buses can be used for actual increased capacity should modal shift be achieved and existing bus speeds be maintained.

4.2 Luas Operation

Luas BXD may allow Dublin Bus to scale back a number of services once the service commences operation. [redacted]. However, it will be necessary to examine changing travel patterns on the main bus

routes which have some parallel operation to BXD (Route 46a, Route 11, Route 44 for example). There will be some will impact on bus speeds in the centre of Dublin, caused by more circuitous route alignments and increased congestion as city centre streets are closed off.

Given previous experience of the introduction of Luas to urban areas in the city, services in the Cabra area will be most affected from the extension of Luas to Broombridge. Monitoring the migration of customers over a six to twelve month period will reveal any other areas where peak demand has changes (e.g. potential fall off on route 14 northbound customers as a result of Luas extension to Broombridge, in particular O'Connell Street link).

[redacted]

Appendix 1 Dublin Bus - Key service enhancements

In 2012 Dublin Bus completed the implementation of project Network Direct, a strategic reorganisation of its entire route network. This network redesign is the largest undertaking of its kind in Europe that was seen through to completion. This revised network of services was underpinned by the rollout of complementary project including Real Time Passenger Information units, redesigned website, social media unit, route planner, Dublin Bus APPs, Leap smart card & new buses fitted with free WiFi.

The full suite of offerings from Dublin Bus through 2012 has radically changed the way customers interact with our services while also changing the way Dublin Bus operates.

The 115 million customers who use our services every year have also experienced a transformation in the way they interact with our services through changes in technology. In order to achieve these changes, a full redesign of operational practices for employees took place.

Customer research carried out on behalf of Dublin Bus highlighted a number of barriers to entry including:

- Complex network of bus routes
- Hard to understand timetables
- Understanding fares / payment system
- Information provision
- Routes were not fast enough to intended destinations
- Routes did not take customers to full range of destinations

Throughout 2012 a number of initiatives have been introduced on Dublin Bus services which remove the historical barriers to use. These initiatives include a total revision of the bus network under Network Direct, the introduction of Journey Planner and Leap Card, new buses and the provision of WiFi on buses.

Network Direct: As part of project Network Direct, every bus route was redesigned to better meet the needs of customers. This redesign included revised route alignments, providing faster routes to key destinations, provision of a cross city network of routes, simplified timetables for customers. A total of 58 route numbers were removed from the bus network, making it easier to promote our services.

While the redesign of the bus network removed many barriers to entry, customer concerns in relation to the provision of information and complexity regarding our fare structure remained. Through the use of technology, Dublin Bus has been able to introduce a number of complimentary service enhancements which, when combined with the revised cross city bus network, has radically transformed the way customers interact with our services.

Real Time Passenger Information: The most visible transformation for customers has been the installation of over 400 units in the Dublin Bus network. Providing live stop specific departure times for customers on street, the displays give a superior experience for customers by providing certainty of departure while also enabling the customer to plan a journey while at a stop. Accuracy of data is 93% and improving, well above European norms. Over 1.6 million RTPI requests are made per week.

Apps / Journey Planner: Available on our website, it enables our customer's access the same information as displayed on our physical Real Time Passenger Information units. However this information is available for every single bus stop in the network (+4,500 stops). Customers can access this information via our website www.dublinbus.ie or by downloading the Dublin Bus app (iPhone and android). In addition to the above, our Journey Planner also enables customers' better plan journeys when using multiple modes of transport.

Leap Card: The introduction of Leap Card has further simplified the customers travel experience. Leap card provides increased functionality for Dublin Bus smart cards users. Building on functionality of the smart cards introduced by Dublin Bus in 2009, the number of products available on Leap card is increasing with price capping to be introduced in 2013.

WiFi: Dublin Bus has introduced 80 new replacement buses into the fleet (9%), all equipped with WiFi functionality. This service (free) further enhances our customer's experience. Availability of WiFi on existing vehicles will increase in 2013, helping promote Dublin Bus as a positive, modern form of transport.

New Vehicle Investment: 80 new replacement buses were added to the fleet in 2012, providing Dublin city with state of the art vehicles. Dual door operations has been reintroduced on these buses, which will help speed up customer journey times by minimising waiting time at busy bus stops. Dublin Bus now operates a 100% low floor accessible fleet of buses, completing 12 years of investment in the fleet.

