



# Iarnród Éireann Rail2050

At the centre of Sustainable  
Transport for Ireland

A high-speed train, likely a TGV, is shown traveling along a coastal railway track. The train is moving away from the viewer, following the curve of the track as it runs along a steep, rocky cliffside. To the left of the track, the ocean is visible, with waves crashing against the rocks. The sky is filled with dramatic, golden light from a setting or rising sun, with large, dark clouds. The overall scene is a mix of natural beauty and modern infrastructure.

# Section 1 Introduction

# What is Rail2050?

**Rail2050 is Iarnród Éireann's corporate strategy for the coming decades.**

With such a long-time horizon it is a framework strategy, providing direction for the organisation and its engagements with all stakeholders over the years to 2050. It is focused on delivering rail's contribution to key national objectives, particularly those of Project Ireland 2040 and the Climate Action Plan, by implementing recommendations of the All-Island Strategic Rail Review, Dublin and regional city metropolitan transports strategies.

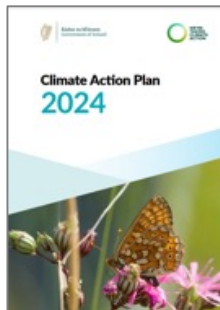
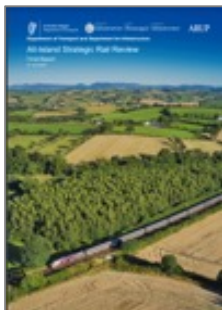
**Rail2050 – At the centre of Sustainable Transport for Ireland is first and foremost about people, the more than 5.4 million people who live in Ireland today and future generations.**

Rail will play a central role in responding to the collective challenges we face; providing for a growing population, a desire for better regional balance, a requirement to respond to climate change, with the need to live and move about sustainably becoming more urgent with each passing day.

**VISION: Rail as the backbone of a sustainable transport system for Ireland**



**Rail2050 aligns with Ireland's transport and climate policies.**



## Rail2050 contributes to a transport system that is..

**FREER OF CARBON**



**FLEXIBLE**



**FAIR PRICE**



**FRIENDLY**



**FASTER**



**FEASIBLE**



**FREQUENT**



**FULLY ACCESSIBLE**



# Rail2050 – Key Facts

## Service Frequencies

Increased train frequencies, at least doubling the number of services on each line



## Capacity

Increased network capacity, through multi-tracking, signalling upgrades and other interventions, in support of service frequency increases and reliability



## Sustainable

Transitioning to carbon emission-free fleets through electrification and use of emerging clean fuels



## Integration

Integration with other modes for a sustainable transport system



## Planning

Integration of spatial and transport planning with the application of Transport Oriented Development, contributing to housing policy



## Nation Building

A nation building investment, serving Ireland in its second century



## Congestion

Contributes to congestion alleviation, especially in and on approach to cities, as population and economic growth continues



## Connectivity

Enhancing connectivity across Ireland, building up and from the established rail network with reinstated and new lines

# Why do we need Rail2050?

## Ireland's population is increasing at pace

The Central Statistics Office projects Ireland's population could grow to 7 million by 2057, with its profile aging and including more migrants – factors adding to the demand for rail.



## Demand for housing is increasing

The Programme for Government targets an extra 303,000 houses to be built by 2030, with a similar level likely to be required for many years beyond that, and a need to further apply Transport Oriented Development principles.



## Congestion increases

Cities are becoming more congested with this to worsen with population growth unless we shift at scale to active and public transport modes.



## Increase balanced development

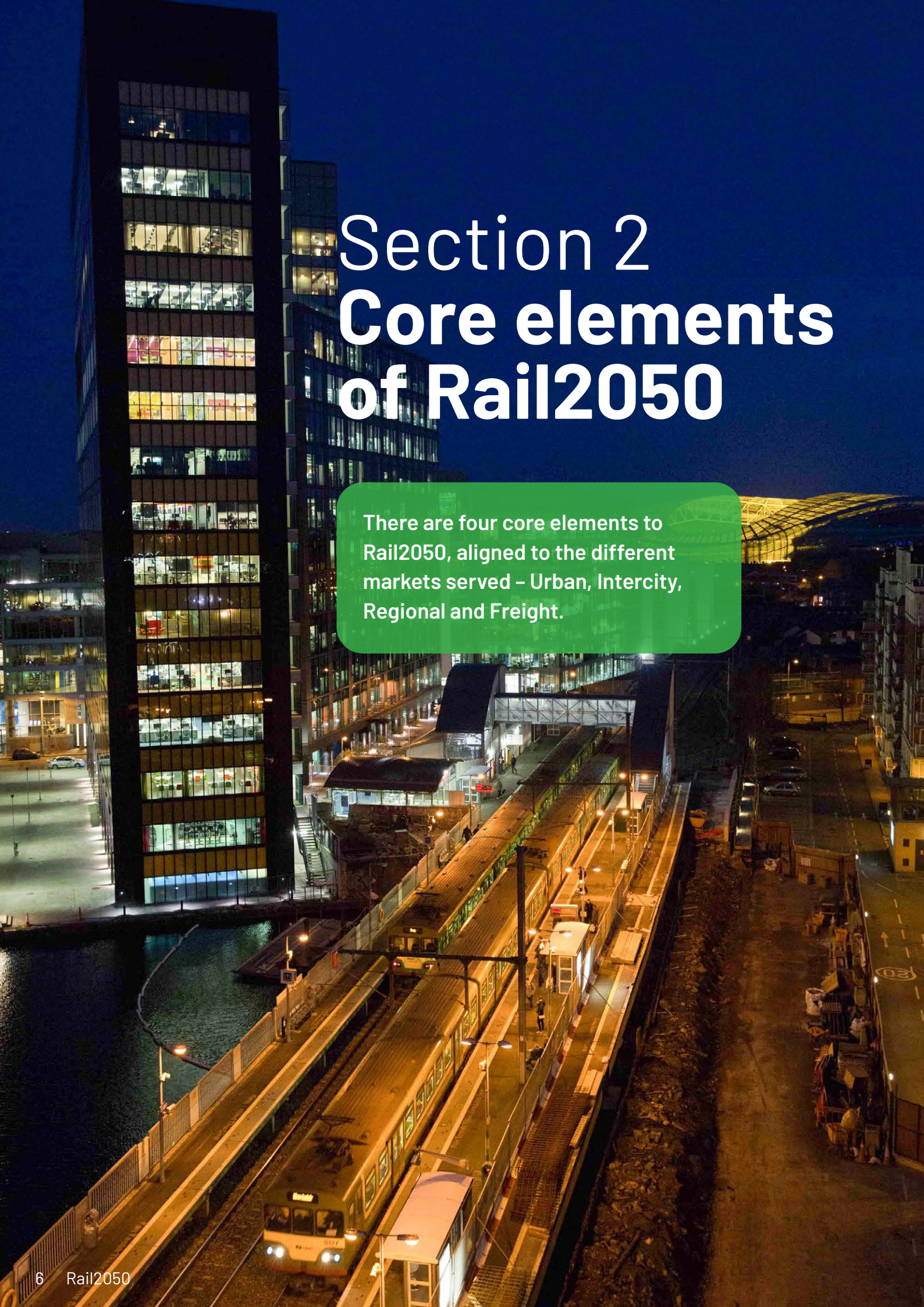
We also need to better spread development across the regions, with the National Planning Framework targeting growth of at least 50% by 2040 for each of the regional cities of Cork, Limerick, Galway and Waterford.



