

A Technical Briefing

The Proposed Dublin Metro is Flawed

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Executive Summary

This study presents the results of our investigation into the proposed Dublin Metro project. We have looked at key areas such as safety, capacity, integration and cost. Our investigation has found the current proposal lacking in each of these key areas. We show that capacity is insufficient to meet expected demand let alone expansion. We highlight a long list of safety concerns, many of which are linked to cost cutting measures applied by the RPA, who in a desperate search to cut costs pared the specification to the bone. We introduce a number of technical issues which could hamper the Metro if they go unaddressed and point to the recommendations and choices successfully made by others. We have highlighted the RPA's underhand approach to costings through the use of the term "direct construction costs". A direct construction cost of 1.72 billion actually relates to a total figure of 4.881 billion.

It is our opinion, that to fully address all outstanding issues which we have identified would lead to a massive cost increase, bringing the total cost of the project to approximately 5 billion euro. We the Irish taxpayer simply cannot afford to invest 5 billion euro on what will be only 12 km of metro. Once again this study reaffirms Platform11's view that Iarnród Éireann's Dublin Rail Plan is the best option for Dublin, offering a fully integrated electric rail network with approximately 10 times the capacity of the current Metro proposal. Combine this with a number of additional Luas lines to the North and West of the city and Dublin could have a world class public transport system for less than the cost of a single metro line.

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Introduction

This document aims to highlight a range of serious fundamental flaws in the proposed metro project. These issues are black and white and show an apparent lack of understanding in the RPA, their attitude toward current regulations, ignorance of existing standards and previous research is worrying. The total lack of communication from the RPA has led to widespread confusion over costs and routes. Much key information has been exempted from the Freedom of Information act and thus is unavailable, without such information it is impossible to make a fair and accurate evaluation of the project. Use of terms such as “direct construction cost” only serve to hide the real total cost. These factors and many others only further raise concerns over the RPA’s ability to manage a project on this scale.

We at Platform11 are extremely concerned that yet another opportunity to solve Dublin’s chronic transport problem has been turned into a political football. If the people of Dublin expect a world class efficient, fully integrated, high capacity metro system they are sadly misinformed. What little information that is available points to a heavily cut down metro with limited capacity, poor integration and limited scope for expansion. If several billion euro of taxpayers money are to be invested on a single project it is reasonable to expect nothing sort of the best possible overall result not just for Dublin but Ireland as a whole, built to the highest quality as dictated by Irish, European and World standards.

Is the metro in its current form the best all round solution for Dublin? We think not. While we support the metro concept, we favour Iarnród Éireann’s Dublin Rail plan since it offers much wider benefits for the greater Dublin region as a whole not just a single corridor of North Dublin¹. We see this as the most urgent and beneficial project.

In this document we will discuss various aspects of the metro proposal with relation to gauge, power supply, interoperability, safety, capacity, expansion and implementation and where appropriate make reference to supporting documentation presented by the DTO[1], Iarnród Éireann[2,3,4], O’Reilly Consultants[5,9], A.M. Voorhees and Associates Consultants[6], The Interim Rail Safety Commission[7] and parliamentary papers from the UK[8,10]. We rely on the O’Reilly Consultants report for much information since this is the only independent source of information available. O’Reilly had access to a significant amount of information that is not in the public domain and that was restricted by the RPA from publication[9]. We will highlight the tremendous cost involved and point to the fact that much more could be achieved with less money elsewhere.

Throughout this document reference will be made to the draft guidelines drawn up by the Interim Rail Safety Commission, (IRSC) and comparisons will be made with Iarnród Éireann’s Dublin Rail Plan as appropriate.

¹Full details of the Dublin Rail Plan may be found at <http://www.platform11.org>

Compliance with Irish Railway Safety Regulations

The rail safety commission draft guidelines state,

- 1.4.1.4 The normal arrangement for a sub-surface (underground) railway and for long tunnels, over 1.5 km in length, should be twin single-track tunnels. Twin tunnels created by the internal division of a larger tunnel will be acceptable. Special arrangements may be required for single-line sections of railway or where there are cross-overs between twin running tunnels.

