





# 1. INTRODUCTION & OPPORTUNITY OVERVIEW

Approximately 3.3 million people live within a 40 mile commute distance from the Dublin-Belfast corridor. This is projected to grow to 4 million by 2030 and represents half the islands population. Development of the Enterprise rail service is key to building competitiveness and in the creation of close communications between the people living in and between the two cities and the businesses on the corridor. Both Governments support improving rail services and reducing journey times and this paper outlines the strategic opportunities for further developing the Enterprise service through the following initiatives:

- Introduction of an hourly service frequency between the two cities,
- Infrastructure enhancements to improve journey times and connections.
- · Electrification through investment in infrastructure and rolling stock

These opportunities align with both the Northern Ireland and Republic of Ireland Programmes for Government by further strengthening the economic links between north and south, supporting the common travel area, decongesting our roads, reducing carbon emissions and promoting all Ireland tourism. This will further support and promote the inherent economic potential of the corridor, building upon existing strengths. The delivery of infrastructure is a prerequisite for sustainable economic growth on the island of Ireland regardless of the implications of Brexit.

#### 2. ENTERPRISE TRAIN SERVICE

The Dublin-Belfast train service, branded as Enterprise, and jointly operated by larnród Éireann and Translink connects Connolly station in Dublin with Lanyon Place Station, (formerly Belfast Central station) and stops at up to 6 intermediate locations. The average journey time is 2'10" serving approximately 1 million passenger journeys per annum. The current service offering at 8 departures in each direction per day compares poorly with many paired European cities offering up to 40/50 services per day. However, it has the potential to become the preferred transport mode and act as a driver of economic development activity along the corridor. Equally rail modal share is low compared to road at c.20% and needs to increase to better serve the growing population on the corridor. Translink is planning an extensive redevelopment of Belfast Great Victoria Street station and the adjacent bus station to form an integrated Belfast Transport Hub. This will bring all cross-border trains into the new facility, ensuring better connectivity and access between Belfast and Dublin city centres and reduced journey times. Dublin Connolly already provides similar integrated hub services in Dublin.

Average journey time 2' 10"



1 million passenger journeys per annum



# 3. HOURLY SERVICE FREQUENCY

One of the priority strategic initiatives required to develop the Belfast-Dublin service is the introduction of additional services moving towards an hourly frequency with a clock-face timetable pattern in both directions. This type of a service development would be similar to those introduced on other lines in recent years:

- Introduction of an hourly Dublin-Cork service in 2007 resulted in a 30% passenger growth within 18 months.
- An increase in Dublin-Sligo services, from 3 to 8 in two stages, led to a doubling in passenger numbers over a five year period.
- Introduction of an hourly Belfast-Derry~Londonderry service in July 2017 has already led to an increase in passenger numbers of over 20%

The provision of an hourly frequency is considered as the minimum service standard required between the two largest cities on the island of Ireland, to be achieved as soon as possible and as an essential step towards delivering more strategic infrastructure and service developments, given the objective of developing the corridor as a European growth hub of trans-national importance. The key enabling resource required to deliver such a step change in service frequency on the Dublin-Belfast line is additional rolling stock and the availability of train paths to both stations. The short term objective of achieving an hourly frequency at the peak hours could be achieved by Translink and larnród Éireann providing a train set from each of their existing fleets, this would mean effectively prioritising the Dublin-Belfast route within their respective networks and could be achieved by late 2019. The next step would be an hourly frequency throughout the day and would require an investment in new train sets at a cost of c.€50m(£44m). Subject to procurement commencing in 2018, these could be available by 2023. The longer term strategy would require the purchase of suitable fleet for an electrified network by 2035.

# 4. JOURNEY TIME IMPROVEMENT

The average rail journey time between Dublin and Belfast is 2hrs 10mins. This is long for the respective distance of 105 miles between the two cities. The requirement to reduce this journey time and to further develop rail as the mode of choice along the corridor, is a key priority. The current maximum speed is 90 mph with an in service speed of less than 50 mph achieved after account is taken of station stops and current infrastructure limitations. Most of the associated track and signalling was renewed or upgraded 20 years ago, in 1997, as part of the Cross Border Upgrading Project. There are lengthy sections of track that have speed restrictions, termed as temporary or permanent in nature, that are in place for some considerable time and will require investment to remove. These restrictions reduce the overall average speeds and adversely impact on journey times by up to 15 minutes.