## Climate challenges increase

Climate change regulation requires carbon neutrality by 2050, including reduction in greenhouse gas emissions for transport by 2030 – reversal of a 30 year trend. Rail as the most sustainable form of land transport has a significant role to play here.





# Section 2 Core elements of Rail2050

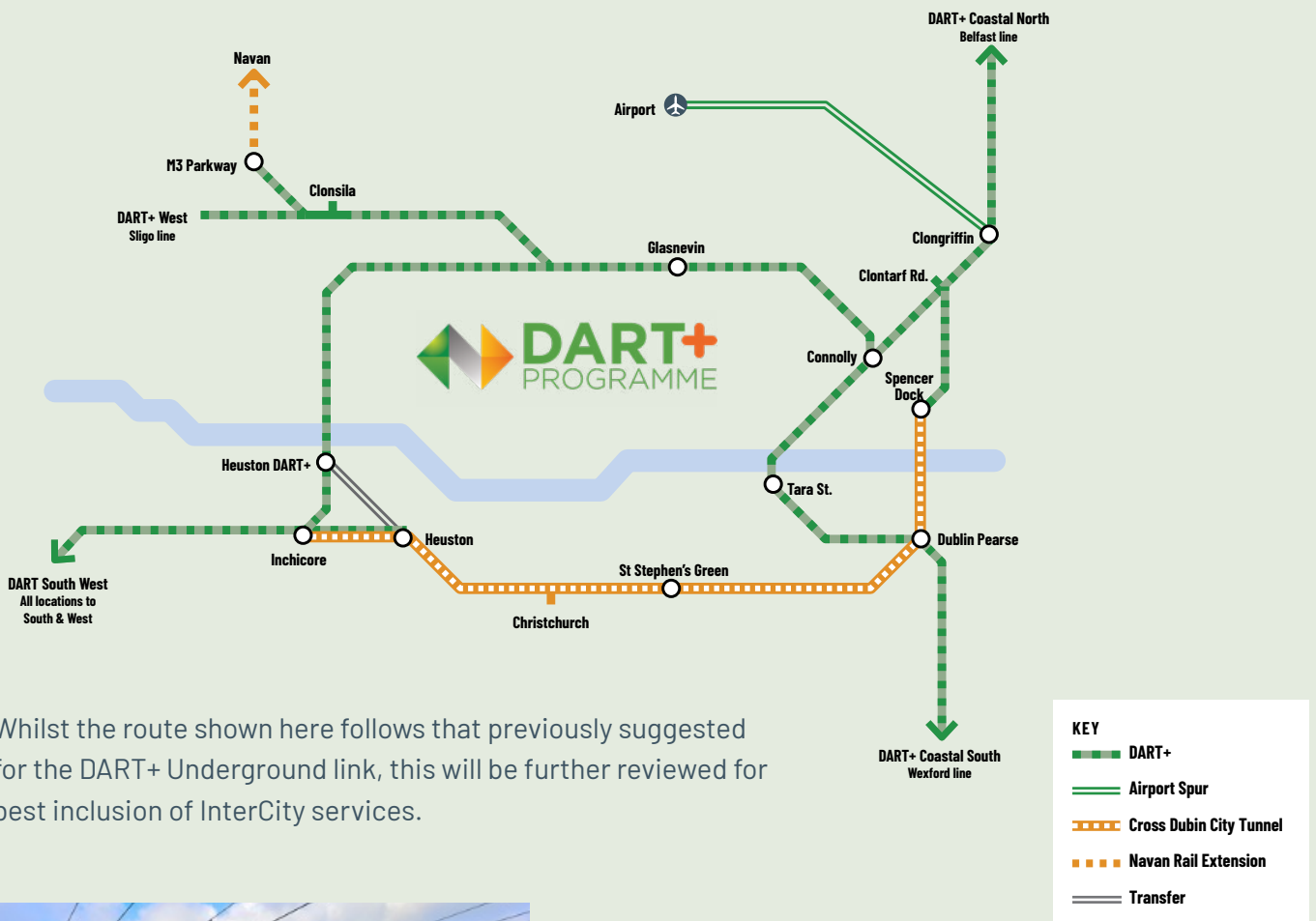
There are four core elements to Rail2050, aligned to the different markets served – Urban, Intercity, Regional and Freight.