As a cost cutting measure a single bore tunnel was considered for the metro, which is clearly against the guidance set down by the IRSC. The cost difference between single and dual bore tunnels is 114 million [5].

The cost cutting approach adopted by the RPA in the search to bring costs under control has led to some concerns. Appendix 6 in [5] details the cost cutting measures used to bring the metro cost down from the initially projected figure of 4.881 billion. The following were used by the RPA to reduce costs,

- Shorter alignment and two fewer stations
- 24/7 working
- Station finishes
- Remove escalators
- Reduce depot facilities
- Eliminate substations
- Reduce automatic ticket machines/barrier gates
- Reduce signal control and telecommunications

The RPA has refused permission to release the breakdown of the savings achieved [9].

24/7 working

The assumption of 24/7 working during construction is dependent on the critical infrastructure bill (or similar) being in place, it should be noted Iarnród Éireann do not assume this in their proposals. Though first mooted in March 2003 there has been little movement on the critical infrastructure bill, it was withdrawn in December 2004 for complete overhaul. The future and scope of the bill is unknown.

Station finishes, Remove escalators & Reduce automatic ticket machines/barrier gates

The removal of general station facilities such as escalators cripples the efficient operation of stations. In addition passengers may not be willing to accept long steep staircases. Given that the proposed metro will link Dublin Airport to the city centre it is unreasonable for passengers carrying luggage to climb a long stair case. No reference is made in the O'Reilly report into the provision of facilities to allow passengers with disabilities to use the metro system. Reducing the number of automatic ticket machines/barrier gates again severely restricts capacity. This may introduce a major crowd safety issue and may lead to conflicts with the guidance laid down by the IRSC.

The rail safety commission draft guidelines state,

- 2.1.1.3 Allowance should be made for the surge of passengers arriving by trains, for the presence and movement of passengers carrying luggage, those accompanied by children and for the mobility impaired.
- 2.1.1.12 Provision shall be made for passengers with disabilities to have access to stations. This provision shall be in accordance with the relevant legislation and other standards as required by the RSC.
- ...
- 2.1.3.6 Where automatic ticket gates or barriers are provided consideration should be given to:
 - (a) the number of gates for each flow of passengers taking into account all normal and abnormal passenger flows.
 - (b) the means of overriding the gates when they fail as large numbers of people wishing to pass through them can build up very quickly.
 - (c) there should be a means of controlling the gates in an emergency to either prevent movement through them or allow free access through them dependent upon the situation.
 - (d) there should be a staffed manual access/egress gate for passengers with prams, bulky luggage, wheelchairs etc close to every set of automatic ticket gates.

Fire safety and emergency access take the highest priority when building underground stations. All stations must be able to cope with significant surges in passenger numbers and must be able to facilitate the quick evacuation of the station in an emergency situation. The reduction in the number of barrier gates would indicate a smaller station area which may be insufficient in size to cope with a sudden rush of passengers.

Minimum standards in station design are set down by the IRSC and are supported in law by health and safety regulations and as appropriate by relevant BS and IS standards. Following the horrific Kings Cross fire regulations in the UK where significantly strengthened. The IRSC will evaluate all proposals for development of underground stations with reference to UK practice [7]. The UK Fire Precautions (Sub-Surface Railway Stations) Regulations 1989[10] must be applied fully with some additional requirements,

2.5.4 Additional fire-fighting provisions for underground stations

- 2.5.4.1 Fire precautions and fire-fighting provisions should be not less than the principles of those required in the UK Fire Precautions (Sub-Surface Railway Stations) Regulations 1989, with the following additions:
 - (a) a fire-fighting shaft and, where disabled passengers have access to the station, means of escape for the disabled should be provided to all levels of the station in accordance with BS5588. Such a shaft may also be counted as part of the means of escape for passengers;
 - (b) a falling fire main in accordance with BS 5306 Fire extinguishing installations and equipment on premises;
 - (c) where a train fire could create a high fire loading, a suitable system to minimise the intensity and rate of propagation of a train fire, such as a water drenching system installed above the location of a train at each platform, should be installed based on analysis of risk.

