

2022

Stakeholder Submission to the All-Island Strategic Rail Review



SOUTH EAST ON TRACK

Campaigning for sustainable public transport in the
South East of Ireland.

SOUTHEASTONTRACK.COM

email: southeastontrack@gmail.com

This submission to the public Consultation of the All-Island Strategic Rail Review will form three distinct parts:

1. A general policy paper that explains South East on Track's goals and how they correlate with the overall goals of the Strategic Rail Review
2. A detailed Business Case and Report on the Wexford to Waterford Rail Link
3. A brief analysis of the Rosslare to Dublin rail link

1. GOAL 1: CONTRIBUTE TO DECARBONISATION

1.1. To reduce the carbon emissions associated with rail's construction, operation, and maintenance.

South East on Track's proposals do not suggest constructing any new rail lines, simply upgrading and improving services on rail lines that are existing and which have all carried trains in 2021. These lines are Dublin-Rosslare, Wexford/Rosslare to Waterford, Waterford to Limerick, and Waterford to Dublin. As a result, there are no major carbon costs with construction related to these existing rail lines. Particularly for Rosslare to Waterford, it is likely that carbon emissions associated with simply reactivating the existing railway would be lower than conversion to a greenway. Increasing services on these existing lines encourages modal shift to rail including rail freight and to the key rail connected ports at Waterford and Rosslare. It is important to note that Transport was responsible for 20.4% of Ireland's greenhouse gas emissions in 2019 and was second only to agriculture in terms of emission share by sector. Road transport accounted for the majority of these emissions, with private cars accounting for 54% in 2020, Heavy Goods Vehicles (HGVs) for 20%, Light Goods Vehicles (LGVs) for 18%, and public and private buses accounting for 7% of emissions[1].

Currently, rail operations contribute approximately 1% of transport-related emissions in Ireland[2]. This is expected to decrease in future years with the acquisition of bi-mode (Battery/Electric) rail vehicles. According to the Irish Rail 2027 Strategy, "further rail electrification offers increased rail network capacity, greater energy efficiency and lower emissions" at a time when more electricity is being generated from renewable sources to which a reopened Wexford-Waterford railway will contribute positively.

"In its Green Deal, the European Commission includes rail freight as a top priority for shifting towards climate-friendly transport, as rail is one of the most environmentally friendly modes of transport. The outstandingly low carbon footprint of rail freight resulting from the wide-scale use of electric traction, the high energy efficiency inherent in the rail system, the suitability for high transport volumes and other environmentally friendly drive systems encourage the EU to continue the development of fully carbon-neutral rail freight. Effective mitigation of the impact of rail noise is another substantial contribution towards further enhancing the environmental advantage of rail freight". These are the type of commitments that are enhanced by the existing railway network in the SE especially the Waterford Rosslare line.

1.2. To reduce the carbon emissions from motor vehicle

The proposals included in South East on Track's submission to the Strategic Rail Review focus on areas of the country that currently suffer from some of the lowest modal shares of rail in the

country. Particularly in Counties Wexford and Waterford, modal share for rail remains negligible, with less than 0.5% of the population in the NUTS II South East Region using rail for their current transport needs. Due to the low frequency of services on the existing rail lines[3], the inability to use these services for any purpose other than limited travel to Dublin, and the unfortunate suspension of services on the Waterford-Wexford section, this pathetic modal share is unsurprising." The European Commission has built a strategy for sustainable and smart mobility at the end of 2020 in which it sets objective to double rail freight traffic by 2050". In the SE are located two of the key national ports Rosslare/Waterford both rail connected and in Waterford with rail freight handling capacity. Reducing truck movements to these ports is easily achievable through an increase in rail freight which is a stated objective of Irish Rail strategy to 2040. Reopening rail access to these ports practically reduces motor traffic and contributes to modal shift.

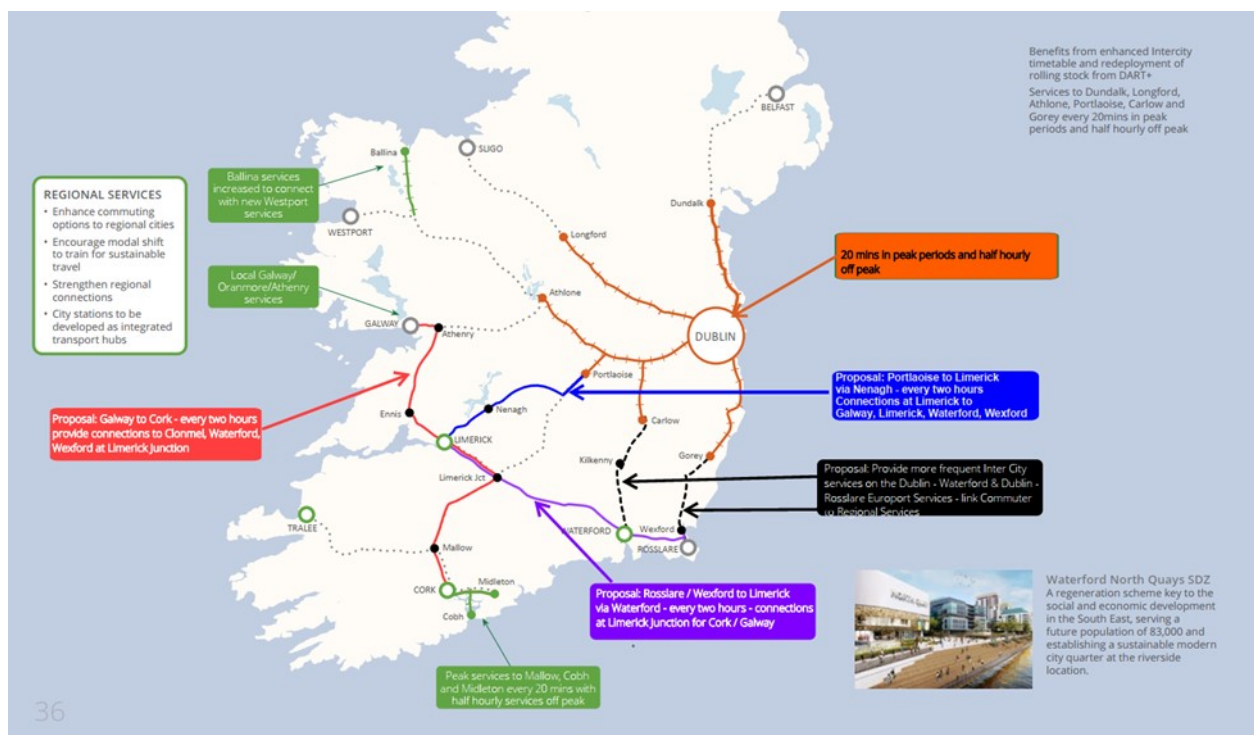
IE strives to increase market share in freight. "Providing intermodal freight terminals will allow for the integration of rail and road freight services, with both working together where HGVs are used for the movement of goods over short distances to and from intermodal depots and rail is used to move these goods over long distances between depots and ports". This objective is clearly enhanced by the railway's connectivity to international gateway ports in the SE. Further having two key ports in the SE joined via the Rosslare Waterford railway provides inter-connectivity and alternative routes to Dublin and the west of Ireland. Achieving the IE objective will be near impossible without retaining the existing rail network.

The analysis of journey times included in the Business Case for the Wexford to Waterford rail link illustrates that with the necessary upgrades, the current alignment could deliver a Waterford-Rosslare Europort journey time of 47 minutes, stopping at each station. This comfortably beats the fastest car journey available at 1 hour 4 minutes.

2. GOAL 2:IMPROVE ALL ISLAND CONNECTIVITY BETWEEN MAJOR CITIES

2.1. To provide an attractive public transport choice for travel between the seven major cities of Belfast, Cork, Derry, Dublin, Galway, Limerick and Waterford

South East on Track's proposals would revolutionize connectivity between Limerick and Waterford using the direct line, as well as suggesting direct Cork-Galway services, allowing passengers from Rosslare & Wexford to access the entire south-western portion of the country. Furthermore, the regional rail proposals we include suggest direct Galway to Cork trains, allowing interchange at Limerick Junction to open up the entirety of the Southern portion of the country. By utilizing interchange with Iarnród Éireann's proposed service improvements included in the IE 2027 Strategy, the rail network quickly becomes a viable transport option for millions across the country.



Simply put, without taking on major capital costs, rail services can be improved using current infrastructure to provide the potential primary means of inter city travel between the seven major cities, and via the reactivated Wexford-Waterford line, provide a vital link to the international port of Rosslare. "In Ireland 3.1% of passenger journeys are made by heavy rail. This compares to an EU average of 7.9%, showing what is possible from sustained development of the rail mode", reconnecting cities in the midwest and west to the exit points at Rosslare and Waterford achieves the stated objective of providing public transport connectivity at these strategic points both for passenger and freight traffic.

3. GOAL 3: ENHANCE REGIONAL AND RURAL ACCESSIBILITY

3.1. To give people in rural and regional areas better access to economic opportunities, health, education, and civic services.

South East on Track's proposals aim to improve the overall viability and reach of the network by simply restoring a section of rail that currently does not have regularly scheduled services - the Wexford to Waterford line.

Our proposal aligns with most of the goals included in the Southern Regional RSES particularly: **Waterford MASP Policy Objective 7**, which we will quote verbatim:

d. Improvements to the Waterford – Rosslare Europort & Wexford Strategic Transport network to include improved road and rail connectivity into Rosslare Europort from Waterford, recognising the important role of Rosslare Europort as a passenger and freight port for the Waterford Metropolitan Area and wider-Southern Region.

e. *The optimal use of the rail network, connecting Waterford at a regional and national level, in catering for the movement of people and goods including development of commuter rail services into Waterford.*

f. *Retention of the Waterford -Rosslare Rail line for future freight and passenger rail connectivity to for (sic) Rosslare Europort.*

g. *Measures to support Modal Change through transfer of freight from road to rail through increased use of freight sidings (or creation of new rail connections) at the ports and other locations throughout the South-East*

“Project Ireland 2040 envisages a population increase of one million people by 2040, with an additional 660,000 people expected to join the workforce. The plan aims to concentrate this growth in regional urban centres to encourage sustainable development”. The South East region is a location that currently has rail infrastructure in place that can be central to regional connectivity in a unique through the Rosslare-Waterford rail line. Elimination of this key transport corridor removes connectivity to the Europort by rail from the West, South and NW and further destroys an existing circular route between Dublin, Wexford, Rosslare, Waterford, Dublin. This is real regional connectivity.

3.2. To improve inter-regional accessibility.

Currently for people on the East Coast - all rail access to the South and West of the Country is via Dublin. The Dublin rail network is already severely congested for Inter City trains, and this will increase in future years with the provision of DART+. The analysis contained in the SEOT Business case states that by re-activating the currently extant Wexford-Waterford rail link, serious time savings are made - access to Waterford increases, and time is saved significantly (e.g. approximately 5 hours for a Wexford-Waterford journey) for all communities along the Eastern Economic Corridor from Rosslare Europort right up to Dun Laoghaire.

In the West, access to the East Coast and the nationally important port of Rosslare is revolutionised, as well as access to the key town of Wexford. For example, a journey to Rosslare Europort from Limerick city becomes less than three hours via rail versus the current 6 hour plus journey.

4. GOAL 4: ENCOURAGE SUSTAINABLE MOBILITY

4.1. To help manage demand through compact growth and better integration of public transport with land use.

The NTA has on many occasions mentioned the need to increase the attractiveness of the Rosslare-Dublin line to the large number of commuters who live along it. Increased services and quicker line speeds can deliver this growth.

For the Wexford-Waterford line, the current draft version of the Wexford Development Plan calls for specific development in the Wexford County Council defined *Service Settlements* of Campile, Wellingtonbridge, Bridgetown, and Rosslare Harbour. The Development Plan goes on to state for these settlements *Apply the sequential approach to the development of land, **requiring residential development to take place within the existing footprint of the settlement.*** (Wexford County Council Draft Development Plan, p. 66) - these changes to the Development Strategy infer that significant development can take place in the core area of these settlements close to the railway stations, as opposed to one-off rural housing.

4.2. To enhance the integration of rail with other transport modes.

The South East provides excellent opportunities for integration with other transport modes, particularly the Wexford to Waterford line:

4.2.1. Sea:

The below map shows the new connections between continental Europe and Rosslare Europort, most of which have come about since the advent of Brexit. As previously stated, the Wexford-Waterford line provides excellent connectivity to Rosslare Europort, saving hours off the rail journey there for most areas in the country.



4.2.2. Active Travel and Bus:

The new Transport Hub in Waterford City will integrate excellently between active travel and regional bus, as well as (when necessary) private passenger vehicles by including the following:

- Construction of pick up and drop off public parking facilities to the east of the station building, comprising approximately; 16 no. car set down spaces, 7 no. taxi set down spaces, 4 no. coach set down spaces and bicycle parking
- Re-configuration of parking in the existing Bus Éireann Depot and construction of replacement spaces to the east of the existing bus depot site connected to the existing Bus Depot by way of an internal road
- Works comprising the integration of the Waterford to New Ross Greenway across the site;
- The sustainable transport bridge providing easy access to the core of Waterford City.

4.3. To reduce reliance on private passenger vehicles.

Sustainable regional development also depends on an adequate public transport system and in the South East this includes an effective rail strategy to enhance existing rail infrastructure and improve the rail corridors in the region. "This pattern of development forms part of a global trend of growth being concentrated in urban areas supported by investment in public transport infrastructure, primarily high-density light- and heavy-rail systems. This approach to development is known as Transit Oriented Development (TOD). The fundamental principle of TOD is to concentrate higher levels of development within the direct catchment of high-capacity public transport".

Waterford is unique in terms of rail connectivity; to Dublin, Wexford, Limerick/Galway/Cork/Kerry on three existing rail corridors. Compact growth in the region can be enhanced by planning around the growth of this rail network and providing alternative transportation between regional education and employment hubs in the SE. Substantial development (300 units) of residential, retail, new areas of public realm, cycle facilities and enhanced station connectivity is proposed at Waterford new station to be phased in over a number of years. This type of planned sustainable development can be replicated at rail heads in Wexford, Rosslare and other SE points using land that is accessible.

The network of rail corridors in the SE enhances integration of rail with sea ferries and shipping at both Waterford and Rosslare ports. The Brexit aftermath has shown that the SE ports are the preferred exit/entry points from the EU especially for freight. Further integration of the rail at these ports with sea traffic can benefit tourism in the future and rail freight modal shift in keeping with the EU Green Deal objectives.

Ireland strives to reach a point where it is a sustainable economy and regularly supports these initiatives at the EU level. Rail connectivity in the SE contributes to the overall national objective by maintaining the essential links in the regions through sustainable development along the rail corridors, upgrading to electric trains and new technology in terms of rail freight technology to increase efficiency and capacity.

5. GOAL 5: FOSTER ECONOMIC ACTIVITY

5.1. To contribute to balanced economic growth between urban and regional areas.

The proposals contained within the South East on Track business case for the Wexford to Waterford rail link would foster new connections across Ireland and link our regional cities in ways that are currently only achievable via the private car. Providing rail access can lead to a serious uptake in new business and enterprise opportunities. Unfortunately, in the past, Ireland has tended on a policy level to look at public transport and in particular rail, to be an asset to be invested in after an initial customer base exists and is inadequately served by public transport. The overall strategy with regard to rail in our regions needs to be one of providing regular and frequent rail services to link our regions. In Europe, it is common for clockface regular (hourly) trains to run - the network is seen as a right for the public to access rather than relying on the often bizarre timetables of the NTA and Irish Rail. A minimum commitment of hourly trains on all lines is necessary to encourage modal shift and contribute to enterprise growth across the region.

5.2. To support the efficient movement of goods to and from economic centres and international gateways.

Both the Rosslare-Dublin and Rosslare-Waterford rail lines provide good, albeit underused access to the Europort. As previously stated, and as is further elucidated in the Business Case, a reopened Wexford-Waterford rail line revolutionises connectivity to Rosslare Europort across the Southern Region. Similarly, improved frequencies and reduced journey time on the Dublin line can make the use of rail more appealing to the public and possible freight customers. Although Rosslare Europort is not currently listed as part of Iarnród Éireann's Freight 2040 Strategy, its rail links need to be maintained and improved to prepare for potential future developments such as Offshore Wind proposals, and in addition to unforeseen future challenges be they climate related or economic. Although the LOHR rail freight system may not be viable for Rosslare Europort at the current moment, future technological advances may change this.

With regard to Waterford Port, which is rail freight connected, as previously mentioned, the Wexford Waterford line is the quickest route to Waterford for the Eastern Economic Corridor from Rosslare Europort to Dun Laoghaire. Although there are no rail freight flows along this corridor at the moment, this is liable to change in the future in tandem with policy incentives in the future.

5.3. To support the efficient movement of people between economic centres, and to and from economic centres and international gateways.

Rosslare is Ireland's second-busiest port for freight traffic, after Dublin. This international gateway port has a Strategy that includes a €25 million programme of investment in modernisation and expansion of facilities, delivering cost-efficiencies in operations through restructuring of activities and digitisation of processes. Rosslare's geographical location as Ireland's closest port to mainland Europe means that it is well-placed to benefit from growth in freight traffic direct to European markets following potential Brexit-induced customs delays and costs at British ports, when its role as a strategically located alternative to the busy Dublin port is likely to become increasingly important to the Irish economy. In a similar way Waterford plays a part in sea freight transit to EU and uniquely is one of only two ports nationwide with rail freight handling capacity as an international gateway. In 2021 the rail freight traffic between Ballina inland port and Waterford recommenced enhancing the position of the port and emphasising the importance of the rail corridors to the ports.

There is no reason why Rosslare cannot contribute further to the efficient rail movement of goods and passengers from the main economic centres to the international gateway by including LO LO handling between the rail and the ferries and complying with the EU TEN-T corridor objective plans at a rail connected port. Dublin already handles Ro Ro and Lo Lo traffic so the case exists. Rosslare is planning for a bright future at the port, the extension of hard standing for bulk goods, including the creation of an "offshore hub", importing and storing wind turbines for power generation are all areas that are being examined. Wind turbine importation across the country is an area that could be transferred to rail freight with the will and ambition of Iarnróid Éireann.

Passenger train traffic to Rosslare is at a very low level which is unsurprising if one studies the timetables of the train services to/from Dublin to the port. Trains simply do not coincide with ferry movements, the argument being that these are car / truck ferries with few foot passengers. The reality is quite different and in fact foot/hiker/biker tourism is growing and connectivity to the west via Waterford by train would be a real advantage to such tourism.

6. GOAL 6: ACHIEVE ECONOMIC AND FINANCIAL FEASIBILITY

6.1. To plan investment in rail that is financially feasible.

South East on Track's proposal to reactivate the Wexford to Waterford line is currently priced by Irish Rail at €12-15 million euro. This reflects incredible value for money, by expanding the rail network by 56km for such a low pricepoint.

Of particular note here is the recent National Investment Framework for Transport in Ireland (NIFTI), published in December 2021. NIFTI states *Given its scale and value, protecting and renewing the existing transport system is also a foremost priority. Many of the challenges the network faces can be addressed, at least partially, through protection and renewal. Adequate maintenance of infrastructure is necessary to ensure safety and accessibility, make sustainable modes an attractive option, and deliver connectivity*[4] With Wexford County Council currently suggesting removing a rail line that is being maintained and currently (albeit occasionally used) this would suggest a serious derogation from the NIFTI Intervention Hierarchy of 1-Maintain, 2-Optimise, 3-Improve, 4-New. As a further demonstration of this, Iarnród Éireann figures suggest restoring the Wexford to Waterford line would cost €12-15 million, whereas the current estimate for greenway conversion is over €30 million.

The rail freight network in Ireland is currently an underutilised national asset for many reasons including that the rail freight handling capacity was dismantled around the country and at ports like Cork and Galway over many years. According to the IE rail freight 2040 strategy "development of an expanded rail freight network, additional services and facilities will support enhanced modal choice, supply chain resilience, economic development, regional balance and reduced carbon emissions". It is the economic dimension of this strategy that is so significant and may also include the cross border aspect reflected in the scope of the All-Island Rail Review.

The completion of the TEN-T Core Network by 2030 and the widespread deployment of the current version of the European Rail Traffic Management System / European Train Control System (ERTMS/ETCS) all over Europe, both trackside and on-board, and the move to digital railway operations will lead to more efficient and better-integrated rail transport, thus enabling a breakthrough transformation of rail freight. The deployment of Digital Automatic Coupling throughout Europe will be essential for rail freight to become more efficient and even safer. Largely harmonized digitalisation is essential to effectively link rail freight and the Rail Freight Corridors to the other parties in multimodal logistics chains. Ireland is either supportive of this strategy or not designating rail connected ports part of the TEN-T corridor network is an example of implementation. Foynes and Cork are designated as TEN-T corridors though neither is rail connected to operational lines while Rosslare /Waterford are excluded which is extraordinary.

"The European Green Deal will transform the EU into a modern, resource-efficient and competitive economy which results in zero net emissions of greenhouse gases by 2050, and which decouples resource use from economic growth. The plan identifies the investments needed and financing tools available to reach carbon neutrality by 2050. These include the investment in environmentally-friendly technologies, providing supports to industry to innovate, and utilise cleaner, cheaper and healthier forms of transport". IE has examined bulk freight economics and envisages that freight movement to main cities will be costly as road traffic congestion increases. "The movement of construction materials into Dublin represents an opportunity for additional bulk traffic. Currently two million tonnes of sand and gravel are transported to Dublin from the Mid-West annually. As the sources of these materials are exhausted and move further west, the opportunity for rail to offer an economic alternative to road increases. The same applies to container traffic from our ports including Dublin. Limited rail freight movement takes place to Tara mines and Ballina inland port yet the cost savings and the decarbonisation data support increased rail freight options. "

Ireland has some of the highest freight track access charges in Europe at around €0.0077 per gtkm. These are charges paid by rail freight for the use of infrastructure and are transferred to the customer in proportion to the weight of goods moved and the distance travelled, to reflect the impact of the service on the network. While price is not the only motivating factor affecting choice the relatively high charges in Ireland are not attractive to potential customers. This is a disincentive for rail freight and has disproportionately advantaged the road freight sector for years despite government support for modal shift at EU level. Iarnród Éireann's rail freight business operates as a commercial entity, separate to the passenger business, without receipt of state subsidy, grant aid or incentives.

6.2. To access potential funding.

As previously mentioned, South East on Track's proposal confirms with most of the National Strategic Outcomes and aligns well with the National Investment Framework for Transport in Ireland (NIFTI) - therefore central government funding could become available. In terms of accessing external funding, ERDF funding would need to be examined, as the Wexford-Waterford route does not run on a TEN-T Core Network Corridor as required for Cohesion Funding. It is suggested that ERDF funding may become available in the future, in particular with relation to *ERDF PO3 (A more connected Europe, be enhancing mobility and ICT connectivity)* - as stated in the Review of Structures for Management of ERDF Programmes in Ireland (Department of Public Expenditure and Reform, 2019). Furthermore, with the increased importance of Rosslare Europort to the country as a whole in the aftermath of Brexit, funding allocations regarding transport infrastructure need to be re-examined in this regard.

6.3. To ensure the benefit cost ratio of investment in the railway network is considered alongside meeting objectives.

South East on Track's proposals primarily focus on rail lines that are active or existing. As such the cost of activating and utilizing this infrastructure is lower to the Exhcequer than new construction of road or other transport infrastructure.

SEOT has made the case for regional connectivity beyond Wexford-Waterford to connect the major urban cities of Waterford and Limerick, as well as Cork and Galway (see section 2 above). In this regard, we believe that significant, additional connectivity and network effects will accrue to each element of our proposal in terms of passenger numbers. We would expect that the economic appraisal of each project considered under the Strategic Rail Review **would therefore comprehend the positive economic benefits arising also from the wider network effects**, in line with best practice in cost-benefit appraisal for public transport and integrated transport projects.

The European Commission and its institutions including the Innovation and Networks Executive Agency (INEA) and its related programmes are available to support rail initiatives that contribute to modal shift. Given the Commission's focus on climate action and decarbonisation, retention of railways such as the Se railway between Rosslare and Waterford ports are well positioned to apply for support funding. Costs related to reopening the rail artery in the SE are described as minimal given that the corridor already exists with the infrastructure in place the main cost is upgrading and eventual electrification.

In terms of the rail freight business creative thinking and approaches to bulk carriers eg Coca Cola or Lidl or Aldi etc would more than likely receive a good response. These major businesses want to operate in carbon neutral way and rail is used by these companies abroad. Discussions should be held with freight stakeholders including port companies, private companies, logistics operators and property developers to identify potential investors in rail freight and other ancillary business.

"Rail can be competitive over reasonably short distances with the average rail freight distances traveled in the UK and EU at 150km and 220km respectively and with much of Ireland's freight traveling within this range. 'On distances exceeding 150km the average costs of moving goods by rail are usually lower than road' European Commission Increasingly companies are choosing to use rail, for its efficient performance and competitiveness along with its recognised sustainability benefits, even over shorter distances. IKEA, for example, with Maersk have recently began using rail to transport their products a distance of 100km from Barcelona to Tarragona in Spain after successfully applying a similar solution in Italy". Derry to Rosslare or Ballina to Waterford or Tralee to

Dublin are the types of rail distances that makes sense in transferring goods to rail for economic reasons once the rail freight handling capacity is restored.

[1] Five Cities Demand Study, Department of Transport, 2021, p.7

[2] Ireland's Provisional Greenhouse Gas Emissions, Environmental Protection Agency, 2021, p22
Table 3

[3] <https://www.irishrail.ie/en-ie/train-timetables>

[4] [i] NIFTI, p.7



**BUSINESS CASE FOR
THE WEXFORD-
WATERFORD RAIL LINK
– January 2022**

Prepared by: South East on Track for

The All-Island Strategic Rail Review, 2022

www.southeastontrack.com

southeastontrack@gmail.com

@seontrack

CONTENTS

1. INTRODUCTION _____	3	4.1. Introduction _____	34
1.1. Executive Summary: _____	3	4.2. Current NET Value _____	34
1.2. The Basics _____	5	4.3. Estimated Upgrade Costs _____	34
1.3. Background _____	6	4.4. Precedence for reopening _____	37
1.4. The Current Context _____	6	5. RAIL FREIGHT _____	38
1.5. Why now? _____	7	5.1. Introduction _____	38
1.6. South East on Track _____	7	5.2. EU objectives _____	38
1.7. A Note on Nomenclature _____	7	5.3. Government Rail freight policy ____	40
2. CHARACTERISING THE RAIL LINK _____	9	5.4. Historical Background _____	42
2.1. Introduction _____	9	5.5. Rosslare Europort. _____	42
2.2. Social Profile & Demographics ____	11	5.5.1. Additional Infrastructure	
2.3. European & International Policy		Requirements At Rosslare for Lo/Lo ____	44
Context _____	11	5.6. Waterford Port (Belview) _____	44
2.4. National Policy _____	11	5.7. Potential rail freight flows on the	
2.5. Local Government & Regional Policy		Waterford-Wexford/Rosslare railway. ____	45
12		5.7.1. Timber _____	45
3. PASSENGER DEMAND _____	13	5.7.2. Wind Energy _____	46
3.1. Introduction _____	13	5.7.3. Containers _____	46
3.2. The Area Served By The Rail Link __	13	6. SERVICES _____	49
3.3. Commuting Catchment (Wexford &		6.1. Operational Costs: _____	49
Waterford): _____	14	6.2. Potential Service Operation _____	49
3.4. Commuting Figures _____	15	6.3. Journey Time Analysis _____	49
3.5. Other Passenger Sources: _____	18	6.4. Commuter Services: _____	52
3.6. Student Traffic _____	19	6.5. "The Loop" _____	53
3.6.1. Third Level Education Travel ____	19	6.6. Regional Rail _____	54
3.6.2. Second-Level Education Travel _	21	6.7. Place-making and Public Realm	
3.7. Tourist Ridership: _____	22	Benefits _____	55
3.8. Ferry Traffic _____	23	7. EXISTING PUBLIC TRANSPORT SERVICES _	57
3.9. Interrail _____	25	7.1. Introduction _____	57
3.10. Special Event & Sports Passengers	26	7.2. Fares _____	60
3.11. Potential Ridership _____	27	7.3. Competition with Buses _____	64
3.12. Passenger Growth _____	27	8. Conclusion _____	68
3.12.1. Trinity Wharf, Wexford Town __	28		
3.12.2. Waterford North Quays (SDZ)	31		
4. CAPITAL INSTATEMENT & REINSTATEMENT			
COSTS _____	34		

1. INTRODUCTION

AT A GLANCE: WEXFORD-WATERFORD RAIL LINK

KEY FINDINGS

POPULATION



The rail link serves a fast growing, dynamic region - linking Counties Wexford & Waterford - population 266,000 (2016) and connects the entire NUTS II Southern Region population 1,585,992 (2016)

RE-ACTIVATION

This report finds that the cost of bringing the rail line back into safe use is €12million-€72 million.



REGIONAL MOBILITY



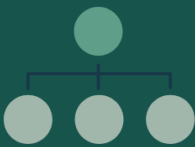
Upgrading the rail link to a max Speed Limit of 110 kmph could provide a Waterford-Wexford journey in 45 minutes.

SUSTAINABLE MOBILITY

Due to a strong market for commuter, educational, and tourist traffic, this report estimates approx 420,000 annual trips are possible in the short to medium term



INFRASTRUCTURE COST



If removed or allowed to deteriorate, rebuilding this rail link would cost approximately €652,000,000

1.1. Executive Summary:

This report provides a preliminary evaluation on the case for re-opening the Rosslare-Wexford-Waterford rail line. The line was closed to passenger services in 2010, and decisions are ongoing about continuing to maintain the line for an eventual return to use, while other proposals are under active consideration about removing the existing infrastructure for a greenway.

In recent years a renewed focus on climate change related issues has significantly shifted the prevailing narrative regarding public transport in Ireland. A range of recent policies has sought to encourage and expand public transport in Ireland, including the 2020 Programme for Government's remarkable commitment to a 2:1 ratio of expenditure between new public transport infrastructure and new roads over its lifetime.¹

In a post-Brexit landscape, the renewed importance of Rosslare Europort has become clear. The necessity of providing strong infrastructural links to this port in the future will ensure vital linkage for Ireland's supply chains.

This report examines a series of publicly available data, which supports the case for reopening this vital rail link. The suspension of services in 2010 was unique – no other rail lines in Ireland have been closed in the recent past. Therefore, a re-examination of this vital issue is necessary.

¹ https://www.greenparty.ie/wp-content/uploads/2020/06/ProgrammeforGovernment_June2020_Final.pdf

Reopening this rail link satisfies a large amount of National and Regional Strategic Outcomes, including encouraging compact growth, enhancing regional accessibility, strengthening rural economies and communities, and encouraging sustainable mobility.

Furthermore, the declaration of 2021 as the European Year of Rail² serves as an exciting opportunity to expand and promote rail travel within the European Union, of which Ireland is a vital constituent part.

This report was originally prepared for the revision of the National Development Plan and has been updated for the Strategic Rail Review (2022). The new National Development Plan 2021-2030 specifically cites the rail link, ensuring its “strategic potential” will be examined as part of the Strategic Rail Review. During the Strategic Rail Review, any progress on the proposal for a greenway should be delayed until completion. Similarly, maintenance of the link should be continued until a point that a decision is made regarding its future.

In addition to the strong arguments proposing the restoration of services, this report finds that should the line need to be reconstructed in the future, the estimated value of instating this infrastructure would be €652 million, whereas the current cost of bringing it back into safe use is €12 million - €72 million. Given the scale of the sunken investment that is about to be forsaken if basic maintenance is withdrawn, or if the rail line is irretrievably

altered, we find that a full strategic review and cost-benefit analysis of the alternatives is warranted.