# Rail2050 – Urban: Dublin



**Modern, customer focused, high-density urban rail services as the backbone of a sustainable mass transit system**, supporting compact development across Dublin and Regional cities, with a focus on Transport Oriented Development, building the capacity of existing networks and adding to these with targeted interventions that deliver incremental benefits aligned to the overarching strategic vision.

In Dublin this means delivering DART+ to double capacity and electrify all commuter lines, followed with a cross-city connection by tunnel for a transformative travel experience across the full national network, with connections to Dublin Airport, Navan and more stations serving new and existing communities.



Whilst the route shown here follows that previously suggested for the DART+ Underground link, this will be further reviewed for best inclusion of InterCity services.



## A Transformative Urban Fleet

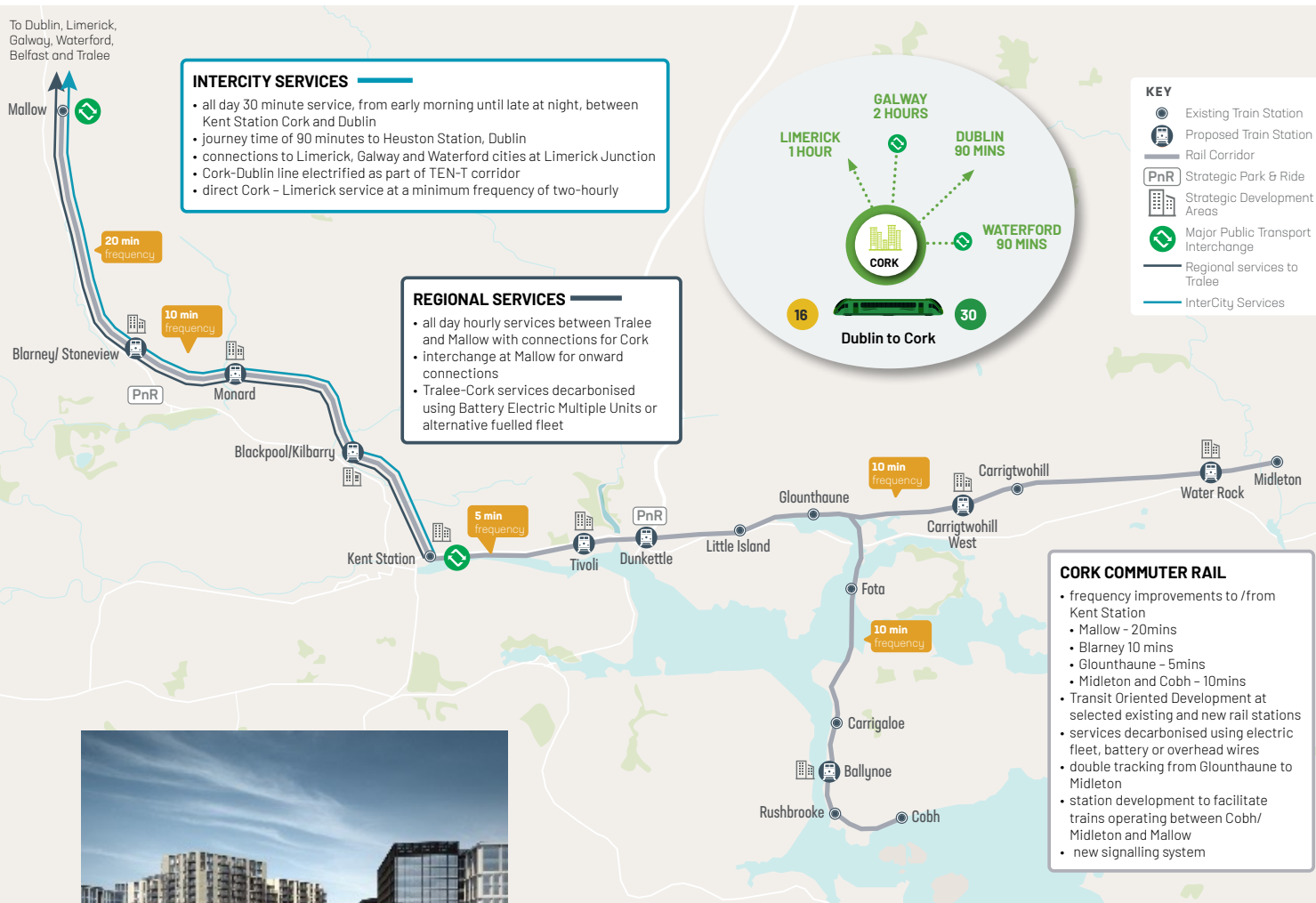
Alstom were awarded Ireland’s largest order for public transport fleet for up to 750 electrically powered carriages, with the first of these delivered and now being tested for entry into service in 2026.

These will be deployed across all Dublin commuter lines, potentially also in Cork, increasing service frequencies and capacity, while modernising customer experiences and releasing other type fleets for deployment on additional services across the network.

# Rail2050 – Urban: Cork



In Cork, completing implementation of the **Cork Area Commuter Programme**, now progressing at pace, with the introduction of high frequency electrified services and new stations across the full network between Cobh, Midleton and Mallow through Kent Station.



## Horgan's Quay and Kent Station Masterplan

Horgan's Quay and Kent Station redevelopment combine to provide Transport Orientated Development in the heart of Cork City.