No mention is made if platform screen doors are to be provided. Such doors prevent passengers from falling from the platform and being struck by an oncoming train. Such doors are now a common sight on modern metro systems worldwide and are being installed on many older metro systems as they are refurbished.

Reduce depot facilities

The number of trains in the fleet dictates depot facilities, if insufficient depot facilities are provided the reliability of the fleet and the quality of service may be greatly impacted, as it will not be possible to adequately maintain the fleet of metro cars. Insufficient depot facilities may hamper efforts to increase capacity in the future.

Eliminate substations

The number of electrical substations is dictated by the number and power requirements of the trains used to supply the peak service, insufficient number of substations would limit the peak service level again no sacrifice is possible. It is customary to over specify the power supply equipment to ensure reliability and resiliency in the event of failure, page 138 [3]. In a worst case overloads could occur during the rush hour leaving packed trains stranded, possibly in darkness underground.

Reduce signal control and telecommunications

To achieve a capacity of 37,440 per hour, 18,720 in each direction, 90 second headways are required thus the possibility of achieving savings in signalling or telecoms is doubtful and can be related only to the shorter alignment. Signalling to provide 90 second headways is expensive. Any reductions in signalling expenditure may adversely affect the potential capacity of the proposed metro.

Gauge

We understand the RPA intend to build the Metro to the European 1435 mm gauge thus making it completely incompatible with the entire rail network. This may appear to be unimportant but becomes a major issue when you consider the metro will intersect existing railways at Glasnevin Junction or Liffey Junction and possibly at Dublin Airport and Shanganagh in South Dublin in the future. It also heavily restricts flexibility in the future as settlement patterns change and new lines are built at this point interoperability becomes a key concern. The Dublin Metro Group in their submission to the O'Reilly Consultants Metro report[5], (section 8.2) highlighted this important issue. Two separate gauges also requires extensive duplication of expensive maintenance equipment and increases the amount of rolling stock required overall.

The assumption that trains cost more due to our different gauge is untrue. The reason historically we have paid more for trains is owing to low levels of government funding, orders for new stock have been very small by European standards. There is no cost difference in terms of bodysshells, brake systems, traction systems, interior fittings, cab fittings, air conditioning and so on. The only possible difference is in the bogies and wheel sets and this is negligible at best and represents only a fraction of the total cost of a coach. Iarnród Éireann incur further costs by demanding that the highest fire resistance standards be met, together with redundancy to ensure reliability as well as cab signalling and advanced radio equipment which would not be provided on the UK rail network for example to which Irish trains are often compared.

5 foot 3 or 4 foot 8 and quarter ?

We believe that the Metro as proposed would be classified, as a heavy rail not a light rail system, light rail referring only to tram like vehicles. Our view is supported by the O'Reilly Consultants Metro report in appendix 3[5]. As such any Metro is bound by the 1846 Board of Trade ruling and subsequent act of parliament [8] which states that all railway lines on the Island of Ireland shall be built to 5'3" gauge (1600 mm).

That after the passing of this Act it shall not be lawful. . . to construct any Railway for the Conveyance of Passengers on any Gauge other than Four Feet Eight Inches and Half an Inch in Great Britain, and Five Feet Three Inches in Ireland.

To our knowledge this requirement is still on the Irish statute.

Power Supply

The metro will be electrically powered so the power supply technology used is of critical importance. We have been unable to discover what system has been chosen. This issue which has a significant bearing on costs and is not mentioned or discussed in any way by the O'Reilly report.

