

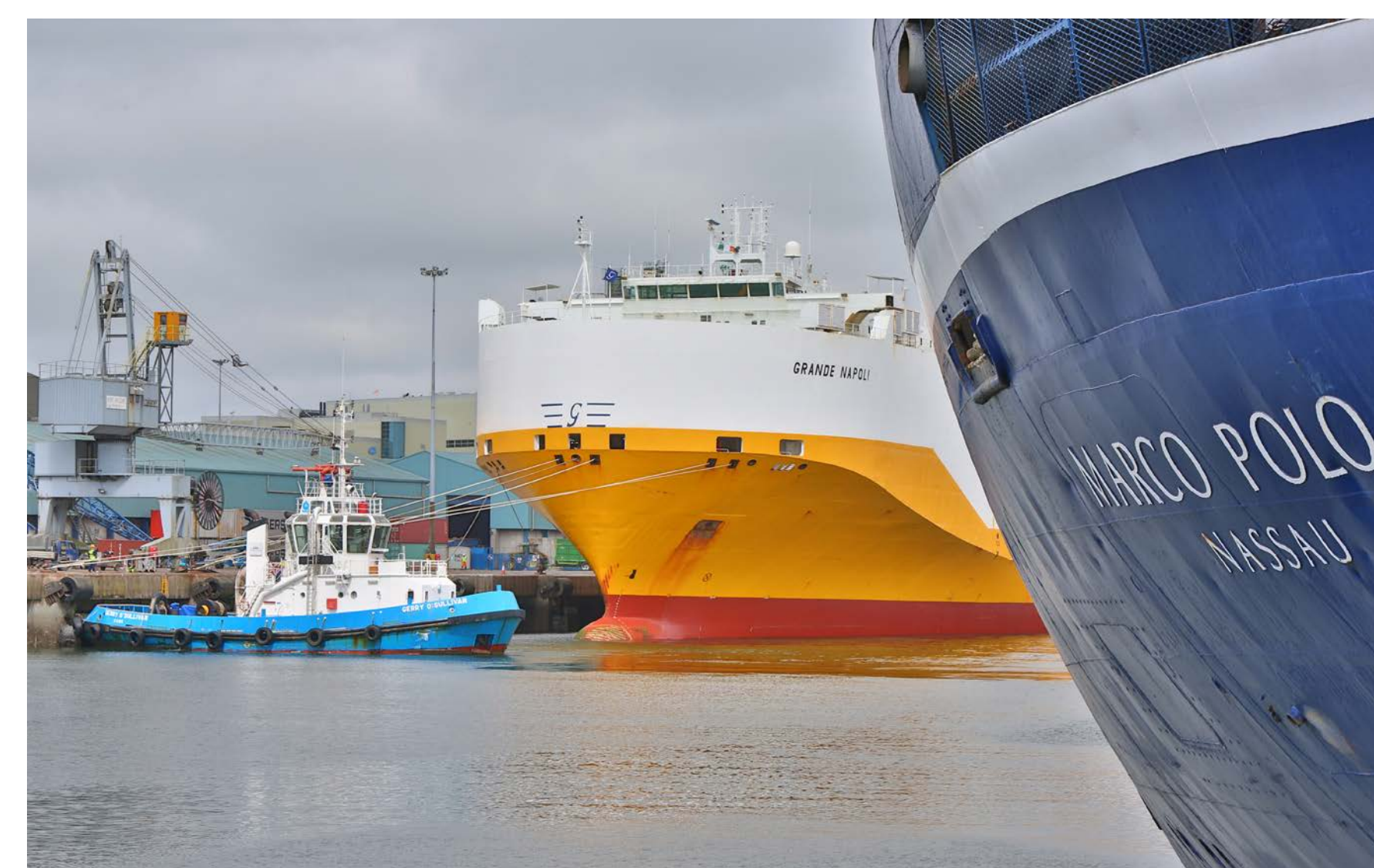