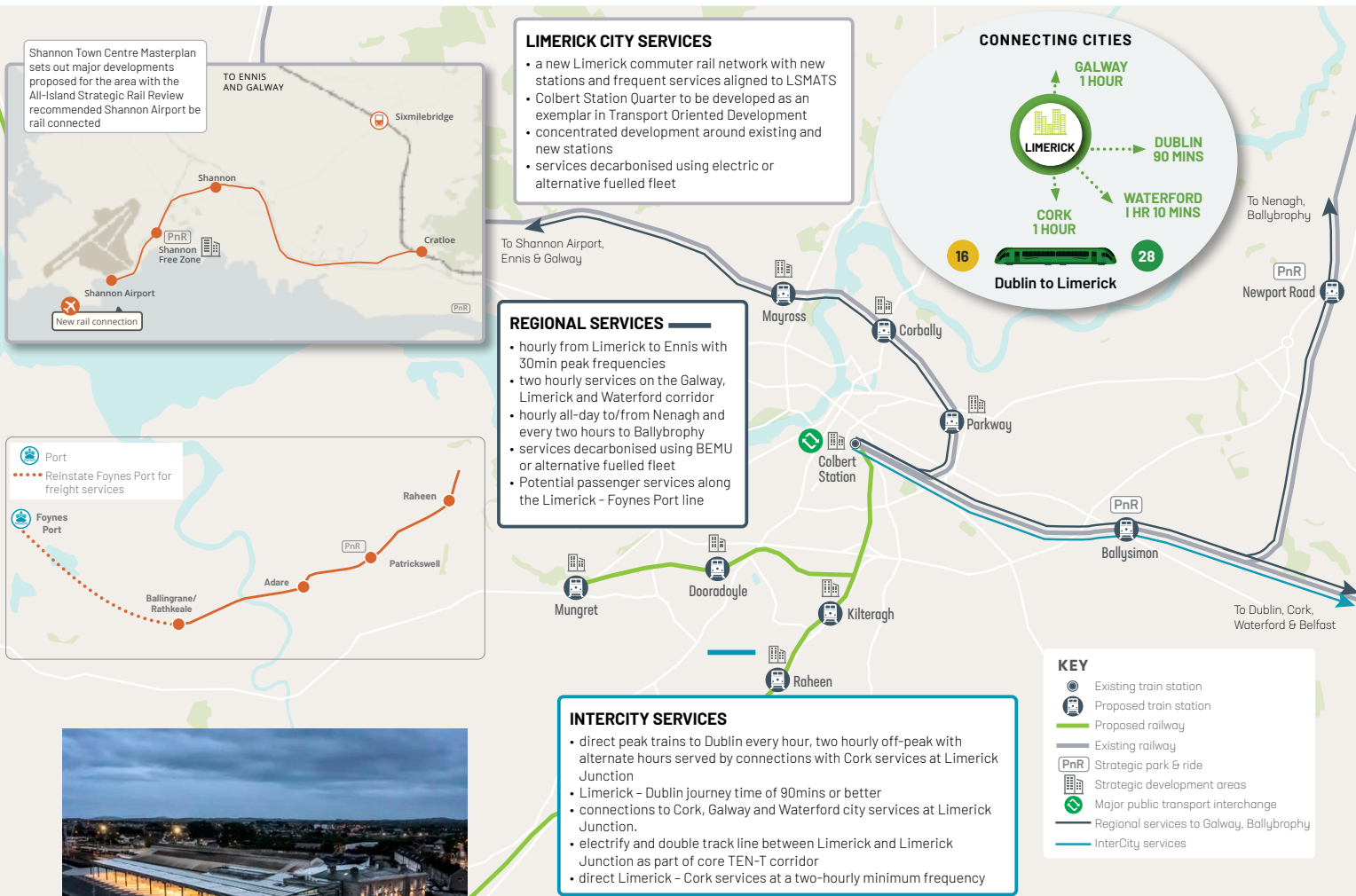
The residential, office, hotel and retail scheme will be integrated with a multi-modal transport hub served by:

- fast and frequent Cork Commuter Rail services
- InterCity and regional services
- Light Rail Transit and core bus services
- a new station entrance with active mode provision
- high quality public realm

# Rail2050 – Urban: Limerick



In Limerick, it means making use of the existing multi-line rail network to establish local area services through Colbert station as a central integrated transport hub. This prioritises opening new stations at Moyross and Ballysimon to be followed by further commuter stations aligned to residential development. The Limerick to Port of Foynes line is being reinstated, initially for freight, then to include passenger services for Adare and Rathkeale. A new rail line to Shannon town and airport will connect from the Limerick to Ennis line, with increased regional services to Galway, Waterford and new direct Cork services.



## Colbert Station Quarter

A major Transport Oriented Development and rejuvenation project in the heart of Limerick City. It will deliver up to 2,800 homes, landmark office and commercial space alongside improved opportunities for health, education and employment. It will promote the integration of a sustainable transport network for Limerick City including;