The 1975 Dublin Rail Rapid Transit Study[6] (DRRTS) investigated the options of which power supply system to be used to power an extensive metro like railway for Dublin, in terms of safety, capital costs and running costs.

- 750V DC 3rd rail systems were discounted since they require significant numbers of substations and also present a significant safety issue as there is a lethal live conductor rail which is accessible from a platform. Ice on the conductor rail is also an issue.
- 25KV AC overhead systems were discounted as trains are required to carry a heavy transformer and thus require to draw more electrical power to match the performance of a similar DC powered train thus increasing running costs in both terms of electricity and wear and tear. The initial purchase cost is also higher for such trains
- 1500V DC was chosen as the optimum solution requiring only half the number of substations of the 750V DC solution, while providing a much safer overhead wire system without the penalty of a heavy and expensive transformer.

Based on the DRRTS study phase one of the project, Bray Howth which we now know as the DART was built using 1500V DC. In light of this it would be only reasonable to build the metro to 1500V DC, which in turn would maintain compatibility with Iarnród Éireann existing and soon to expand network. While the DRRTS study is 30 years old the arguments it presents in this area are still 100% valid.

The Tyne and Wear Metro in Newcastle in northern England, a modern metro system, which is of similar scope to that proposed in Dublin, operates using the 1500V DC system and also shares a section of track with normal railway services.

Regardless, on the safety criteria alone 750V DC 3rd systems are not favoured by the rail safety commission,

3.1.1.1 In considering the protection of people from safety hazards due to the electric traction system the application of conductor rail systems is not preferred by the RSC due to the greater associated risks.

Capacity

Many would assume the metro would offer significantly more capacity than other options. The initial rush hour service of a 2 car train every 4 minutes as proposed by the RPA offers only fractionally more capacity than a single Luas line running at the same frequency, each 2 car metro train would carry only 312 people. In comparison a 40m Luas tram can carry 292, an 8 coach DART 1,400² and an 8-car Commuter/Arrow type train 1,200.

Metro

Initially 2 coach trains would be used giving a hourly capacity 4,680 or 7,020 in each direction if 3 car trains are used. These are based on the figures presented by O'Reilly giving each coach a comfortable capacity of 156 persons. The initial peak service will be one 2 coach train every 4 minutes, page 10 [5]. In light of the experience with LUAS the proposed capacity falls well short of what could reasonably be expected.

Dublin Rail Plan

The Dublin rail plan envisaged by Iarnród Éireann when completed would have hourly capacities of in one direction alone of,

Capacity	Between
11,200	Bray and Pearse, Tara Street, Connolly
11,200	Maynooth / Dunboyne and Connolly, Tara Street, Pearse
8,400	Kildare and Heuston, St. Stephen's Green, Pearse, Spencer Dock
8,400	Drogheda and Spencer Dock, Pearse, St. Stephen's Green, Heuston
8,400	Airport / Howth and Spencer Dock, Pearse, St. Stephen's Green, Heuston
2,400	Dundalk and Connolly
2,400	Longford / Mullingar and Spencer Dock
2,400	Navan and Spencer Dock
7,200	South of Kildare and Heuston / Spencer Dock
1,200	Gorey and Pearse

Total in one direction alone per hour is 63,200

²We assume an obtainable capacity of 175 per coach in real life, the manufacturer states a capacity of 948 per 4 car set, 1896 for 8 cars

Expansion

Metro

The Sandyford Luas line in current operation has a limit of approximately 4,380 per hour, which is proving insufficient. The initial capacity of the metro of 4,680 per hour is clearly insufficient. Even if the metro was pushed to its absolute design limit following yet further significant capital outlay its peak hourly capacity in one direction would be only 18,720 this would require almost 3 times as many drivers and trains. However 18,720 is not possible when you consider expansion beyond just one line.