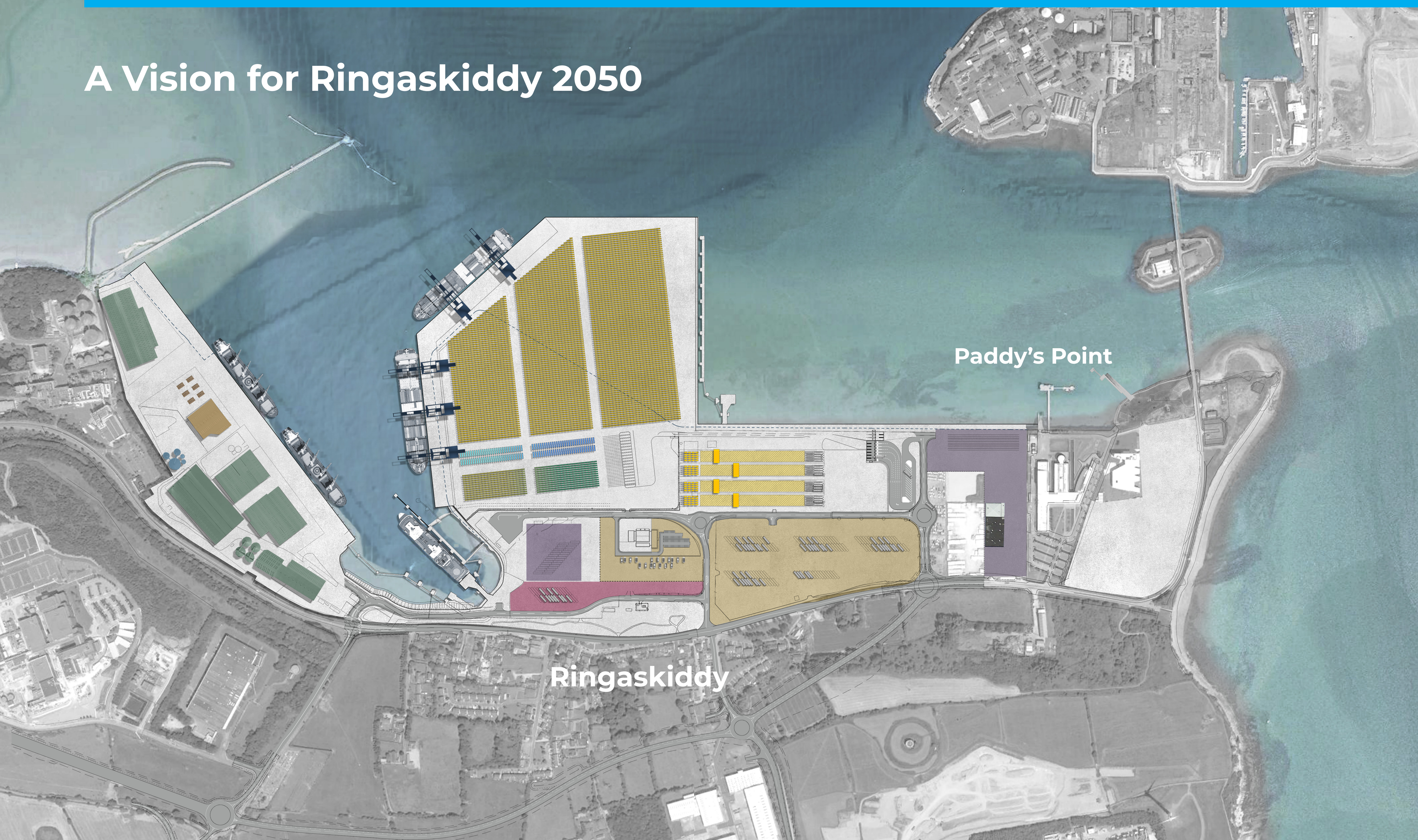
Board