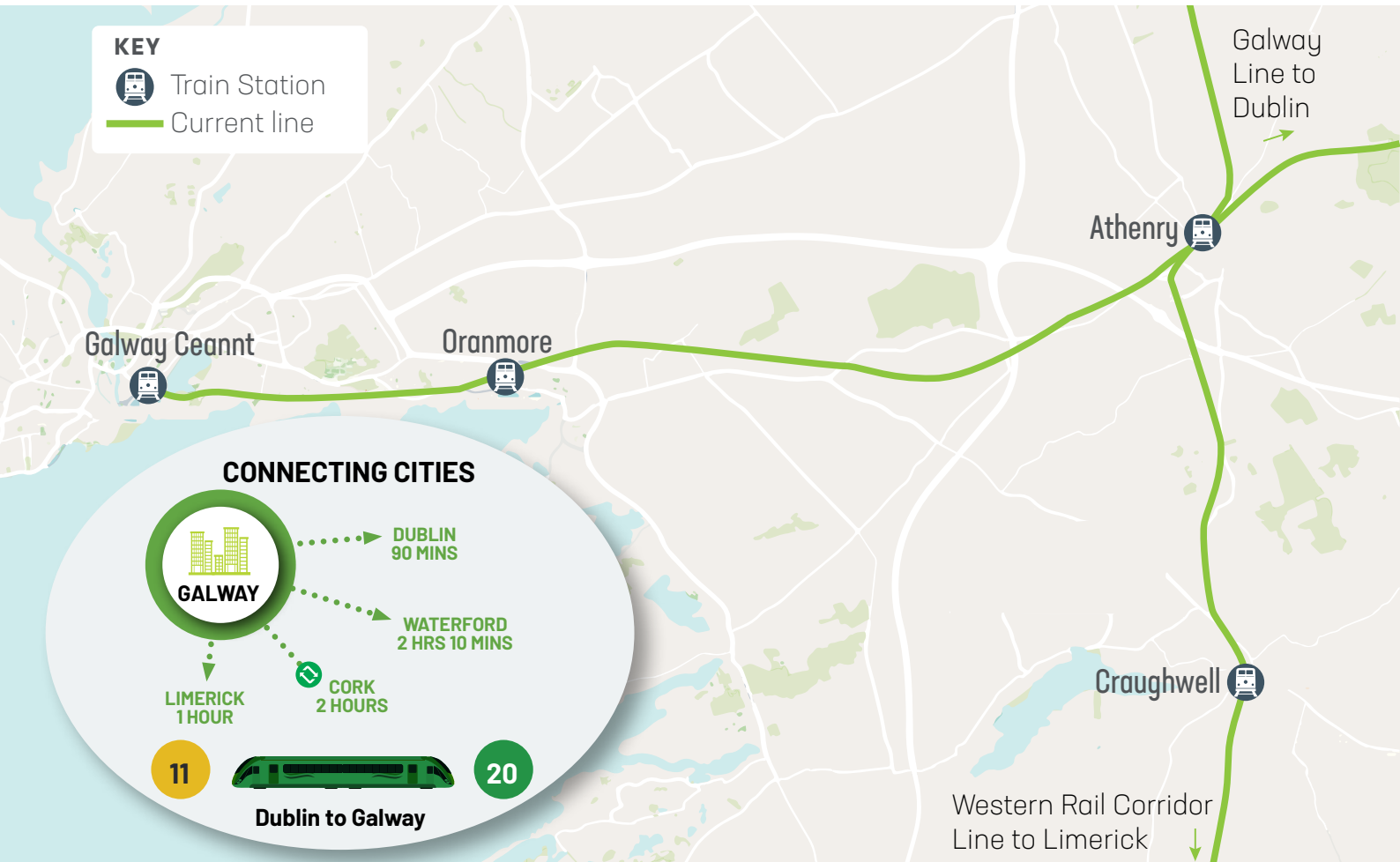
- frequent and fast Limerick commuter rail services
- InterCity and regional services
- core bus services
- high quality active mode
- public realm provision

# Rail2050 – Urban: Galway



**Ceannt Station, serving the heart of the city, is being transformed into a modern, high-capacity transport hub with its connecting line to be upgraded to double track from Athenry.**

Service levels will be increased significantly on both the Dublin and Limerick lines. The Athenry to Claremorris line will be reinstated on growth of rail freight demand and then for local passenger connections in the Galway and Mayo region.



# Rail2050 – Urban: Waterford



A new central station is under construction at Waterford, on the north-quays, taking rail connectivity right into the city centre and enhancing integration with active and other public transport modes.

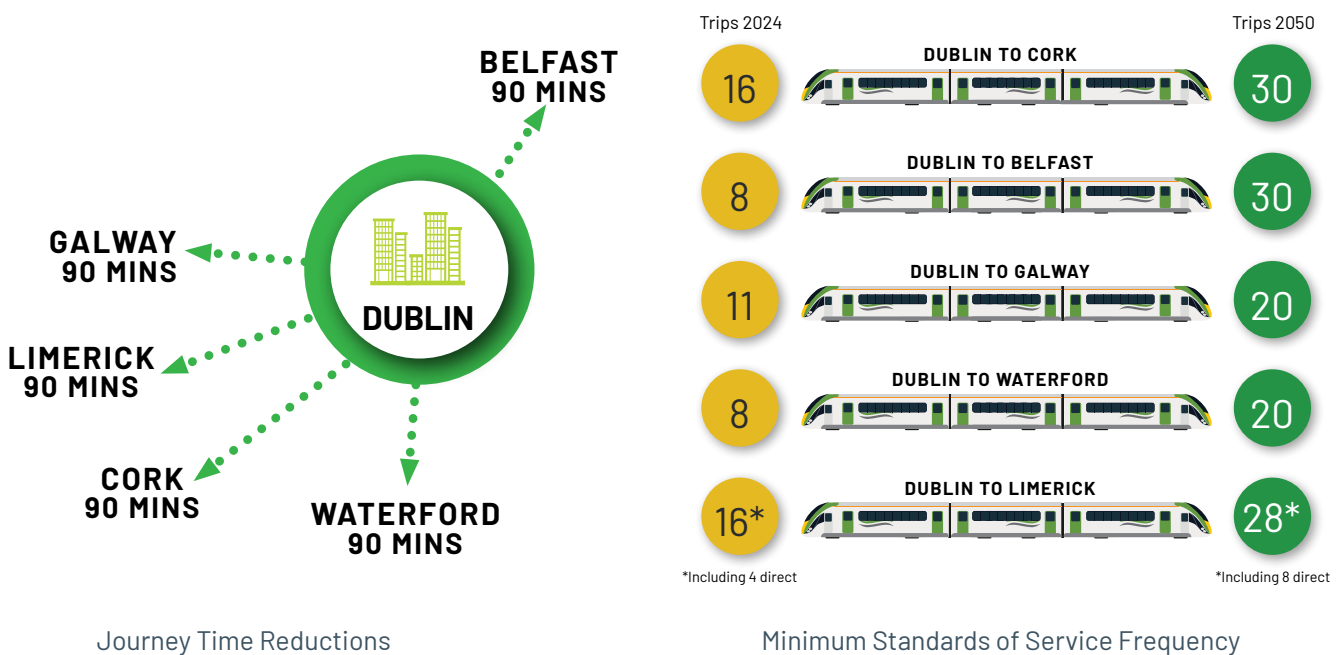
Service levels will be more than doubled on the Waterford to Dublin and Limerick lines with reinstatement of the line to Wexford following as demand for freight and passenger transport grows.