Opportunities exist in the medium term for higher speeds to 100mph over sections of the network with the undertaking of track and signalling upgrades. The infrastructure works involve improvements through track relaying and geometry improvements along various sections so as to accommodate the higher line speed. This could be achieved in the short term with work commencing in 2019 and concluding 2023. The cumulative impact of upgrades could result in a journey time improvement of up to 15 minutes achieving the short term objective of less than 2 hours. Indicative costs for these developments amount to  $c.\[mathebox{e}\]$ 220m(£195m). Longer term, speeds of up to 125mph could be possible through electrification and associated track and signalling improvements. This could result in a journey time of 90 mins or less. (This would have to be validated through a detailed Technical and Feasibility study).

# £44m/€50m



"The next step would be an hourly frequency throughout the day and would require an investment in new train sets at a cost of c.€50m(£44m)".



# 5. LINE ELECTRIFICATION

The longer term ambition is to electrify the line from Dublin to Belfast to provide further increased speed, frequency and improved journey times on the route. Furthermore, this achieves improved efficiency, energy consumption and a reduction in carbon emissions. Such an initiative requires investment in the network and replacement of existing rolling stock with electrically powered units, the timing being from 2035. The Transport Strategy for the Greater Dublin Area 2016-2035, by the National Transport Authority, already provides for the extension of the electrified DART network to Drogheda. This would be a significant step towards the ultimate objective of upgrading the Dublin-Belfast line to electrified standard. It is projected that electrification of the remaining track from Dundalk to Belfast could be completed by mid-2030's. New Enterprise fleet comprising of 9 train sets will need to be procured to permit an hourly service. Indicative costs for infrastructure and rolling stock investment amount to  $\in$ 550m(£487m) and  $\in$ 160m(£142m) respectively, (again, indicative costs would be validated through the Technical and Feasibility study).

#### 6. INDICATIVE ROADMAP AND FUNDING REQUIREMENT

In summary, an hourly Belfast-Dublin service could be achieved within 5 years with a journey time of less than 2 hours.



5 years <2 hours

Initiative	Indicative Timeline from Commencement	Indicative Cost subject to Study
Hourly Frequency all day – New Fleet	5 years	€50m (£44m)
Journey Time <2 hours – Infrastructure	5 years	€220m (£195m)
Electrification - Infrastructure Electrification - Rolling Stock	10+ years 10+ years	€550m (£487m) €160m (£142m)



# 7. CONCLUSIONS

In summary, an hourly Belfast-Dublin service could be achieved within 5 years with a journey time of less than 2 hours. Longer term, additional improvements could be achieved with investment in line electrification to achieve further frequency improvements and a journey time of potentially 90mins or less. This paper requests that approval is granted to start procurement of the new fleet and fund a project to undertake a detailed Technical & Feasibility study for journey time improvement options.

# WIDER SUPPORT

This document was issued to a range of stakeholders earlier this year to seek their views and help shape our plans for the Enterprise service. We received positive feedback from a broad selection of key organisations including business, community and tourism across Northern Ireland and the Republic of Ireland.

# **CBI NI/Ibec**

'The CBI NI/Ibec Joint Business Council...welcomes Translink/larnród Éireann's proposals to upgrade this vital service. The UK's decision to leave the European Union has added to the strategic importance of having comprehensive, reliable and sufficient all-island transport connectivity. Now is an appropriate time to re-examine the current service and put the plans in place to upgrade it to the necessary standard in both the immediate and longer term.'

'Ultimately, businesses believe that the service must be upgraded to the point where the train journey between Belfast and Dublin is 'commutable'. This means it must be faster than the comparative car journey and as flexible as a car journey, offering a sufficient range of arrival times to suit both tourists and business commuters.'

'The JBC has long been a supporter of an hourly service and businesses across the island will welcome the proposals outlined ...to procure additional train sets to allow services to operate on an hourly schedule.'



















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