Figure 1 - National Road and Rail Infrastructure in the Wexford Area

² https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2528

1.2. The Basics

- The Rosslare & Wexford – Waterford Rail line closed in 2010 during the Global Financial Crisis
- Low Passenger numbers were cited as the reason for the closure.
- The service was minimal (one train a day in each direction) and provided no commuter service to/from Wexford Town, the main Commuting destination of the region. Connections to other lines were poor or non-existent.
- The rail link has immense strategic value, linking Rosslare Europort to the South and West of Ireland, as well as being the only link apart from the Phoenix Park Tunnel which links the Connolly & Heuston Station rail networks.
- Commuter flows along the line are 3:1 in the Wexford Town vs Waterford City direction.
- Significant population increases are projected in the South East over the coming decades.
- The area currently has some of the lowest Public Transport commuter usage in the State.
- The line has been maintained since 2010, though this maintenance has been downgraded as of 2020³. The line is still used by trains in 2021.
- Irish Rail estimates the cost of returning the rail line to pre-closure state is €12-15 million.
- The estimated cost (using EU figures) to build a new rail link would be approximately €652 million.
- The line could be restored and upgraded for regular passenger service at a fraction of this cost.
- Severance of the rail link would leave Wexford Town the only urban area in the NUTS II Southern Region of Ireland with a population of greater than 15,000 not connected to Waterford and the rest of the Southern Region via a direct rail link.
- Significant developments are planned close to or on the rail line, including the North Quays project in Waterford City, Trinity Wharf in Wexford, Technological University of the South East (TUSE) in Waterford, Wexford, and Carlow and significant investment and increased ferry connectivity at Rosslare Europort.
- South East on Track's analysis suggests an annual usage of 500,000 is feasible in the short to medium term.
- A rail link from Wexford/Rosslare to Waterford is consistent with a plethora of strategic and policy goals at European, National, Regional, and Local levels.

³ Letter, National Transport Authority to South East on Track, Verona Murphy TD, 2020

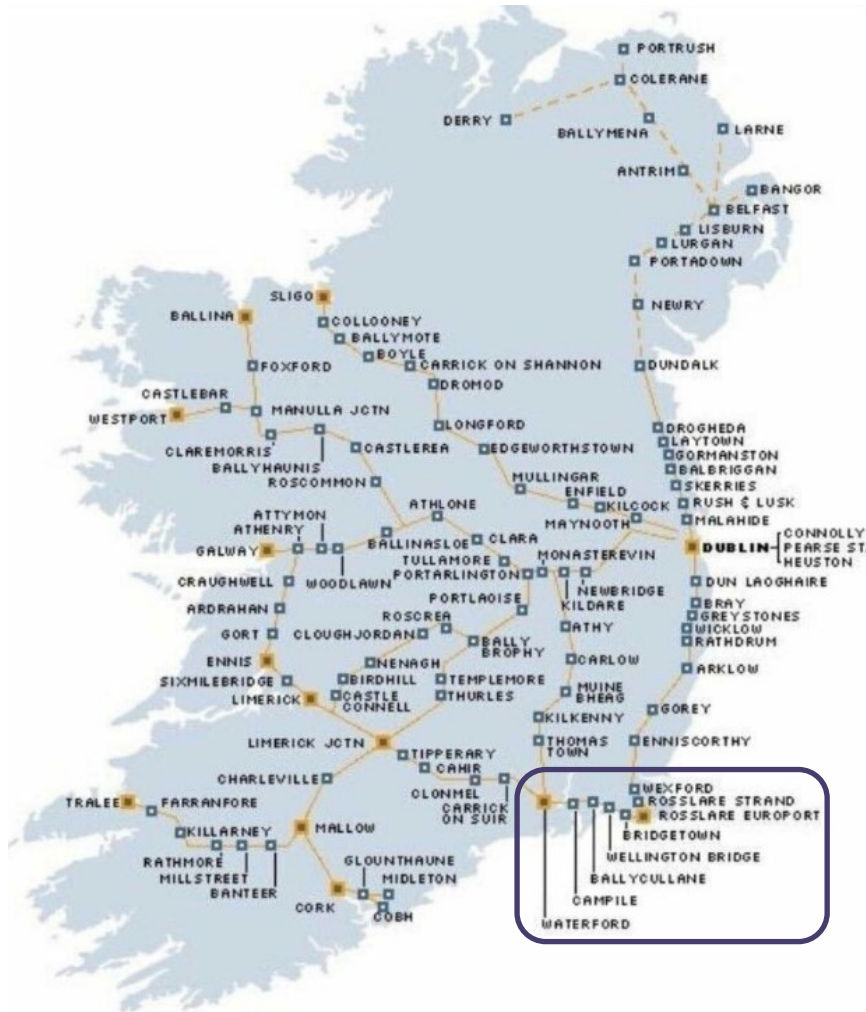


Figure 2 Irish Rail Network 2010 – The section covered in this report is contained within the purple box.

1.3. Background

The Wexford-Waterford rail link is approximately 56km of railway currently linking Waterford City with County Wexford via Rosslare Strand. The section from Waterford (Plunkett) to Belview Port remains in service, leaving 30.75 miles or 49.5 kilometers out of service⁴. The passenger service on this railway was suspended in 2010 during the global financial crisis, although the line is still maintained by Irish Rail and

traversed by multiple trains in 2021. After 11 years of service suspension, now is an appropriate time to reexamine the rail corridor and its potential activation as a vital strategic link⁵ for the South East Region of Ireland to the West and South of Ireland, across the Southern Region.

1.4. The Current Context

Until the outbreak of COVID-19, passenger rail travel in Ireland was increasing at a significant number year on year. Iarnród Éireann reported 50.06 million total passenger journeys in the year 2019 which is an increase

⁴ Asset Management Of The Bellview Rosslare Strand Line After Service Withdrawal (Iarnród Éireann, 2010)

⁵ See: https://www.southernassembly.ie/uploads/general-files/Regional_Spatial_Economic_Strategy_for_the_Southern_Region_LOW_RES.pdf

of 5% on 2018 and 36% over the longer period 2012 – 2019.⁶ This is despite a lack of capital expenditure on the rail network and rolling stock since the Recession.

1.5. Why now?

As a result of a more climate conscious public, the increased demand for rail travel, and several exciting developments in the South East, the time is correct to reexamine the activation of this rail link for the region. A proposal to convert the rail link into a greenway, thus removing the railway, signals a need to reexamine the rail corridor's potential within the wider network as part of the Strategic Rail Review.

At the time of the rail link's closure in 2010, it had a once-daily service providing an unsuitable transport link for almost all of its potential market. Examinations of the line at the time failed to appreciate its true potential, and even supportive reports such as the South Eastern Regional Authority's Report in 2010 did not examine the possibility of infrastructure improvements that could lead to increased passenger and freight traffic.

across the region. It is the view of South East on Track that the case for the Wexford to Waterford rail link has significantly improved since the decision of the National Transport Authority to suspend services in 2010.

As South East on Track is a volunteer-based group, this report seeks to explore the trends and potential for passenger usage of the line. This report illustrates a changed landscape for rail within this corridor and should be followed up with a full feasibility study. Several recent reports including the Western Rail Corridor Financial and Economic appraisal (EY 2020) and the draft Limerick Shannan Metropolitan Area Transport Strategy (Jacobs, 2020) provided deeply flawed passenger projections, and it would be inappropriate and beyond the scope of this report for South East on Track to use either of these examples as a basis for projecting passenger numbers.

Similarly, the report will not apply the Social Impact Estimation Methodology 2010 criteria used by the NTA in 2010 to support the closure of the rail link. This methodology is used for Existing Services Only⁷.

In 2017, annual passenger volumes returned to peak levels recorded in 2007, and two years later have exceeded this level by a further 10% - National Transport Authority, Heavy Rail Census 2019

1.6. South East on Track

This report has been prepared by South East on Track, a group based in the South East of Ireland dedicated to improving rail services

1.7. A Note on Nomenclature

This report refers to the Wexford-Waterford rail link as opposed to the Rosslare-Waterford rail line. Previous reports such as the South East Regional Authority's *Socio-Economic and*

⁶ National Transport Authority, Heavy Rail Census Report 2019 (published July 2020)

⁷ Social Impact Estimation Methodology 2010
<https://www.nationaltransport.ie/wp->

content/uploads/2020/08/social_impact_estimation_methodology11.pdf
Section 2.4

Business Case For The Maintenance Of The Rosslare–Waterford–Limerick Rail Corridor (2010), sought specifically to maximise the potential of the rail link using existing infrastructure. As 10 years have elapsed since the suspension of services, infrastructure upgrades will be required to return the link to operation. A key element of this is the restoration of the Killiane-Killinick (Felthouse Junction) curve allowing the bypassing of Rosslare Strand for direct Waterford-Wexford trains. This section of the trackbed remains in public ownership.

This decision to have Wexford as the terminus and including in the name of the link is further supported by the naming conventions included in the 2016 Rail Review, where the Dublin-Rosslare line is exclusively referred to as the Dublin-Wexford line due to Wexford being “Included as the largest urban settlement on this line and in the region⁸”

⁸ Rail Review 2016 REPORT, National Transport Authority p.5

2. CHARACTERISING THE RAIL LINK

2.1. Introduction

This section introduces the context of the rail line, detailing the physical, economic, social, and policy context of the rail link and the region it serves.

- The Wexford-Waterford rail link was originally completed in 1906 to link Rosslare Harbour to Waterford and the west of the country by the Fishguard & Rosslare Railway & Harbours Company.
 - As a result of its late construction in the railway era, this railway is built to a high standard, with concrete bridges and many miles of straight track, capable of high speed running.
 - The section of the line from Waterford Plunkett Station to Waterford Port (Belview) remains in service for freight usage.
 - The currently out-of-service section from Rosslare Strand to Waterford (Belview)
- measures 30.75 miles (50 km) with an additional 2 ¼ mile (3.6km) section without track from Killinick to Killiane/Felthouse Junction allowing direct Waterford-Wexford trains to bypass Rosslare Strand (see map below).⁹
- As constructed, the line featured (6) Intermediate stations, and a curve (creating a triangle) allowing direct Waterford-Wexford trains, instead of reversing at Rosslare Strand. This curve was removed in the 20th century, and (2) of the Intermediate stations (Killinick & Duncormick), were closed in the 1970s¹⁰.
 - The line handled significant passenger traffic, mainly Rosslare Harbour to Limerick & Cork journeys (in both directions) right up until the 1990s and early 2000s.
 - The line handled large freight loads until recent years, most noticeably approximately 150,000 tonnes of Sugar Beet per annum until 2005, after which the Sugar Beet Industry was wound down.¹¹
 - The line contains three major structures, Duncormick Viaduct, Taylorstown

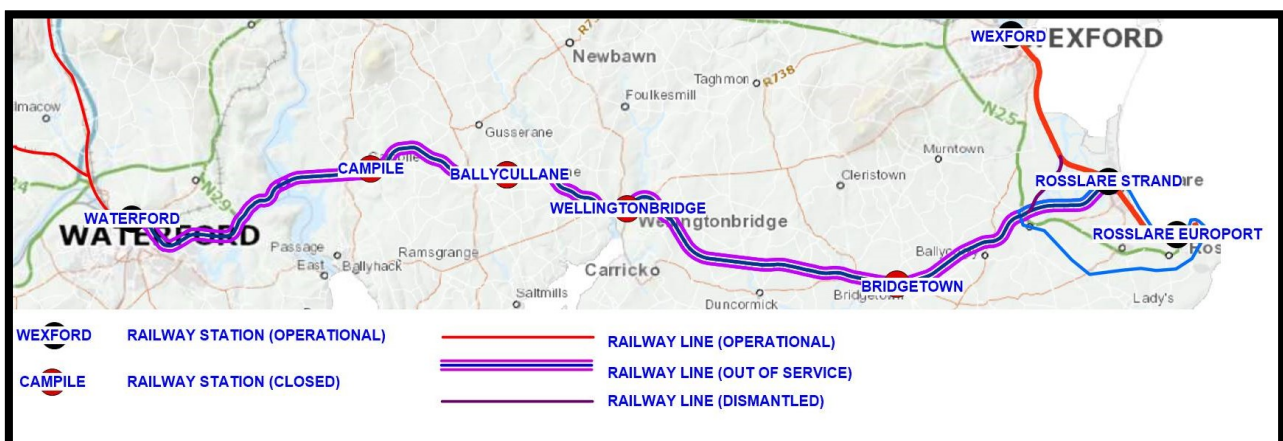


Figure 3 - Wexford to Waterford Rail Line

⁹ Oliver Doyle, *South Wexford Line*, Journal of the Iarnród Éireannway Record Society, Journal 174 (February 2011)

¹⁰ Reference: S. Johnson, *Johnson's Atlas & Gazetteer of the Railways of Ireland*. Midland Publishing Ltd. 1997, p76

¹¹ <https://www.independent.ie/regional/newsstandard/news/wexford-farmers-face-increased-haulage-costs-27471534.html>

Viaduct, and the Barrow Bridge, which is the longest rail bridge in the state.

- The line is the property of the Fishguard & Rosslare Railways & Harbours Company, a holding company dating from 1898. Currently, this is a complex ownership mechanism between Iarnród Éireann and Stena Line. In Ireland, the port of Rosslare Europort and the (operational) rail line from Rosslare Strand to Rosslare Europort are the other significant assets of the company¹².
- In the period since the closure, Irish Rail has continued to operate infrequent train movements along with the most recent being 31st August 2021.
- The Western Terminus (Waterford) of the line will receive significant investment as part of the North Quays Special Development Zone – establishing a new railway station in the heart of a new urban quarter.



Figure 4 - IE 22000 DMU at Wellingtonbridge Station (2011 - post suspension of passenger services)

¹² For a detailed account, please see: Fishguard & Rosslare Railways & Harbours Company, Ernie Shepherd, Colourpoint Books

2.2. Social Profile & Demographics

- The NUTS Level III South East Region (comprising Wexford, Waterford, Carlow, and Kilkenny) has an estimated current population of 422,062¹³, representing a 10.6% population growth from 2006 to 2016.
- The line links two major settlements, Waterford (Pop. 2016: 53,504) and Wexford Town (Pop. 2016: 20,188), and offers connectivity between the five largest settlements in the region via the currently operational Waterford-Dublin (Kilkenny, pop. 26,512 and Carlow pop. 24,272) and Rosslare-Dublin (Enniscorthy pop. 11,381) rail lines.
- The region is the 6th fastest growing in the EU in terms of job creation and the 7th fastest-growing region in terms of Gross Value Added (GVA) per person¹⁴.
- In the period since the rail link's closure in 2010, over €1.3 Billion has been spent on new road infrastructure in the region¹⁵.
- Despite this significant investment in road infrastructure, public transport usage in the region remains very low, with less than 3% of Waterford City Commuters using Public Transport¹⁶, and 0.7% of Wexford Commuters using public transport¹⁷.

¹³ From South East Development Office, *South East Economy at a Glance*: <https://www.kilkennychamber.ie/wp-content/uploads/2019/05/Ireland-South-East-Economy-at-a-Glance.pdf>

¹⁴ South East Economy at a Glance: https://irelandsoutheast.com/wp-content/uploads/2019/07/South-East-Ireland-At-A-Glance-Summer-2019-INT.SM_.pdf

2.3. European & International Policy Context

The following documents have been examined as part of this study.

- UN Sustainable Development Goals
- ESDP - European Spatial Development Perspective
- DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a European Year of Rail (2021)
- Assessment of unit costs (standard prices) of Rail projects (Capital Expenditure), by the Directorate-General for Regional and Urban Policy, 2018.
- Single European Railway Directive 2012 (2012/34/EU)

***“Rail – a sustainable and safe connection
As one of the most sustainable and safest modes of transport we have, rail will play a major role in Europe's future mobility system. Rail is not only environmentally friendly and energy-efficient – it is also the only mode of transport to have almost continuously reduced its CO2 emissions since 1990, at the same time as it increased transport volumes”***

***– European Commission Press Release
- Promoting Sustainable Mobility:
Commission proposes 2021 to be the European Year of Rail (4 March 2020)***

2.4. National Policy

- The National Development Plan 2021-2030

¹⁵ <http://www.senser.ie/resources/SENSE%20Commuting%20Patterns%20SC3%20June%202018.pdf>

¹⁶ <https://www.cso.ie/en/releasesandpublications/ep/p-cp6ci/p6cii/p6mtw/>
¹⁷ <https://www.wexfordcoco.ie/sites/default/files/content/Planning/Profile-2-Commuting-Flows.pdf>

- Ireland 2040
- Climate Action Plan 2021
- National Planning Framework
- 5 Cities Demand Study
- Iarnród Éireann 2027 Strategy and Rail Freight 2040
- National Investment Framework for Transport in Ireland (2021)

2.5. Local Government & Regional Policy

- Southern Regional Assembly: Regional Spatial and Economic Strategy (RSES) for the Southern Region.
- Relevant Development Plans for Wexford County Council, Waterford County Council (currently in draft & Chief Executive Response Stage)

A basic analysis of these policy documents illustrates a clear benefit to the re-establishment of this rail link. Rather than an exhaustive analysis, this report will refer to relevant policy as needed throughout the document.



Figure 5 - Promotional Material as part of European Year of Rail 2021

3. PASSENGER DEMAND

3.1. Introduction

This section details up-to-date population modelling on the rail corridor, and current population projections drawn from Morgenrath 2018 as part of the *Ireland2040* process. This section introduces fine-grained passenger modelling insight from commuters, student populations, tourism, international ferry connectivity, interrail, and events. Section 3.13 onwards identifies the urban growth plans for Wexford and Waterford, particularly strategic capital projects that anticipate an increase in knowledge-office work space provision – which serve a commuter model.

3.2. The Area Served By The Rail Link

County Wexford has a population of 149,772 and County Waterford has a population of 116,176 at the most recent census (2016). The

major urban centers served by the rail line are Wexford Town and Waterford City.

Project Ireland 2040 and CSO figures project growth in Waterford City's population of 50% from the current 54,000 to 86,000 in 2040. This 50% growth will make Waterford the fastest growing city in Ireland.

Wexford Town is projected to grow by 30% from 20,000 to 27,000 by 2040

These growth figures suggest the need for an improvement in rail services in the South East, in line with the goals of the Regional Spatial and Economic Strategy (RSES)¹⁸. A functioning rail services requires a mixture of different sources of passengers, not just commuters. On the Iarnród Éireann Network, 58% of passengers use the service for commuting, with the remaining 42% travelling for business or leisure reasons.¹⁹

As commuters are the single largest market for rail travel, this paper will examine the potential for commuter rail along the Wexford-Waterford rail link, before

3. Where will these people go (i.e. all the extra people projected by Ireland 2040)?

Waterford to grow by 50% (currently 53504)	30,000
Kilkenny to grow by 30% (currently 26,512)	8,000
Wexford to grow by 30% (currently 20,188)	6,100
Carlow to grow by 30% (currently 24,272)	7,300
Clonmel to grow by 30% (currently 17,140)	5,100
Tramore to grow by 30% (currently 10,381)	3,100
All urban areas over 10,000 currently (80%)	59,600
Urban areas below 10,000 and rural (20%)	14,800

Figure 6 Urban Population Growth Projections in the South East via Morgenrath 2018 (Source: SENSER)

¹⁸ The Region's dispersed settlement pattern and its peripheral location in Europe makes it particularly dependent on efficient communications - good rail, road, sea, air and telecommunications links are of the utmost

importance. The RSES seeks to enhance public transport and improve communications across the Region. RSES, p.22

¹⁹ Iarnród Éireann 2030 Rail Network Strategy Review (2011)

highlighting other significant potential markets.

3.3. Commuting Catchment (Wexford & Waterford):

Commuter flows show strong employment destinations in the termini of the rail line, in Wexford Town and Waterford City. With the exception of the area of the rail line around Wellingtonbridge, all areas on the rail link

show a majority of commuters leaving the area for work. It must be noted, that although the Strategic Rail Review states: "The Review's focus is not on commuter rail services within the major cities, but it will consider the interactions between proposed improvements to inter-urban rail and existing, or proposed, commuter rail services." – the proposed Wexford-Waterford line reopening



AIRO Web Map - Commuter Catchments

Map Layers

Wexford

- 0% - < 5%
- 5% - < 10%
- 10% - < 30%
- 30% - < 50%
- > 50%

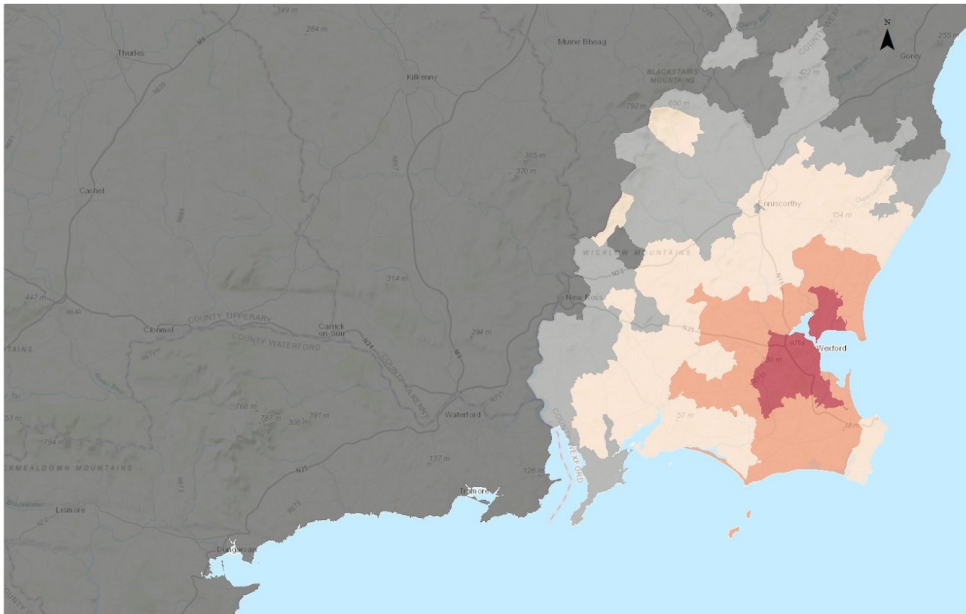


Figure 7 - Commuter Catchment Wexford Town

Map Layers

Waterford City

- 0% - < 5%
- 5% - < 10%
- 10% - < 30%
- 30% - < 50%
- > 50%

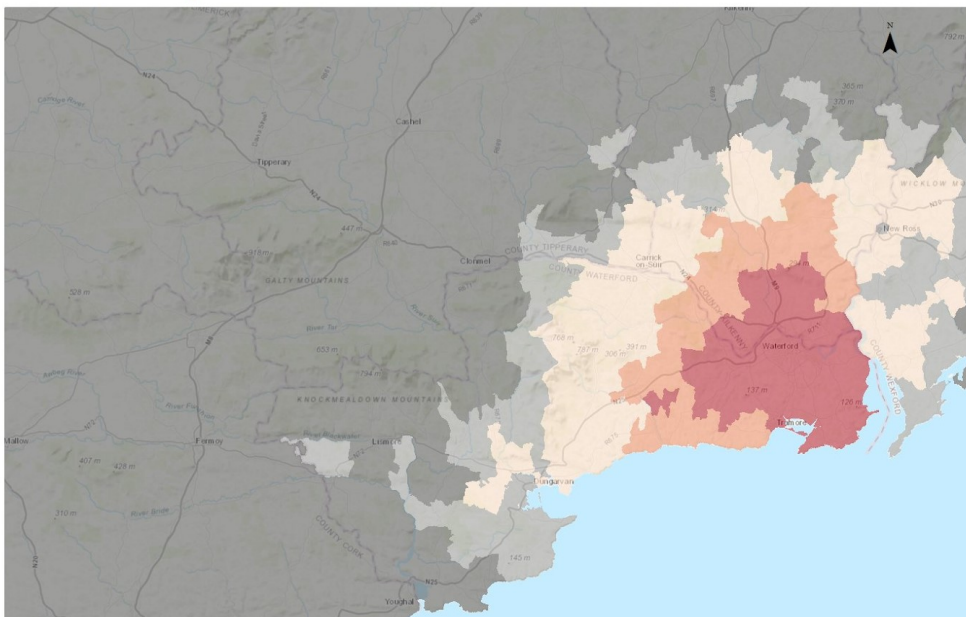


Figure 8 - Commuter Catchment Waterford City

falls under the proposed improvements to inter-urban rail aspect of the review.

Currently, only 3% of Waterford's workers commute using public transport, one of the lowest figures of Ireland's cities, and lower even than most towns with populations over 5,000. For Wexford, only 0.7% of Commuters use public transport for jobs within the County.²⁰

The line passes through the Wexford County Council defined settlements of Wexford Town (County Town), Rosslare Strand (Strong Village), Bridgetown (Strong Village), Wellingtonbridge (District Town), Ballycullane, and Campile (Strong Village) and links to the Waterford Metropolitan Area.

Of the County Council-defined settlements in the southern portion of the County, only Taghmon (Strong Village) is not served by the rail line.

Due to the existing development patterns in the area, it is appropriate to examine the rail corridor for these smaller settlements in the context of their hinterlands, as Small Areas & Electoral Districts as defined by the CSO. From the attached CSO maps, the Commuter Catchment of Wexford town extends significantly into the area served by the rail link, extending far into the Western half of the County.

Similarly, the commuter catchment of Waterford extends into south western County Wexford, to areas served by the rail link. The

rail link provides a strong commuter base for each of the major settlements, Wexford Town and Waterford City.

3.4. Commuting Figures

For the purposes of this study, the following electoral divisions are considered part of the catchment area for each station along the rail Link. Based on POBAL Data, the average Deprivation Score of these EDs is -5.74, below County Wexford's average of -4.81²¹.

Station	Electoral Area
Campile	Ballyhack, Kilmokea, Whitechurch
Ballycullane	Dunmain, Fethard, Inch, Killesk, Rathroe, Tintern
Wellingtonbridge	Ballymitty, Bannow, Clongeen, Harristown
Bridgetown	Bridgetown, Duncormick, Harperstown, Kilcowan, Killag, Kilmore, Tomhaggard

The findings are stark, as shown in the chart below. Based on POWSCAR Data, the Commuting figures along the line are 3:1 in the direction of Wexford Town – to where a commuter service was never provided. Instead, scheduling until 2010 used a “boat train timetable” based on historical timings of ferry sailings that functioned as a service from Rosslare Harbour to Waterford City.

²⁰ <https://www.wexfordcoco.ie/sites/default/files/content/Planning/Profile-2-Commuting-Flows.pdf>

²¹ <https://data.gov.ie/dataset/hp-deprivation-index-scores-2016#:~:text=The%202016%20Pobal%20HP%20Deprivation,the%20level%20of%20electoral%20division.>

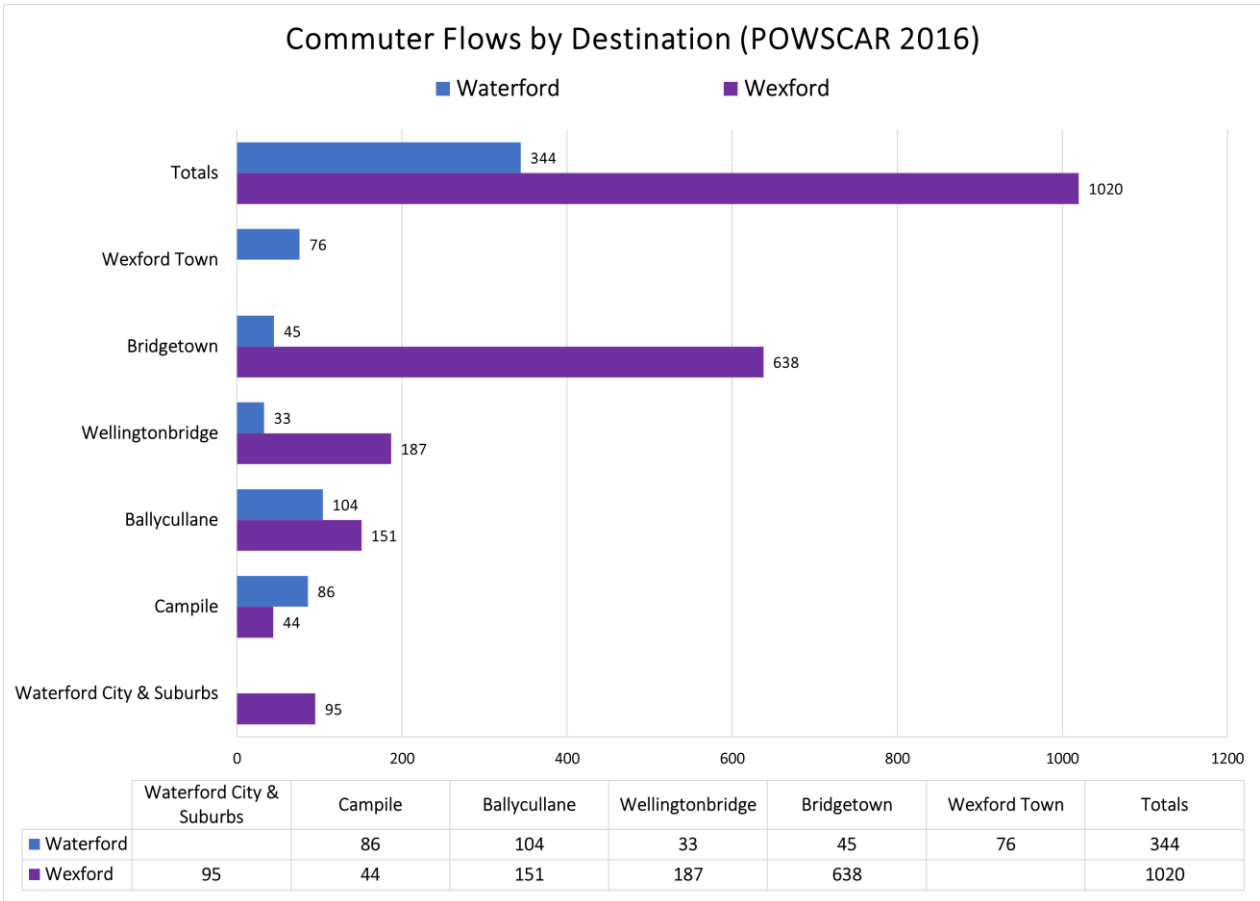


Figure 9 - Commuter Flows along the Wexford - Waterford Rail link (POWSCAR)

As shown in the chart and accompanying data table, significant commuter flows already exist along the line. A functioning rail service can offer significant benefits regarding emissions and traffic reduction and encourage transport-orientated development across the route.

The current figures for public transport usage for commuters in the Wexford & Waterford areas can be described currently as poor at best.

Currently, only 3% of Waterford's workers commute using public transport²², by far the lowest figure of Ireland's major cities, and lower even than most towns with populations over 5,000.

Only 0.2% of Waterford commuters currently travel to work by using rail²³.

According to Waterford Council's Baseline Report²⁴, 26% of Commuters commuting into the city live in Kilkenny, while 10% are commuting from Wexford. As scheduled, no rail services are offered to commuters during traditional commuting times to Waterford from any direction. Of the currently operational lines, the earliest service from Kilkenny arrives at 9:39; when operational the earliest service from Clonmel & Carrick on Suir arrives at 11:29.

According to the Rikon Waterford 2040 report, Waterford City is projected to contain

²² <https://www.cso.ie/en/releasesandpublications/ep/p-cp6ci/p6cii/p6mtw/>
²³ <https://www.cso.ie/en/releasesandpublications/ep/p-cp6ci/p6cii/p6mtw/>

²⁴ <https://www.waterfordcouncil.ie/media/economic-development/lecp/Waterford%20Baseline%20Data%20August%202015.pdf>

45,000 jobs in the year 2040²⁵. If Waterford were to even match the 2016 national figure of 3.4% of Commuters using rail transport, it could mean 1,710 commuters arriving in Waterford daily by rail in 2040. This is without the new Programme for Government's (2020) attempts to shift towards a greener travel model.