The Metro project is based on the DTO Platform for Change [1] document published in 2000. The DTO envisaged the Airport metro as the first stage in a significant and wide reaching metro system of some 70 km in length. The core city centre section would be shared between services on the Airport - St. Stephen's Green - Shanganagh route and services on the orbital Metro route serving Blanchardstown and Tallaght. Under this expansion the peak service possible from Swords would be at 3-minute intervals and a capacity of 9,360 per hour, which in our opinion would be insufficient.

There has been little mention of this by the RPA who have focused on the Airport metro as a stand-alone project with complete ignorance of how it might expand and indeed integrate with Dublin's transport infrastructure both present and future. We are extremely concerned at a statement made in the O'Reilly report,

These figures are seen as conservative as they do not take into account the effect of additional demand arising from new developments following the start of operating the Metro route and that arising from future line extensions and additional demand from other transport developments such as congestion charging for private car usage.

This statement appears to indicate that no provision or evaluation was performed into the metro's ability to cope with significant growth over the baseline figures. The estimated (conservative) peak demand of 6,528³ people per hour can be satisfied by the proposed system but allows little scope to accommodate any substantial increase in demand. We note several factors likely to significantly increase demand,

- Extension of Metro north to Swords
- Extension of Metro south to Shanaganagh
- Construction of a second terminal at Dublin Airport
- Construction of the Orbital Metro to Blanchardstown, Clondalkin and Tallaght
- Increase in population of the catchment area
- Provision of Iarnród Éireann's Dublin Rail plan

Taking these factors in mind, the absolute maximum capacity of 9,360 per hour quickly becomes insufficient. The extension to Swords alone will increase passenger numbers by 8 million per annum in 2010, increasing peak demand by approximately 2,000. By 2016 projections show an increase in usage of approximately 6 million between the Airport and city centre, another 1,500. No figures are available for passenger numbers in 2016 assuming an extension to Swords but it safe to assume an increase also over the 2010 figures. These are all conservative estimates. At this point we have identified a demand of in excess of 10,000 per hour without allowing for the other 5 factors we have

³Morning peak, assuming route 3B and no extension to Swords. No evening peak figures available

identified. Clearly there is insufficient capacity in the current Metro proposal to cope with demand.

Dublin Rail Plan

Iarnród Éireann will have the option to extend Kildare Drogheda services to 12 coaches providing a further 4,200 capacity or to go to double decker operation providing a further 4,800, a total of 9,000 bringing hourly capacity into or out of the city to in excess of 72,000. Signalling in the Heuston - Spencer Dock interconnector tunnel will be able to take up to 16 trains per hour in each direction though initially only 12 per hour are planned. Use of all 16 slots would increase capacity by a further 5,600 in each direction. Further incremental improvements would be possible with provision of further 4 track sections.

Passenger Numbers

By 2016 the Metro is expected to carry 24.28 million per annum (assuming no extension to Swords), Irish Rail have not released exact figures but state their system would have to capacity to cope with up to 100 million passengers per year^[4], in comparison current rail passenger numbers for the Dublin commuter belt are approximately 25 million per year.

Implementation

Metro

The Dublin Metro project would represent the largest engineering project ever attempted in Ireland. It requires the construction of at least 2 sets of tunnels. Phased delivery is not possible. Management of a project on this scale is difficult which may lead to delays and cost overruns. No benefit is gained from the project until it is fully finished. Before the Metro project can even begin a route must be chosen which will further delay the project. The Metro project may also be significantly delayed if the the critical infrastructure bill is not in place. A decision to proceed in its absence will increase costs and delay the completion of the project.

Dublin Rail Plan

Phased project delivery. Many small projects are easier to manage than one large one. Each stage on its own provides significant benefits allowing the project to be completed in phases, each phase building on the previous phases. It also allows phases to be completed in the face of limited funding availability. The plan has been finalised and the route of the interconnector tunnel has been chosen. Iarnród Éireann do not assume the critical infrastructure bill. If such a bill was in place it could lead to reduced costs and quicker implementation.