Strategic Marketing Campaign: In 2012 Dublin Bus ran a TV ad marketing campaign effectively promoting RTPI, Leap and the convenience of using the new Dublin Bus service

on offer. Over 290,000 app downloads have taken place with 200,000 Leap card users now active. The revised network of services also allows for a tactical campaign taking place in 2013, highlighting the benefits of specific routes to key market segments, thereby creating advocacy among our customers.

Social Media: Dublin Bus operates an active web, Social Media and PR strategy, utilising the internet, facebook, YouTube and twitter on a daily basis. Twitter allows real time interaction with customers (+10,800 followers) dealing with customers queries, service levels, live updates on service disruption (e.g. Snow) and also allows for the promotion of services and products. Facebook and web channels provide a platform for product promotion including CSR Initiatives (Community Spirit Awards, School Calendar), 2FM Toy Appeal (+56,000 toy donations), Event Listing etc. As the population have moved into an information age, Dublin Bus is at the leading edge of maximising these new technologies for the benefit of both the Company and our customers.

Summary

In 2012 Dublin Bus revised its entire route network of services. This change was complimented by customer enhancement projects which totally transformed our customer's experience of using public transport. By identifying and removing barriers to entry, Dublin Bus had the vision, drive and commitment to radically change its core business offering while also changing the way customers use public transport. The benefits of this strategy is now being realised with improving customer activity and services offered. The key elements in this turnaround strategy are as follows:

Removal of customer's barriers to entry in 2012:

- **Complex network of bus routes**
    - Simplification of route network has been achieved (58 routes removed -34%)
- **Hard to understand timetables**
    - All timetables redesigned and made easier to read with even intervals between departures
- **Information provision**
    - Strategic TV ad campaign
    - +10,800 followers on Twitter
    - +9,600 followers on Facebook
    - Journey Planner
    - WiFi on buses
- **Understanding fares / payment system**

- +200,000 Active Leap Cards

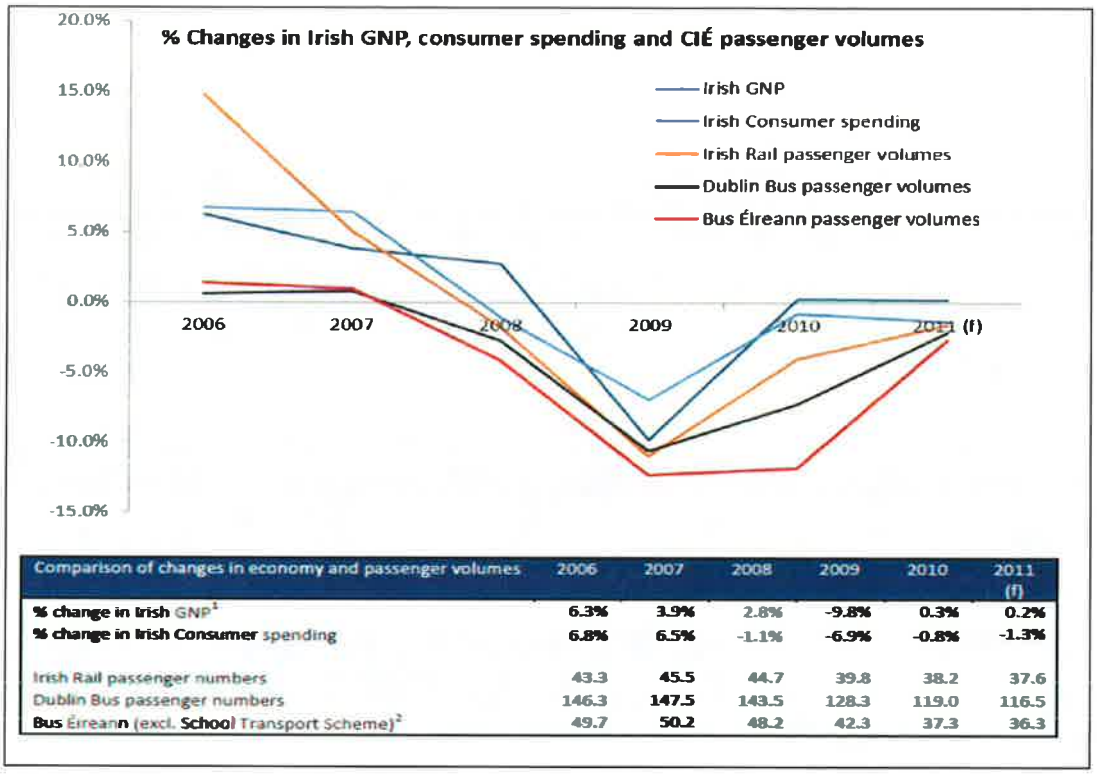
- **Routes were not fast enough to intended destinations**
  - Faster journeys to destinations realised (50 routes now more direct to key destinations)
  - Operations of cross city network improves access and speed of service through city
- **Routes did not take customers to full range of destinations**
  - Dublin Bus' core product (bus routes) has been radically transformed from a radial network (suburb to city centre) to a cross city network (suburb to suburb via city centre)