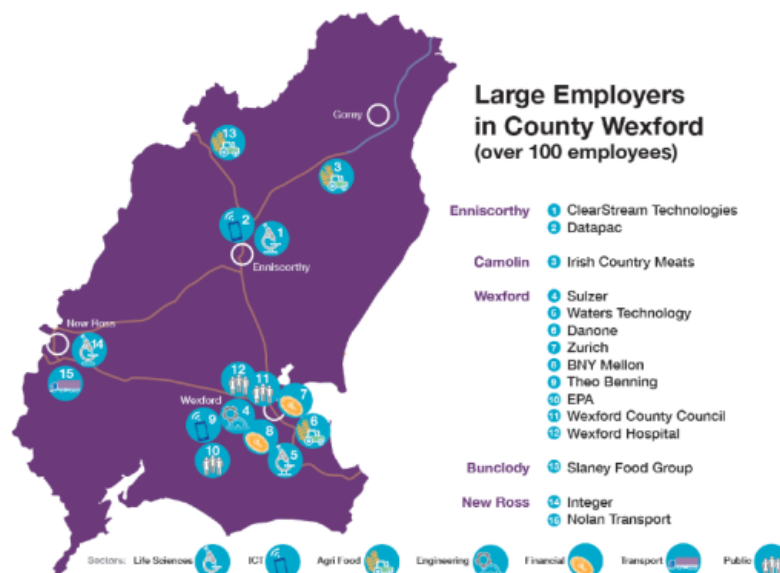
For Wexford Town, according to CSO & Wexford County Council figures, 56% of workers commute into Wexford Town from elsewhere in County Wexford, a total of 6,712 workers²⁶, with 5% commuting from outside County Wexford. No rail services are offered for this sizable population. Of those living in County Wexford, **only 0.7%** use public transport to commute²⁷. Although this figure is very low, it is hardly surprising based on the lack of rail-based commuting options available.

The low figures suggest that the current public transport offering available to commuters is

not encouraging a measurable modal shift. Although this will be fully explored in Chapter 8, it is worth noting that recent studies have demonstrated that rail transport has a significant advantage over similar bus services²⁸ in encouraging commuters to shift to public transport.

As previously noted, the line serves the catchment area of Wexford Town commuters and links to nine of Co. Wexford's Largest employers, which are in the Wexford Town area. (see Figure 8).

Although no longer Government Policy, the Smarter Travel document contained a sustainable Transport goal of 55% of total commuter journeys to work being taken by active travel or public transport by 2020²⁹. Such a goal would see hundreds using the rail link daily to travel to Wexford & Waterford.



²⁵ South East Economic Monitoring Report (WIT, July 2017)

Figure 10 – Large Employers in County Wexford (via Wexford Co Co)

²⁵ https://waterfordnorthquays.ie/wp-content/uploads/2020/07/Waterford_2040_Rikon_Report_Digital_AW.pdf
²⁶ <https://www.wexfordcoco.ie/sites/default/files/content/Planning/Profile-2-Commuting-Flows.pdf>, p15
²⁷ <https://www.wexfordcoco.ie/sites/default/files/content/Planning/Profile-2-Commuting-Flows.pdf>, p 8

²⁸ <https://usa.streetsblog.org/2012/06/21/explaining-the-psychological-appeal-of-rail-over-buses/>

²⁹ http://www.smartertravel.ie/sites/default/files/uploads/2012_12_27_Smarter_Travel_english_PN_WEB%5B1%5D.pdf#o

3.5. Other Passenger Sources:

Commuters are not the only potential source of passengers for a rail link. The accompanying table from the 2030 Rail Network Strategy Review (2011) shows the boarding usage across the network in March 2010.

Taking the network as a whole, 58% of passengers are commuting, with 9% for Business travel, with the remaining 33% travelling for "leisure" reasons. This varies by rail line due to scheduling and settlement factors. But significantly, 42% of passengers are not travelling for daily commuting.

There is already sizable traffic from Wexford to Waterford (and in the reverse direction) for cultural, medical (Waterford Hospital), social, education (WIT & TUSE), and tourist reasons. A rail service can provide a huge benefit by tying into the already existing tourist market in the South East.

Table 5.3: Boardings by Rail Corridor (average weekday, March 2010)

Sector		Commuting	Business	Leisure	Total
1	Connolly to Border	9753	649	2382	12784
2	Connolly to Sligo	10066	1294	4745	16105
3	Portllington to Galway	763	319	1253	2335
4	Heuston to Cork	10820	2030	7863	20713
5	Kildare to Waterford	494	165	707	1366
6	Connolly to Rosslare EP	3599	379	1413	5391
7	Ballina Spur	10	4	17	31
8	Athlone to Westport	74	63	287	424
9	Athenry to Limerick	308	23	108	439
10	Ballybrophy to Limerick	48	4	21	73
11	Limerick Spur	75	87	339	501
12	Tralee Spur	96	69	271	436
13	Waterford to Limerick Jn	42	29	139	210
14	Cork Commuter	564	152	562	1278
15	Navan to Connolly*	0	0	0	0
16	Dublin City	48399	8058	28925	85382
Total		85111	13325	49032	147468

* Not in operation in March 2010

3.6. Student Traffic

3.6.1. Third Level Education Travel

In January 2022, Waterford Institute of Technology (Student Population 2017: 7,550³⁰) and IT Carlow (Student population 2017: 6974³¹) will be officially designated as part of the Technological University of the South East. The combined profile of the two South East Institutes of Technology is over 15,000 students and 2,000 staff, generating over 5,000 graduates annually. The South East is one of just two regions in Ireland that does not have a university.³² Carlow IT has its Wexford campus at Summerhill (the former seminary at St Peter's College) and another facility near Wicklow town. The current Wexford Campus building is inadequate for some 1,000 students and the government has approved funds for the purchase of a new campus site in the town.

Fundamental to their joint application for university recognition is the reality that a university is a national rather than regional centre of learning. Colleges that become universities see a significant change over time in their student body in terms of feeder schools reflecting the national rather than regional focus on learning. Gorey in north Wexford is home to two large second-level schools, one of which is the country's largest, and recently permission has been granted by the Department of Education for the establishment of a third second-level school in the town.

A model for the proposed University of the South East is the University of Ulster based at Coleraine with constituent colleges in Belfast and Derry. The existence of a rail link between the above three centres was a reason for the establishment of the University of Ulster at these locations in the 1960s³³. Indeed the citing of the University at Coleraine at the time was the effective death knell for the railway from Portadown to Derry as Derry had been expected to be the main campus for that university. Universities are national centres of educational excellence from where third-level courses are provided centrally to students who come from all parts of the country and beyond. It is essential to move away from the idea of a university being provided to a region to provide for a regional or political need since the critical mass may not exist in a region to provide the wide range of specialist courses that an expanding society and economy require. Transport infrastructure linking disparate educational centres is essential.

At present in the UK, the railway which once connected Oxford directly with Cambridge is being reopened as the Varsity Line. Connecting urban areas based on the presence of third-level campuses is an example of good planning and additional infrastructure needed for education. The presence of third-level education, especially the development of post-graduate courses is seen as being a key driver in economic

³⁰ <https://data.cso.ie/table/EDA99>

³¹ <https://data.cso.ie/table/EDA99>

³² <https://www.tuse.ie/about/#:~:text=The%20combined%20profile%20of%20the,does%20not%20have%20a%20university.>

³³ <https://www.ulster.ac.uk/sustainability/sustainable-travel/public-transport>

investment in towns attracting employment and economic activity.

There is a clear link between transport infrastructure and educational investment.

In this context, there already exists a potential for a varsity route based on infrastructure in place. A circle or "loop" route from Connolly via the Phoenix Park tunnel to Carlow, Waterford, Wexford, and Wicklow and back to Connolly over the Rosslare Waterford line linking all the towns with Technical University of the South East campuses. There is no single bus company connecting all these towns, Running a round circular rail service (see *The Loop in Potential Service Operation*) will provide a unique link between educational campuses along the proposed route. It will facilitate commuting to college and can open the possibility of students moving to towns along the route and travelling to and from their accommodation to study. At present trains running between the university cities of Limerick and Galway carry a significant number of third-level students at weekends in addition to students' daily commuting.

The significant student population of the proposed TUSE of 15,000 is not currently included in POWSCAR commuting data and it is worth noting that outside of Dublin, 42.4% of Students currently use private cars as their means of transit versus 24.6% using public transport.³⁴ This figure can be attributed to the lack of attractive public transport options

available, and is a sizable target for reduced emissions based on the Climate Action Plan

³⁴ <https://www.cso.ie/en/releasesandpublications/ep/p-cp6ci/p6cii/p6stp/>

3.6.2. Second-Level Education Travel

There is a significant Second Level Student population served by the rail corridor, with an overall student population of 10,292 within the catchment area - with 5,784 in Waterford City and 4,508 in County Wexford within the catchment area³⁵.

Due to the concentration of second-level institutions in the urban centres of Wexford and Waterford, the potential to capture significant portions of this market exists.

For Wexford Town, approximately 1,350 students at school or college-aged between 13 and 18 years are commuting within the town³⁶, leaving approximately 2,100 second-level students travelling to Wexford for second-level education from outside the Town. For Waterford the figures are similar, with approximately 2,000 students aged between 13 and 18 years travelling from outside the City & Suburbs. Significant portions of this market can be targeted to

encourage a modal shift to public transport. Co. Wexford currently has the 3rd highest number of second level student drivers in the state³⁷, suggesting that the public transport network is not currently meeting the needs of this market.

As a commuter rail service was never run in the Wexford Town direction, a configuration of scheduling and train units can help accommodate this modal shift. Regular trains with ample bicycle storage and timed bus connections could lead to a low carbon & comfortable commute to school in the near future.

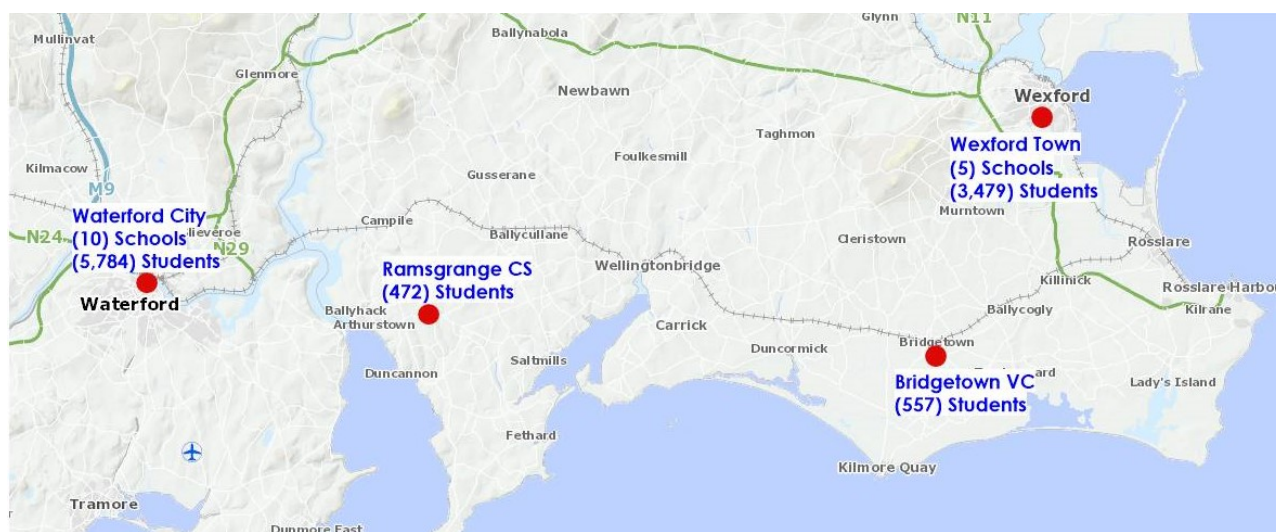


Figure 12 - Second Level Institutions served by the rail line

³⁵ <https://www.education.ie/en/Publications/Statistics/Data-on-Individual-Schools/post-primary/Data-on-Individual-Schools-2019-2020>

³⁶ <https://data.cso.ie/table/E6013>

³⁷ <https://www.cso.ie/en/releasesandpublications/ep/p-cp6ci/p6cii/p6stp/>

3.7. Tourist Ridership:

Significant domestic and international tourism already exists within the South East Region, particularly in the areas served by the Wexford-Waterford Rail Link. Bord Fáilte & CSO Figures for 2017 show the significant tourist traffic (both domestic and international) that exists within Counties Wexford & Waterford.

County	Domestic Tourists (2017) ³⁸	International Tourists (2017)
Wexford	654,000	232,000
Waterford	327,000	255,000
Kilkenny	298,000	315,000

Data via CSO and Fáilte Ireland 2017 Topline Performance by Region

Of particular note is the domestic tourism to County Wexford, which CSO data suggests has grown to 826,000³⁹ in 2019. This is the fifth largest figure in the state, after the well established destinations of Dublin, Cork, Kerry, and Galway.

An average of the 2017 figures suggests approximately 2,500 daily tourist journeys to County Wexford, with 1,600 daily journeys to Waterford. The lack of rail connection between these two counties is a huge missed market, particularly if one includes Kilkenny's significant tourist draw also (613,000 total tourists in 2017). Restored services on the Waterford-Wexford rail link can increase inter-regional connectivity for tourists across the region, with attractive journey times and

sensible time-tabling. Figures available from Bord Fáilte show that in 2013, only 8% of domestic tourists used Inter City rail as their means of travel for tourism⁴⁰. A coordinated approach between Iarnród Éireann and Bord Fáilte could lead to major growth in this sector.

The Irish Tourism Industry Confederation's Review of Public Transport & Tourism in Ireland (2016) is critical of the lack of promotion of public transport as a means of travel for tourism and recommends a series of actions to increase public transport usage by tourists. Most significantly, to *promote services to tourists as day-trip and short break products*⁴¹. With regard to this recommendation, please see the Chapter on Services, particularly *The Loop* and the potential for rail integration within existing Touring Zones such as Ireland's Ancient East.

Even capturing a small share of existing tourist markets can help ensure the long-term viability of the Wexford-Waterford rail link. All driving in Continental Europe and the majority of other countries around the globe is done on the right-hand side of the road. Many potential visitors are put off by a deep fear of motoring in a country where driving is on the left and the availability of good rail transport options, not just radially from Dublin, but in the regions will make Ireland a more attractive destination overall to foreign tourists.

³⁸

https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/2017-topline-regional-tourism-performance.pdf?ext=.pdf

³⁹ <https://data.cso.ie/table/HTA11>

⁴⁰ <https://www.itic.ie/wp-content/uploads/2016/06/ITIC-Public-Transport-Tourism-Review-June-2016-.pdf>

⁴¹ <https://www.itic.ie/wp-content/uploads/2016/06/ITIC-Public-Transport-Tourism-Review-June-2016-.pdf>, p.35

3.8. Ferry Traffic

The original purpose of the Waterford-Wexford & Rosslare rail link was to link the new Ferryport of Rosslare Harbour with the West of the Country, allowing shorter journey times to the UK. Foot passengers along this line remained significant until the late 1990s and early 2000s until the rise of low-budget airlines reduced this demand. Passenger numbers travelling on the Fishguard-Rosslare (Stena) route declined from 687,000 in 2001 to 295,000 in 2018⁴², even though overall tonnage transported remained strong. For the Pembroke to Rosslare Route (Irish Ferries), overall passenger numbers remained strong with a slight increase over the ten years 2009-2019 noted to 327,000 per annum⁴³.

On the Welsh side, it is possible to ascertain numbers of traditional "sail/rail" passengers due to the stations at Fishguard Harbour and Fishguard & Goodwick. Fishguard & Goodwick is located approximately 1km from the Fishguard Harbour Station, and serves the local population of the village.

The Fishguard Harbour station only serves ferry passengers. Fishguard Harbour station served 13,982⁴⁴ passengers in 2018-2019, suggesting a daily rail/sail passenger count of 38. Similar figures are not available for Rosslare Harbour, but in its traditional operation, "ferry" trains serving Rosslare Harbour used the rail link to Waterford to access Limerick & Cork. The Rosslare-Dublin line was not used to transport

ferry passengers, due to Dublin's stronger ferry connections.

Rosslare Europort has announced additional ferry services in the recent past, with daily services to Dunkirk beginning in 2021⁴⁵. As of February 2021, there are 32 weekly services from Rosslare Europort to Mainland Europe. DFDS introduced a six-times weekly Rosslare to Dunkirk service, Stena Lines has doubled the service on its Cherbourg-Rosslare Service to six per week, Brittany Ferries currently offers a once-weekly Rosslare-Bilbao service, in addition to a once-weekly Rosslare-Cherbourg return service. Brittany Ferries has added services to Roscoff and St. Malmo as of February 2021⁴⁶.

Although Ferry foot passenger traffic has declined in recent years, there is a chance to grow this market in the future. Many new ferry services are arriving in Rosslare, and the rise of the global *flight shame* movement lead to an annual 11% growth in Swedish Rail passengers in 2019⁴⁷.

The potential exists to make Rosslare Ireland's key passenger port for links to the UK and the European Union. Due to Rosslare's strategic position, it can easily move passengers arriving by ferry to Dublin and the West due to its current rail connections. It is worth noting that the Trans-Europe Express network of day and night trains which was mothballed some 25 years ago is now making a comeback. In December 2020 leading European rail

⁴²

<https://stats.wales.gov.wales/Catalogue/Transport/Sea/numberofseapassengers/travellingonroutesbetweenwalesandtherepublicofireland-by-port>

⁴³ <https://www.gov.uk/government/statistical-data-sets/sea-passenger-statistics-spas>

⁴⁴ <https://gov.wales/sites/default/files/statistics-and-research/2020-02/rail-station-usage-april-2018-march-2019-672.pdf>

⁴⁵ <https://fleet.ie/new-dfds-six-times-weekly-service-direct-to-dunkirk-from-rosslare-europort-next-january/>

⁴⁶ <https://fleet.ie/new-brittany-ferries-service-increases-direct-rosslare-european-services-to-32-weekly/>

⁴⁷ <https://in.reuters.com/article/us-railway-sweden/swedens-rail-travel-jumps-with-some-help-from-flight-shaming-idINKBN2071JI>

companies signed a letter of intent for the TEE 2.0, a night-train network to operate across the continent. This is due to have 26 routes operating by 2023 and will be a rival to airlines. Paris will be one of the hubs and the city has good access to the ferry ports with links to Ireland.

It is worth noting that the rail link remains the property of the Fishguard & Rosslare Railways & Harbours Company, a joint venture between Iarnród Éireann and Stena Line, a complicated ownership structure dating from the Victorian Era. Rosslare Harbour remains operated by Iarnród Éireann and has posted an annual profit of approximately €2 million in recent years⁴⁸. The potential for ring-fencing funds from Rosslare Europort to support the operation of the rail link has not heretofore been explored.

⁴⁸ Strategic Review of Rosslare Europort, Indecon, 2013

3.9. Interrail

In recent years, the EU Rail *Interrail* scheme, offering integrated ticketing across Europe has gone from strength to strength, with sales of Interrail tickets in Sweden increasing by 45% in 2018⁴⁹. Rosslare is well-positioned to benefit from increased Interrail tourism – several new Ferries with direct links to Continental Europe and the EU were announced in late 2020 and early 2021. – Rosslare can potentially be Ireland's bridgehead for Interrail passengers, allowing them to continue to use their Interrail passes after a ferry journey.

With such a strategy, an Interrail journey of Berlin-Galway or Paris to Limerick becomes a possibility, allowing greater cohesion across Europe and integrating Ireland further into the travel patterns of the European Union. Due to the nature of "hop-on, hop-off" Interrail tickets, towns and villages along the route stand to benefit from increased tourism based on Interrailing.

Rosslare is featured prominently on current Interrail maps, but due to its current lack of a functioning rail link to the West, this market has never seriously been sought. This can

increase the tourist profile of existing attractions within reach of Rosslare, such as the Waterford Greenway. Using the Wexford-Waterford rail link to allow tourists to See *the Greenway the green way* has been suggested in Dáil Éireann by Marc O'Cathasaigh TD⁵⁰.

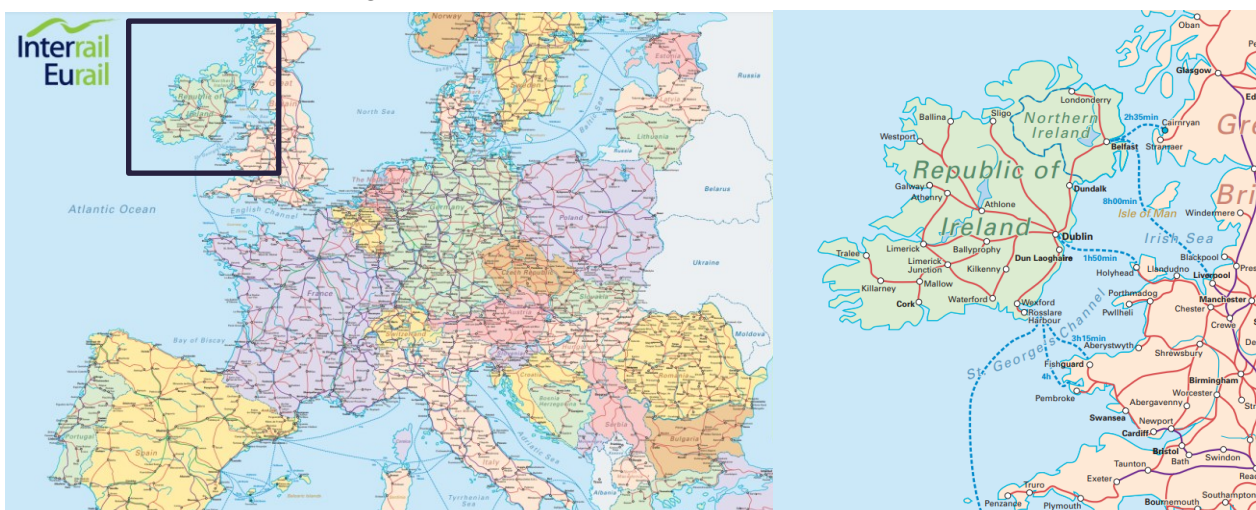


Figure 13 Ireland Interrail Map (via Interrail website)

⁴⁹ <https://www.wired.co.uk/article/europe-train-travel>

⁵⁰ <https://www.oireachtas.ie/en/debates/debate/dail/2020-10-06/32/#s34>

3.10. Special Event & Sports

Passengers

Due to the existence of manually operated level crossings on the route, Iarnród Éireann did not operate a Sunday Service on the Wexford-Waterford Rail link for many years. This failed to provide a service for many weekend leisure, student, and special event and sports travelers.

Sports:

The line links Wexford to Waterford and via the Waterford-Limerick Junction line, provides connections on to Cork, Limerick, Galway, and Tipperary. These counties have strong GAA traditions, as well as high level rugby and soccer communities. The potential for Sunday services to provide travelling fans a connection to League & Championship matches should not be ignored. Similarly, rugby matches in Limerick & Cork could be easily reached. "GAA Special Trains" are regularly organized during the Summer Championship season⁵¹. Smaller League attendances could be accommodated by a regular Sunday rail service. An examination of the potential for GAA Special trains should be undertaken approaching large attendance events.

Special Events:

Many large festivals occur on areas linked by the rail line, including: The Wexford Festival Opera, Waterford Walls, The Phil Murphy Weekend (Carrig-on-Bannow). A large

amount of festivals and special events can also be reached by timed connections at Waterford, including the Kilkenny Cat Laughs Festival, Kilkenny Arts Festival, Cork Jazz Festival, The All Together Now Festival (Waterford). In addition to this, non-annual events such as the Tall Ships Festival, and the National Ploughing Championships can also drive significant ridership. Although special event passengers are not a regular revenue stream or source of passengers, they can provide a significant market base of event related ridership.

⁵¹ <https://www.shannonside.ie/news/local/roscommon/irish-rail-confirms-details-special-trains-roscommon-gaa-fans/>

3.11. Potential Ridership

South East on Track is not equipped to undertake a demand model based on either the NTA based or LOGIT demand for transport. However, we are prepared to estimate potential passenger usage in the short to medium term based on publicly available data. For Commuter figures, POWSCAR Data can give a clear picture of transport patterns. As this does not include Educational and non-commuting data, we include a series of conservative estimates below the national average based on available CSO data.

Passenger Type	Daily Average Wexford Waterford	Load Factor (Return [2] or Single [1])	National Average of Type of Type using Public Transport ⁵²	% of potential daily rail users (local factors)	Passenger Projections
Commuters: Population aged 15 years and over at work (destination Waterford City or Wexford - within catchment of the rail link)	1364 ⁵³	2	28%	25%	682
Third Level Students: Students at school or college aged 19 years and over	2939 ⁵⁴	2	31%	5%	294
Second Level Students: Students at school or college aged between 13 and 18 years	5128 ⁵⁵	2	28%	3%	308

⁵² <https://www.cso.ie/en/releasesandpublications/ep/p-nts/nts2016/whwt/> and https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/2017-topline-regional-tourism-performance.pdf?ext=.pdf

⁵³ <https://airo.maynoothuniversity.ie/mapping-resources/airo-census-mapping/national-viewers/powscar-travel-work> at 260 daays per year

⁵⁴ <https://data.cso.ie/table/E6013> (Settlements Wexford & Waterford City) 183 days per year

⁵⁵ <https://data.cso.ie/table/E6013> (Subtracting Travel to School Data from total Second Level Student Population in Settlement) – 183 days per year

⁵⁶ <https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documen>

Domestic Tourists (Wexford & Waterford)	2688 ⁵⁶	1	8%	5%	134
International Tourists (Wexford & Waterford)	1334 ⁵⁷	1	57%	8%	106
Ferry Foot Passengers (Rosslare Europort)	38 ⁵⁸	1	n/a	50% ⁵⁹	19
Other Passengers (Leisure/Shoppin g / Business etc.)	n/a	n/a	19%	n/a	100 ⁶⁰
Estimate: Daily Passengers					1,577
Estimate: Annual Passengers : 418,683					

Short & Medium Term Ridership Estimate - South East on Track

Although these estimates seek a market share based on national averages, they clearly illustrate that significant markets exist for rail services in the area served by the corridor.

3.12. Passenger Growth

In addition to the previously mentioned population growth projections, there are several upcoming developments within the Wexford and Waterford area that can lead to significant passenger growth and should be considered within the context of this rail link:

⁵⁷ https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/2017-topline-regional-tourism-performance.pdf?ext=.pdf (Annual Figure, rendered daily)

⁵⁸ https://www.failteireland.ie/Failteireland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/2017-topline-regional-tourism-performance.pdf?ext=.pdf (Annual Figure – rendered daily)

⁵⁹ <https://gov.wales/sites/default/files/statistics-and-research/2019-02/rail-station-usage-april-2017-to-march-2018.pdf> (Based on figures from Fishguard, Wales)

⁶⁰ As historic rail traffic and current Rosslare Europort bus services link to the South West, this would reflect historic market share

⁶⁰ There is no CSO data available to ascertain this figure. As 58% of all rail trips are non-commuting related(p.14), this is a conservative estimate of potential usage.

3.12.1. Trinity Wharf, Wexford Town

Trinity Wharf is a proposed development by Wexford County Council that *“will facilitate a new sustainable urban quarter with a high-quality public realm, mix of modern office space, hotel accommodation, leisure and residential development, a landmark cultural and events building, 58 residential units and a multi-storey car park.”*⁶¹ According to Wexford County Council figures, it is projected that this development will ultimately provide 1,000 long-term jobs in Wexford⁶².

This development has been approved by An Bord Pleanála and lies adjacent to the Wexford-Rosslare line. A land transfer from Iarnród Éireann to Wexford County Council will be necessary, and Iarnród Éireann has already provided consent.

With the prospect of 1,000 permanent jobs, this proposal provides an excellent

opportunity for a shift to rail transport within Wexford. The proposal includes a multi storey carpark. Although the proposed parking is perhaps inconsistent with development and climate goals, it can only contain a maximum of 462 parking spaces, leaving approximately 550 employees without a parking space.

The obvious solution to this is in the context of a reopened Waterford-Wexford rail link, a basic station can be added here. A station named Wexford South operated here until February 1977. As the land abutting the rail line is still owned by IE, a very basic single platform station could be reopened here to provide for workers, as well as visitors to Trinity Wharf.

Furthermore, the Southern end of Wexford town is densely populated, and major employers such as Danone and Glanbia which are both within an eight minutes walk of the proposed station can provide additional passenger traffic. The additional station would not slow down the current Dublin-Rosslare service, as there is a speed



Figure 8 Trinity Wharf Rendering – Source: O’Leary Sludds Architects

⁶¹ <https://www.wexfordcoco.ie/business/economic-development-projects/trinity-wharf-development>

⁶² <https://www.wexfordcoco.ie/news/2018/07/16/council-unveils-draft-masterplan-for-development-of-trinity-wharf>

limit of 8km/h in place on the quay between the current O'Hanrahan Station, and location of the former Wexford South station.

The Isochrones below show how activating the proposed Wexford South station can revolutionize active travel in the urban area of Wexford. Suddenly, with the provision of a second station, the entire southern end of the town becomes easily reachable with a 10-minute cycle or a 15-minute walk.