**High-quality rail connectivity from each of Ireland’s regional cities to Dublin will contribute to their economic growth, development and regional balancing.** Rail2050 prioritises service frequency increases across all intercity corridors, then journey time reductions, while increasing capacity and decarbonising through electrification and renewable fuel usage. A pattern of at least one service every hour between regional cities and Dublin and every two hours across all other lines will be established.

These service frequencies will be implemented while progressing more substantive works along each line to reduce journey time, increase capacity and decarbonise. The works include; double tracking significant length sections of single tracked lines, adding separate tracks for slow and passing services, signalling enhancements and electrification of all lines between Dublin, Belfast and each of the regional cities.



**Clockface timetables with regular interval departures** will be preferred in response to customer feedback, learnings from other countries and to enhance integration with other modes.



**Customers are at the heart of Rail2050** with an aim to be best in Europe for customer experience. A new National Train Control Centre, providing a single control point for all services, together with further technology enhancements and the recently established on-board customer service team are integral to delivering the desired service standard.'



**Delivery of a cross-city rail connection in Dublin via tunnel** will transform transport experiences from across the island of Ireland enabling rail trips to be taken on Intercity lines direct into the city centre and onwards, for example, connecting Cork to Belfast or into Dublin Airport.



**All lines between Dublin and Ireland’s cities will be electrified** for decarbonisation, while services on other lines will use battery-electric and alternative renewable fuels.

Regional services will be developed in the short-term to grow demand by increasing service frequencies to a minimum standard of at least one departure every two hours, improving connectivity with Intercity and bus options while operating efficiently and reliably. In the longer term, aligned to All-Island Strategic Rail Review recommendations, the focus will extend to connecting new communities to the rail network with the reinstatement of old and opening new lines.

### New Rail Connections

Opening new rail corridors, as shown here, many creating new regional connections, towards the latter stages of Rail2050 with minimum frequencies of at least a service every two hours aligned to local demand, while supporting freight movements and balanced regional development.

#### New regional lines to be opened are:

- Limerick – Port of Foynes
- Limerick – Shannon town and airport
- Athenry – Claremorris
- Waterford – Wexford
- Athlone – Mullingar – Portadown
- Letterkenny – Derry/Londonderry

### Limerick – Ennis – Galway

Increasing services to a minimum of hourly between Limerick – Ennis, two hourly to Galway, as a first step then building further with demand growth. Contributed to by double tracking Limerick – Limerick Junction, Athenry – Galway and passing loops.

### Shannon connection

Adding a rail connection from the Limerick – Ennis line to serve both Shannon town and airport.

### Waterford – Limerick Junction – Limerick

Building service levels to two-hourly initially, then hourly as demand responds with targeted infrastructure interventions to facilitate frequency increases and improved journey times.

### Tralee – Mallow – Cork

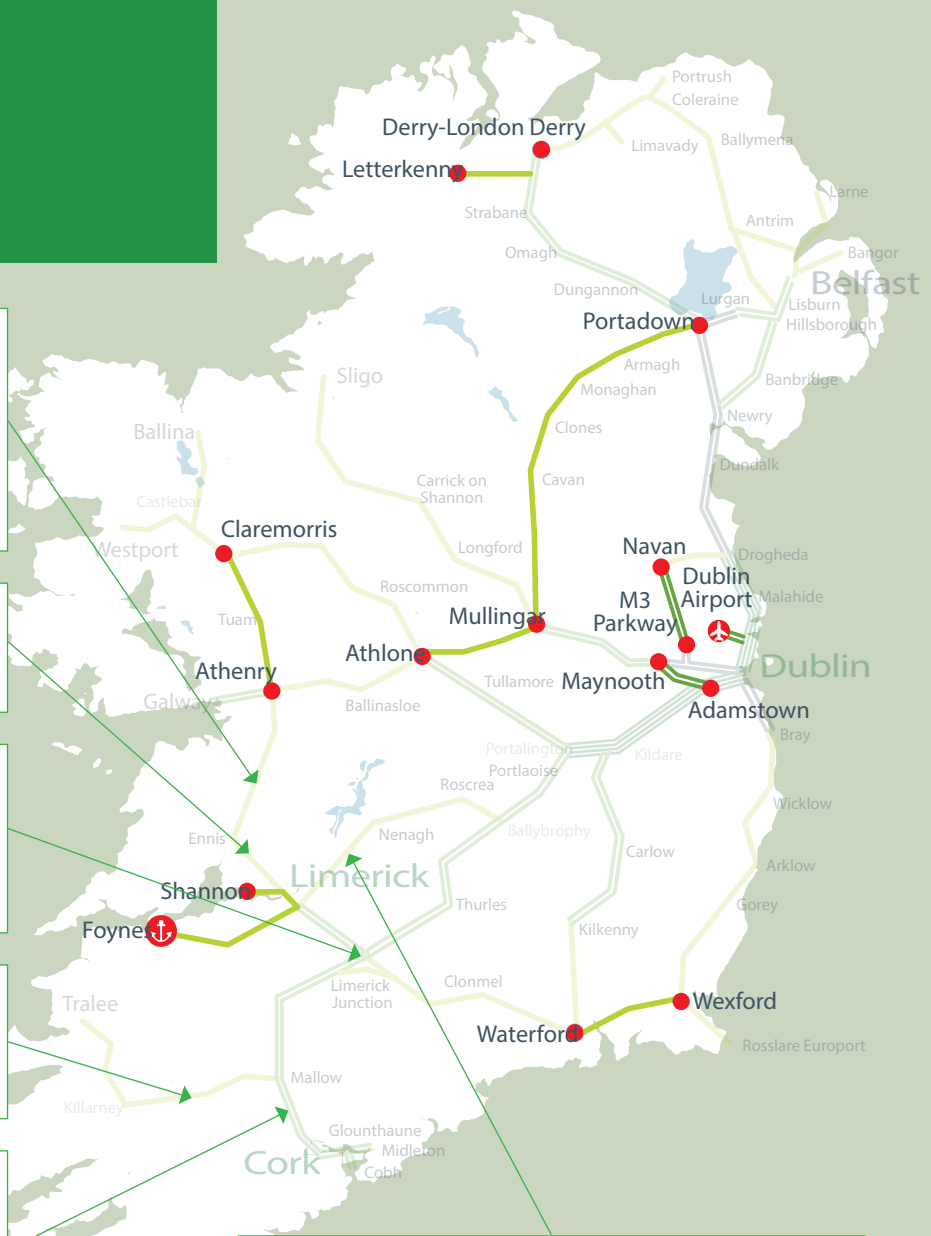
Progressive increases in Tralee – Mallow services to an hourly pattern as demand grows, with extension of some services to Cork.