- Network Direct is the largest bus route network change implemented in Europe
- The Network Direct project alone has reduced operating costs by €24m per annum
- The new bus network is highly innovative, changing the way people use public transport
- The new network has increased the efficiency of bus operations
- New network is delivering a turnaround in customer support, reversing a 5 year trend
- Network is linked to strategic business objectives and is a key component of business plan

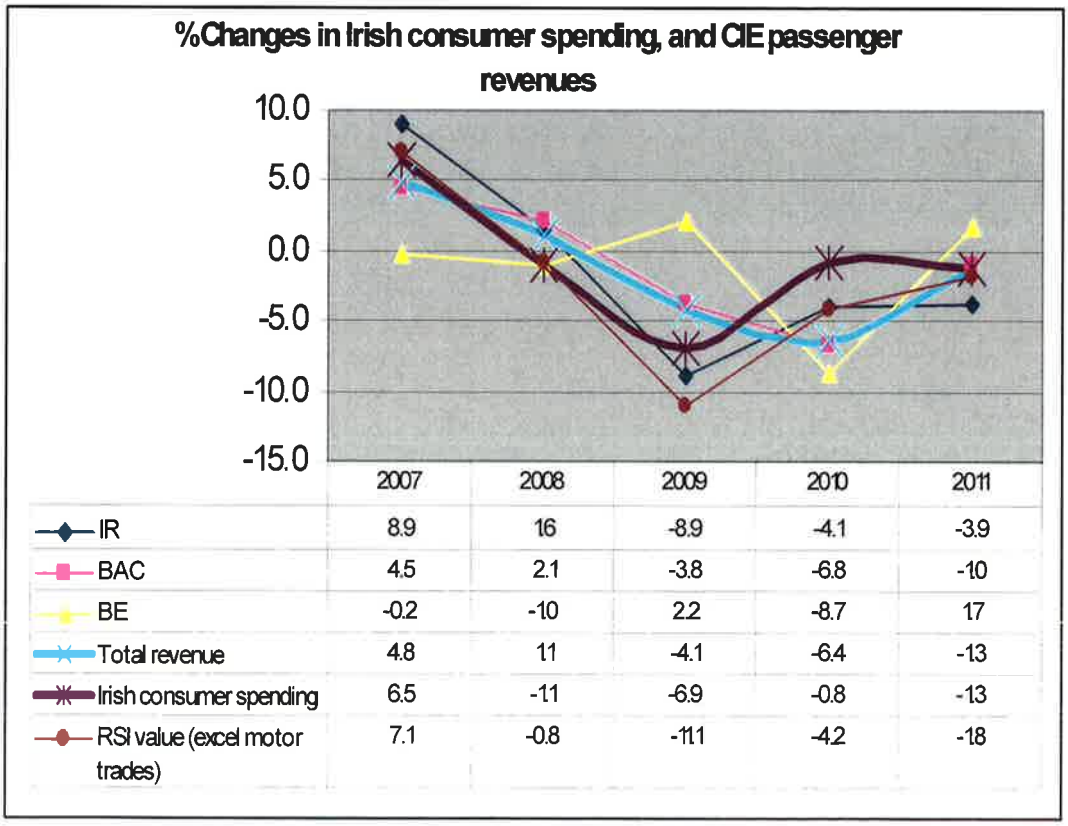
Appendix 2 Tri-Axle buses

Capacity can also be increased with the addition of more tri-axle buses to the Dublin Bus Fleet, providing 45% higher capacity than standard double deck buses. Currently Dublin Bus operates 70 tri-axle buses on three key corridors (Stillorgan, Blanchardstown and Lucan).