A Station in this location would also link in favorably with the existing WX2 Wexford Bus Service, offering an eight-minute bus journey from IT Carlow's Wexford Campus at St. Peter's College, or alternately a seven-minute bicycle ride. Such a development is consistent with the Key Infrastructural Requirements for Wexford Town included in the RSES. These include:

- iii. Strengthen 'steady state' **investment in existing rail infrastructure** to ensure its continued renewal and maintenance to high level in order to provide quality levels of safety, service, accessibility and connectivity
- iv. Significant investment in port facilities at Rosslare Europort to accommodate larger RORO ships, improved capacity and **facilities for freight handling (including rail freight)** and improved amenities and services for passengers at the terminal
- v. Investment to support **development of Trinity Wharf as a Strategic Employment Location**.⁶³

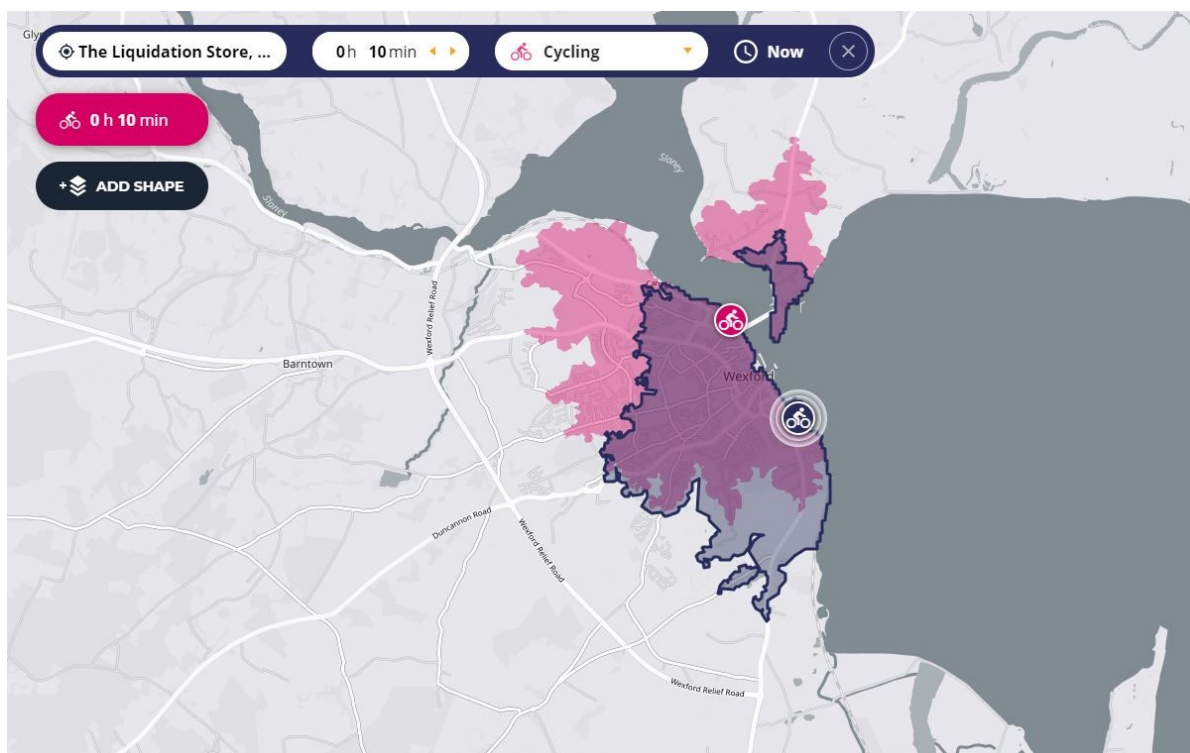


Figure 14 Wexford Town - 10 minute cycling isochrone from Wexford North and Proposed South (Trinity) Station

⁶³ Southern Regional Authority, RSES, p. 65

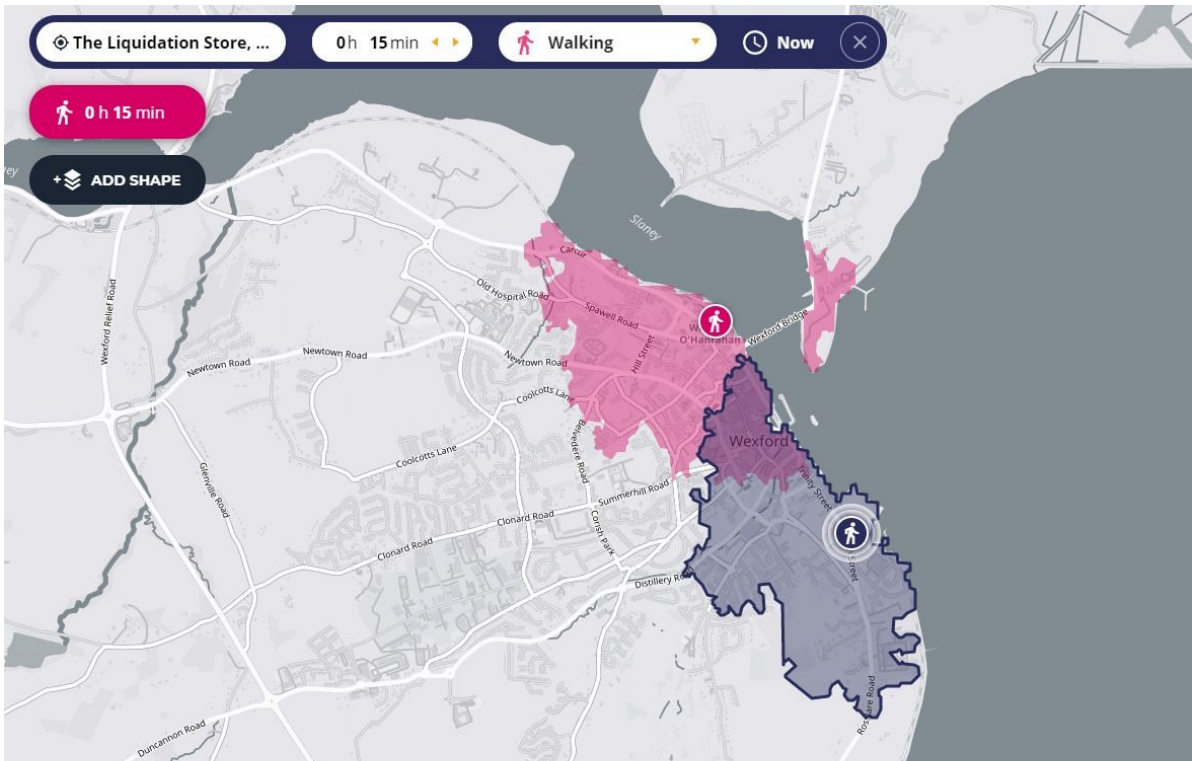


Figure 15 Wexford Town - 15 minute walking isochrone from Wexford North and Proposed South (Trinity) Station

3.12.2. Waterford North Quays (SDZ)

In November 2020, €110.6 million was committed by the government via URDF Funding for the project⁶⁴. One of the central features of this project is the creation of a new Integrated Transport Hub, serving Iarnród Éireann and local and Expressway bus connections. The development includes a new sustainable transport bridge across the River Suir to link the North and South Quays to the Waterford & New Ross Greenways, as well as to public transport.



Figure 16 - Proposed Waterford City Sustainable Transport Bridge

Although the proposed retail developments as part of the North Quays Development are on hold as of writing (January 2022), the proposed infrastructure improvements (new railway station and sustainable transport bridge) are proceeding as planned.

In their Business Case supporting the closure of the rail link in 2010, Iarnrod Eireann repeatedly claimed that the “remote” location of the railway station in Waterford contributed to depressed passenger numbers. This new development will ensure that rail travel will be a central and attractive part of Waterford’s future development, with the sustainable transport bridge providing easy access to the centre of the city.

Furthermore, the “isolation” of the railway station to major employment and education centers will be negated by the integration of local bus services (W1-W5) into the transport hub. Active travel will also be encouraged by the sustainable transport bridge, and integration of the greenway network to Dungarvan and New Ross.

A basis analysis of the proposed station layout in the new Waterford Transport Hub would allow for a variety of rail services to be provided. Services to/from Limerick, to/from Dublin, to/from Wexford/Rosslare can be accommodated at the same time, allowing easy transfers from one service to another, thus encouraging increased rail transport and regional connectivity across the South East Region.

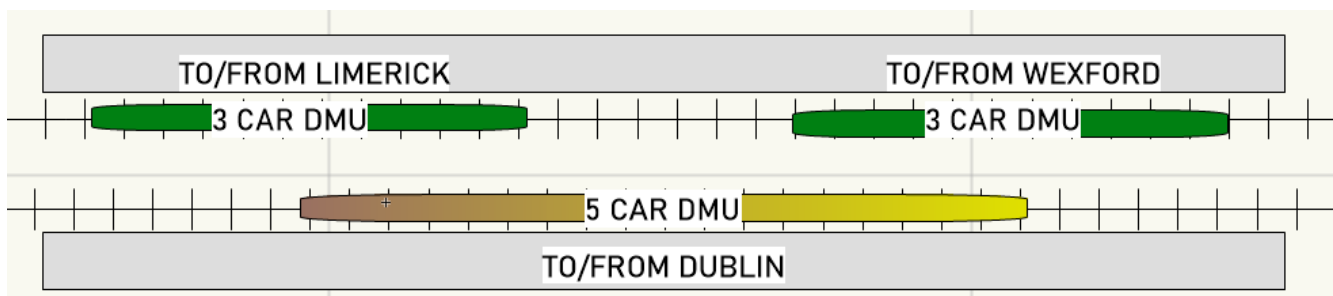


Figure 17 - the proposed Waterford Station should be able to accommodate (3) trains at the one time (Schematic via SEOT)

⁶⁴ <https://www.gov.ie/en/press-release/b9948-806m-urban-regeneration-and-30m-transport-funding-announced-for-waterford-north-quays-project/>

Based on the available information, accommodating services in a variety of directions is possible at the same time, allowing Waterford to become a “rail hub” befitting its status as the largest city in the South East region.

Reopening the rail link to Wexford and the east coast satisfies the following Policy Objectives within the Waterford Metropolitan Area Strategic Plan included in the Southern Regional Assembly RSES. These include:

Waterford MASP Policy Objective 7:

d. Improvements to the Waterford - Limerick/Shannon Strategic Transport network to include **upgrading of N24 and Rail line for faster journey times and improved public transport frequencies** on public bus and rail services.

d. Improvements to the Waterford – Rosslare Europort & Wexford Strategic Transport network to include improved **road and rail connectivity into Rosslare Europort from Waterford**, recognising the important role of Rosslare Europort as a passenger and freight port for the Waterford Metropolitan Area and wider-Southern Region.

e. The optimal use of the rail network, **connecting Waterford at a regional and national level, in catering for the movement of people and goods including development of commuter rail services into Waterford.**

f. Retention of the Waterford -Rosslare Rail line for future freight and passenger rail connectivity to for (sic) Rosslare Europort.

g. Measures to support Modal Change through **transfer of freight from road to rail through increased use of freight sidings (or creation of new rail connections)** at the ports

and other locations throughout the South-East

Waterford MASP Policy Objective 7

Regional Connectivity

It is an objective to support the development of improved Regional Connectivity through development and maintenance of strategic transport infrastructure to support the sustainable development of Waterford and the South-East subject to the outcome of WMATS where applicable, appropriate appraisal, environmental assessments and the planning process.

Local Authorities and public bodies including state transport agencies shall prioritise investment in the following road and rail infrastructure subject to the outcome of environmental assessments and the planning process to deliver enhanced regional connectivity:

- a. The maintenance and enhancement of the national roads network, catering for transport demand within the Waterford Metropolitan Area, for improved inter-urban / interregional connectivity/ reduced journey times and for improved access to international gateways, including Port of Waterford, Rosslare-Europort and Waterford Airport, through:
 - i. Delivery of current Government programmed and proposed national road network improvement schemes relating to the Waterford Metropolitan Area and associated inter-urban connecting roads.
 - ii. The maintenance and optimisation of the strategic road network's capacity and utility, through the implementation of appropriate demand management measures.
- b. Improvements to the Waterford -Limerick/Shannon Strategic Transport network to include upgrading of N24 and Rail line for faster journey times and improved public transport frequencies on public bus and rail services.
- c. Improvements to the Waterford -Cork Strategic Transport network to include upgrading of N25 and additional options for Park and Ride into Cork and Waterford.
- d. Improvements to the Waterford – Rosslare Europort & Wexford Strategic Transport network to include improved road and rail connectivity into Rosslare Europort from Waterford, recognising the important role of Rosslare Europort as a passenger and freight port for the Waterford Metropolitan Area and wider-Southern Region.
- e. The optimal use of the rail network, connecting Waterford at a regional and national level, in catering for the movement of people and goods including development of commuter rail services into Waterford.
- f. Retention of the Waterford -Rosslare Rail line for future freight and passenger rail connectivity to for Rosslare Europort.
- g. Measures to support Modal Change through transfer of freight from road to rail through increased use of freight sidings (or creation of new rail connections) at the ports and other locations throughout the South-East.

Figure 18 - Extract from RSES

4. CAPITAL INSTALEMENT & REINSTATEMENT COSTS

4.1. Introduction

This section examines the required capital cost to reinstate the railway based on its current condition, as well as the replacement cost or NET value of the rail link.

4.2. Current NET Value

The Wexford-Waterford rail link was the last new major heavy rail infrastructure project constructed in Ireland. In this context, it is unlikely such a project would be attempted again, therefore it is appropriate to attempt to estimate the NET Cost of such an undertaking, to **calculate the value of the current infrastructure.**

For the cost estimate this report will use the following methodology.

The current net present value of the infrastructure is estimated using Professor Baumgartner's 2000 *Prices & Costs in the Railway Sector*, which is heavily featured in the European Commission's Assessment of unit costs (standard prices) of Rail projects (Capital Expenditure)⁶⁵, by the Directorate-General for Regional and Urban Policy, 2018.

#	Description	Length	Cost per km	Cost (2000)	Cost 2021 Allowing for inflation
	Feasibility & Preliminary Study	54km	€ 10,000	€ 540,000	€ 760,000
	Land Acquisition (based on population density)	54km	€3M/km	€ 162,000,000	€ 228,400,000
	Construction of Track (incl. Killinick to Felthouse)	54km	€5M/km	€ 270,000,000	€ 380,000,000
	Snowhill Tunnel	198m	€20M/km	€ 3,960,000	€ 5,580,000
UBH140	Barrow Bridge	650m	€30M/km	€ 19,500,000	€ 27,500,000
UBH171	Taylorstown Viaduct	125m	€30M/km	€ 3,750,000	€ 5,300,000
UBH193	Duncormick Viaduct	70m	€30M/km	€ 2,700,000	€ 3,800,000
TOTAL (via Baumgartner 2000)				€ 462,450,000	€ 652,000,000

Figure 19 - New Construction Costs -SEOT via Baumgartner

Using the unit prices via Baumgartner, the current net value of the railway line is approximately €652 million. This is based on the "new construction cost" of the currently existing infrastructure linking the Dublin-Rosslare and Dublin-Waterford rail lines.

This estimate suggests that should the rail line be abandoned or taken completely out of use, the future cost of a similar project to link the Dublin-Waterford & Dublin-Rosslare rail lines would cost approximately **€652,000,000.**

4.3. Estimated Upgrade Costs

Due to the continued basic maintenance since 2010 of the Wexford-Waterford Rail Corridor, it is difficult to estimate the current condition of the line in terms of capital costs for an upgrade to restore passenger services. No similar project has taken place in recent years, and re-openings of such routes as Ennis-Athenry and Cork-Middleton involved

⁶⁵

https://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/assess_unit_cost_rail_en.pdf

much larger construction as the permanent way and infrastructure had severely degraded. The costs in this case are bound to be significantly lower, with the NTA stating in 2010 *"The maintenance plan in this case is significantly more extensive than any previous programme for "out of service" lines."*⁶⁶

The strong condition of the rail line is confirmed by two documents obtained via FOI in 2021.

In the document *Revised arrangements for the ongoing Management of the Rosslare – Waterford railway line* (accepted by the NTA in August 2019) Irish Rail state:

It is estimated that the cost of returning the line to a serviceable condition would be of the order of €12- 15m. This would be the basic cost which would allow a return of the line to its state pre-closure in 2010. The main elements of work that would be required to be undertaken would be renewal of some areas of degraded and deteriorated track, re-instatement of a signalling system, critical bridge repairs to deteriorated structures as well general maintenance and renewal works to the asset base, boundary protection works and station buildings/facilities work⁶⁷.

Although €12 - €15 million reflects excellent value for money in terms of expanding the national rail network by 50 kilometers, this would only bring the line back to its state in 2010, and the slow speeds and infrastructural problems that occurred then would still remain. This could be acceptable as a short or medium term option, to bring the rail line back into regular use before more significant upgrades are completed.

The €12-€15 million figure seems realistic, as SEOT has obtained a structures report on the rail line completed by consulting Engineers Roughan & O'Donovan completed in August 2018. This report examines every bridge, culvert, tunnel and structure on the line and reports no major issues of concern on any of the structures, including the Barrow Bridge.

South East on Track believes that a more significant upgrade than the 2010 status is necessary to realize the full potential of the rail link, including automated level crossings, modern signaling, increased line speeds and the restoration of the direct Killiane-Killinick curve allowing the bypassing of Rosslare Strand.

To this end, general figures per kilometer are available from Iarnród Éireann (via the 2030 Rail Network Strategy) based on estimated upgrade costs as well as the Baumgartner figures. For the purposes of this analysis, both

⁶⁶ Evaluation of Irish Rail Proposal to Suspend Passenger Services on Rosslare Waterford Line, NTA 2010

⁶⁷ Revised Arrangements for the On-going Management of the Waterford to Rosslare Railway Line, p.2

Rail – Restoration to pre-closure state (2019)	Length (km)		Total IE 2019	Total € Million per 2021 (CPI)
Rosslare to Belview (including stations, level crossings, signalling system)	50		€ 15	15.69
Current Status & Upgrade - Baumgartner 2000	Length (km) or Unit	Cost per unit (m)	Total Baumgartner	Total € Million per 2021 (CPI)
Rosslare to Belview - Track Relay (50kg/m)	50	0.5	€ 25.00	€ 35.25
Killinick to Killiane (Felthouse Curve)	4	3	€ 12.00	€ 16.92
Level Crossings (4 Automatic Barriers per crossing)	11	0.7	€ 7.70	€ 10.86
Automatic Signalling	54	0.1	€ 5.40	€ 7.61
TOTAL			€ 50.10	€ 70.64
Current Status & Upgrade - Iarnród Éireann 2011 Figures	Length (km) or Unit	Cost per unit (m)	Total IE 2010 Upgrade Costs	Total € Million per 2021 (CPI)
Rosslare to Belview - Upgrade to 160kmph	50	1.5	€ 75.00	€ 76.28
Killinick to Killiane Construction	3.6	3.5	€ 12.60	€ 12.81
TOTAL			€ 87.60	€ 89.09

Figure 20 - Comparison of renewal expenditure via SEOT

figures will be used and compared to the 2010 estimate.

These basic calculations allow for the basic estimation for the renewal of the Rosslare-Waterford Railway line to be approximately €54 million. This figure does not include the reconstruction of the direct Killinick-Felthouse Junction curve, which this group believes is vital to the future of the railway.

Regarding the calculations used, the Baumgartner Figures give a greater level of detail than Iarnród Éireann's. Similarly, there has not been a similar project in recent years in Ireland as recent rail constructions (Ennis-Athenry, Cork-Middleton) have involved lines that were closed for much longer periods of time, and which were not maintained to a similar standard.

It can be surmised that the Iarnród Éireann figures are based on this higher level of cost. Furthermore, it is unknown if the current Wexford-Waterford alignment could be upgraded to a 160kmph running speed, our speed analysis suggests that a 70mph/110kmph running speed could accommodate competitive journey times.

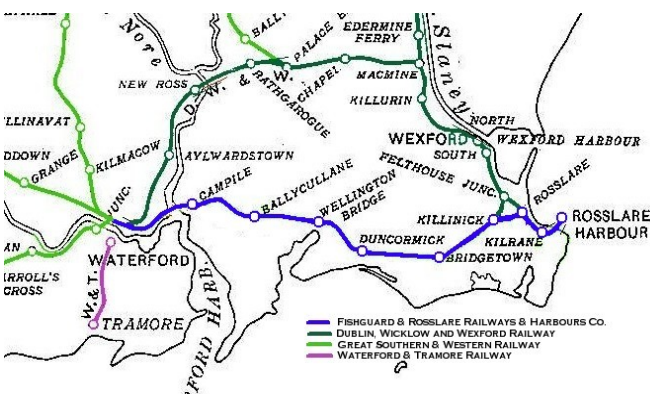


Figure 21 -Historic Rail Map showing direct Wexford Waterford Line (Felthouse Junction Curve)

4.4. Precedence for reopening

Within Ireland, the European Union and the UK, there are several examples showing the success of re-opened rail lines. Several of these are applicable for the Wexford-Waterford rail link.

Domestically, demand on Phase 1 of the Western Rail Corridor (WRC) has soared – with 2019 figures showing 531,000 using the Limerick-Galway service.⁶⁸

The former Bray-Harcourt Street line was partially reopened in 2004 (operating as Luas), before an extension was added in 2010 to Cherrywood. This service went into profit a full year ahead of schedule⁶⁹.

Several examples from the UK reveal the success of reopening formerly closed rail lines.

- The Robin Hood Line (Nottingham to Worksop) has been regarded as a huge success and has led to an impressive 37% modal shift from car usage⁷⁰.
- Despite serving small communities in Mid-Wales the heart of Wales Line (Craven Arms to Llanelli) still reports strong passenger numbers with growth in recent years.⁷¹
- The Maesteg Rail Line in Wales reopened in 1992 and still reports strong passenger growth, with annual growth of 2.9% in 2018.
- The Vale of Glamorgan Rail Line in Wales reopened in 2005 and

continues to report significant growth in passengers. Network Rail has stated that “patronage has outstripped all expectations⁷².”

These Welsh rail links are particularly important as they serve areas with similar populations and population density to the Wexford-Waterford Rail Link.

Looking further afield, since 1995, Germany has reopened over 70 formerly closed rail lines and services⁷³. These revived services have led to a significant growth in rail passenger ridership in Germany in recent years. In 2019, Deutsche Bahn committed to no future closures of rail infrastructure.⁷⁴

In tandem with the previously mentioned growth in passenger numbers in rail travel, the current trend of reopening rail links in Europe shows significant optimism and future-planning within the rail market in Europe.

⁶⁸ <https://westernpeople.ie/2020/02/12/passenger-numbers-soar-on-western-rail-corridor/>

⁶⁹ <https://www.irishtimes.com/news/luas-in-profit-a-year-ahead-of-schedule-1.1019569>

⁷⁰

<https://www.railwatch.org.uk/backtrack.php?issue=093&page=rw093p04.pdf&mode=display>

⁷¹ <https://gov.wales/sites/default/files/statistics-and-research/2019-02/rail-station-usage-april-2017-to-march-2018.pdf>

⁷² Railway Renaissance: Britain's Railways After Beeching, Gareth, David.

⁷³ <https://www.pro-bahn.de/fakten/reakt.htm> (in German)

⁷⁴ <https://www.dmm.travel/nc/news/db-will-keine-strecken-mehr-stilllegen/>

5. RAIL FREIGHT

5.1. Introduction

Revival of railfreight is key to the business case for restoration of movement on the Rosslare Waterford Railway. Central to developing rail freight are the asset value of the two ports served by the line, Rosslare and Waterford. Both ports are in tier 2 of the national ports policy. The line forms a continuum to Limerick Junction, the south Cork/Kerry and the Western Rail corridor. Along that route is Limerick and Galway ports and Foynes in the future. Co Mayo still generates considerable rail freight flows to Waterford. Linking international gateway ports that are prioritised in national policy with a shared transport infrastructure such as rail makes for good logistical planning and aligns to strategic national planning.

The business case for restoration of services on the railway looks at the need for investment in Rosslare Europort, the services offered at present by Waterford and examines the potential for the existing timber landings at Rosslare, the potential for wind energy as well as the growth in containerisation and the need to address

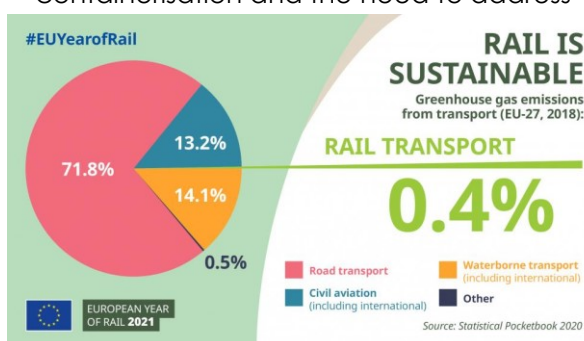


Figure 18 - Infographic as part of the EU Year of Rail

post Brexit the growth in traffic and compliance with EU directives.

5.2. EU objectives

The main aim of the European Green Deal is to transform the economy and society to engage it towards a sustainable path. This will require a public investment programme together with major efforts to direct private capital towards climate and environmental action. The Green Deal is composed of various elements going from “a zero pollution ambition for a toxic-free environment” to “mobilizing industry for a clean and circular economy”. The strategic element for the railway sector is named “**accelerating the shift to sustainable and smart mobility**”⁷⁵.

It is clearly stated that a modal shift shall be privileged for freight transportation as today 75% of inland freight is carried by road while a substantial part of goods should shift towards rail and inland waterways. In the strategy, the objective is set to double rail freight traffic by 2050.

Ireland along with other EU countries signed up to these objectives “The Future of Rail Freight in Europe” during the Ministerial Conference on “Innovative Rail Transport – connecting, sustainable, digital” in Berlin on 21st September 2020 (the so-called “Berlin declaration”). Quite often unfortunately while Ireland participates in these EU initiatives and supports the main aims at the

⁷⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0789>

implementation level this country fails to adhere to the overall strategy.

In that 2020 agreement the document outlines the Green Deal status “the European Commission includes rail freight as a top priority for shifting towards climate-friendly transport, as rail is one of the most environmentally friendly modes of transport. We expect this initiative not only to bring fresh approaches and ideas to rail freight, but also to build on all the experience gained and best practice already developed by the Rail Freight Corridors. The outstandingly low carbon footprint of rail freight resulting from the wide-scale use of electric traction, the high energy efficiency inherent in the rail system, the suitability for high transport volumes and other environmentally friendly drive systems encourage us to continue the development of fully carbon-neutral rail freight. Effective mitigation of the impact of rail noise is another substantial contribution towards further enhancing the environmental advantage of rail freight.

The agreement signed by Ireland called for “enhanced EU support for rail infrastructure projects essential to develop rail freight by developing a high-capacity network, removing bottlenecks and interoperability barriers and increasing the capacity of intermodal terminals. Welcome in particular the Connecting Europe Facility's objective to further support key rail projects in the period 2021-2027⁷⁶. The EU TEN-T corridor network is an integrated plan that includes Ireland in joining the coordination of linking into freight

corridors operating in EU and working towards a modal shift to rail.

Directive On Combined Transport 92/106 sets out targets to be achieved by 2030. Ireland is significantly out of step with regard to compliance on this directive.

Brexit has radically changed trade patterns between the island of Ireland and the rest of the EU. Avoidance of the land bridge has resulted in increased use of direct ferries to mainland Europe. This has seen a recent increase in the use of ports in the Republic of Ireland by trucks from Northern Ireland carrying goods to EU markets.

In the context of Northern Ireland remaining as part of the single market and customs union transport emissions from NI are still subject to EU directive and standards. As a consequence, there is a need to address how containers from Northern Ireland which is more than 300Km from Rosslare can be transited to Rosslare for onward carriage in compliance with EU directives and the Withdrawal Agreement.

The catchment of Rosslare will extend into the northern part of Ireland as trucks avoid Dublin Port due to better connections through Rosslare. Developing rail freight is one possible solution. Extending freight along the Western Rail Corridor into Mayo will also remove traffic from pinch points along the east coast allowing for the more efficient use of the network elsewhere.

⁷⁶ [innovative-rail-transport-21-09-2020.pdf \(bmvi.de\)](https://www.bmvi.de/SharedDocs/DE/Presse/pm/2020/09/innovative-rail-transport-21-09-2020.pdf?__blob=publicationFile)

The Ireland “imperative to reduce the impact of transport systems on the environment is highlighted by objectives to deliver a 51% reduction in emissions by 2030 and to achieve net-Zero carbon by 2050. Irish Rail (IR) are cognisant of this challenge and believe that Rail Freight has a unique opportunity to become a cornerstone of sustainable freight transportation in Ireland and contribute to the achievement of these targets”⁷⁷.

“Rail freight generates 76% less emissions (per tonne-km) than road haulage and as such there is an opportunity for rail to become a cornerstone of a sustainable freight network across Ireland. With transport accounting for approximately one fifth of all emissions nationally the expansion of modern rail freight facilities and services can help develop an attractive alternative to road haulage, encourage modal shift from road to rail and support decarbonisation and environmental targets across the regions”.

IR strategy “includes a plan to develop a network of intermodal freight facilities in collaboration with the freight and logistics industry, starting with strategic terminals in Limerick and Dublin”. Here we see the first indication that rail freight can contribute strategically to transport planning.

5.3. Government Rail freight policy

The Fourth Railway Package⁷⁸ 2020 aims to improve Ireland's rail network to ensure a

robust regulatory regime for the railway market in Ireland, the EU requires compliance with rules concerning the establishment of a single railway area, and market access. Rules have been developed to open the markets for **domestic and international rail freight** and international rail passenger services.

According to a recent EY report on the western rail corridor⁷⁹ “whilst the majority of freight is transported by road, due to both speed and convenience, there is also the potential for rail to contribute”.

Rail freight handling facilities in Ireland only exist at four points on the IE network:

1. **Dublin Port**
2. **Ballina**
3. **Tara Mines**
4. **Waterford Port**

According to the EY Western Rail Corridor report, Rail freight is not an outmoded means of transporting goods but an efficient mode of transport and a key choice to guarantee sustainability in the transport sector. The following important conclusions can be outlined from research:

According to IE strategy, Dublin is the “busiest port in the country, (with approximately 14,000 inbound and outbound articulated HGV journeys per week) has sufficient scale to support additional rail freight services. It is also evident that 52% of the traffic travelling to Dublin Port originates from over 70km from the Port while the remaining 48% comes from within 70 kilometres of the port. Additionally, 38% of traffic emerging from the port is travelling to destinations 70kms or more from

⁷⁷ [IE Rail-Freight-2040-Strategy Public Final_20210715.pdf](https://www.irishrail.ie/~/media/Files/Strategy_Public_Final_20210715.pdf) ([irishrail.ie](https://www.irishrail.ie))

⁷⁸ <https://www.gov.ie/en/publication/b75007-the-fourth-railway-package/>
⁷⁹ <https://www.gov.ie/en/publication/1174d-review-of-western-rail-corridor-phases-2-and-3-atheny-to-claremorris/>

the port while 61% of traffic is travelling to locations within 70km". Is there a role for Rosslare/Waterford to reduce the port traffic by transferring goods to these ports that have seen their importance grow post Brexit? Does the new context in 2022 imply that more container traffic moves through the SE ports and that Ireland examines the rail access to these ports which is already in place and can be enhanced by connecting both SE ports by reopening the railway between both which was mothballed in 2020. This is the type of strategic decision making that leads to modal shift and would facilitate freight traffic from West of Ireland to the SE diverting traffic from Dublin centre or transferring to rail. IÉ describe the freight business as a "narrow market heavily dependent on the operations of a small number of valued customers, and therefore highly sensitive to market and economic trends⁸⁰". This is a position very different to some decades ago when most of Ireland's largest producers used rail freight services as an integral component of their distribution system. The reality is that IÉ, because of an absence of political transport policy, vacated the freight market and removed the handling capacity all over the country to a point where it was no longer viable to move freight by rail. Government policy did not subsidise rail freight and so it is at a competitive disadvantage compared to road transport shifting the business to motorways. A common argument in Ireland against rail freight was that distances are too short on the

island to make the change competitive. According to IÉ 2040 strategy rail freight is "competitive over shorter distances. Rail can be competitive over reasonably short distances with the average rail freight distances travelled in the UK and EU at 150km and 220km respectively and with much of Ireland's freight travelling within this range. 'On distances exceeding 150km the average costs of moving goods by rail are usually lower than road' Increasingly, companies are choosing to use rail for its efficient performance and competitiveness along with its recognised sustainability benefits, even over shorter distances. IKEA, for example, with Maersk have recently begun using rail to transport their products a distance of 100km from Barcelona to Tarragona in Spain after successfully applying a similar solution in Italy".

- There is a **lack of strategic support** from the Irish Government to develop rail freight with the majority of transport investment focused on road transport.
- rail corridors need to be revamped and adapted to rail freight. Increases in speed limits are essential to compete with road.
- New strategies for wagon customization should be adopted to add more flexibility.
- More frequented rail corridors should be electrified to further reduce CO2 emissions.
- Bypass lengths should be increased where appropriate.

⁸⁰ IE Rail Freight 2040 Strategy, p.6
https://www.irishrail.ie/Admin/getmedia/685e9919-f012-4018-879b-06618bb536af/IE_Rail-

□ The entry of competitors into the rail freight market needs to be encouraged.

Rail freight connectivity cross border with NI must be developed and funding is available from EU in such cases.

Reopening the disused Waterford to Wexford railway will significantly contribute to both the EU rail strategies in terms of TEN-T objectives and the 2020 Fourth Railway Package aims in that it will ensure connectivity between Rosslare Europort and the West and South of Ireland, it will facilitate route access to one of only four current rail freight handling points in Ireland at Waterford port and it will enhance any future rail freight intentions and plans at Rosslare Harbour post Brexit and in terms of becoming a wind energy hub.

Rail freight is a future strategic sustainable environmental essential in Ireland.

Maintaining the railway connection between Waterford and Wexford preserves the critical connectivity on the entire Irish rail network.

5.4. Historical Background

The construction of the line in the early 20th century was predicated not on providing a service between Wexford and Waterford since such a line already existed at the time, rather about providing direct and speedy access for freight, mails and passengers to Rosslare port. The immediate catchment for the line was Munster as unlike the DSER line which served New Ross, there was no large population centre served by the Rosslare Waterford line. Central to the development of Rosslare Port in the early 20th century was the development of the rail link to its hinterland of Munster. Both port and rail link were mutually inter-reliant.

Following the establishment of the Sugar Company, beet growing provided a large volume of traffic along the line between August and December each year. With the development of Waterford Port for lift on lift off containers in the 1980's freight along the line was reduced to indigenous demand of cement and beer, as well as regular freight traffic from the IFI Plant at Shelton Abbey to Waterford Port. In the recent past internal point to point freight flows on Irish Rail have ceased with freight focused on delivering quayside to shipping. In 2021 rail freight between Waterford port and Ballina inland freight terminal has recommenced in both directions and has had an immediate positive impact on rail freight data nationally. Media reporting at the launch of the new service highlighted the extent to which this one service removed hundreds of trucks from Irish roads on a yearly basis, achieving a decarbonisation objective.