### Cork – Limerick

Introduction of direct Cork to Limerick services better connecting these regional cities and removing the need for interchange at Limerick Junction.

### Limerick – Nenagh – Ballybrophy

Building service levels to two-hourly along the full line, then hourly to Nenagh, with improved interchange opportunities at Ballybrophy for enhanced Dublin – Cork line connectivity.



# Rail2050 - Freight



**Rail2050 re-positions rail at the centre of freight transport for Ireland**, in recognition of the carbon reduction benefits attainable, supporting economic growth, supply chains and balanced regional development. Implementation actions are progressing at pace with a new container terminal under construction at Dublin Port, the rail line to Port of Foynes being reinstated, new wagons on order and additional services introduced between Ballina, Waterford and Dublin.

## Intermodal Freight Terminals

Freight terminals, connecting rail and road modes, will be developed at a small number of strategic locations across the network, proximate to high volume markets, providing businesses with sustainable intermodal options, port connections and opportunities for the development of consolidated logistics centres.



## Western Rail Freight Arc

Reinstatement of the Claremorris - Athenry, Limerick - Port of Foynes and Waterford - Wexford lines will create a continuous rail corridor from the west at Claremorris to the south-east, connecting locations along the corridor including Galway, Limerick and Waterford cities and the deep sea-ports at Foynes, Bellview and Rosslare Europort, with European and United Kingdom destinations.



## Port Connectivity

- A new intermodal container terminal is being developed with Dublin Port
- The Limerick - Port of Foynes line is being reinstated
- New services are being developed with the Port of Waterford and logistics solution providers
- Discussions are ongoing with the Port of Cork about reconnecting Marino Point terminal for bulk freight by rail.

Rail at the centre of Ireland's freight transport system, supporting supply chains, the economy, society and the environment.



# Rail2050 – Rosslare Europort

**Rosslare Europort is Ireland's number one port for direct Roll-on/Roll-off freight and passenger services to Europe** with over 36 services operating each week between it and an increasing number of continental ports that include Bilbao, Cherbourg, Le Havre and Dunkirk. Connectivity is provided to the United Kingdom through the ports of Fishguard and Pembroke. Iarnród Éireann as Port Authority for Rosslare Europort is busy implementing ambitious plans to develop its infrastructure and services in anticipation of it playing a significantly increased role in Ireland's connectivity with Europe, as the closest port to continental markets, and as a hub in support of Offshore Renewable Energy (ORE) developments in the Celtic and Irish Seas.

## Planning for growth

A masterplan improving port capacity, customer facilities and system digitalisation creating a 'smart port' is being implemented, with partner stakeholders building a new Border Control Post and port access road connecting with national motorway networks while taking Heavy Goods Vehicles out of the local village. A berth extension is planned to accommodate increasing ship lengths and sizes, adding capacity in support of projected demand growth.

## Regional connectivity

The All-Island Strategic Rail Review recommends reinstatement of the Waterford to Wexford rail line, with this intervention effectively creating a continuous rail corridor between Rosslare Europort in the south-east and Claremorris in the west.

This will provide connectivity with the three regional cities of Galway, Limerick and Waterford and the national ports at Bellview, Co. Waterford, Rosslare Europort and Port of Foynes. It will also connect regional markets with European destinations while building a complementary corridor to the increasingly congested Dublin area.

## Supporting Ireland's ORE ambitions

Ireland has vast potential and ambitious plans to harness offshore wind as a significant source of renewable energy with port infrastructure a critical enabler to the timely delivery of associated projects. Rosslare Europort is strategically located in proximity to potential wind development sites of the coast in the Celtic and Irish seas. It has been preparing plans to develop port hub facilities to support the construction and servicing needs of the ORE sector and is on course to implement these over the coming years once planning approval and funding are secured. This development will deliver up to 50 acres of reclaimed land for turbine pre-construction and storage, with a dedicated berth for ORE and access channel to cater for associated ships. As ORE construction needs reduce, in circa 10 -15 years time, the hub facilities can be purposed to enable container lift-on/lift-off services be further developed, increasing national port capacity aligned to demand growth.




# Section 3 Rail2050 - Next Steps

Rail2050 provides a vision and framework strategy for developing rail as the backbone of a sustainable transport system for Ireland over the years and decades ahead. It aligns with the All-Island Strategic Rail Review and aims to implement its recommendations for a growing Ireland.