Appendix 3 Dublin Bus Customer Forecast versus GNP



Comparison of changes in economy and passenger volumes	2006	2007	2008	2009	2010	2011 (f)
% change in Irish GNP[1]	6.3%	3.9%	2.8%	-9.8%	0.3%	0.2%
% change in Irish Consumer spending	6.8%	6.5%	-1.1%	-6.9%	-0.8%	-1.3%
Irish Rail passenger numbers	43.3	45.5	44.7	39.8	38.2	37.6
Dublin Bus passenger numbers	146.3	147.5	143.5	128.3	119.0	116.5
Bus Éireann (excl. School Transport Scheme)[2]	49.7	50.2	48.2	42.3	37.3	36.3



Appendix 3.1

NTA – Initial Short-Term Forecasts for Population and Employment in Dublin

Introduction and Assumptions

The Integrated Planning Section was requested to carry out an exercise on short-term population and employment forecasts in order to assist Dublin Bus in meeting an NTA request related to the direct award contract for 2014. There is limited information currently available on demographic and employment forecasts. Using the main sources available from the CSO and ESRI the report provides for two potential scenarios. These scenarios are set out below with the assumptions used in each case, as follows:

Scenario 1 (A and B) – based on CSO Employment figures to 2009, ESRI QEC from 2010 to 2013 and CSO Population and Migration Estimates from April 2012:

- That the growth of population nationally would remain constant from 2012-2016 as per April 2012 estimates, i.e. 10,500 people per annum;
- That the ratio of population to numbers at work nationally would remain constant from 2012 to 2016;
- That the ratio of numbers 'At Work' in Dublin to those 'At Work' nationally would in future years equate to the average of the ratios according to the CSO QNHS 'In Employment" figures for 2006-2009, i.e. 29.7%;
- That population growth in Dublin would be maintained at the 2011-2012 level up to 2016, i.e. an annual decrease of c. 10,100 people;
- A sub-scenario is also provided, 1B, which keeps the population of Dublin constant from 2011 to 2016;

Scenario 2 – based on CSO Regional Population Projections, 2008, M0F1 Traditional (rebased to 2011 Census) and the QNHS:

- That having rebased the 2016 M0F1 projection to the 2011 Census, the population of Dublin would grow at a constant rate between 2011 and 2016, i.e. an annual increase of c. 10,000;
- That the ratio between the Population of Dublin and the numbers 'In Employment' in Dublin according to the 2011 Annual Average from the QNHS would remain constant to 2016. To a great extent, this also implies a constant rate of unemployment from 2011 to 2016.

NTA Employment and Population Forecast Tables:
Feb-13

Scenario 1 (A and B)

Year	Population 1A	Population 1B	In Employment	% Change
2011	1,273,069	1,273,069	536,800	0.0%
2012	1,262,900	1,273,069	533,200	-0.7%
2013	1,252,731	1,273,069	531,700	-1.0%
2014	1,242,562	1,273,069	534,400	-0.4%
2015	1,232,393	1,273,069	535,700	-0.2%
2016	1,222,224	1,273,069	536,900	0.0%

Scenario 2

Year		Population	In Employment	% Change
2011		1,273,069	548,500	0.0%
2012		1,283,050	552,800	0.8%
2013		1,293,030	557,100	1.6%
2014		1,303,011	561,401	2.4%
2015		1,312,991	565,701	3.1%
2016		1,322,972	570,001	3.9%

Conclusions

The data above is subject to significant constraints. There are no recent economic, employment or unemployment projections publically available beyond 2013. Population projections are similarly dated to 2008. It is expected that forecasts will be revised based on the results of the 2011 Census.

There also appears to be an anomaly in the 2012 population and migration estimates which reports a reduction in Dublin of c. 10,100 people in the year since 2011. This would appear to be at odds with the growth in the national population and the anecdotal evidence such as Dublin being a primary destination for immigrants, which numbered 52,700 in 2012 nationally, and the lower unemployment rates in the city and county relative to the state – 12.9% in Dublin compared to 15.0% nationally in Q3 2012. Recent inter-censal rates of growth in areas of Fingal and South Dublin, in particular, would also point to ongoing growth in the region.

In terms of finalising this approach in a manner which maximises its usefulness for forecasting potential numbers using bus in the city and county, the following steps could be taken:

- Refining the above methodologies into one definitive approach based on more detailed research of population growth rates and a sectoral analysis of employment;

- A more refined spatial analysis of population and employment changes, based on district centres or electoral divisions (work currently being undertaken by NTA);
- Analysis of demographic trends, in particular changing age cohorts and how they would relate to potential bus use in the short term (work currently under review by NTA);
- Analysis of employment changes spatially by destination using 2006 and 2011 POW(S)CAR data (work currently under review by NTA).

While further analysis by the NTA will continue, it is envisaged that actual forecasts by the relevant Government agencies, namely the CSO and ESRI beyond 2012/13 is required.

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