5.5. Rosslare Europort.

Rosslare Europort is a thriving port with 4 berths for ships. It had a quayside rail link until the early 21st century. The port ranks in Tier 2 of the national ports strategy. It provides for Roll on Roll off container services. It has direct regular ferry connections to Fishguard, Pembroke Dock, Cherbourg, Dunkirk, Santander and Bilbao. It is served by Stena, Irish Ferries, Brittany Ferries, Neptune Line and DFDS.

Rosslare Port provides mooring, forklift and tug boat facilities, It provides for bunkering of fuel and has space for 300 unaccompanied containers. Rosslare Europort handles bulk

cargo. Wind turbines, timber logs and agricultural fertiliser are dealt with on a regular basis, as well as generators, steel, and other high, wide and heavy units. Apart from loading and discharging, Rosslare Europort can offer efficient and extensive storage area for breakbulk cargo assembly.

Rosslare has a wide range of berthing options across the port, providing flexibility in size for vessel charter. Rosslare is strategically located for future infrastructure projects. It can accommodate vessels with a maximum draught of 6.5M. The maximum length that a vessel can be accommodated is 200M.

Rosslare does not require a pilot and is close to major shipping lanes from the UK to the Americas. With interest in developing the North West passage to the Pacific and the increased economic performance of the Asian Pacific Rim, Rosslare's location close to key shipping lanes puts it in an ideal location to attract international shipping.

Recently an allocation of €30M was provided for the port⁸¹. The port authority has a plan to develop facilities at the port in line with changes to trade with Britain following Brexit. In addition, Rosslare Europort is focussing on developing the port for offshore wind and energy development.

Rosslare Europort has a 4 stage investment plan to develop the harbour arising from the need to get Ireland Brexit ready..

- Phase 1 involves development of a new access road-roundabout and check in for freight

- Phase 2 will see the paving and freeing up of land for future use
- Phase 3 will see improvements in internal traffic flows within the port
- Phase 4 provides for improved trailer storage.

The plan is to ensure that the port is Brexit ready. This plan focuses on the additional road traffic that direct trade with France and Spain will generate. However, it does not in itself provide the additional infrastructure that tier 1 status demands.

Moreover, investment must be future proofed against any changes in transport policy arising from the need to reduce CO₂ emissions. EU Directive requires that by 2030 30% of all freight traveling more than 300km within the EU must travel by either ship or rail. There is a growing demand that Rosslare Europort be upgraded to Tier 1 status. Such an upgrade will require additional investment. Ports policy since the 1980's was predicated on expanding Dublin Port due to its strategic location on the Central Corridor of the Irish Sea. Post Brexit the focus is swinging away from Dublin in the direction of Rosslare.

Recent changes arising from Brexit has seen major shifts in the way that Irish goods are transported to other EU markets. Fewer trucks are using the land bridge through the UK utilising Rosslare directly to France and Spain saving time and paperwork. In the early weeks of 2021, Rosslare Europort handled an increase of 500% of freight traffic when compared with 2020⁸².

⁸¹ <https://www.irishtimes.com/business/transport-and-tourism/rosslare-europort-in-line-for-30m-upgrade-from-irish-rail-1.4295390>

⁸² <https://www.southeastradio.ie/2021/01/500-increase-in-freight-traffic-through-rosslare-since-the-start-of-the-year/>

A question that might be legitimately raised is why Rosslare/Waterford are not part of the EU TEN-T corridor network given that both ports are rail connected and one has rail freight handling capacity. TEN-T planning envisages both Foynes and Cork being designated as TEN-T ports though neither is linked to an operational railway despite the EU objective of promoting modal shift through TEN-T corridors.

5.5.1. Additional Infrastructure Requirements At Rosslare for Lo/Lo

Gantry Crane

While the port is more than adequately equipped for dealing at present with Ro Ro traffic there are a number of additional infrastructural investments needed. Tier 1 status for the port will attract additional interest from a more diverse number of shipping lines. In order to provide for a more diverse customer base additional investment is needed in Rosslare Europort.

There is no gantry crane for direct removal of containers from a vessel to the quayside. Cranes positioned strategically close to a storage area can also stack containers quayside. Stacking of containers quayside will utilise more efficiently the port area during unloading. Using a gantry will allow stacking. Stacking also allows the efficient use of a crane in loading containers for internal transit to Ireland. At present trucks distribute containers from Rosslare

Rail sidings

Sidings for the storing of trucks and the loading of containers to rail trucks are required. Engine storage is also required for basing locomotives at Rosslare Europort once more. Utilising rail to transit freight is a more efficient way than road haulage of transporting goods. Rail transport is not subject to regulation of drivers by tachograph unlike road hauliers. Dublin is both Ro-Ro and Lo-Lo in terms of freight handling and there is no reason that Rosslare cannot have the same capacity particularly since the port is rail connected and that rail sidings ran all the way to the quayside previously and the port is run by IE.

5.6. Waterford Port (Belview)

Waterford is also listed as tier 2 in the National Ports Strategy. However, it offers fundamentally a different and wider range of services than Rosslare Europort. Waterford Port is operated by the Port of Waterford Company and it offers a comprehensive service in conjunction with stevedores and agents. The wider handling operation is centered on 400M length of quayside with a draught of 9M. Accommodation of vessels greater than 170M in length requires preclearance with the Harbour Master. Belview specialises in bulk and general cargo. Gantry Cranes along the quayside facilitate the loading of containers. Ships up to 32,000 tonnes deadweight can be handled subject to tides. There is a requirement for a pilot to meet the ships off Dunmore East to take the craft upstream.

Ships can be unloaded with grabs using 3 different types of crane; gantry, fixed arm

and mobile. Container traffic at the port increased by 23% in the first 3 months of 2020 over the same period in 2019.⁸³

Waterford Belview has direct connection to the National Primary Route and rail access. Regular container services transport cargo to Rotterdam.

In 2021 Waterford enhanced its capacity with the resumption of the XPO rail freight train to Ballina highlighting the requirement for such a service and adding to the freight handling capability nationally and ensuring that the skillset was not lost entirely both in IE and at the port. The port rail siding is actually located along the Waterford Rosslare railway and serves to stress that this key branch line is still partly in service even to today. With capacity to handle additional freight there is opportunity to build on the recent success of new intermodal services from Ballina at the rail connected Belview Port outside Waterford. Development of connections with large manufacturing facilities in the vicinity of the port has the potential to increase rail freight volumes further.

Heavy Goods Vehicles (HGVs) and Light Goods Vehicles (LGVs) account for a distortional 20% of transport emissions in Ireland while rail is responsible for just 1%. CO2 emissions from HGVs rose by over 30% between 1990 and 2007 across Europe, mainly due to increasing road freight traffic, and are currently approximately 19% above 1990 levels. In 2018 freight emissions accounted for approximately 20% of all CO2 emissions within the land transport category, while in Ireland emissions from HGV activity have been increasing since 2013. Without

intervention freight emissions will continue to grow in line with rising freight activity levels, increasing population and economic growth.

5.7. Potential rail freight flows on the Waterford-Wexford/Rosslare railway.

5.7.1. Timber

Coilte has used Irish Rail to transport timber to Waterford from the west of Ireland. Lumber is harvested and trimmed in the forest and then taken by truck to be loaded to trains that bring the timber for processing into board in Belview.

Since the demand from timber outstrips the potential to supply from the Irish market, Medite import timber from Scotland through Rosslare⁸⁴. It is estimated that each month, approximately 2000 tonnes of timber arrives in Rosslare Europort. At present this timber is taken by road to Waterford. Irish Rail has the rolling stock to move timber and the expertise at Waterford Sally Park to transfer and handle timber for Medite. Shifting the transport of timber, itself a sustainable building material, to rail would require 4 train loads each month. This change would free up space on the quayside at Europort for other activities and reduce road traffic per month by about 300 truck journeys.

Irish Rail already has the locomotives and the rolling stock for moving timber. Tendering to move timber from Rosslare Europort to Waterford would not require much investment on the part of Irish Rail.

⁸³ <https://waterford-news.ie/2020/04/19/belviews-container-boost-as-port-supports-international-trade/>

⁸⁴ <https://afloat.ie/port-news/port-and-shipping-news/item/31915-cargoships-at-rosslare-europort-as-timber-trade-set-for-further-growth>

A report from UNECE Forestry & Timber Market Report for Ireland 2018 shows that the demand for wood based panelling growing by about 7% between 2013 and 2017⁸⁵. There is a steady increase in the demand for timber in both processing and construction. An increase in house building will see demand for timber increase into the next decade. There is a demand deficit in wood on the Irish Market of 2M M³. This deficit is filled by imports. The deficit is in both timber directly used for construction and in the manufacture of board. There is every indication that the strong demand for timber will continue into the medium term.

Coca-Cola is another business that transits goods by rail between Ballina and Waterford. Some of this material originates at a Cola plant in Wexford and if the Wexford Waterford line was operational this bulk material could be transited entirely by rail without use of road freight.

5.7.2. Wind Energy

Rosslare Europort is specialising in the provision of space for the construction of wind turbines to be deployed at sea. A dedicated berth, coupled with secure compound space, gives customers tremendous opportunity to use Rosslare Europort for assembly, maintenance, installation, servicing and as a storage hub. The port offers both open and closed storage areas which can be used for onsite assembly. The port is just 70 nautical miles from the proposed offshore windfarm in the Irish Sea.

Wind energy offers a number of possible freight uses for a railway.

- Construction of wind turbines and their emplacement on the sea bed will require the movement of materials, turbines, blades etc. A key feature of construction at sea is the quality of the foundation of the tower which requires a considerable amount of concrete. Previously cement was transported from Limerick to Waterford by rail for the construction of the Waterford By Pass Bridge. With the proposed reopening by Irish Cement at Mungret, the potential exists for transporting cement by rail directly to Rosslare for the purposes of cement production.
- In addition, aggregates are required for cement production. Moving building material by rail is compatible with the concept of wind energy being sustainable and part of the solution in reducing greenhouse gases and increasing output of electricity from renewable sources.

5.7.3. Containers

Almost 1 million 20 foot containers (TEU) passed through Irish ports in 2018. 99% of container movements are on the road network. Rosslare provides for roll on roll off (Ro Ro) only. Trends in globalisation will see

⁸⁵ <https://unece.org/DAM/timber/country-info/statements/ireland2018.pdf>

the volume in goods transported in containers grow by 50% by 2027. This projection compares with the Paris Agreement limit the increase in global temperatures by 1.5C before 2030. Carbon emissions are a major cause of global warming and transport contributes 39% of Irish Carbon emissions.

The market has yet to rise to the challenge to replace lorries using internal combustion engines with electric vehicles. Mitigation of emissions from road haulage rather than elimination is achievable by switching container transport to rail.

IE Strategy 2040 - Freight

European Union, Project Ireland 2040, the Climate Bill and Regional Spatial and Economic Strategies reflect the increasing focus of government and citizens on the need for sustainable development, regional balance and the decarbonisation of transport systems. Rail is inherently more energy efficient than road transport and the development of an expanded rail freight sector represents a real opportunity to reduce carbon emissions from transport while enabling sustainable growth⁸⁶. Waterford and Rosslare represent practical examples of international gateway ports that are rail connected and capable of immediately contributing to the above national strategies.

Project Ireland 2040 projects a population increase of 1 million to 5.7 million with an additional 660,000 people in employment by

2040. It also includes an ambitious construction plan to build 550,000 homes across the regions. This level of ambition and growth places significant new demand on transport systems, logistics services and existing infrastructure. This growth will need to be managed effectively across all regions, as failure to do so will result in increased levels of congestion, emissions and higher environmental costs. Waterford Rosslare railway represents existing national transport infrastructure that joins the rail network along the eastern sea board to the west south and NW regions a connectivity that is unique.

To realise the objectives of the IE freight strategy and fulfil on the ambitious vision for rail freight nationally, Rail Freight 2040 has been developed around five key pillars. These pillars focus on internal and external aspects of the rail freight business and when pursued as part of a cohesive strategy will result in wide ranging transformation of rail freight in Ireland. The policy pillars include rail connections to sea ports, in the case of Waterfor and Rosslare this already exists and both are joined by railway in addition. Why then not consolidate this advantage and designate these ports as rail freight heads and reconnect both by rail along the mothballed railway.

Build upon what is there

Additionally, Iarnród Éireann can seek funding from the European Commission and its institutions including the Innovation and

⁸⁶

https://www.irishrail.ie/Admin/getmedia/685e9919-f012-4018-879b-06618bb536af/IE_Rail-

Networks Executive Agency (INEA) and its related programmes. Given the Commission's focus on climate action and decarbonisation, Iarnród Éireann is well positioned to apply for support funding. The establishment of cross border rail services is the opportunity to generate demand on an all island basis as in previous decades. Derry/Belfast to Rosslare Waterford is the type of rail traffic and distance that will have a positive impact on decarbonization.

Rescue of rail freight

Rail freight in Ireland was close to being lost with a minimum of traffic moving and an attempt in 2021 to close the rail link to Dublin port. By the expansion of freight services, the realisation of operational efficiencies and targeted support rail freight in Ireland can be put on a sustainable footing. This will not only ensure the continuation of rail freight services to 2040 and beyond, but will provide industry with a cost effective, sustainable alternative to road freight. Rail freight will also offer resilience to the supply chain and provide good connectivity on the island. This will be important in helping to rebalance the economy. Rosslare Waterford branch line is the connectivity that represents this entire vision.

6. SERVICES

6.1. Operational Costs:

Iarnród Éireann provide a cost of €6 per train kilometer for Diesel Multiple Units (DMU) in the 2030 Rail Network Strategic Review (2011)⁸⁷. Using CSO supplied Consumer Price index increase of 1.7% since the publication of this report until the present, this gives a cost of €6.10 per train kilometer.

Taking the Wexford (O'Hanrahan) to Waterford (Plunkett) as a Wexford-Waterford journey (62km), this gives an operational cost **of €378**, using the Killiane (Felthouse Junction) direct curve. This figure includes Track Access Charges, Maintenance, and Driver Costs.

In the 2010 Business Case advocating closure, Iarnród Éireann estimated an annual operational cost savings of €1,100,000, including the full time salaries of (25) persons: signalmen, gatekeepers, Barrow Bridge operators. Permanent Way & SET costs totalled €792,000 annually, with an additional €11,000 for fuel.⁸⁸

These figures suggest that based on the service offered by Iarnród Éireann, each train in 2010 would need a farebox of €1,780 to break even on operational costs. This seems excessively high, mainly due to the eleven manually operated level-crossings on the route. The automation of these level crossings

would significantly reduce operational costs on this route.

In the period since the closure of the line since 2010, the long-term impacts of the Single European Railway Directive 2012 (2012/34/EU) through to the Fourth Railway Package are becoming clear, particularly the vertical separation of infrastructure management versus operation. Due to this, our analysis will only focus on operational cost.

Based on Wexford Bus (Private Operator)'s €10 fare from Wexford to Waterford, a new Wexford-Waterford and vice versa train would need approximately (38) adult passengers paying full fare to break even. Our analysis of commuting patterns suggests that this is already possible with commuter passengers alone.

6.2. Potential Service Operation

As described, a reopened service would cater to several different markets, including Commuters, Leisure Travelers, Tourists, and Business travelers.

6.3. Journey Time Analysis

At the time of suspension of services in 2010, the Waterford-Rosslare Strand railway had a maximum speed limit (General PSR) of 40mph⁸⁹. This had been reduced from the historical high of 70mph due to the condition of the track, of which in 2010, over 80% of the

⁸⁷ https://www.irishrail.ie/IrishRail/media/Imported/Irishrail_28febfinal_part21.pdf p.140

⁸⁸ Waterford – Rosslare Europort route Business Case for Withdrawal of Rail Services. July 2010, p. 11-12

⁸⁹ Asset Management Of The Bellview – Rosslare Strand Line After Service Withdrawal CCE-QMS-AMT-901, Iarnród Éireann 2010, p.2

route was jointed track dating from 1903 to 1906⁹⁰. As the 87lb bull head rail was over 100 years old for the vast majority of the route, this led to significant speed restrictions.

The Table below shows the Speed Profile for the route based on the 2004 Timetable in the Waterford Direction.

Station	Distance (miles)	Time	2004 Timetable	Average Speed (mph)
Waterford			17:05	
Campile	8.92	18	17:23	30
Ballycullane	4.77	10	17:33	29
Wellington bridge	4.02	8	17:41	30
Bridgetown	10.45	18	17:59	35
Rosslare Strand	6.94	14	18:13	30
Average Speed				31 mph 50 kmph

Figure 23 - Speed Analysis based on 2004 Timetable

The table shows that the average speed for the service was running at approximately 30.6mph, which is consistent with a maximum speed limit of 40mph (65kmh).

However, solely as an illustrative measure, we have prepared the following table based on an overall line speed of 70mph. This ignores local speed restrictions such as the Barrow Bridge and simply suggests journey times based on an overall line speed increase (i.e. a train running at 75% speed for the Campile-Ballycullane Section is an average speed of 30mph per the 2004 timetable – this becomes 52 mph in the new calculation). Although this is a relatively blunt method of timetable calculation, it is useful as an illustrative

method of potential journey times.

Furthermore, this analysis suggests use of the reconstructed Killinick-Killiane curve, as well as the construction of a Wexford South (Trinity Wharf) station to serve the new development there as well as the southern portion of Wexford Town.

Station	Distance	Time (minutes)	2004 Timetable at max 70mph	average speed at max 70mph
Waterford			17:05	
Campile	8.92	11	17:16	52
Ballycullane	4.77	6	17:22	50
Wellingtonbridge	4.02	5	17:27	53
Bridgetown	10.45	11	17:38	61
Wexford South (Trinity Wharf)	9.24	11	17:49	52
Wexford (O'Hanrahan)	0.88	10	17:59	5
Average Speed				52mph 82 kmph

Figure 24 - Speed Analysis based on 70mph running - SEOT

The increase to an average speed of 52mph could potentially lead to Wexford-Waterford journey times of 45 minutes from Waterford City to Wexford Town South (Trinity Wharf). This does not take into account the new station in Waterford which due to its location, would reduce Wexford journey times even further.

TO WEXFORD FROM WATERFORD (FELTHOUSE) at 70mph PSR	2004 Timetable at max 70mph	average speed at max 70mph
Waterford	17:05	
Campile	17:16	52
Ballycullane	17:22	50

⁹⁰ Ibid, p.2

Wellingtonbridge	17:27	53
Bridgetown	17:38	61
Wexford South (Trinity Wharf)	17:49	52
Wexford (O'Hanrahan)	17:59	5

TO ROSSLARE EUROPORT FROM WATERFORD at 70mph PSR	2004 Timetable at max 70mph	average speed at max 70mph
Waterford	17:05	
Campile	17:16	52
Ballycullane	17:22	50
Wellingtonbridge	17:27	53
Bridgetown	17:38	61
Rosslare Strand	17:46	53
Rosslare Europort	17:52	5

A full estimation of service timing and speed for a restored service is beyond the scope of this report. There are a series of engineering factors such as sight lines, level crossing removal, gradient, that would require the examination of a qualified engineer to accurately estimate.

Even considering the tramway along Wexford Quays, which is limited to a maximum speed of 5mph, the Waterford (Plunkett) to Wexford (O'Hanrahan) journey is a highly competitive 54 minutes, faster than the current Wexford Bus Service 340. The rail service has the additional benefit of serving the settlements along the route which are not served by this Bus service.

As shown in the table, the headline time from Waterford to Rosslare Europort is reduced to 47 minutes, easily beating the fastest car journey of 1 hour 4 minutes.

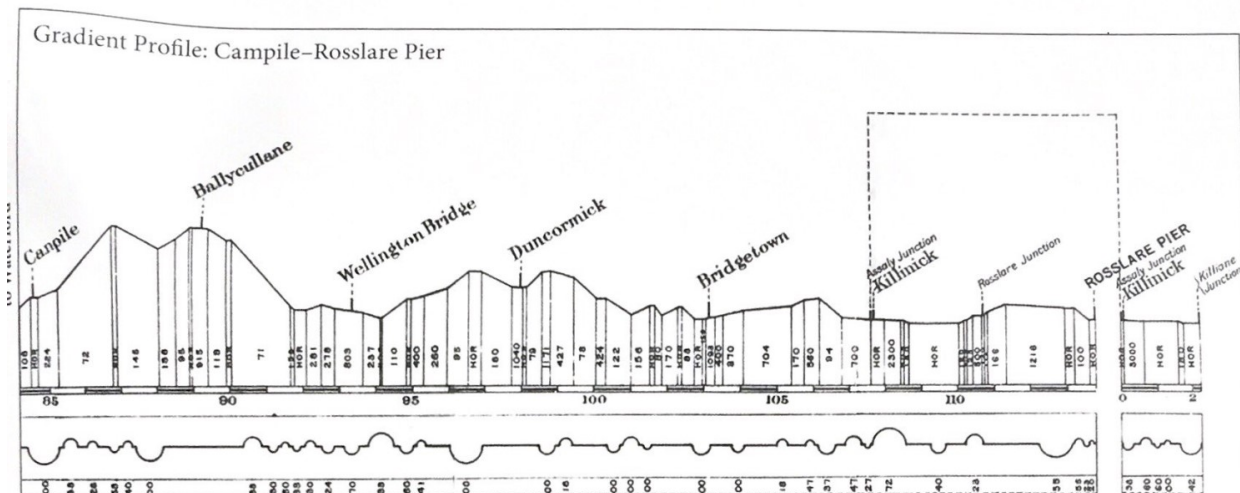


Figure 25 - Gradient Profile of the Wexford to Waterford Line

6.4. Commuter Services:

Compromising 58% of Iarnród Éireann's passenger services, Commuter services must take precedence in a renewal of services on the Wexford-Waterford Rail Link.

Commuter services will need to match commuting patterns in terms of time of departure to and from work, as well as offering enough flexibility in a changed post COVID 19 work environment.

The former one way service to Waterford did not attract enough passengers due to several reasons. In order to build a stronger base of commuting passengers any service on the reopened Wexford-Waterford Rail link would need to include following factors:

- Several services each direction daily
- Clockface timetables where possible
- Single seat journeys where possible (minimize unnecessary transfers)
- Off-peak services for commuters with non-regular hours
- Sunday Services

The recent Ernst & Young report on the Western Rail Corridor, Financial & Economic Appraisal (2020) suggested "an hourly train service in each direction running over a 15-hour day. 15 services each way, hourly.⁹¹" South East on Track suggests a similar service level would be appropriate on the Wexford-Waterford Rail link, with a minimum of hourly

peak, and two-hourly off-peak services throughout the day.

Commuter Services could be provided by (2) DMU Sets working Waterford-Wexford and reverse, with the existing passing loop at Wellingtonbridge offering the opportunity to cross trains there.

With Ferry Passengers currently providing a low daily passenger market, Foot Passengers disembarking ferries at Rosslare Europort should continue utilizing on the existing Rosslare Europort-Dublin service and then transfer to Waterford/Kilkenny/Limerick etc. at Wexford Town. Wexford (O'Hanrahan) Station is an excellent choice as a transfer station, with a strong service & business area in the immediate surroundings, a single platform which minimizes access issues, and a loop and a siding at the station allowing connecting trains to wait nearby until another service clears. Should the proposal for a Wexford South (Trinity Wharf) station be realized, this would offer a second option as a transfer station for Rosslare passengers wishing to travel Westwards.

⁹¹ <https://www.gov.ie/en/publication/1174d-review-of-western-rail-corridor-phases-2-and-3-athenry-to-claremorris/>

6.5. “The Loop”



Figure 26 - Illustrative Logo for *The Loop*, incorporating current Ireland's Ancient East branding

Rail Circles or “Loops” are common throughout Europe and North America as stand-alone tourist experiences.^{92 93 94} The astounding success of European Interrail Packages are a further testament to the potential of rail based tourism.

The Wexford-Waterford Rail link offers a unique opportunity for a “hop-on hop-off” scenario within the current branding of Ireland's Ancient East tourist trail. Allowing multi-day tickets can offer tourists the chance to arrive in Dublin, and follow the *Loop* via rail around the East of the country visiting Dublin, Wicklow, Wexford, Waterford, Carlow, Kilkenny, and Kildare before returning to Dublin. Tickets could be adjusted for day, 3 day, and weekly passes.

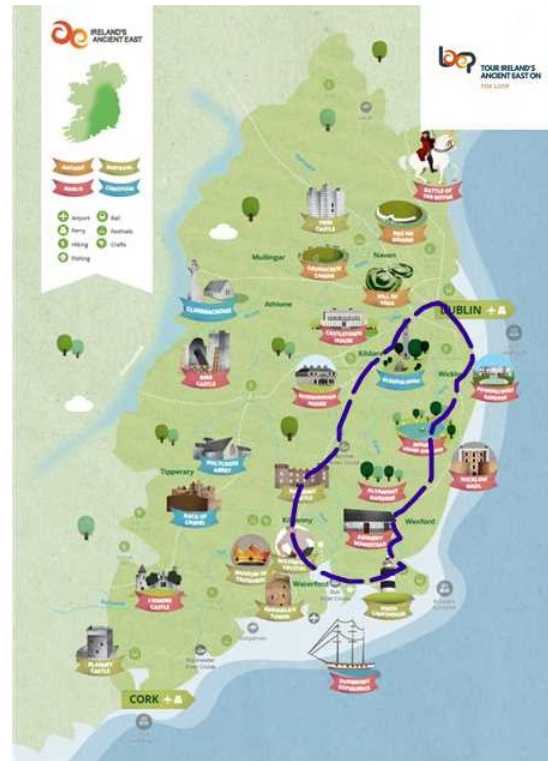


Figure 27 - Potential advertising for “the Loop”

Such a rail tourism option does not exist currently within Ireland, and can be used to increase patronage in the region as a whole, catering to both domestic and international tourists.

As previously mentioned, such a service would also accommodate the various campuses of the planned Technological University of the South East, allowing a regional connectivity that has heretofore not been attempted. As incoming tourism has become more Dublin-centered in recent years, the new South-Eastern Loop would provide opportunities for side-trips of one to several days from the capital to explore the Ancient East south of Dublin. A large proportion of visitors are too afraid to do such trips in hired cars on account of driving on the left hand side.

⁹² <https://to-europe.com/tour-package/tours/rail-tours/europe-rail-circle-tour/>

⁹³ <https://to-europe.com/tour-package/tours/rail-tours/magic-cities-german-classics-rail-circle/>

⁹⁴ <https://canadiantrainvacations.com/trip/rockies-grand-rail-circle>

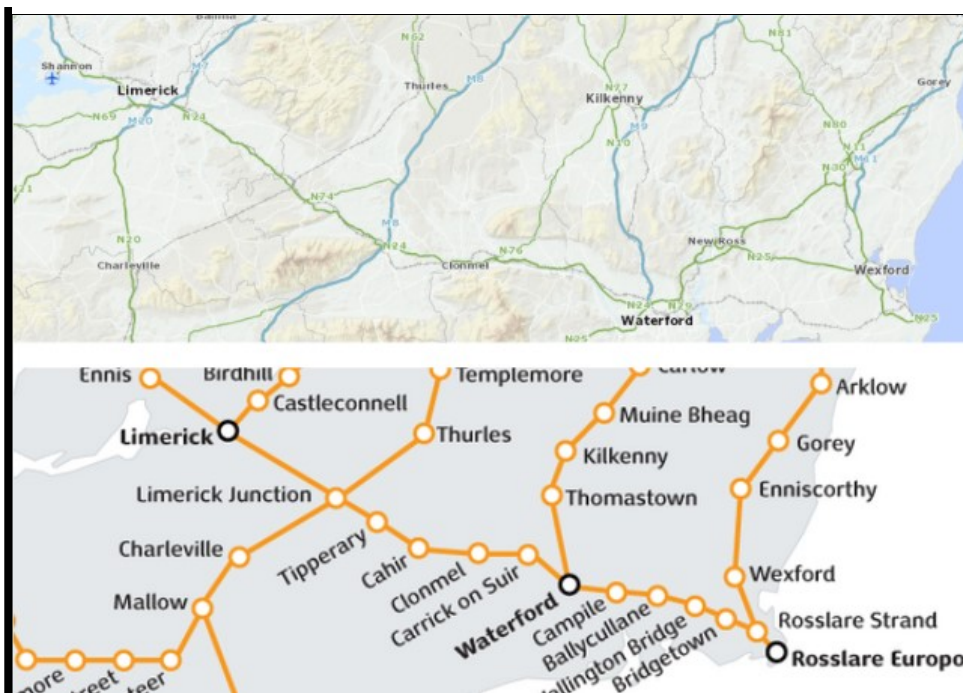
6.6. Regional Rail

Iarnród Éireann currently offers Inter City, Commuter and DART services. Unlike several other European Countries, Iarnród Éireann does not have a specific regional rail policy, focusing on journeys to and from Dublin to the regions, claiming that *there is very limited demand for movement between the regional cities*⁹⁵. This viewpoint is not supported by examples in other EU Nations, where specific Regional Rail networks such as Deutsche Bahn Regio function successfully.

In the UK, figures showing strong growth of intra and within regional rail transport were released in 2019⁹⁶. Similarly the construction of the M18 motorway in recent decades provides specifically for a non Dublin market. Trains could be run from Wexford to Limerick or even Wexford-Galway, allowing a full cross country journey. The Rosslare/Wexford to

Limerick Section currently has an advantage when compared to road travel, as there is no competing Motorway. In addition to intra-regional traffic, such a service could also increase rail ridership to and from Dublin, linking to the existing Dublin-Wexford, Dublin-Waterford, Dublin-Cork, Limerick-Ballybrophy, and Galway-Dublin rail lines.

Figure 28- National Road, Motorway and Rail Comparison - Wexford & Rosslare to Limerick



⁹⁵ https://www.irishrail.ie/IrishRail/media/Imported/IrishRail_28FebFinal_Part11.pdf

⁹⁶ <https://dataportal.orr.gov.uk/media/1742/regional-rail-usage-statistical-release-2018-19.pdf>

6.7. Place-making and Public Realm Benefits

In addition to providing a superior public transport option other than the current situation in Wexford and Waterford (see Chapter 8), a reopened Wexford-Waterford rail link can positively impact communities along the line and at its termini.

Many of the settlements on the rail line owe their development to the establishment of railway stations in their current locations. Unfortunately, the railway stations have become degraded over time, with “passenger friendly” infrastructure removed, leaving a barren and unfriendly atmosphere for the potential passenger (See images below),

The images show a clear degradation of the passenger infrastructure over time. The station buildings along the line (with the exception of Wellingtonbridge) were demolished during the early 2000s. Even during the period of operation, the passenger experienced an unsheltered and difficult experience.

With a reopened rail line – there is an opportunity to re-establish the railway station as a fundamental part of the settlement fabric within the community.

There are many international examples of railway station rejuvenation, that serve the needs of the travelling public, that establish place-making within the public realm, and that provide a variety of commercial and community needs within the context of an inviting public space.



**Campile Station
(1977 - Operational)**



**Campile Station
(2010 - Operational)**



**Campile Station
(2020 - Out of Service)**

Figure 29 - Comparison of Campile Station showing degradation of passenger infrastructure – images via SEOT, Barry Carse, Ciaran Cooney

Options that could be pursued during reopening of the Wexford-Waterford Rail link include:

- **Commercial use:** The station and surrounding area can be used for farmers' markets, small enterprises (e.g. coffee bikes, shipping container coffee shops, bicycle rental etc.), and interactive points to encourage the public to interact with and spend time at the facility.
- **Public Art:** Several railway stations worldwide^{97 9899} have successfully integrated public art installations as part of their immediate footprints. Pursuing such a policy along the Wexford-Waterford rail link can create a destination in itself – encouraging potential passengers to sample installations as part of each station.
- **Tourist Information & Services:** Each station can be developed to serve as a tourist access point for the surrounding area, providing tourist information for attractions and

destinations to be reached by foot, bicycle, or other transport.

- **Public Space: Redefining the railway station footprint as an attractive public space in its own right,** delivering a central, compact experience for the public, passenger and non-passenger alike. Projects such as “park-scaping” can deliver spaces that satisfy Wexford County Council's Design and Place-making strategy, incorporating aspects of Design Quality, Connected Places, and Compact and Rejuvenated¹⁰⁰ spaces.
- Furthermore, the areas around the stations on the line could be targeted for Transport based housing development, helping to alleviate the current housing crisis.