Integration

While it is true that all projects should be standalone and make a significant contribution in the absence of other projects, it is true also that due attention must be paid to other projects on going which may effect the Metro. The Metro route put forward for evaluation was route 3B, Airport - Metropark - Ballymun North - Ballymun South - Dublin City University - Botanic Road - Mater - O'Connell Street - Trinity - St Stephen's Green. The Metro will not have a direct connection

with the Red Luas line on O'Connell Street. The Metro station is expected to be located close to the Gresham hotel well north of Abbey Street. This decision was made based on the opinion that the Luas would be unable to accommodate the level of interchange. In light of the ability to use 40m trams on the Red line combined with the provision of a direct rail link between Heuston, St. Stephen's Green, Pearse and Spencer Dock by Iarnród Éireann this decision may need to be reconsidered. No provision is made for any connection with the existing rail network at either Glasnevin Junction (Phibsborough) or with the DART line at Tara Street.

Clearly to serve Tara Street station requires a significant (and expensive) detour from the direct route and the loss of an extremely attractive station at College Green. With Iarnród Éireann's interconnector tunnel in place there is no need for such a route since passengers for Maynooth, Dunboyne, Connolly, Pearse and Bray could change at Glasnevin and those for Kildare, Drogheda, Pearse and Heuston could change at St. Stephen's Green, thus maintaining the ideal one change public transport system. Iarnród Éireann's plans allow for an interchange between Metro and DART at St. Stephen's Green but do not depend on it.

Summary of the Metro Project

Despite the hype surrounding the Dublin Metro project upon a more in depth investigation it is rather disappointing. Capacity and integration all fall well short of what are needed. Have we not learned from the experience of Luas? Integration and capacity are the key complaints. Why aren't both lines linked? Why are 30 m and not 40 m trams on the Tallaght line? Why is the Red Cow such a mess? Why was the project several years late any several hundred million euro over budget? In our opinion the failures of the Luas project can be attributed to poor planning, poor management and political interference. We now have one chance and one chance only to get it right. Get it right and Dublin will reap the benefits for decades to come, get it wrong and perpetuate the current mess of poorly integrated under resourced public transport.

A station must be provided at Glasnevin Junction (Phibsborough) to allow passengers living on the Maynooth and Kildare⁴ railway lines to have quick and easy access to the metro. It should be noted that it was Platform11 who proposed this, page 41 [5]. Despite millions of euro of taxpayers money spent on consultants and planning the RPA, a body tasked with the construction of Dublin's transportation infrastructure somehow failed to notice that the metro came with a matter of meters of the Maynooth railway line regardless of the alignment chosen. In light of Iarnród Éireann's plans, any plans for the provision of a Metro station at Tara Street are redundant.

The capacity of the proposed metro is hampered by the apparent decision to limit platform lengths to only 3 coaches. We have highlighted that this will limit the Swords line to a capacity of 9,360 per hour in each direction. We have shown that this will be insufficient to meet demand. The apparent choice of the 1435 mm gauge instead of the Irish standard of 1600 mm makes the metro completely incompatible with the entire existing rail network making inter-working of services impossible. The Metro should be built to 1600 mm and to DART specifications. The DRRTS study of 1975[6] proposed a metro system for Dublin based on the Irish gauge to a common specification. Only phase one, the DART was ever built and despite its instant success the study was quietly binned by government in 1987. The DRRTS study even presented a St. Stephen's Green to Dublin Airport route almost identical to that of the proposed route (route 3B) produced by the RPA.

⁴Services between Kildare and Spencer Dock are expected to begin in 2007

The Realities of the Dublin Metro

The direct construction cost of 1.72 billion actually relates to a total figure of 4.881 billion, the reduced proposal direct cost is 1.224 billion, we can safely assume has a total cost close to 4 billion, the RPA refused to release the actual figure[9]. The continued usage of this “direct construction cost” figure by the RPA is undoubtedly an attempt to cover up the spiralling costs. These are all 2002 prices.