# Rail2050 – Next Steps

**Iarnród Éireann, recognising it is but one of a large number of stakeholders involved**, is committed to collaborating in a One Team approach with all to deliver on the collective ambitions and has drafted an implementation programme shown here as a guide to delivery, with the following as our priority next steps:

- Continue discussions with the Department of Transport, the National Transport Authority and others on the development of an agreed Programme for Delivery including a plan to fund all investments
- Progress with pace on all planning approved constructions, DART+ West, DART+ South West and Cork Area Commuter Rail Programme being the most significant, while advancing plans for other priority projects
- Establish capacity to deliver Rail2050, as ‘tomorrow’s railway’, while managing ‘today’s railway’ by building customer satisfaction particularly through a relentless focus on reliability and punctuality performance

	2030	2040	2050
<p><b>DUBLIN</b></p>  <p><b>URBAN</b></p>	<ul style="list-style-type: none"> <li>• DART+ West</li> <li>• DART+ South West</li> <li>• DART+ Coastal North</li> <li>• DART+ Coastal South</li> <li>• new stations</li> <li>• DART+ fleet</li> </ul>	<ul style="list-style-type: none"> <li>• DART+ extensions</li> <li>• Upgrade Connolly – Malahide line to four tracks</li> <li>• extend four tracking from Hazelhatch to Portarlinton</li> <li>• new stations</li> <li>• Navan Line Extension from M3 Parkway</li> <li>• further Transit Oriented Development at stations across Dublin</li> <li>• Dublin Airport Spur from Clongriffin station</li> </ul>	<ul style="list-style-type: none"> <li>• DART+ fleet</li> <li>• Cross Dublin City Tunnel</li> <li>• increased service frequencies in line with growing demand</li> <li>• track capacity on northern line between Malahide and Drogheda</li> </ul>
<p><b>CORK</b></p> <p><b>GALWAY</b></p> <p><b>LIMERICK</b></p> <p><b>WATERFORD</b></p>	<ul style="list-style-type: none"> <li>• double tracking Glounthaune – Midleton and resignalling</li> <li>• Kent Station Masterplan and through platform</li> <li>• new decarbonised fleet in Cork</li> <li>• passing loop at Oranmore</li> <li>• city centre station redevelopment projects</li> <li>• new stations and Transit Oriented Development</li> <li>• Waterford station relocation</li> </ul>	<ul style="list-style-type: none"> <li>• double tracking Limerick to Limerick Junction</li> <li>• Limerick commuter rail</li> <li>• double tracking Athenry – Galway</li> <li>• new stations with Transport Oriented Development</li> </ul>	<ul style="list-style-type: none"> <li>• new decarbonised fleet</li> </ul> 
 <p><b>INTERCITY</b></p>	<ul style="list-style-type: none"> <li>• new Enterprise Fleet and an hourly service</li> <li>• cascading of fleet to increase service frequency and extend operating hours</li> <li>• Cork Line Level crossings removal</li> <li>• installation of a new train protection system across the network</li> <li>• new National Train Control Centre at Heuston</li> <li>• passing loops to support service expansion</li> </ul>	<ul style="list-style-type: none"> <li>• double tracking Portarlinton – Athlone</li> <li>• electrification of Cork – Dublin – Belfast and Limerick – Limerick Junction line</li> <li>• new decarbonised fleet and further cascading to increase frequencies and extend operating hours</li> <li>• further capacity increases across the network including double tracking of Maynooth to Mullingar and Cherryville Junction – Kilkenny</li> </ul>	<ul style="list-style-type: none"> <li>• electrification of Dublin to Galway and Dublin to Waterford</li> <li>• new decarbonised fleet</li> <li>• extension of decarbonisation measures to support carbon-free services</li> <li>• Belfast – Dublin – Cork and other city connecting services through Cross Dublin City Tunnel</li> </ul>
 <p><b>REGIONAL</b></p>	<ul style="list-style-type: none"> <li>• cascading of fleet to increase service frequency and extend operating hours</li> <li>• coastal protection on Rosslare corridor</li> <li>• flood protection on Ennis line</li> </ul>	<ul style="list-style-type: none"> <li>• additional fleet through cascading</li> <li>• capacity increases across network including route modernisation</li> <li>• improved journey times with the removal of bottlenecks and network enhancements</li> <li>• Athenry to Claremorris line reinstatement</li> </ul>	<ul style="list-style-type: none"> <li>• new decarbonised fleet</li> <li>• rail link from Athlone to Portadown serving stations in Westmeath, Cavan and Monaghan</li> <li>• rail link to Letterkenny</li> <li>• rail link to Shannon Airport</li> </ul>
 <p><b>FREIGHT</b></p>	<ul style="list-style-type: none"> <li>• enhancing facilities and services at Dublin, Cork and Waterford Ports</li> <li>• reinstatement of the Foynes Port to Limerick rail line</li> <li>• new bulk and container wagon fleets for increased services</li> <li>• developing priority intermodal terminals</li> </ul>	<ul style="list-style-type: none"> <li>• connecting large scale industrial premises</li> <li>• developing strategic terminal at Limerick Junction and Dublin west or Kildare</li> <li>• new low-carbon locomotives</li> <li>• connection of Rosslare Europort to rail network via Waterford and reinstatement of the Claremorris to Athenry line</li> </ul>	<ul style="list-style-type: none"> <li>• infrastructure enhancements at ports</li> <li>• new fleets for service expansion</li> </ul>

# Section 4 What will Rail2050 deliver?





### CX

A leading railway for customer experiences, delivering frequent, faster, friendly and fully accessible services



### Capacity

High-frequency and high capacity services on all rail lines, with new connections serving more communities



### Sustainable Transport

A sustainable travel choice with all journeys on decarbonised services



### Economic Growth

Economic growth driven by the establishment of a modern rail centered transport system



### Planning

Integrated spatial and transport planning, applying Transport Oriented Development and 15 minute neighbourhoods



### Nation Building

A railway fit to serve a growing Ireland in its second century, building up and from the established rail network with reinstated and new lines



### Congestion

Congestion alleviation, especially in and on approach to cities, as population and economic growth continues



### Integration

An integrated transport system, connecting ports, airports, active and public transit modes



CUSTOMERS  
AT THE HEART  
OF OUR BUSINESS

IARNRÓD ÉIREANN  
ONE TEAM

VALUING  
OUR PEOPLE

ALWAYS  
SAFE

PROUD  
OF OUR PAST  
PASSIONATE  
ABOUT OUR FUTURE

SUSTAINABILITY  
IN MOTION

Supported by

**SYSTRA**