Re-establishing the railway station as a vibrant part of the social fabric is vital for future passenger growth for the Wexford-Waterford rail link and the wider economic development of the region.

⁹⁷ <https://www.lonelyplanet.com/articles/new-crochet-tree-installation-zurich-station>

⁹⁸ <https://www.nytimes.com/2020/12/30/arts/design/penn-station-art-moynihan.html>

⁹⁹ <https://www.wired.com/aiiken-station-to-station/>

¹⁰⁰ Wexford Draft Development Plan Vol 1, Section 5.5

7. EXISTING PUBLIC TRANSPORT SERVICES

7.1. Introduction

As part of the suspension of services on the rail link in 2010, the NTA made a series of improvements to bus services in the area. However, considering the low usage of public transport among commuters in the Wexford Waterford area, it is clear that the existing bus services are not providing a modal shift from private car to public transport.

Recent studies have examined the often described preference for rail over buses. A recent study in Germany found that 63 percent of subjects preferred a regional train system over an equivalent bus system, given a hypothetical choice with all other factors being equal. An additional study from Switzerland showed 75 percent preferring rail to buses — even given identical service levels¹⁰¹. For the purpose of this comparative analysis, the SEOT proposed timetable on the Wexford-Waterford rail link will be used, therefore the Killiane-Killinick(Felthouse Junction) Direct Curve and increased PSR (Speed Limit) will be considered. Journey Times

The time it takes for a paying passenger to go from point A to point B is very important and is a major factor for the return of the Rosslare & Wexford-Waterford Railway. Besides the Cost and Accessibility, customers will naturally always choose the quickest route over slower routes so that they can spend less time travelling and more doing the things that they want to do, be it shopping, socialising, studying, working or spending time with family. The Rosslare-Waterford Railway provides a unique link connecting the Dublin-Rosslare Europort line with the southern half of the Irish Rail Network without having to travel via Dublin.

Currently all train journeys require travelling through Dublin where it is required to change trains at Dublin Connolly to Dublin Heuston by travelling 25 minutes by Luas or Dublin Bus¹⁰². There is also a commuter service available that connects Dublin Connolly to Newbridge or Hazelhatch via the Dublin loop line, but this service is not as frequent and doesn't connect with most Intercity services¹⁰³.

To understand existing journey times, Figure 30 shows how long it takes for every station along the Dublin-Rosslare Europort line to travel to certain destinations. Times include any wait time when changing trains. All times within this section, unless stated otherwise, are based on the most common journey times sourced from Irish Rail's online Route Planner¹. Understandably, stations that are close to Dublin have low journey times whereas stations that are furthest from Dublin have higher journey times. A journey time to take note of is the time it takes to get from Wexford to Waterford, nearly 6 hours to travel by train via Dublin. Wexford and Waterford being 46 kilometres apart as the crow flies, is a journey that is achievable by car in 50 minutes.

¹⁰¹ <https://usa.streetsblog.org/2012/06/21/explaining-the-psychological-appeal-of-rail-over-buses/>

¹⁰² <https://www.irishrail.ie/>

¹⁰³ <https://www.irishrail.ie/IrishRail/media/Timetable-PDF-s/Heuston-timetables/16-Dublin-Portlaoise.pdf>

Current Rail Journey Times via Dublin													
	Rosslare E'port	Rosslare Str'd	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin C'ly
Waterford	366	360	345	324	305	292	276	263	244	239	229	205	180
Kilkenny	324	318	303	282	263	250	234	221	202	197	187	163	138
Carlow	293	287	272	251	232	219	203	190	171	166	156	132	107
Limerick	367	361	346	325	306	293	277	264	245	240	230	206	181
Cork	394	388	373	352	333	320	304	291	272	267	257	233	208
Galway	426	420	405	384	365	352	336	323	304	299	289	265	240
Dublin H'ton	211	205	190	169	150	137	121	108	89	84	74	50	25
Dublin C'ly	186	180	165	144	125	112	96	83	64	59	49	25	0

Key (in minutes):	<1 hour	1-2 hour	2-3 hours	3-4 hours	4-5 hours	>5 hours
	<60	60-120	120-180	180-240	240-300	>300

Figure 30 Current Rail Journey Times via Dublin

In 2010, when the Rosslare-Waterford railway was still in operation, it provided a service between Rosslare Europort and Waterford that served four intermediate stations. The service provided operated once a day in each direction with no services on a Sunday. Additionally, this service also connected with the Enniscorthy-Rosslare Europort service, the Waterford-Dublin Heuston service and the Waterford-Limerick service. Using journey times recorded by the NTA in 2010 for the Rosslare-Waterford line and using existing journey times for Dublin-Rosslare services and outward Intercity services from Waterford¹⁰⁴.

Figure 31 shows that if the line was reopened, most of County Wexford will be within less than 3 hours of the rest of the South-East Region. But journey times noted here could be less as the Rosslare-Waterford line would need to be upgraded with modern infrastructure when reopened, allowing greater speed and shorter journey times.

Rail Journey Times for Wexford-Waterford via the direct curve																	
	Waterford	Campile	Ballyaullane	Wellingtonbr'	Bridgetown	Wexford Trinity (Proposed)	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin C'ly
Wexford Trinity	44	33	27	22	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Wexford	54	43	37	32	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Waterford	NA	11	17	22	33	44	54	75	94	107	123	136	155	160	170	194	219
Kilkenny	NA	44	50	55	66	77	87	108	127	140	156	169	188	193	203	227	252
Carlow	NA	79	85	90	101	112	122	143	162	175	191	204	223	228	238	262	287
Limerick	NA	141	147	152	163	174	184	205	224	237	253	266	285	290	300	324	349
Cork	NA	196	202	207	218	229	239	260	279	292	308	321	340	345	355	379	404
Galway	NA	251	257	262	273	284	294	315	334	347	363	376	395	400	410	434	459
Dublin H'ton	NA	124	130	135	146	157	167	188	207	220	236	249	268	273	283	307	332
Dublin C'ly	219	208	202	197	186	175	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure 31 Rail Journey Times for a reopened Wexford-Waterford line (via Felthouse)

Key (in minutes):	<1 hour	1-2 hour	2-3 hours	3-4 hours	4-5 hours	>5 hours
	<60	60-120	120-180	180-240	240-300	>300

NA denotes services that do not traverse the Wexford-Waterford Line

¹⁰⁴ https://www.nationaltransport.ie/wp-content/uploads/2012/01/business_case_for_withdrawal_of_rail_services1.pdf

Rail Times for Rosslare Europort-Waterford services							
	Waterford	Campile	Ballycullane	Wellingtonbr	Bridgetown	Rosslare Str'd	Rosslare E'port
Wexford Trinity	44	33	27	22	11	5	11
Wexford	54	43	37	32	21	15	21
Waterford	NA	11	17	22	33	41	47
Kilkenny	NA	44	50	55	66	74	80
Carlow	NA	79	85	90	101	109	115
Limerick	NA	141	147	152	163	171	177
Cork	NA	196	202	207	218	226	232
Galway	NA	251	257	262	273	281	287
Dublin H'ton	NA	124	130	135	146	154	160
Dublin C'ly	219	208	202	197	186	178	172

Figure 32 Rail Journey Times for a reopened Rosslare-Waterford line

Compared to figure 30, figures 31 and 32 show that journey times are now low at the Rosslare and Dublin ends of the line. This benefits passengers as they now have the option of travelling via Waterford or Dublin whereas before, passengers could only travel via Dublin. Figure 30 shows the time saved when travelling via the Rosslare-Waterford line when compared to existing journey times. Although the black section shows that journeys are quicker via Dublin, stations shown would still benefit as journey times shift depending on the availability of trains, the connectivity of services and the increase of Peak-Time Commuter services. For example, a Galway-Arklow journey via Waterford might become quicker than travelling via Dublin due to the increase of Peak-Time DART and Commuter services that would slow Intercity trains heading in and out of Dublin.

The effects of a reopened rail line are shown most starkly in Figures 33,34, and 35 which clearly demonstrate the excellent access to the key port of Rosslare Europort, the key town of Wexford, and the Metropolitan area of Waterford. In many cases, journey times are halved.

Time saved via the Wexford - Waterford Railway vs when travelling via Dublin														
	Rosslare E'port	Rosslare Str'd	Wexford (Trinity)	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dun Laoghaire	Dublin C'ly
Waterford	319	319	301	291	249	211	185	153	127	89	79	59	11	-39
Kilkenny	244	244	226	216	174	136	110	78	52	14	4	-16	-64	-114
Carlow	178	178	160	150	108	70	44	12	-14	-52	-62	-82	-130	-180
Limerick	190	190	172	162	120	82	56	24	-2	-40	-50	-70	-118	-168
Cork	162	162	144	134	92	54	28	-4	-30	-68	-78	-98	-146	-196
Galway	139	139	121	111	69	31	5	-27	-53	-91	-101	-121	-169	-219
Dublin H'ton	51	51	33	23	-19	-57	-83	-115	-141	-179	-189	-209	-257	-307

Figure 33 Time saved using the Wexford-Waterford line

Key (in minutes):	<1 hour	1-2 hours	2-3 hours	3-4 hours	4-5 hours	>5 hours
	<0	0-60	60-120	120-180	180-240	>240



Figure 34 - Map showing time saved to Waterford via a reopened Wexford-Waterford line

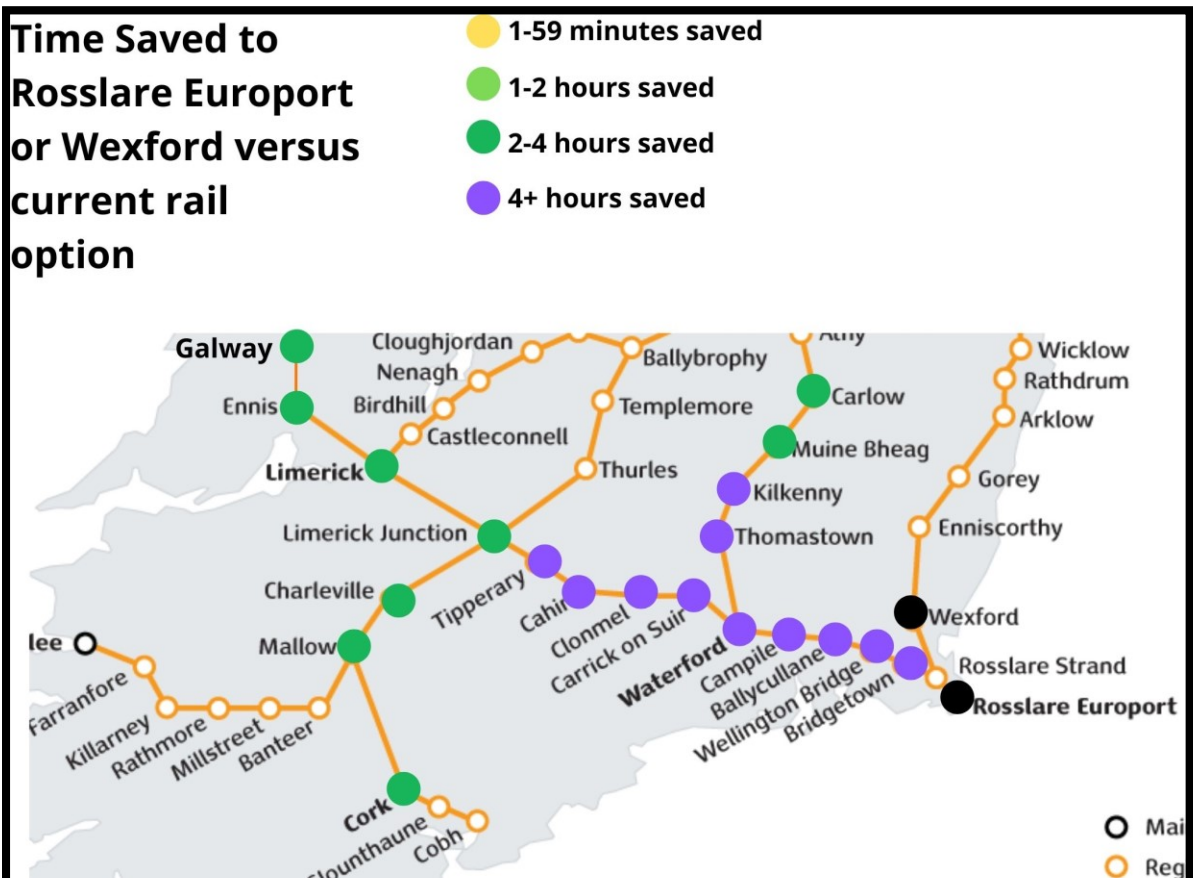


Figure 35 - Map showing time saved to Rosslare and Wexford via a reopened Wexford-Waterford line

7.2. Fares

The cost of a ticket fare is a major factor in choosing which mode of transport to use and is the main reason why potential customers are using other means of transport between Wexford and Waterford rather than travelling by rail via Dublin. To show the financial benefits of reopening the Rosslare-Waterford Railway, clarity on how fares are calculated must be made. Further details and tables are available on request. The cost of a fare depends on four factors: the route used, the distance travelled, where the ticket is purchased, and the type of ticket purchased.

Intercity Routes are divided into three fare categories: Express, Economy 1 and Economy 2. Express fares are for Dublin-Cork, Dublin-Limerick and Dublin-Tralee Routes. Economy 2 fares are for Dublin-Dundalk and Dublin-Sligo. Economy 1 is for all other lines including Dublin-Rosslare Europort, Dublin-Waterford, Waterford-Limerick-Galway and before services were suspended, Rosslare Europort-Waterford¹⁰⁵. Express being the most expensive whereas Economy 2 is the cheapest¹⁰⁶.

Express Route TVM Fares																		
Distance (km):	0-16	17-32	33-40	41-48	49-56	57-72	73-92	93-108	109-121	122-137	138-153	154-169	170-193	194-209	210-233	234-257	258-282	>283
Zones	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U
Adult Single	€6.00	€8.80	€11.35	€13.55	€14.95	€16.95	€21.50	€25.05	€27.70	€32.50	€35.35	€38.45	€42.65	€47.80	€52.40	€56.90	€59.20	€61.80
Adult Return	€11.05	€15.50	€18.95	€21.15	€24.35	€27.20	€31.65	€37.70	€41.15	€45.95	€50.00	€52.75	€59.10	€64.50	€69.45	€74.45	€83.00	€85.00
Child Single	€3.00	€4.40	€5.68	€6.78	€7.48	€8.48	€10.75	€12.53	€13.85	€16.25	€17.68	€19.23	€21.33	€23.90	€26.20	€28.45	€29.60	€30.90
Child Return	€5.53	€7.75	€9.48	€10.58	€12.18	€13.60	€15.83	€18.85	€20.58	€22.98	€25.00	€26.38	€29.55	€32.25	€34.73	€37.23	€41.50	€42.50
Student Single	€6.00	€9.00	€12.50	€14.00	€14.50	€15.00	€17.00	€20.00	€20.00	€20.00	€20.00	€20.00	€20.00	€21.00	€26.50	€26.50	€29.00	€32.00
Student Return	€7.70	€11.20	€15.40	€17.40	€18.00	€19.00	€21.00	€25.00	€25.00	€25.00	€25.00	€25.00	€25.00	€26.00	€33.00	€33.00	€36.00	€40.00

Figure 36 Express Route TVM Fares

Economy 1 Route TVM Fares																		
Distance (km):	0-16	17-32	33-40	41-48	49-56	57-72	73-92	93-108	109-121	122-137	138-153	154-169	170-193	194-209	210-233	234-257	258-282	>283
Zones	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U
Adult Single	€ 6.00	€ 8.20	€ 10.45	€ 13.05	€ 14.00	€ 16.50	€ 19.70	€ 21.30	€ 23.00	€ 26.00	€ 29.55	€ 30.95	€ 32.70	€ 36.65	€ 38.05	€ 40.00	€ 41.60	€ 42.50
Adult Return	€ 9.10	€ 12.25	€ 12.85	€ 14.30	€ 15.00	€ 19.15	€ 21.30	€ 23.45	€ 25.00	€ 29.00	€ 32.45	€ 34.35	€ 36.00	€ 40.00	€ 42.00	€ 44.00	€ 45.00	€ 46.00
Child Single	€ 3.00	€ 4.10	€ 5.23	€ 6.53	€ 7.00	€ 8.25	€ 9.85	€ 10.65	€ 11.50	€ 13.00	€ 14.78	€ 15.48	€ 16.35	€ 18.33	€ 19.03	€ 20.00	€ 20.80	€ 21.25
Child Return	€ 4.55	€ 6.13	€ 6.43	€ 7.15	€ 7.50	€ 9.58	€ 10.65	€ 11.73	€ 12.50	€ 14.50	€ 16.23	€ 17.18	€ 18.00	€ 20.00	€ 21.00	€ 22.00	€ 22.50	€ 23.00
Student Single	€ 6.00	€ 9.00	€ 10.50	€ 12.50	€ 13.00	€ 13.50	€ 16.00	€ 17.00	€ 18.00	€ 20.00	€ 20.00	€ 20.00	€ 20.00	€ 21.00	€ 21.50	€ 26.50	€ 29.00	€ 30.50
Student Return	€ 7.70	€ 11.20	€ 13.40	€ 15.60	€ 16.15	€ 16.70	€ 19.90	€ 21.50	€ 22.50	€ 25.00	€ 25.00	€ 25.00	€ 25.00	€ 26.00	€ 27.00	€ 33.00	€ 36.00	€ 38.00

Figure 37 Economy 1 Route TVM Fares

Each fare category consists of Zones A-U. Each lettered zone represents an increment of 16 kilometres and determines the cost of the fare per distance travelled by the customer¹⁰⁷. Where the ticket is purchased also determines the cost of the fare. Ticket Vending Machines or TVMs provide the baseline of ticket fares and are the most expensive way to buy a ticket whereas Online tickets are the cheapest¹⁰⁸. Online tickets are at a fraction of the cost of TVM tickets, the value of the fraction being unknown when compiling this report.

Economy 1 Route Online Fares (Semi-Flexible)																		
Distance (km):	0-16	17-32	33-40	41-48	49-56	57-72	73-92	93-108	109-121	122-137	138-153	154-169	170-193	194-209	210-233	234-257	258-282	>283
Zones	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U
Adult Single	€4.49	€6.09	€6.39	€7.09	€7.49	€9.49	€10.59	€11.69	€12.49	€13.99	€14.99	€15.99	€16.99	€18.99	€19.99	€20.98	€21.49	€22.49
Adult Return	€8.98	€12.18	€12.78	€14.18	€14.98	€18.98	€21.18	€23.38	€24.98	€27.98	€29.98	€31.98	€33.98	€37.98	€39.98	€41.96	€42.98	€44.98
Child Single	€2.25	€3.00	€3.00	€3.50	€3.75	€4.75	€5.25	€5.75	€6.25	€7.25	€8.00	€8.50	€9.00	€10.00	€10.50	€11.00	€11.25	€11.75
Child Return	€4.49	€6.00	€6.00	€7.00	€7.49	€9.49	€10.50	€11.50	€12.49	€14.50	€16.00	€17.00	€18.00	€20.00	€21.00	€22.00	€22.50	€23.50
Student Single	€3.49	€5.09	€6.09	€6.89	€7.29	€7.59	€8.99	€9.59	€9.99	€10.99	€10.99	€10.99	€10.99	€11.49	€11.99	€16.19	€16.99	€16.99
Student Return	€6.98	€10.18	€12.18	€13.78	€14.58	€15.18	€17.98	€19.18	€19.98	€21.98	€21.98	€21.98	€21.98	€22.98	€23.98	€32.38	€33.98	€33.98

Figure 38 Economy 1 Route Online Fares

The type of ticket purchased depends on the type of passenger and its purpose. There are many types of tickets but for this report, tickets shown will be for either Adults, Children or Students who are purchasing either a Single Journey Ticket or a Day Return Journey Ticket. Online tickets also have four options, First Class, Flexible, Semi-Flexible and Low. For this report, all Online tickets will be

¹⁰⁵ <https://www.nationaltransport.ie/wp-content/uploads/2012/03/MVA-Irish-Rail-Fares-Report-redacted1.pdf>

¹⁰⁶ https://www.irishrail.ie/IrishRail/media/Imported/iarnrod_eireann_fares_from_1_dec_2017.pdf

¹⁰⁷ http://www.railusers.ie/reports/2008/fare_calc_part1_appendix.pdf

¹⁰⁸ http://www.railusers.ie/reports/2008/ie_fare_calc.pdf

Semi-Flexible as they are the cheapest online ticket that is commonly available. Low Tickets are cheaper however they are not always available¹⁰⁹.

		Online Fares when travelling via the Rosslare - Waterford Railway																
		Campile	Ballycullane	Wellingtonbr'	Bridgetown	Rosslare Str'd	Rosslare E'port	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin City
Adult Single	Wexford	€7.49	€7.09	€6.39	€6.09	€4.49	€4.49	€0.00	€6.09	€7.49	€9.49	€10.59	€11.69	€12.49	€13.99	€13.99	€14.99	€14.99
Adult Return	Wexford	€14.98	€14.18	€12.78	€12.18	€8.98	€8.98	€0.00	€12.18	€14.98	€18.98	€21.18	€23.38	€24.98	€27.98	€27.98	€29.98	€29.98
Child Single	Wexford	€3.75	€3.50	€3.00	€3.00	€2.25	€2.25	€0.00	€3.00	€3.75	€4.75	€5.25	€5.75	€6.25	€7.25	€7.25	€8.00	€8.00
Child Return	Wexford	€7.49	€7.00	€6.00	€6.00	€4.49	€4.49	€0.00	€6.00	€7.49	€9.49	€10.50	€11.50	€12.49	€14.50	€14.50	€16.00	€16.00
Student Single	Wexford	€7.29	€6.89	€6.09	€5.09	€3.49	€3.49	€0.00	€5.09	€7.29	€7.59	€8.99	€9.59	€9.99	€10.99	€10.99	€10.99	€10.99
Student Return	Wexford	€14.58	€13.78	€12.18	€10.18	€6.98	€6.98	€0.00	€10.18	€14.58	€15.18	€17.98	€19.18	€19.98	€21.98	€21.98	€21.98	€21.98
Adult Single	Waterford	€4.49	€6.09	€6.09	€7.09	€7.49	€9.49	€9.49	€9.49	€12.49	€13.99	€15.99	€16.99	€16.99	€16.99	€18.99	€18.99	€19.99
Adult Return	Waterford	€8.98	€12.18	€12.18	€14.18	€14.98	€18.98	€18.98	€18.98	€24.98	€27.98	€31.98	€33.98	€33.98	€33.98	€37.98	€37.98	€39.98
Child Single	Waterford	€2.25	€3.00	€3.00	€3.50	€3.75	€4.75	€4.75	€4.75	€6.25	€7.25	€8.50	€9.00	€9.00	€9.00	€10.00	€10.00	€10.50
Child Return	Waterford	€4.49	€6.00	€6.00	€7.00	€7.49	€9.49	€9.49	€9.49	€12.49	€14.50	€17.00	€18.00	€18.00	€18.00	€20.00	€20.00	€21.00
Student Single	Waterford	€3.49	€5.09	€5.09	€6.89	€7.29	€7.59	€7.59	€7.59	€9.99	€9.99	€10.99	€10.99	€10.99	€10.99	€11.49	€11.49	€11.99
Student Return	Waterford	€6.98	€10.18	€10.18	€13.78	€14.58	€15.18	€15.18	€15.18	€19.98	€21.98	€21.98	€21.98	€21.98	€21.98	€22.98	€22.98	€23.98

Figure 39 Online Fares for Rosslare-Waterford line

Figure 39 shows the Online Semi-Flexible Fares for the Rosslare-Waterford line if it was reopened. There is a full listing of fares for other destinations available upon request. To better understand how the fare system is calculated, use this example: An Adult buys a Single Journey Ticket from Arklow to Waterford from a TVM. Arklow and Waterford are two stations which use the Economy 1 fare category. Arklow and Waterford are 136.8 kilometres apart which is within the 122-137 kilometre increment which is Zone K. Listed within Zone K is the cost of an Adult Single Journey Ticket which is €26.00 when purchased from a TVM as shown in figure 36. TVMs use the baseline fare so if purchased online, the cost would be a fraction of the baseline fare. So online fares would be €12.99 for a Low Fare, €13.99 for a Semi-Flexible Fare as shown in figure 38, €14.49 for a Flexible Fare and First-Class Fare is Not Available.

As Dublin is the capital, it should be of interest for passengers travelling from the intermediate station on the Rosslare-Waterford line. The fares to Dublin are shown in figure 39 are Online Semi-Flexible fares. Low Fares would be cheaper, but they are only sometimes available. There is also a unique option of travelling to either Dublin Heuston or Dublin Connolly with Dublin Connolly being the cheapest option and Dublin Heuston being the quickest option. Both options would only be viable if trains ran in both directions throughout the day.

¹⁰⁹ <https://www.irishrail.ie/>

Online fares when travelling to Dublin		Waterford	Campile	Ballycullane	Wellingtonbr	Bridgetown	Rosslare Str'd
Adult Single	Dublin H'ton	€16.99	€18.99	€18.99	€18.99	€19.99	€20.25
Adult Return	Dublin H'ton	€33.98	€37.98	€37.98	€37.98	€39.98	€40.50
Child Single	Dublin H'ton	€9.00	€11.49	€11.49	€11.49	€14.99	€14.99
Child Return	Dublin H'ton	€18.00	€22.98	€22.98	€22.98	€29.98	€29.98
Student Single	Dublin H'ton	€10.99	€11.49	€11.49	€11.49	€14.99	€14.99
Student Return	Dublin H'ton	€21.98	€22.98	€22.98	€22.98	€29.98	€29.98
Adult Single	Dublin C'ly	€19.99	€18.99	€16.99	€16.99	€16.99	€15.99
Adult Return	Dublin C'ly	€39.98	€37.98	€33.98	€33.98	€33.98	€31.98
Child Single	Dublin C'ly	€14.99	€10.00	€9.00	€9.00	€9.00	€8.50
Child Return	Dublin C'ly	€29.98	€20.00	€18.00	€18.00	€18.00	€17.00
Student Single	Dublin C'ly	€14.99	€11.49	€10.99	€10.99	€10.99	€10.99
Student Return	Dublin C'ly	€29.98	€22.98	€21.98	€21.98	€21.98	€21.98

Figure 40 Online Fares to Dublin

In many cases when travelling beyond Dublin by train where the passenger must change trains from Dublin Connolly to Dublin Heuston, the price of the fare can be higher than expected. This is due to when a journey uses more than one train that uses more than one fare category as the fare is then charged by the highest fare category for the total distance of the journey¹¹⁰. This happens a lot when travelling via Dublin due to the overlay of fare categories. For example: An Adult buys a Single Journey Ticket from Wexford to Galway from a TVM. The journey requires two trains, one Rosslare Europort-Dublin Connolly train and one Dublin Heuston-Galway train. Both trains use routes for Economy 1 fare category and use Zone U since the distance travelled is >283 kilometres. This should cost €42.50. But the journey requires more than one train and overlaps with the Express fare category of the Dublin Heuston-Cork Route. This means that the ticket will be charged from the Express fare category for the total distance travelled. Since this is Zone U, the cost of the ticket is €61.80.

¹¹⁰ http://www.railusers.ie/reports/2008/ie_fare_calc.pdf

Money Saved when travelling via the Rosslare - Waterford Railway																		
		Campile	Ballycullane	Wellingtonbr'	Bridgetown	Rosslare Str'd	Rosslare E'port	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dun Laoghaire	Dublin City
Adult Single	Waterford	NA	NA	NA	NA	€22.50	€20.50	€20.50	€20.50	€13.50	€6.26	€4.26	€3.00	€3.00	€2.00	€0.00	€0.00	-€1.00
Adult Return	Waterford	NA	NA	NA	NA	€45.00	€41.00	€41.00	€41.00	€27.00	€12.52	€8.52	€6.00	€6.00	€4.00	€0.00	€0.00	-€2.00
Child Single	Waterford	NA	NA	NA	NA	€11.76	€10.76	€10.76	€10.76	€9.26	€7.74	€6.49	€5.99	€5.99	€2.49	€1.49	€0.99	€0.49
Child Return	Waterford	NA	NA	NA	NA	€23.51	€21.51	€21.51	€21.51	€18.51	€15.48	€12.98	€11.98	€11.98	€4.98	€2.98	€1.98	€0.98
Student Single	Waterford	NA	NA	NA	NA	€10.70	€10.40	€10.40	€10.40	€6.20	€4.00	€4.00	€4.00	€4.00	€0.50	€0.00	-€0.50	-€1.00
Student Return	Waterford	NA	NA	NA	NA	€21.40	€20.80	€20.80	€20.80	€12.40	€8.00	€8.00	€8.00	€8.00	€1.00	€0.00	-€1.00	-€2.00
Adult Single	Kilkenny	NA	NA	NA	NA	€18.30	€17.50	€13.50	€5.26	€4.00	€2.00	€0.00	-€1.00	-€2.00	-€1.99	-€2.99	-€2.99	-€6.50
Adult Return	Kilkenny	NA	NA	NA	NA	€36.60	€35.00	€27.00	€10.52	€8.00	€4.00	€0.00	-€2.00	-€4.00	-€3.98	-€5.98	-€5.98	-€13.00
Child Single	Kilkenny	NA	NA	NA	NA	€9.75	€9.26	€9.26	€6.99	€6.49	€2.49	€0.99	€0.49	€0.49	-€0.01	-€0.01	-€0.01	-€1.00
Child Return	Kilkenny	NA	NA	NA	NA	€19.50	€18.51	€18.51	€13.98	€12.98	€4.98	€1.98	€0.98	€0.98	-€0.02	-€0.02	-€0.02	-€2.00
Student Single	Kilkenny	NA	NA	NA	NA	€8.40	€8.00	€6.20	€4.00	€4.00	€0.50	-€0.50	-€1.00	-€1.00	-€5.20	-€5.20	-€5.20	-€6.00
Student Return	Kilkenny	NA	NA	NA	NA	€16.80	€16.00	€12.40	€8.00	€8.00	€1.00	-€1.00	-€2.00	-€2.00	-€10.40	-€10.40	-€10.40	-€12.00
Adult Single	Carlow	NA	NA	NA	NA	€5.26	€5.26	€4.26	€3.00	€0.00	-€1.00	-€2.99	-€5.50	-€7.50	-€8.50	-€8.50	-€6.50	-€6.70
Adult Return	Carlow	NA	NA	NA	NA	€10.52	€10.52	€8.52	€6.00	€0.00	-€2.00	-€5.98	-€11.00	-€15.00	-€15.00	-€17.00	-€17.00	-€13.40
Child Single	Carlow	NA	NA	NA	NA	€6.99	€6.99	€6.49	€5.99	€0.99	€0.49	-€0.01	-€0.26	-€2.00	-€2.00	-€2.50	-€2.50	-€3.86
Child Return	Carlow	NA	NA	NA	NA	€13.98	€13.98	€12.98	€11.98	€1.98	€0.98	-€0.02	-€0.52	-€4.00	-€4.00	-€5.00	-€5.00	-€7.71
Student Single	Carlow	NA	NA	NA	NA	€4.00	€4.00	€4.00	€4.00	-€0.50	-€1.00	-€5.20	-€6.00	-€6.00	-€6.00	-€6.00	-€6.00	-€7.50
Student Return	Carlow	NA	NA	NA	NA	€8.00	€8.00	€8.00	€8.00	-€1.00	-€2.00	-€10.40	-€12.00	-€12.00	-€12.00	-€12.00	-€12.00	-€15.00
Adult Single	Limerick	NA	NA	NA	NA	€13.00	€13.00	€13.00	€10.00	€9.01	€4.50	-€1.24	-€2.24	-€2.50	-€2.50	-€2.50	-€3.50	-€3.50
Adult Return	Limerick	NA	NA	NA	NA	€26.00	€26.00	€26.00	€20.00	€18.02	€9.00	-€2.48	-€4.48	-€5.00	-€5.00	-€5.00	-€7.00	-€7.00
Child Single	Limerick	NA	NA	NA	NA	€6.50	€6.50	€6.50	€5.00	€4.50	€4.25	€3.74	€3.24	€3.24	€3.24	€3.24	€0.26	-€0.26
Child Return	Limerick	NA	NA	NA	NA	€13.00	€13.00	€13.00	€10.00	€9.00	€8.50	€7.48	€6.48	€6.48	€6.48	€6.48	-€0.52	-€0.52
Student Single	Limerick	NA	NA	NA	NA	€7.00	€7.00	€7.00	€6.00	€1.80	-€0.80	-€2.00	-€2.00	-€2.00	-€2.00	-€2.00	-€5.50	-€5.50
Student Return	Limerick	NA	NA	NA	NA	€14.00	€14.00	€14.00	€12.00	€3.60	-€1.60	-€4.00	-€4.00	-€4.00	-€4.00	-€4.00	-€11.00	-€11.00
Adult Single	Cork	NA	NA	NA	NA	€9.74	€9.74	€9.74	€4.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	-€4.00	-€4.00
Adult Return	Cork	NA	NA	NA	NA	€19.48	€19.48	€19.48	€8.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	-€8.00	-€8.00
Child Single	Cork	NA	NA	NA	NA	€0.51	€0.51	€0.51	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
Child Return	Cork	NA	NA	NA	NA	€1.02	€1.02	€1.02	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00
Student Single	Cork	NA	NA	NA	NA	€3.00	€3.00	€3.00	€1.80	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	-€1.80	-€1.80
Student Return	Cork	NA	NA	NA	NA	€6.00	€6.00	€6.00	€3.60	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	€0.00	-€3.60	-€3.60
Adult Single	Galway	NA	NA	NA	NA	€7.50	€7.50	€7.50	€7.50	€7.50	€7.50	€3.50	-€2.24	-€2.24	-€2.24	-€2.50	-€2.50	-€3.50
Adult Return	Galway	NA	NA	NA	NA	€15.00	€15.00	€15.00	€15.00	€15.00	€15.00	€7.00	-€4.48	-€4.48	-€4.48	-€5.00	-€5.00	-€7.00
Child Single	Galway	NA	NA	NA	NA	€3.75	€3.75	€3.75	€3.75	€3.75	€3.75	€3.75	€3.24	€3.24	€3.24	€3.24	€3.24	-€0.26
Child Return	Galway	NA	NA	NA	NA	€7.50	€7.50	€7.50	€7.50	€7.50	€7.50	€7.50	€6.48	€6.48	€6.48	€6.48	€6.48	-€0.52
Student Single	Galway	NA	NA	NA	NA	€1.00	€1.00	€1.00	€1.00	€1.00	€1.00	-€0.80	-€2.00	-€2.00	-€2.00	-€2.00	-€2.00	-€5.50
Student Return	Galway	NA	NA	NA	NA	€2.00	€2.00	€2.00	€2.00	€2.00	€2.00	-€1.60	-€4.00	-€4.00	-€4.00	-€4.00	-€4.00	-€11.00

Figure 41 Money Saved travelling via the Rosslare-Waterford line

This shows that for anyone travelling on the Dublin-Rosslare Europort line to stations beyond Dublin Heuston, they will be charged a lot more than expected due to an overlap of the Express fare category. Reopening the Rosslare-Waterford line would therefore financially benefit the public by by-passing the higher fare travelling via Dublin. Travelling from any station on the Dublin-Rosslare Europort line to places such as Waterford, Kilkenny, Carlow, Limerick, Galway and Westport would all be within the Economy 1 fare category if travelling via the Rosslare-Waterford line and depending on the distance travelled, would be cheaper than current fares. Figure 41 shows the exact cost benefits when travelling to Waterford via the Rosslare-Waterford line when compared to travelling via Dublin.