01

## Ringaskiddy 2050



### A Vision for Ringaskiddy 2050





## Board 02

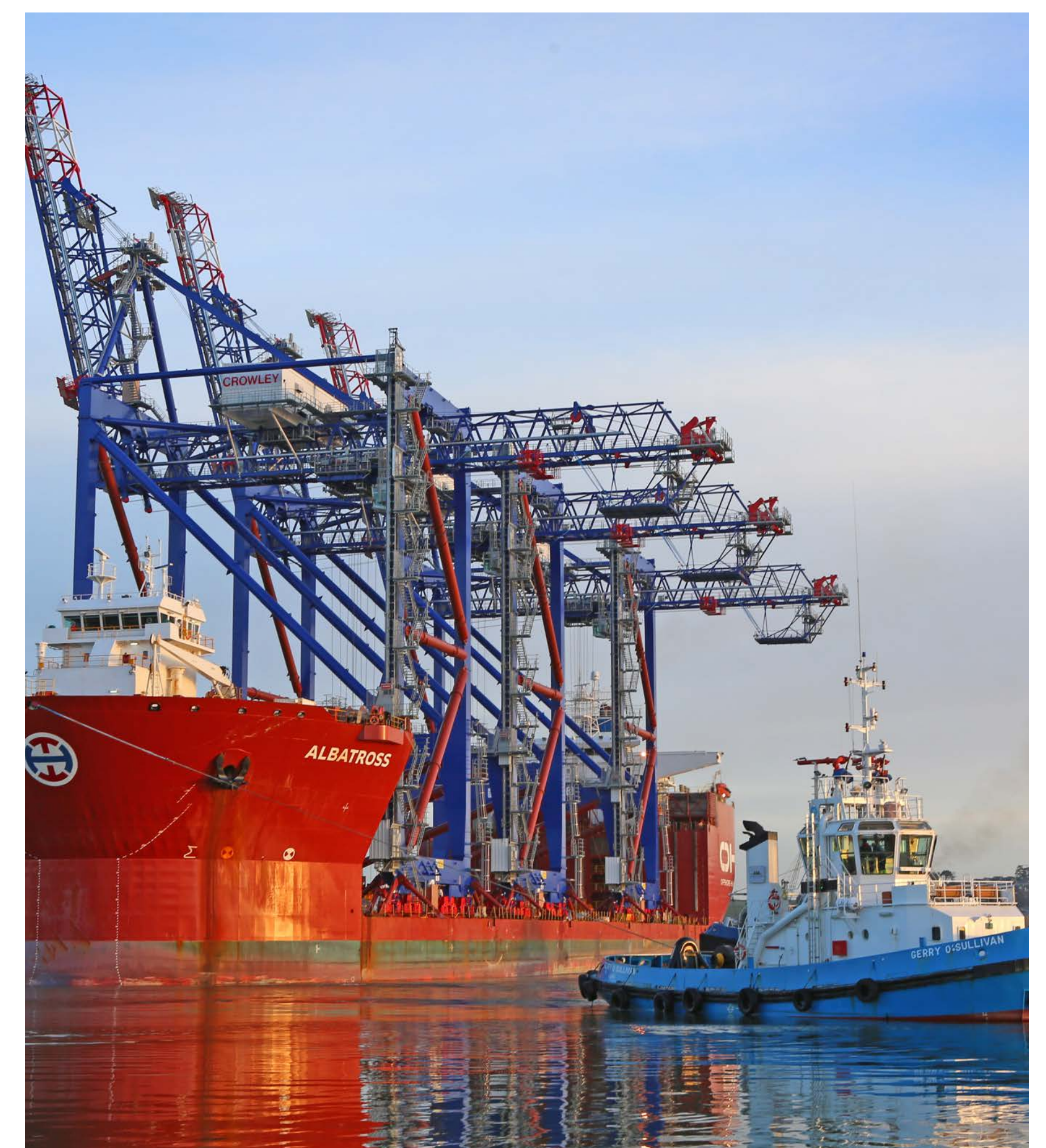
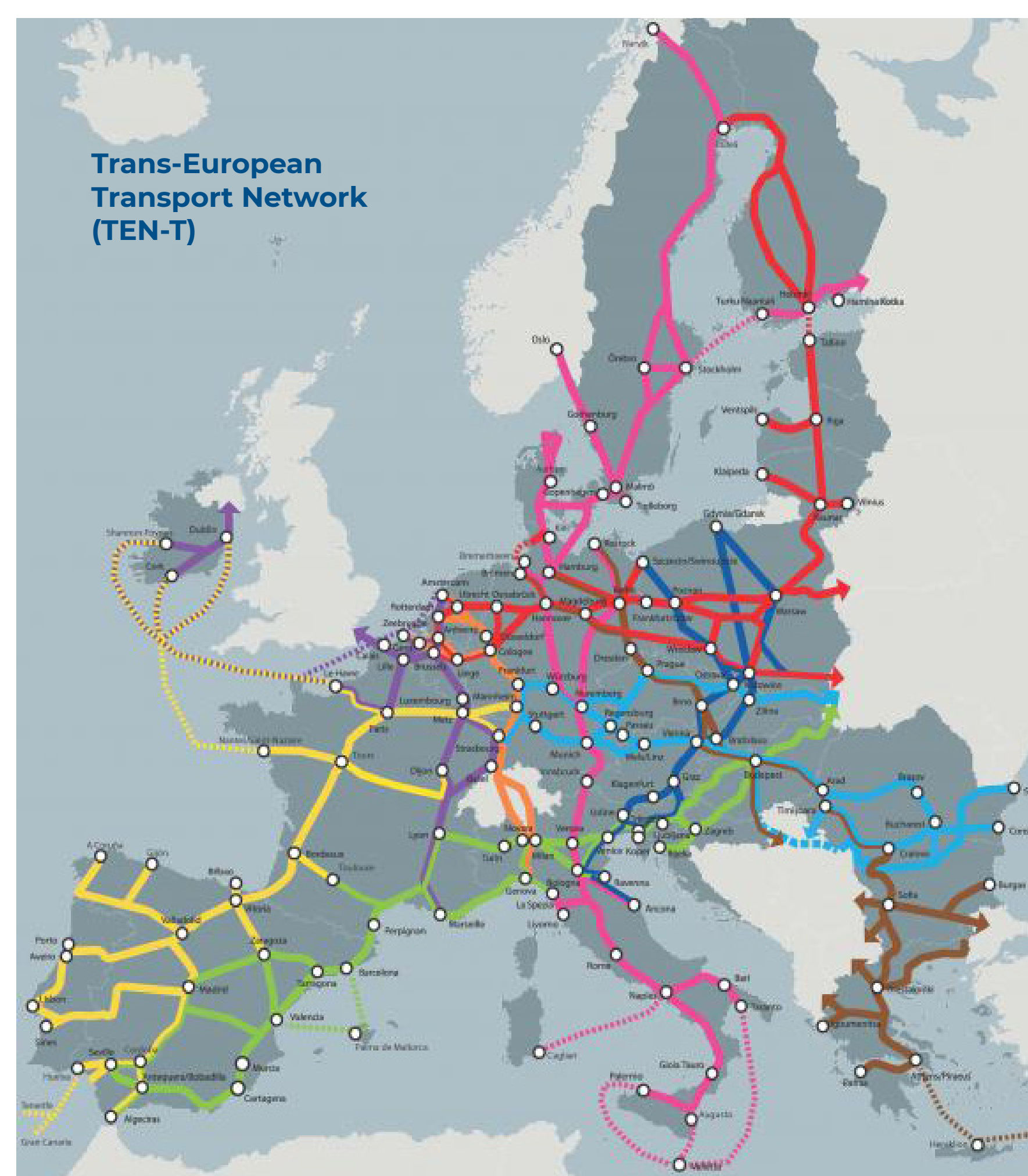
# Introduction & Port Profile