We have shown that the currently proposed Metro is to a very poor specification with the emphasis on cutting costs not on providing the Metro system Dublin needs. We have highlighted numerous concerns in this report which need to be addressed, which in doing so will massively increase costs. 6 coach trains would be required to meet the expected demand which will double the rolling stock costs and will lead to a significant cost increase in electrical substations together with the provision of extra depot facilities. To accommodate 6 coaches trains stations will need longer platforms and also to be significantly larger to cope with twice as many passengers.

Despite the clear benefits of an extension to Swords, the RPA remain committed to Dublin Airport as the terminus. The RPA have also refused permission to publish the cost of extending the line to Swords. page 20 [5]. While Fingal County Council has applied development levies in those areas to benefit directly from this extension. These levies will not cover the total cost of the Swords extension, thus leading to further increase in costs.

Value For Money ?

The Metro proposal will require massive further work and development by the RPA before it is finalised, this will lead to a serious delay before work could begin even if the project was approved today. A cost in excess of 5 billion euro for the St. Stephen’s Green - Airport section alone, just 12 km of metro could cost in excess of 5 billion euro. This is totally unacceptable to the Irish public despite the apparent benefits. 5 billion represents a huge amount of money and an undue burden on the Irish taxpayer. We have to ask the question, are we getting value for money? Definitely not. Could we spend the money on many other projects for a much greater benefit? Absolutely.

The Alternatives

Luas

There are already a number of proposed Luas routes to Dublin Airport from the city centre. Under the original Luas proposal such as a line was to be built in parallel with the Sandyford and Tallaght lines. It is clear such a line could be built at a fraction of the cost of the proposed metro while making a significant contribution to the Northside’s transport needs. At full capacity a Luas line can carry 5,840 in each direction per hour. Such a line is included in the Dublin Transportation Office’s Platform for Change document, page 11 [1]. A number of proposed Luas lines to the West and North of the city are presented in that document.

Iarnród Éireann

Iarnród Éireann already plan to connect Dublin Airport to the DART line via Baldoyle. This route would also serve the growing North fringe area as well as providing direct access to the Airport to those living on the east coast. This line could be extended to Swords if so required. This route has

the benefit of full integration with the existing rail network and will allow upon completion of the Dublin Rail Plan, passengers from the Airport to reach Pearse station, St. Stephen's Green and Heuston station without a change.

Iarnród Éireann's Dublin Rail plan, costed at 3.4 billion euro would build a fully integrated rail network for the Greater Dublin region. Bringing a DART like service to Kildare, Maynooth, Dunboyne, Drogheda, Dublin Airport and the Dublin Docklands, together with massive improvements to outer suburban services while eliminating the current capacity crisis. It is nothing short of tremendous value for money. This investment will provide the capacity to carry up to 100 million per annum, an increase of 75 million, with the Metro offering a potential to carry only roughly 30 million per annum, there can be only one choice.

Our Recommendations

Required Metro Changes

- Legal measures to allow 24 hour tunnelling should be in place before work begins
- The Metro should start at St. Stephen's Green and terminate at Swords not Dublin Airport
- A Metro station should be provided at Glasnevin Junction (Phibsborough)
- The Metro should be built to the same specification as the DART system
- Metro stations should be built to accommodate 6 car trains not 3 car as proposed
- The RPA should acknowledge that Metro is not a standalone project and should be designed to maximise integration with other public transport projects
- The Metro must comply with all current and proposed Irish and EU legislation as well as following best international practice
- Stations should be built to the highest specification to ensure efficient and safe operation
- A separate body independent of the RPA should manage the project

Overall Recommendations

- Iarnród Éireann's Dublin Rail plan is the priority project
- Iarnród Éireann's Dublin Rail plan should be given the go ahead without further delay
- The Metro must not go ahead unless a balance can be found between specification and costs
- A Luas line should be built to Ballymun and onwards to Dublin Airport, as was originally planned

References

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