7.3. Competition with Buses

Other than travelling by car, buses are the main competitor for a Wexford-Waterford Rail service if the Rosslare-Waterford Railway reopened. Bus services compete with rail services in three different ways: frequency, journey times and cost of fares.

There are three bus companies operating between Wexford, Waterford and intermediate stations that would directly compete with a Wexford-Waterford service. These companies consist of Wexford Bus, Bus Éireann and Local Link. Indirectly, rail services compete with other bus companies that would depart from Dublin, for example: the quickest bus route between Wicklow and Kilkenny

which is done using two companies, Bus Éireann for the Wicklow-Dublin leg and JJ Kavanagh for the Dublin-Kilkenny leg¹¹¹.

Frequency of Bus Services per week							
	Bus Eireann Wexford	Wexford Bus Wexford	Local Link Wexford	Daily Average Wexford	Bus Eireann Waterford	Wexford Bus Waterford	Daily Average Waterford
Waterford	48	52	0	14	0	0	0
Campile	6	0	0	1	24	0	3
Ballycullane	1	0	0	0	1	0	0
Wellingtonbr'	12	0	28	6	24	0	3
Bridgetown	4	17	0	3	6	0	1
Rosslare Strand	12	18	39	10	12	0	2
Rosslare E'port	53	0	45	14	12	0	2
Wexford	0	0	0	0	48	52	14

Figure 42 Frequency of Bus Services for Wexford-Waterford per week

Wexford Bus provide a direct service between Wexford and Waterford with only a few stops¹¹². Bus Éireann also provide direct Wexford-Waterford Expressway services and local services to small populated areas¹¹³. Two of these bus routes were used to replace the Rosslare-Waterford Rail service in 2010¹¹⁴. Local Link provide local timetabled bus services connecting small populated areas such as Wellingtonbridge to Wexford Town. It should be mentioned that Local Link also provide an On Demand pick up service where a customer, if living near the route, would book in advance to be collected at their door and be brought to their destination. As this is an On-Demand service that may not be available due to limited seating¹¹⁵, it will not be included in this report.

The frequency of existing bus services that a Wexford-Waterford rail service will directly be competing with are shown in figure 42. Any settlement that receives less than seven services per week and less than three services per day is less than the frequency of reinstated rail services this analysis proposes. Ballycullane benefiting the most from a reinstated rail service as Ballycullane is currently served by one Bus Éireann service in each direction per week and requires a transfer at New Ross to get to Waterford¹¹⁶.

Bus companies run competitive services with each other to provide the quickest and the cheapest services in order to attract more customers. Figure 43 displays which companies provide the quickest journey times where each company is represented by a unique colour. For journeys that require more than one company, another colour is used to represent the majority company and other. All journey times are displayed in minutes sourced from Transport for Ireland's Journey Planner which includes wait times and transfer times¹¹⁷.

¹¹¹ <https://www.transportforireland.ie/plan-a-journey/>

¹¹² <https://bookings.wexfordbus.com/Timetable.aspx?TimeTableRoute=1>

¹¹³ <https://www.buseireann.ie/>

¹¹⁴ https://www.nationaltransport.ie/wp-content/uploads/2012/01/business_case_for_withdrawal_of_rail_services1.pdf

¹¹⁵ <https://localinkwexford.ie/timetables/>

¹¹⁶ <https://www.buseireann.ie/inner.php?id=406&form-view-timetables-from=&form-view-timetables-to=&form-view-timetables-route=373&form-view-timetables-submit=1>

¹¹⁷ <https://www.transportforireland.ie/plan-a-journey/>

Bus Journey Times																		
	Waterford	Campile	Ballycullane	Wellingtonbr ^r	Bridgetown	Rosslare	Rosslare E'port	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin
Wexford	52	68	61	36	23	31	33	0	21	46	61	124	139	179	163	147	158	137
Rosslare	104	84	185	125	58	0	23	31	77	96	111	194	187	150	200	182	195	204
Waterford	0	45	116	79	84	104	82	52	92	135	150	223	151	253	236	220	196	135
Kilkenny	40	147	217	166	160	189	168	137	152	216	234	275	225	239	224	196	177	119
Carlow	60	121	195	130	194	168	172	96	76	215	214	285	239	193	181	166	152	102
Limerick	145	218	337	238	241	280	249	318	283	287	263	355	284	270	254	253	238	183
Cork	110	188	257	202	250	264	258	212	252	276	291	388	345	330	318	302	283	192
Galway	340	393	466	393	400	423	408	372	344	306	282	358	306	289	273	273	257	159
Dublin	135	203	236	207	199	204	208	137	122	101	82	129	82	74	62	47	31	0

Figure 43 Quickest Bus Journey Times in minutes

Bus Éireann	Wexford Bus	Dublin Coach	JJ Kavanagh	Go Bus	Citylink
Bus Éireann and other	Wexford Bus and other	Dublin Coach and other	JJ Kavanagh and other	Go Bus and other	Citylink and other
Local Link	Dublin Bus	Aircoach			

Figure 44 shows the comparison of the quickest bus times to the journey times achieved by travelling on the Rosslare-Waterford Railway. The grey area represents the journey times that are quicker by travelling via Dublin. Campile, Ballycullane and Wellingtonbridge benefit greatly due to the lack of frequent bus services which means longer wait times for connecting bus services at Waterford and Wexford. The table shows an excellent comparison with current bus times in providing a speedy public transport option.

Time saved by Wexford - Waterford Railway against current Bus Times																				
	Waterford	Campile	Ballycullane	Wellingtonbr ^r	Bridgetown	Rosslare Str'd	Rosslare E'port	Wexford Trinity (Proposed)	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin C'ly	
Wexford Trinity	8	35	34	14	12															
Wexford	-2	25	24	4	2															
Waterford		34	99	57	51	63	35	8	-2	17	41	43	100	15	98	76	50	2		
Kilkenny		103	167	111	94	115	88	60	50	44	89	94	119	56	51	31				
Carlow		42	110	40	93	59	57	-16	-26	-67	53	39	94							
Limerick		77	190	86	78	109	72	144	134	78	63	26	102							
Cork		-8	55	-5	32	38	26	-17	-27	-8	-3	-1								
Galway		142	209	131	127	142	121	88	78	29	-28	-65								
Dublin H'ton		79	106	72	53	50	48	-20	-30											
Dublin C'ly	-84	-5	34	10	13															

Figure 44 Time saved travelling via the Rosslare-Waterford line

Key (in minutes):	<1 hour	1-2 hours	2-3 hours	3-4 hours	4-5 hours	>5 hours
	<0	0-60	60-120	120-180	180-240	>240

Shaded area denotes services that are quicker by other Intercity Rail services

Figure 45 shows the cheapest bus services for each route however it must be noted that these fares are all online fares as they are the cheapest. Leap Card fares are cheaper but have been excluded as not all services have leap card facilities and not everyone has a Leap Card. All fares

shown are sourced from each individual company website^{118 119 120 121 122 123 124 125 126} and although they may be the cheapest, they may not be the quickest and most convenient, for example: Wicklow-Waterford require travelling to Dublin first before going down to Waterford for cheapest service but quickest service is to travel via Wexford. Rathdrum is served by a Bus Éireann service between Arklow and Wicklow but no fares were listed, therefore the cheapest service to Rathdrum is excluded in this report. A full list of destinations for the cheapest bus services is available upon request.

		Online Bus Fares																
		Campile	Ballycullane	Wellingtonbr'	Bridgetown	Rosslare Str'd	Rosslare E'port	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin
Adult Single	Wexford	€10.50	€7.70	€3.00	€6.00	€3.00	€5.00	€0.00	€7.32	€9.50	€9.50	NA	€18.05	€21.80	€21.80	€21.30	€21.30	€18.00
Adult Return	Wexford	€17.50	€13.10	€6.00	€10.70	€5.00	€8.00	€0.00	€9.50	€12.36	€12.36	NA	€21.38	€28.98	€28.98	€27.98	€27.98	€21.38
Child Single	Wexford	€7.00	€4.60	€1.50	€3.50	€2.00	€3.00	€0.00	€4.37	€6.50	€8.55	NA	€11.00	€11.60	€11.60	€11.30	€11.30	€11.40
Child Return	Wexford	€12.70	€7.30	€3.00	€5.90	€3.00	€5.00	€0.00	€6.50	€9.00	€10.92	NA	€16.16	€16.20	€16.20	€15.60	€15.60	€13.00
Student Single	Wexford	€8.50	€6.10	€2.50	€4.80	€3.00	€4.00	€0.00	€5.80	€9.02	€9.02	NA	€15.00	€18.80	€18.80	€18.30	€18.30	€15.00
Student Return	Wexford	€14.50	€10.20	€4.00	€8.30	€5.00	€7.00	€0.00	€8.56	€11.40	€11.40	NA	€19.00	€27.60	€27.60	€26.60	€26.60	€20.00
Adult Single	Waterford	€8.00	€14.50	€10.00	€11.50	€13.00	€15.00	€10.00	€14.25	€17.10	€17.10	NA	€20.00	€13.80	€13.80	€13.30	€13.30	€10.00
Adult Return	Waterford	€15.50	€21.60	€17.50	€20.00	€18.00	€21.00	€13.00	€20.42	€20.42	€20.42	NA	€21.50	€27.60	€27.60	€26.60	€26.60	€20.00
Child Single	Waterford	€6.50	€8.90	€7.50	€8.00	€8.50	€9.50	€6.50	€8.55	€10.45	€11.40	NA	€12.50	€12.60	€12.60	€12.30	€12.30	€11.00
Child Return	Waterford	€8.50	€12.70	€10.00	€12.00	€12.00	€14.00	€9.00	€13.16	€19.01	€12.82	NA	€13.50	€25.20	€25.20	€24.60	€24.60	€22.00
Student Single	Waterford	€6.70	€12.70	€9.50	€11.00	€13.00	€14.00	€10.00	€11.40	€14.25	€15.20	NA	€16.50	€17.80	€17.80	€17.30	€17.30	€14.00
Student Return	Waterford	€9.00	€21.00	€10.50	€12.00	€18.00	€20.00	€13.00	€18.06	€18.06	€18.06	NA	€19.00	€23.28	€23.28	€22.28	€22.28	€15.68

Figure 45 Online Bus Fares

The cost benefits of travelling on a reopened Rosslare-Waterford Railway are shown in figure 46 where the cost of online bus fares is compared to the cost of online rail fares when travelling via the Rosslare-Waterford Railway. There is a full listing of cost benefits of other destinations upon request. The cost benefits vary but the negative margin is mostly less than €5.00.

		Money Saved when travelling via the Rosslare - Waterford Railway																
		Campile	Ballycullane	Wellingtonbr'	Bridgetown	Rosslare Str'd	Rosslare E'port	Wexford	Enniscorthy	Gorey	Arklow	Rathdrum	Wicklow	Kilcoole	Greystones	Bray	Dún Laoghaire	Dublin
Adult Return	Wexford	€2.52	-€1.08	-€6.78	-€1.48	-€3.98	-€0.98	€0.00	-€2.68	-€2.62	-€6.62	NA	-€2.00	€4.00	€1.00	€0.00	-€2.00	-€8.60
Child Single	Wexford	€3.26	€1.10	-€1.50	€0.50	-€0.25	€0.76	€0.00	€1.37	€2.76	€3.81	NA	€5.25	€5.36	€4.35	€4.05	€3.30	€3.40
Child Return	Wexford	€5.21	€0.30	-€3.00	-€0.10	-€1.49	€0.51	€0.00	€0.50	€1.51	€1.43	NA	€4.66	€3.71	€1.70	€1.10	-€0.40	-€3.00
Student Single	Wexford	€1.21	-€0.79	-€3.59	-€0.29	-€0.49	€0.51	€0.00	€0.71	€1.73	€1.43	NA	€5.41	€8.81	€7.81	€7.31	€7.31	€4.01
Student Return	Wexford	-€0.08	-€3.58	-€8.18	-€1.88	-€1.98	€0.02	€0.00	-€1.62	-€3.18	-€3.78	NA	-€0.18	€7.62	€5.62	€4.62	€4.62	-€1.98
Adult Single	Waterford	€3.51	€8.41	€3.91	€4.41	€5.51	€5.51	€0.51	€4.76	€4.61	€3.11	NA	€3.01	-€3.19	-€3.19	-€5.69	-€5.69	-€9.99
Adult Return	Waterford	€6.52	€9.42	€5.32	€5.82	€3.02	€2.02	-€5.98	€1.44	-€4.56	-€7.56	NA	-€12.48	-€6.38	-€6.38	-€11.38	-€11.38	-€19.98
Child Single	Waterford	€4.26	€5.90	€4.50	€4.50	€4.76	€4.76	€1.76	€3.81	€4.21	€4.15	NA	€3.50	€3.60	€3.60	€2.30	€2.30	€0.50
Child Return	Waterford	€4.01	€6.70	€4.00	€5.00	€4.51	€4.51	-€0.49	€3.67	€6.52	-€1.68	NA	-€4.50	€7.20	€7.20	€4.60	€4.60	€1.00
Student Single	Waterford	€3.21	€7.61	€4.41	€4.11	€5.71	€6.41	€2.41	€3.81	€4.26	€4.21	NA	€5.51	€6.81	€6.81	€5.81	€5.81	€2.01
Student Return	Waterford	€2.02	€10.82	€0.32	-€1.78	€3.42	€4.82	-€2.18	€2.88	-€1.92	-€3.92	NA	-€2.98	€1.30	€1.30	-€0.70	-€0.70	-€8.30

Figure 46 Online Bus Fares

118 <https://www.buseireann.ie/>
 119 <https://www.wexfordbus.com/>
 120 <https://www.dublincoach.ie/>
 121 <https://jkkavanagh.ie/#>
 122 <https://gobus.ie/>
 123 <https://www.citylink.ie/>
 124 <https://locallinkwexford.ie/timetables/>
 125 <https://www.dublinbus.ie/Fares-and-Tickets/>
 126 <https://www.aircoach.ie/>

8. CONCLUSION

This report explores in depth the potential for passenger and freight flows along the currently out-of-service rail link. We illustrate there is very strong market potential for passenger ridership, as well as a range of economic and social benefits for the region, should the rail link be reopened.

In a post Brexit environment, Ireland has made a strong commitment to remain part of the European Union. With Rosslare Europort currently serving as Ireland's "Gateway to Europe", the provision of expanded rail services to this vital link suggests a confident view toward the future. Rail's modal share in Ireland still lags significantly behind the EU average¹²⁷, and within the context of the European Year of Rail 2021 and renewed focus on climate-change conscious projects, actions should be taken to address this. The proposed project fulfills a range of strategic and policy goals and can benefit the region and country by increasing connectivity.

However, the window of opportunity is limited.

After 10 years out of service, the time has come to take significant action in reactivating this vital transport link.

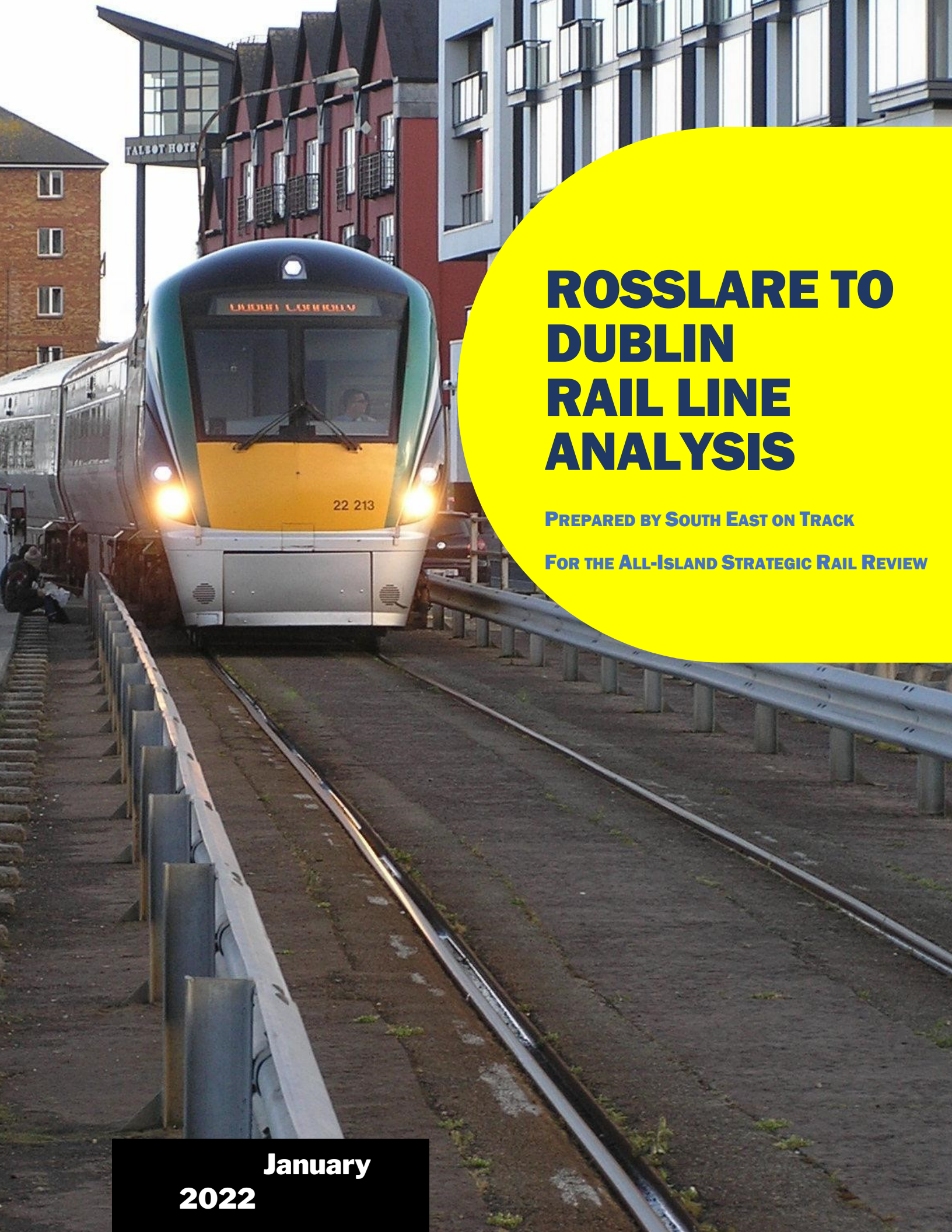
In this report South East on Track has demonstrated that reopening the rail line could cost as little as €12 million, and that a reopened rail and further upgraded rail link provides a superior public transport link to the region than a comparative bus service.

As previously stated, to fully rebuild a similar rail link would cost €652 million at current rates. The opportunity to provide such a piece of infrastructure for a fraction of this cost should not be ignored.



Figure 47 Irish Rail 29000 Class at Wellingtonbridge (post closure of passenger services)

¹²⁷ <https://ec.europa.eu/eurostat/statistics-explained/pdfscache/1132.pdf>



ROSSLARE TO DUBLIN RAIL LINE ANALYSIS

PREPARED BY SOUTH EAST ON TRACK

FOR THE ALL-ISLAND STRATEGIC RAIL REVIEW

**January
2022**

1 Introduction

South East on Track is a volunteer-based group from the South East of Ireland that seeks to improve rail-based transport across the region.

The group campaigns to improve existing services via the increased frequency of service and reduced journey times, as well as increasing the overall viability of the network by reversing the misguided closure to passenger traffic of the Rosslare (Wexford) to Waterford rail line in 2010.

For the purposes of this study, South East on Track will focus on the Dublin - Rosslare rail line

2 Current Status

The Dublin Rosslare rail line currently has four trains each direction on weekdays from terminus to terminus. An additional northbound train departs from Gorey, and one additional Southbound train terminates at Wexford Town.

On the weekend, this decreases to three trains per direction per day.

The current service frequency essentially ensures that this transport corridor is unusable for a significant section of the travelling public. As noted in the NTA 2016 Rail Review, the line is referred to as the Dublin-Wexford line as Wexford Town is as the “largest urban settlement on this line and in the region¹”

However, taking Wexford as an example, one can clearly see the issues with the current operation of the railway line. On weekdays, the first train to Wexford Town from Dublin arrives at 12:07 pm. The final train to Dublin in the evening departs before 6 pm at 17:55. Commuters to towns such as Wicklow, Rathdrum, and Arklow must catch a final train southbound at 18:35 on weekdays.

Despite the current atrocious frequency of services, the line in recent years carries approximately 688,000 passenger journeys per year (see Figure 1) pre COVID. It is unknown why Irish Rail separate Dublin-Wicklow and Dublin-Rosslare passenger counts in the below table, but they can be taken to represent the whole line.

¹ https://www.nationaltransport.ie/wp-content/uploads/2016/11/151116_2016_Rail_Review_Report_Complete_Online.pdf NTA 2016 Rail Review,p.5

	2018	2017	% Increase
DART	20.934	20.077	4.3%
Dublin Drogheda	5.512	5.270	4.6%
Dublin Maynooth	4.387	4.318	1.6%
Dublin Cork	3.458	3.148	9.9%
Dublin Kildare	2.921	2.641	10.6%
Dublin Galway	2.025	1.846	9.7%
Dublin Sligo	1.409	1.340	5.1%
Dublin Waterford	1.386	1.266	9.5%
Dublin Belfast	1.290	1.175	9.8%
Dublin Limerick	1.005	0.910	10.4%
Cork Cobh	0.908	0.908	-0.1%
Dublin Tralee	0.653	0.619	5.5%
Dublin Westport Ballina	0.577	0.559	3.2%
Cork Midleton	0.437	0.413	5.8%
Dublin Rosslare	0.366	0.348	5.3%
Dublin Wicklow	0.322	0.309	4.1%
Dublin M3 Parkway	0.156	0.157	-0.5%
Ennis/Athenry	0.138	0.134	2.8%
Limerick Jct Rosslare	0.041	0.035	17.6%
Limerick Ballybrophy	0.033	0.030	11.4%
	---	---	---
Total	47.960	45.505	5.4%
	===	===	===

FIGURE 1 - PRE COVID PASSENGER DATA - IARNRÓD ÉIREANN (VIA FOI)

The two counties served by the rail line show a significant external commuter market. According to 2016 Census figures, 49.6% of Wicklow workers leave their county for work, while 18.4% of Wexford workers do the same². More people who live in either Bray or Greystones go to Dublin for work than remain in their own county to work.³ Indeed, Bray Daly is already a busier station than any station in Dun Laoghaire-Rathdown, bar Dun Laoghaire Mallin, and it is also busier than two stations in the Dublin City Council area (Sydney Parade and Sandymount).⁴ The provision of passing loops as discussed later in the document can provide a speedy service for Bray, Dun Laoghaire, and Greystones passengers wishing to access the city centre.

Due to the infrequency of the rail service, the modal share of public transport for these external commuters remains poor, with 92.6% of Wexford external commuters⁵ and 68% of Wicklow

² <https://www.wexfordcoco.ie/sites/default/files/content/Planning/Profile-2-Commuting-Flows.pdf>

³ <https://www.wicklow.ie/Portals/0/Documents/Business/Business-Environment/Wicklow-Facts-Figures/Commuter%20Study%20Report.pdf>

⁴ https://www.nationaltransport.ie/wp-content/uploads/2020/08/NTA_Heavy_Rail_Census_Report_2019..pdf

⁵ <https://www.wexfordcoco.ie/sites/default/files/content/Planning/Profile-2-Commuting-Flows.pdf>

⁶external commuters using the private car as their means of commute. This is not sustainable as Ireland attempts to meet its emission reduction targets, but with the rail service at its current slow, paltry levels, who can blame them?

While there has been massive investment in motorways in the GDA in the last 30 years, the DSER line has been merely maintained. While billions have been invested to speed up⁷ the car journey from Wexford and Wicklow to Dublin, the train journey has actually become slower in that period. Road improvements include bypasses on the M/N11 at Enniscorthy⁸, Gorey⁹, Arklow¹⁰, Rathnew/Ashford¹¹, and road expansion at the Glen of the Downs¹² and Sandyford/Kilmacud¹³.

Already, rail use amongst Wicklow commuters is nearly double that of bus users in the county at 7%¹⁴, but there is massive potential to reduce the percentage of commuters who drive with targeted investment in improving the capacity and frequency of the rail service provided.

Ireland has committed to reducing its greenhouse emissions by 51% by 2030¹⁵, and this has to mean a modal shift from 'one person, one car' travel to the use of the railways. Wicklow and Wexford both have massive potential in this regard.

⁶ <https://www.wicklow.ie/Portals/0/Documents/Business/Business-Environment/Wicklow-Facts-Figures/Commuter%20Study%20Report.pdf>

⁷ <https://www.irishtimes.com/news/m50-upgrade-completed-1.863437>

⁸ <https://www.irishtimes.com/news/ireland/irish-news/taoiseach-opens-enniscorthy-bypass-amid-locals-concerns-1.3960792>

⁹ <https://www.irishtimes.com/news/gorey-bypass-opened-to-public-1.812128>

¹⁰ <https://www.irishtimes.com/news/45m-arklow-by-pass-opens-ahead-of-schedule-1.1258655>

¹¹ <https://www.independent.ie/regional/braypeople/news/new-dual-carriageway-warmly-welcomed-27614441.html>

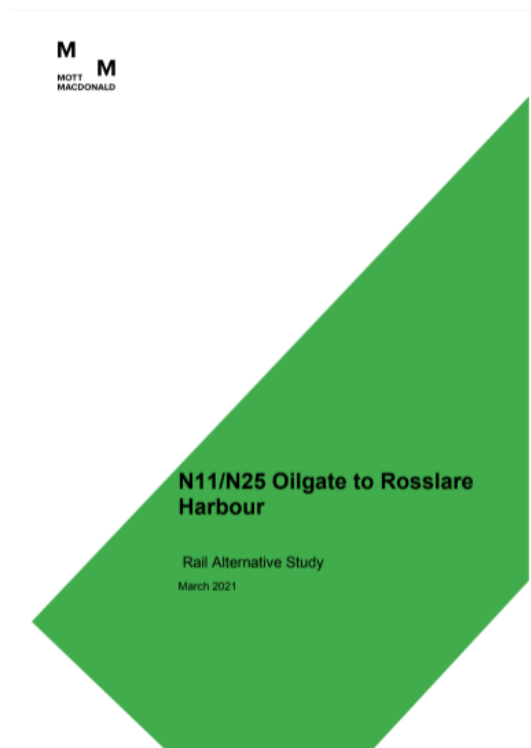
¹² <https://www.irishtimes.com/news/brennan-opens-controversial-n11-road-section-1.979268>

¹³ <https://www.irishtimes.com/news/brennan-opens-m50-link-road-in-dublin-1.1143170>

¹⁴ <https://www.nationaltransport.ie/wp-content/uploads/2021/11/Bray-to-Arklow-Study.pdf> section 3.4

¹⁵ <https://www.epa.ie/news-releases/news-releases-2021/ireland-will-not-meet-its-2020-greenhouse-gas-emissions-reduction-targets-action-is-needed-now-to-meet-2030-eu-targets.php>

3 Key documents



3.1 Rail Alternative Study

The rail alternative study on the Rosslare-Dublin rail line was prepared by Mott MacDonald in March 2021 as part of the supporting documentation for the proposed M11 extension from Oilgate to Rosslare Harbour in County Wexford.

Although primarily intended as a means of justifying the capital spend for the road improvement by claiming the existing rail line is inadequate for transport needs, the document has some key findings:

Disappointingly, the study only examines the rail lines potential between Bray and Rosslare Europort *as the assessment is limited to the route length from Bray and does not attempt to resolve the inevitable complications of integrating enhanced Rosslare Intercity services within the DART and/or DART+ services between Greystones and Dublin Connolly.*¹⁶

As delays north of Bray due to conflicts between the Inter City Service and the DART are a major part of the line's slow speed, we are unable to ascertain accurate improved journey times based on this report. However, there are some key findings.

- Service levels of a train every two hours and every 90 minutes are possible using existing infrastructure.
- To reach a frequency of an hourly train in each direction, a second platform with a static passing loop would need to be added at Wexford O'Hanrahan station.
- An analysis using RouteRunner showed that Improved Journey times can be achieved by removing some speed restrictions on the line - dealing with some of these low line speed areas can decrease journey times by **27 minutes** between Bray and Rosslare in both directions.¹⁷
- Improving the attractiveness of the line would lead to a theoretical **uplift of 250%** during the AM peak period

¹⁶ Mott MacDonald | N11/N25 Oilgate to Rosslare Harbour Rail Alternative Study, p.16

¹⁷ Mott MacDonald | N11/N25 Oilgate to Rosslare Harbour Rail Alternative Study, p. 31



3.2 Iarnród Éireann Strategy 2027

Iarnród Éireann's Strategy 2027 sets out IE's goals for the coming years and outlines service enhancements on a variety of lines across the Country.

For the Dublin - Rosslare line, IE proposes "[An] *Increase in services towards a two-hourly all day pattern*¹⁸"

Although such an improvement is to be welcomed, it is the minimum service level that should be expected of a major commuter transport route in the twenty-first

century. However, a cursory examination of IE's proposals for other lines demonstrates how once again the Dublin-Rosslare line is neglected by IE and the NTA. The Dublin-Waterford route will obtain a *100% increase* in services to an hourly service all day with some improvement in journey times. The Dublin-Sligo route will experience an *increase in services to two-hourly all day with hourly peak services along part of the line*. The NTA should ensure that IÉ achieves at minimum a two-hourly service.

The document also states there will be an increase in Commuter Service Frequency *to Dundalk, Longford, Athlone, Portlaoise, Carlow and Gorey to every 20 minutes in peak and half-hourly off-peak*. Such frequency to Gorey would be dearly welcomed by the residents of Wicklow, Arklow, and Gorey. Several of these services should extend to Wexford Town, currently the county's busiest station¹⁹, to provide additional connectivity for people south of Gorey.

JACOBS

Greystones Service Improvement Study

NTA
Strategic Paper
32106211/TP-076 | 02
April 2019
TP-076.0



Document history and status

Revision	Date	Description	By	Review	Approved
01	16/02/18	For review	Richard Searman Chris Bellon Stuart Donohoe	John Pickett Alan Scullion	Richard Searman
02	8.4.2019	Final formal submission to NTA	Richard Searman Chris Bellon Stuart Donohoe	Alan Scullion	Richard Searman

Distribution of copies

Revision	Issue approved	Date issued	Issued to	Comments
01				

3.3 Greystones Service Improvement Study

Commissioned by the NTA, this study from 2019 examines potential methods of increasing train frequency along the single track section of the line between Greystones and Bray.

The recommendations of this report which call for increased line speed as well as some sections of double-tracking should be implemented without delay. Increasing the frequency of trains per hour is vital for the future of the rail corridor.

¹⁸ Iarnrod Eireann 2027 Strategy, p33

¹⁹ https://www.nationaltransport.ie/wp-content/uploads/2020/08/NTA_Heavy_Rail_Census_Report_2019..pdf

7547-4 East Coast Railway Infrastructure Protection Projects
Strategic Assessment Report



SYSTRA

Iarnród Éireann
Irish Rail



3.4) East Coast Railway Infrastructure Protection Projects

Completed by Systra, this document examines the necessary interventions required to “future-proof” the Rosslare-Dublin railway line. Crucially, it reveals that in a “do-nothing” scenario, sections of the line will become impassable due to climate change-related issues within 5 years as of writing. Interventions to secure the future of the rail line should also examine various means of

increasing train capacity and speed in the sections where work is required.

4 Infrastructure Recommendations

South East on Track recommends the following actions be taken in relation to the Dublin - Rosslare railway line as part of the Greater Dublin Area Transport Strategy 2022-2042.

4.1 Passing Loop Requirements

In addition to the passing and dynamic loops suggested in the Jacobs Greystones Service Improvement Study, opportunities for passing loops and additional tracking need to be examined **north of Bray**.

The conflicts between DART Traffic and the Inter City Trains due to infrastructural constraints is stark. The weekday “AM peak” train (ex Rosslare 5:35) shows a journey time from Wexford to Pearse station of two hours, forty-two minutes. This same journey on a weekend train (Sunday ex Rosslare 18:05) takes only two hours, nine minutes - **a difference of thirty-three minutes**.

Most of this difference occurs between Bray and Pearse - with the Bray - Pearse section taking 42 minutes on a weekday morning as opposed to 23 minutes at the weekend, due to the Intercity Train with limited stops being unable to overtake the frequently stopping DART. In this key corridor in the Greater Dublin Area - this is a **nineteen minute difference in journey time**.

Using the most recent edition of the public Timetable, South East on Track has prepared an analysis of the conflicts that occur between Inter City trains and the DART. Clashes are highlighted. As one can see from the attached figure, a northbound Intercity train will “catch” a DART that departed Bray 5 minutes before at Dalkey, a DART that departs 10 minutes before is reached by Blackrock, one 15 minutes before is reached at Sandymount, and a DART that departed 20 minutes before is caught by the time the IC train reaches Grand Canal Dock.

The current system of the Inter City trains being caught behind the DART and shuttling along at slow speeds behind a metro train that makes each stop is a poor experience for the long distance commuter.

NORTHBOUND	DART	Dart adjusted	20 MINUTE	15 MINUTE	10 MINUTE	5 MINUTE	ICR SUNDAY
GREYSTONES							8:07:00 PM
BRAY	8:55:00 AM	8:16:30 AM	7:56:30 AM	8:01:30 AM	8:06:30 AM	8:11:30 AM	8:16:30 PM
SHANKILL	9:00:00 AM	8:21:30 AM	8:01:30 AM	8:06:30 AM	8:11:30 AM	8:16:30 AM	8:19:30 PM
KILLINEY	9:02:30 AM	8:24:00 AM	8:04:00 AM	8:09:00 AM	8:14:00 AM	8:19:00 AM	8:21:00 PM
DALKEY	9:07:30 AM	8:29:00 AM	8:09:00 AM	8:14:00 AM	8:19:00 AM	8:24:00 AM	8:24:30 PM
GLENAGEARY	9:10:00 AM	8:31:30 AM	8:11:30 AM	8:16:30 AM	8:21:30 AM	8:26:30 AM	8:26:30 PM
SANDYCOVE	9:12:00 AM	8:33:30 AM	8:13:30 AM	8:18:30 AM	8:23:30 AM	8:28:30 AM	8:27:30 PM
DUN LAOGHAIRE	9:15:30 AM	8:37:00 AM	8:17:00 AM	8:22:00 AM	8:27:00 AM	8:32:00 AM	8:31:00 PM
SALTHILL	9:17:30 AM	8:39:00 AM	8:19:00 AM	8:24:00 AM	8:29:00 AM	8:34:00 AM	8:32:00 PM
SEAPOINT	9:19:30 AM	8:41:00 AM	8:21:00 AM	8:26:00 AM	8:31:00 AM	8:36:00 AM	8:32:30 PM
BLACKROCK	9:21:30 AM	8:43:00 AM	8:23:00 AM	8:28:00 AM	8:33:00 AM	8:38:00 AM	8:33:30 PM
BOOTERSTOWN	9:24:00 AM	8:45:30 AM	8:25:30 AM	8:30:30 AM	8:35:30 AM	8:40:30 AM	8:34:30 PM
SYDNEY PARADE	9:26:30 AM	8:48:00 AM	8:28:00 AM	8:33:00 AM	8:38:00 AM	8:43:00 AM	8:35:30 PM
SANDYMOUNT	9:29:00 AM	8:50:30 AM	8:30:30 AM	8:35:30 AM	8:40:30 AM	8:45:30 AM	8:36:00 PM
LANDSDOWNE ROAD	9:31:30 AM	8:53:00 AM	8:33:00 AM	8:38:00 AM	8:43:00 AM	8:48:00 AM	8:36:30 PM
GRAND CANAL DOCK	9:36:00 AM	8:57:30 AM	8:37:30 AM	8:42:30 AM	8:47:30 AM	8:52:30 AM	8:37:30 PM
PEARSE	9:39:30 AM	9:01:00 AM	8:41:00 AM	8:46:00 AM	8:51:00 AM	8:56:00 AM	8:39:00 PM
TARA STREET							
CONNOLLY							
SOUTHBOUND	DART	DART ADJUSTED	15 MINUTE	10 MINUTE	5 MINUTE	ICR SUNDAY	
CONNOLLY							
TARA STREET							
PEARSE	9:52:00 AM	9:46:00 AM	9:31:00 AM	9:36:00 AM	9:41:00 AM	9:46:00 AM	
GRAND CANAL DOCK	9:54:30 AM	9:48:30 AM	9:33:30 AM	9:38:30 AM	9:43:30 AM	9:47:30 AM	
LANDSDOWNE ROAD	9:57:30 AM	9:51:30 AM	9:36:30 AM	9:41:30 AM	9:46:30 AM	9:48:30 AM	
SANDYMOUNT	9:59:30 AM	9:53:30 AM	9:38:30 AM	9:43:30 AM	9:48:30 AM	9:49:30 AM	
SYDNEY PARADE	10:02:00 AM	9:56:00 AM	9:41:00 AM	9:46:00 AM	9:51:00 AM	9:50:30 AM	
BOOTERSTOWN	10:04:30 AM	9:58:30 AM	9:43:30 AM	9:48:30 AM	9:53:30 AM	9:51:30 AM	
BLACKROCK	10:07:00 AM	10:01:00 AM	9:46:00 AM	9:51:00 AM	9:56:00 AM	9:52:30 AM	
SEAPOINT	10:09:00 AM	10:03:00 AM	9:48:00 AM	9:53:00 AM	9:58:00 AM	9:53:30 AM	
SALTHILL	10:11:00 AM	10:05:00 AM	9:50:00 AM	9:55:00 AM	10:00:00 AM	9:54:00 AM	
DUN LAOGHAIRE	10:13:30 AM	10:07:30 AM	9:52:30 AM	9:57:30 AM	10:02:30 AM	9:56:30 AM	
SANDYCOVE	10:17:00 AM	10:11:00 AM	9:56:00 AM	10:01:00 AM	10:06:00 AM	10:00:30 AM	
GLENAGEARY	10:19:30 AM	10:13:30 AM	9:58:30 AM	10:03:30 AM	10:08:30 AM	10:02:30 AM	
DALKEY	10:22:00 AM	10:16:00 AM	10:01:00 AM	10:06:00 AM	10:11:00 AM	10:06:00 AM	
KILLINEY	10:26:30 AM	10:20:30 AM	10:05:30 AM	10:10:30 AM	10:15:30 AM	10:09:30 AM	
SHANKILL	10:29:30 AM	10:23:30 AM	10:08:30 AM	10:13:30 AM	10:18:30 AM	10:12:30 AM	
BRAY	10:35:00 AM	10:29:00 AM	10:14:00 AM	10:19:00 AM	10:24:00 AM	10:16:00 AM	

Figure 2 - SEOT analysis of DART / ICR conflicts

As such, as part of the GDA Transport Strategy 2022-2042, a full analysis should be performed of the Bray - Pearse section of the rail line to examine where additional tracking, passing loops, or dynamic loops could be added. Although the line passes through a densely populated urban area, there are sections where the footprint of the rail line could be expanded to accommodate a third or even fourth track.

Such arrangements are common in other countries, which allow Intercity and regional trains to quickly pass local services which stop at every station.

Figure 3 shows a common feature of the German urban rail network, a passing loop on the exterior of the station which allows trains to pass stationary trains which are stopped in the station.

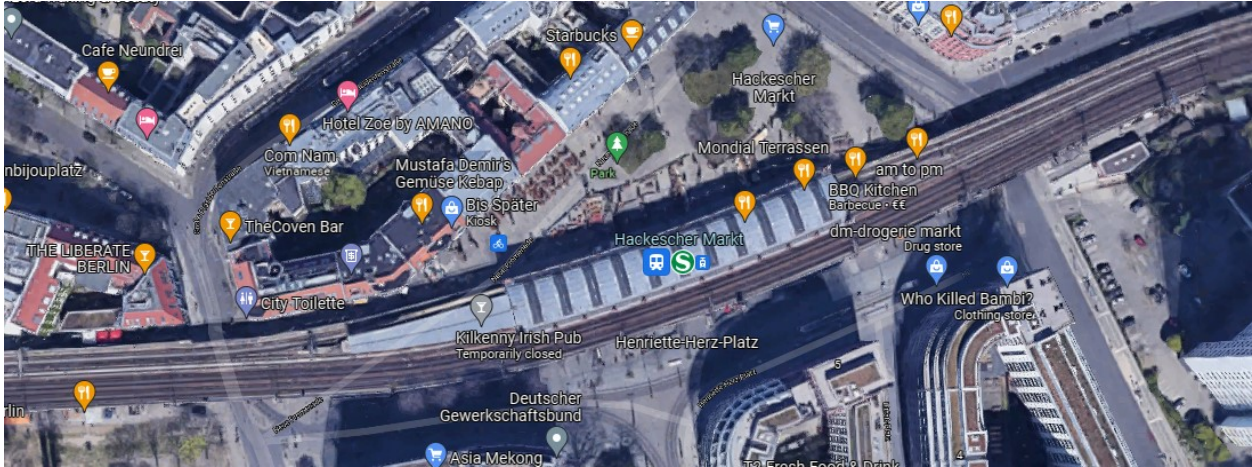


Figure 3 - Hackscher Markt Station - Berlin. Image via Google Maps

This can also be achieved through triple tracking through stations, as currently exists at Bray Station. (see figure 4) - the NTA should explore expressing the Inter City train through Bray Station to improve journey times, allowing passengers from further South destined for Bray to change to the DART in Greystones.

This could provide for south Wicklow and Wexford commuter services to travel through north Wicklow quickly. This quicker and therefore more appealing service has the potential to relieve congestion on DLR roads as people choose public transport options. There is even potential for Park and Ride facilities at a station south of Greystones to allow commuters to partially complete their commute on public transport, with the increased speeds offered by passing loops and through services at Bray increasing the appeal of the service.



Figure 4 - Bray Station - showing passing opportunity

It is deeply disappointing that the proposed Woodbrook Station has been granted planning permission without allowing for the potential of adding an additional track. The proposed design for Woodbrook Station should be revised to include allowances for future additional tracks.

Similarly, various locations north of Bray should be examined, particularly in the Blackrock & Sandymount areas. Furthermore, the track arrangements and station design of Grand Canal Dock should be examined to ascertain if further overtaking and passing opportunities are available here.

Key deliverables: A study to ascertain potential additional tracking and passing locations between Bray and Pearse Station.

4.2 DART+ (DART+ Coastal South)

DART+ promises to be an important development in rail transport and infrastructure in Ireland.

South East on Track welcomes the proposed extension of the DART system to Wicklow Town and would encourage continuing electrification of the rail line further south.

However, as part of DART+, the Rosslare line must not be relegated to the status of requiring interchange with the DART system at Bray or Greystones (or even Wicklow) - although this may be possible of occasional services, such a change would most likely decrease the appeal of the rail line to Rosslare and present an unacceptable journey to most potential commuters using the rail line.

The potential for DART+ Coastal to negatively impact Inter City services must be mitigated. Contained in the supporting documents for DART+ West, document Annex-3-4A Appendix A Peak Hour Service Plans contains a service plan that includes no through paths for the Rosslare-Dublin commuter service into the capital, instead allocating all services south of Greystones to an interchange located there. Such a solution would be unacceptable for commuters living south of Greystones and brings into serious question the viability of extending the DART south of Greystones to Wicklow.

Route	Bundle 6 - Option 2	Scenarios 1-3	Scenario 5 & 6
Northern Line			
Belfast to Connolly (Enterprise)	1	1	1
Connolly to Rosslare Europort (Diesel)			
Greystones to Rosslare Europort (Diesel)	1	1	1
Dundalk to Drogheda [Shuttle]			
Dundalk to Connolly (Diesel)			
Dundalk to Bray	2		
Drogheda to Bray			8
Drogheda to Docklands			
Drogheda to Dundalk		2	2
Drogheda to GCD	4	4	8
Drogheda to Connolly			
Drogheda to Dún Laoghaire			
Drogheda to Bray			
Malahide to Greystones			
Malahide to Bray	3	3	
Clongriffin to Dún Laoghaire	3	3	
Howth to Howth Jn [Shuttle]	6	6	6
Connolly to Bray			
Clongriffin to Bray			
Kildare / Northern Lines			
Drogheda to Hazelhatch			

FIGURE 2 - ROUTE ANALYSIS OPTIONS DART+ (VIA IÉ)

South East on Track is disappointed to note that although the NTA commits in the draft strategy to undertaking “an assessment of the need for further infrastructural enhancements on the Northern Line to facilitate the combination of intercity and commuter services on this line”²⁰, there is no such commitment for the southern (Rosslare) line. This should be immediately rectified.

Similarly, the Jacobs study for the Arklow to Bray area (November 2021) notes that double tracking, or part thereof, between Greystones and Bray could require “significant capital expenditure”²¹. In the period we are in where our repeated failure to meet our emission reduction targets²² could cost the state billions²³, South East on Track believes it is far wiser to use the money to invest in improving rail-based public transport options.

Key deliverables:

A study to ascertain potential additional tracking and passing locations between Greystones and Pearse Station.

Improvements to Greystones, Bray, and Dun Laoghaire stations to increase train frequency.

²⁰ NTA GDA Transport Strategy 2022-42, p. 150

²¹ <https://www.nationaltransport.ie/wp-content/uploads/2021/11/Bray-to-Arklow-Study.pdf> section 4.5.2

²² <https://www.epa.ie/news-releases/news-releases-2021/ireland-will-not-meet-its-2020-greenhouse-gas-emissions-reduction-targets-action-is-needed-now-to-meet-2030-eu-targets.php>

²³ <https://www.irishtimes.com/business/transport-and-tourism/ireland-would-face-multibillion-eu-fines-over-emissions-target-failure-1.3924909>

4.3 Bray-Rosslare Section

As noted from the Mott McDonald 2021 Rail Alternative Study, removal of speed restrictions on the Bray-Rosslare section of the line can cut journey times by 27 minutes for a stopping service.

Key Deliverables:

Implement the infrastructural improvements required to remove speed restrictions on the Bray-Rosslare sections as outlined in the Mott McDonald Report.

5 Operational Recommendations

5.1 Train Frequency

As previously noted, the current operational status of the Rosslare-Dublin rail line is extremely poor. Infrequent trains and poor rolling stock have meant that there is a historic under utilization of the rail line by potential passengers along the rail line. Irish Rail and the NTA have neglected the Rosslare-Dublin rail line for well over a decade. A quick comparison of the last pre-recession timetable with the current version illustrates this point.

In 2008, the terminus of the line, Rosslare Europort had (6) arrivals at 7:18, 10:28, 15:53, 18:50, 20:37 and 21:35. In 2022, this has shrunk to (4), with arrivals at 12:31, 16:33, 19:41, and 20:42.

With departures, there is a similar story. The 2008 timetable shows departures at 5:35, 7:05, 7:40, 13:00, 17:40, and 18:55, whereas in 2022, this has decreased to departures at 5:35, 7:20, 12:55, and 17:30.

However, the recent Mott McDonald report estimates that increasing the attractiveness of the rail line would lead to an uplift of approximately 250%, without investing on infrastructure upgrades. However, *improvement beyond Iarnród Éireann's proposed train every two hours would be required to match capacity to the full AM peak theoretical passenger uplift.*²⁴

As such, to obtain this significant growth in the rail market, achieve modal shift, and fulfill a plethora of National Strategic Outcomes, the NTA should ensure that frequency **beyond** IÉ's proposed two hourly service to Rosslare is provided.

This level of frequency to Wexford/Rosslare should **not** be solely achieved via the utilisation of a Greystones/Bray DART interchange, involving a Wexford or Rosslare shuttle.

²⁴ Mott McDonald, N11/N25 Oilgate to Rosslare Harbour Rail Alternative Study, p. 87

Key Deliverables:

Hourly peak, and 90 minute off peak, all day, both directions service on the Dublin - Rosslare Rail Line.

5.2 Rolling Stock

Averaging approximately three hours, the Dublin-Rosslare rail line is one of the longest duration rail trips in the country. It is therefore unacceptable and deeply disappointing that Iarnród Éireann continue to operate Commuter Rolling Stock (the 29000 Class) on this line, while utilizing the more comfortable Inter City Rolling Stock (22000 Class) on shorter journeys in the Greater Dublin Region.

Although inappropriate rolling stock can sometimes be assigned due to significant operational issues, currently Iarnród Éireann regularly schedule commuter rolling stock on this Inter City line. With the new order of additional carriages for the 22000 Class, the NTA must ensure that Irish Rail always operate their designated Inter City DMUs on this route.

Key Deliverables: Ensure Iarnród Éireann always assign appropriate Inter City rolling stock (22000 Class or future equivalent) to the Dublin - Rosslare rail line.



Figure 5 - Iarnród Éireann 29000 Class Train - Wexford January 3, 2022

5.3 Ticketing & Fares

With the introduction of the 90 minute fare in the Greater Dublin area, anachronisms such as expensive fares from Rosslare-Gorey should be brought down to appeal more to inter regional travel along the line.

The current promotional fares for Wexford, Rosslare Strand, and Rosslare Europort Stations should be continued and promoted by Irish Rail.

Leap Card ticketing should be extended to all stations along the Dublin - Rosslare railway line.

The Strategic Rail Review should explore options to include a top-up discounted “city ticket” as part of the Inter City ticket fare. This type of arrangement is common in other countries, where a public transport pass for the destination city can be added as a small surcharge to the inter city ticket.

With the cost of running a car set to increase in the 2020s, and the cost of purchasing EVs still beyond many, IÉ should be emphasising the potential savings available by taking the train.

6 Freight, Delivery and Servicing

*At the peak of the Covid-19 crisis in April 2020, the estimated decrease in daily fossil CO₂ emissions due to global confinement was -17%. While the Greenhouse gas (GHG) emissions kept increasing in 2019, the CO₂ emissions decreased by about 6% in 2020 due to the economic activities' loss with the Covid-19 crisis. It will take an annual emission reduction of exactly this magnitude to limit climate change to a 1.5 °C warming over the next decades. These figures show **how challenging it will be to reach the climate goals of the Paris Climate Agreement** and the decarbonisation targets of the European Green Deal. Furthermore, most changes observed during the crisis do not reflect structural changes in the economic, transport or energy systems. Surface transport, being the second most emitting sector in the EU, accounts for nearly half the decrease in emissions during confinement. It is the one of the key sectors for reaching both the EU targets and the Paris Agreement objectives²⁵.*

6.1 EU Green Deal

The main aim of the European Green Deal is to transform the economy and society to engage it towards a sustainable path. This will require a public investment programme together with major efforts to direct private capital towards climate and environmental action. The Green Deal is composed of various elements going from “a zero pollution ambition for a toxic-free environment” to “mobilizing industry for a clean and circular economy”. The strategic element for the railway sector is named “**accelerating the shift to sustainable and smart mobility**”²⁶.

It is clearly stated that a modal shift shall be privileged for freight transportation as today 75% of inland freight is carried by road while a substantial part of goods should shift towards rail and inland waterways. In the strategy, the objective is set to double rail freight traffic by 2050.

²⁵ FOSTERING THE RAILWAY SECTOR THROUGH THE EUROPEAN GREEN DEAL PART 2 FREIGHT

²⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0789>

Ireland along with other EU countries signed up to these objectives “The Future of Rail Freight in Europe” during the Ministerial Conference on “Innovative Rail Transport - connecting, sustainable, digital” in Berlin on 21st September 2020 (the so-called “Berlin declaration”). Quite often unfortunately while Ireland participates in these EU initiatives and supports the main aims at the implementation level this country fails to adhere to the overall strategy.

In that 2020 agreement the document outlines the Green Deal status “the European Commission includes rail freight as a top priority for shifting towards climate-friendly transport, as rail is one of the most environmentally friendly modes of transport. We expect this initiative not only to bring fresh approaches and ideas to rail freight, but also to build on all the experience gained and best practice already developed by the Rail Freight Corridors. The outstandingly low carbon footprint of rail freight resulting from the wide-scale use of electric traction, the high energy efficiency inherent in the rail system, the suitability for high transport volumes and other environmentally friendly drive systems encourage us to continue the development of fully carbon-neutral rail freight. Effective mitigation of the impact of rail noise is another substantial contribution towards further enhancing the environmental advantage of rail freight.

The agreement signed by Ireland called for “enhanced EU support for rail infrastructure projects essential to develop rail freight by developing a high-capacity network, removing bottlenecks and interoperability barriers and increasing the capacity of intermodal terminals. Welcome in particular the Connecting Europe Facility’s objective to further support key rail projects in the period 2021-2027²⁷. The EU TEN-T corridor network is an integrated plan that includes Ireland in joining the coordination of linking into freight corridors operating in EU and working towards a modal shift to rail.

6.2 Ireland’s commitment

The Ireland “imperative to reduce the impact of transport systems on the environment is highlighted by objectives to deliver a 51% reduction in emissions by 2030 and to achieve net-Zero carbon by 2050. Irish Rail (IR) are cognisant of this challenge and believe that Rail Freight has a unique opportunity to become a cornerstone of sustainable freight transportation in Ireland and contribute to the achievement of these targets”²⁸.

“Rail freight generates 76% less emissions (per tonne-km) than road haulage and as such there is an opportunity for rail to become a cornerstone of a sustainable freight network across Ireland. With transport accounting for approximately one fifth of all emissions nationally the expansion of modern rail freight facilities and services can help develop an attractive alternative to road haulage, encourage modal shift from road to rail and support decarbonisation and environmental targets across the regions”.

IR strategy “includes a plan to develop a network of intermodal freight facilities in collaboration with the freight and logistics industry, starting with strategic terminals in Limerick and Dublin”. Here we see the first indication that rail freight can contribute strategically to transport planning in Dublin.

Dublin has an existing network of railway lines crossing the city from all directions with lines that are often double tracked leading to the centre of the city and high population and work centres

²⁷ [innovative-rail-transport-21-09-2020.pdf \(bmvi.de\)](#)

²⁸ [IE Rail-Freight-2040-Strategy Public Final 20210715.pdf \(irishrail.ie\)](#)

including rail link to the port. The priority on this network is rightly towards passenger traffic however over a 24hr period these lines are not used to the maximum levels from 21hr to 06hr when the corridors can be used for freight traffic.

6.3 Port traffic

The stated IÉ rail objective of freight terminal is not obvious in Dublin and only recently Dublin port announced the building of a major truck terminal²⁹ to feed the port near Dublin airport at a time when Ireland has committed to modal shift rail. This is an example of where national stated transport objectives at EU level do not match the actual implementation on the ground.

IÉ have stated in the 2021 strategy that, “operations at Dublin Port will be developed to optimise the integration of rail freight within the port and support it in responding to longer term capacity challenges”³⁰. This objective is made less than a year after Dublin port terminated the freight movements of the Ballina freight train due to port congestion, the only single container traffic using the port currently. The only reason that rail freight has continued at Dublin port is because of the zinc ore train freight from Tara mines that is shipped from Dublin without which the rail link would have hardly survived.

According to IÉ strategy, Dublin is the “busiest port in the country, (with approximately 14,000 inbound and outbound articulated HGV journeys per week) has sufficient scale to support additional rail freight services. It is also evident that 52% of the traffic travelling to Dublin Port originates from over 70km from the Port while the remaining 48% comes from within 70 kilometres of the port. Additionally, 38% of traffic emerging from the port is travelling to destinations 70kms or more from the port while 61% of traffic is travelling to locations within 70km”. Is there a role for Rosslare/Waterford to reduce the port traffic by transferring goods to these ports that have seen their importance grow post Brexit? Does the new context in 2022 imply that more container traffic moves through the SE ports and that Ireland examines the rail access to these ports which is already in place and can be enhanced by connecting both SE ports by reopening the railway between both which was mothballed in 2020. This is the type of strategic decision making that leads to modal shift and would facilitate freight traffic from West of Ireland to the SE diverting traffic from Dublin centre or transferring to rail.

IÉ describe the freight business as a “narrow market heavily dependent on the operations of a small number of valued customers, and therefore highly sensitive to market and economic trends³¹”. This is a position very different to some decades ago when most of Ireland’s largest producers used rail freight services as an integral component of their distribution system. The reality is that IÉ, because of an absence of political transport policy, vacated the freight market and removed the handling capacity all over the country to a point where it was no longer viable to move freight by rail. Government policy did not subsidise rail freight and so it was at a competitive disadvantage compared to road transport shifting the business to motorways.

29

<https://www.bing.com/images/search?q=dublin+port+new+truck+terminal+m50&qpv=1&qpvt=dublin+port+new+truck+terminal+m50&tsc=ImageHoverTitle&FORM=IGRE>

³⁰ [IE Rail-Freight-2040-Strategy_Public_Final_20210715.pdf \(irishrail.ie\)](https://www.irishrail.ie/Admin/getmedia/685e9919-f012-4018-879b-06618bb536af/IE_Rail-Freight-2040-Strategy_Public_Final_20210715.pdf)

³¹ IE Rail Freight 2040 Strategy, p.6 https://www.irishrail.ie/Admin/getmedia/685e9919-f012-4018-879b-06618bb536af/IE_Rail-Freight-2040-Strategy_Public_Final_20210715.pdf

Dublin city has been at a major loss as a result of the absence of transport freight policy in that the country's main port is located in the centre of the city with minimal rail freight handling capacity and the network around the country has reached a state where only Waterford port retains rail freight handling capacity. Foynes and Cork are designated as TEN-T corridors though neither is currently rail freight connected. The argument then is that if other ports were rail freight connected more freight traffic could enter Dublin on trains rather than at the ports for transfer to trucks.

A common argument in Ireland against rail freight was that distances are too short on the island to make the change competitive. According to IÉ 2040 strategy rail freight is "competitive over shorter distances. Rail can be competitive over reasonably short distances with the average rail freight distances travelled in the UK and EU at 150km and 220km respectively and with much of Ireland's freight travelling within this range. 'On distances exceeding 150km the average costs of moving goods by rail are usually lower than road' Increasingly, companies are choosing to use rail for its efficient performance and competitiveness along with its recognised sustainability benefits, even over shorter distances. IKEA, for example, with Maersk have recently begun using rail to transport their products a distance of 100km from Barcelona to Tarragona in Spain after successfully applying a similar solution in Italy".

6.4 Focus on Dublin

According to IÉ demand analysis - existing and projected articulated Heavy Goods Vehicle traffic across Ireland, and at Tier 1 Ports (Dublin, Port of Foynes and Port of Cork). A 74% increase in HGV traffic nationally by 2040 (as identified by Transport Infrastructure Ireland projections) has informed an assessment of the scale of the market and identified the most heavily used routes where freight services could potentially transfer to rail given the right operating conditions and cost profile. The highest county to county flows all involve trips to Dublin along the main interurban networks. The 4th and 5th highest flows are from Cork to Tipperary and Clare, showing the importance of this urban centre in the south-west region. How much of this flow of freight could be transferred to rail given that the Cork-Tipperary axis is well served by railways?

6.5 The Future of Rail-Freight

Dublin as the main population centre and capital is a manifestation of the transport issues nationally. It's not possible to isolate the Dublin transport situation without factoring in the national transport picture and rail freight is a key measure in the calculation.

A mindset change is required politically to lead policy and then at structural departmental and Iarnród Éireann levels to reach implementation targets. It's clear from a number of recent initiatives like the Dublin port truck terminal and the initial closing of the rail link to Dublin port in 2021 that Govt stated strategy at EU level is not achieved or realisable on the ground. Such disconnect between strategy and implementation must be addressed to prioritise rail freight development to eliminate congestion within Dublin centre and to positively contribute to Dublin overall transport planning to reach climate goals 2050.

7 CONCLUSION

As stated in this report, the East Coast Rosslare-Dublin line suffers from infrequent trains with slow journey times and an inability for the general customer to travel out of peak times.

The analysis from this report shows that there are serious time savings to be made on this route. The Mott McDonald Report states that 27 minutes can be reduced for a stopping service between Rosslare Europort and Bray, and the current timetable shows that 19 minutes can be saved between Bray and Pearse Station when there is limited conflict with DART. Together, these time savings can deliver a massive 46 minute reduction in journey time can make the Rosslare Europort to Dublin Journey genuinely competitive with a car journey - reducing the average current journey time of 2 hours 56 minutes to 2 hours 10 minutes. Although this would require some infrastructure upgrades along the rail line, this would deliver a serious tangible benefit to the public at large.