## Introduction

The Port of Cork is designated a “Core Port” in the Trans-European Transport Network (TEN-T) and a Port of National Significance (Tier 1) under the Irish Government’s National Ports Policy. The Port is on a journey towards consolidating its activities in the lower harbour - ‘River to Sea Port’ - due to ever increasing ship vessel sizes.

The National Ports Policy expects Tier 1 Ports to lead the response in meeting Ireland’s future port capacity requirements. This Port of Cork Masterplan 2050 is a vision of how the Port of Cork can adapt and grow from now through to 2050.

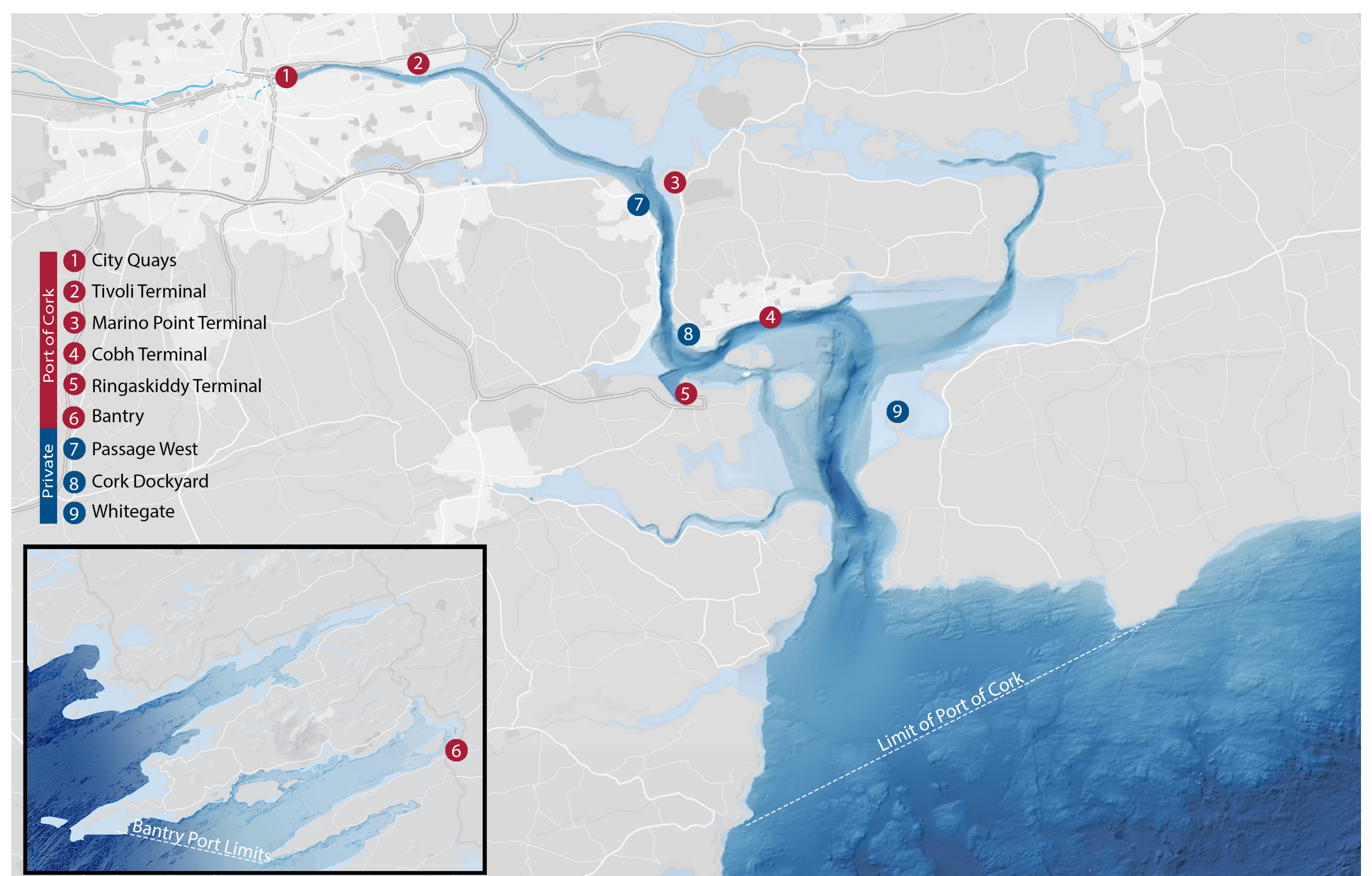


## Port Profile

Cork Harbour is one of the largest natural harbours in the world. It has been a working port for centuries and is one of Ireland’s major employment hubs.

The River Lee flows through the Port of Cork and enters the Atlantic Ocean south of Roches Point. The Harbour can be divided into two distinct areas – “The Upper Harbour”, from City Docks to Passage West and “The Lower Harbour”, from Passage West to the harbour entrance.

The Port of Cork is the key seaport in the south of Ireland and is one of the only two Irish ports which can accommodate all six shipping modes i.e., Lift-on Lift-off (LoLo), Roll-on Roll-off (RoRo), Liquid Bulks, Dry Bulks, Project Cargoes and Cruise. An €86 million Container Terminal has recently been developed at Ringaskiddy to respond to this growth.



The Port of Cork is the second largest port in the Republic of Ireland in terms of turnover and operates 363 days a year. Currently, there are six main port facilities situated at:

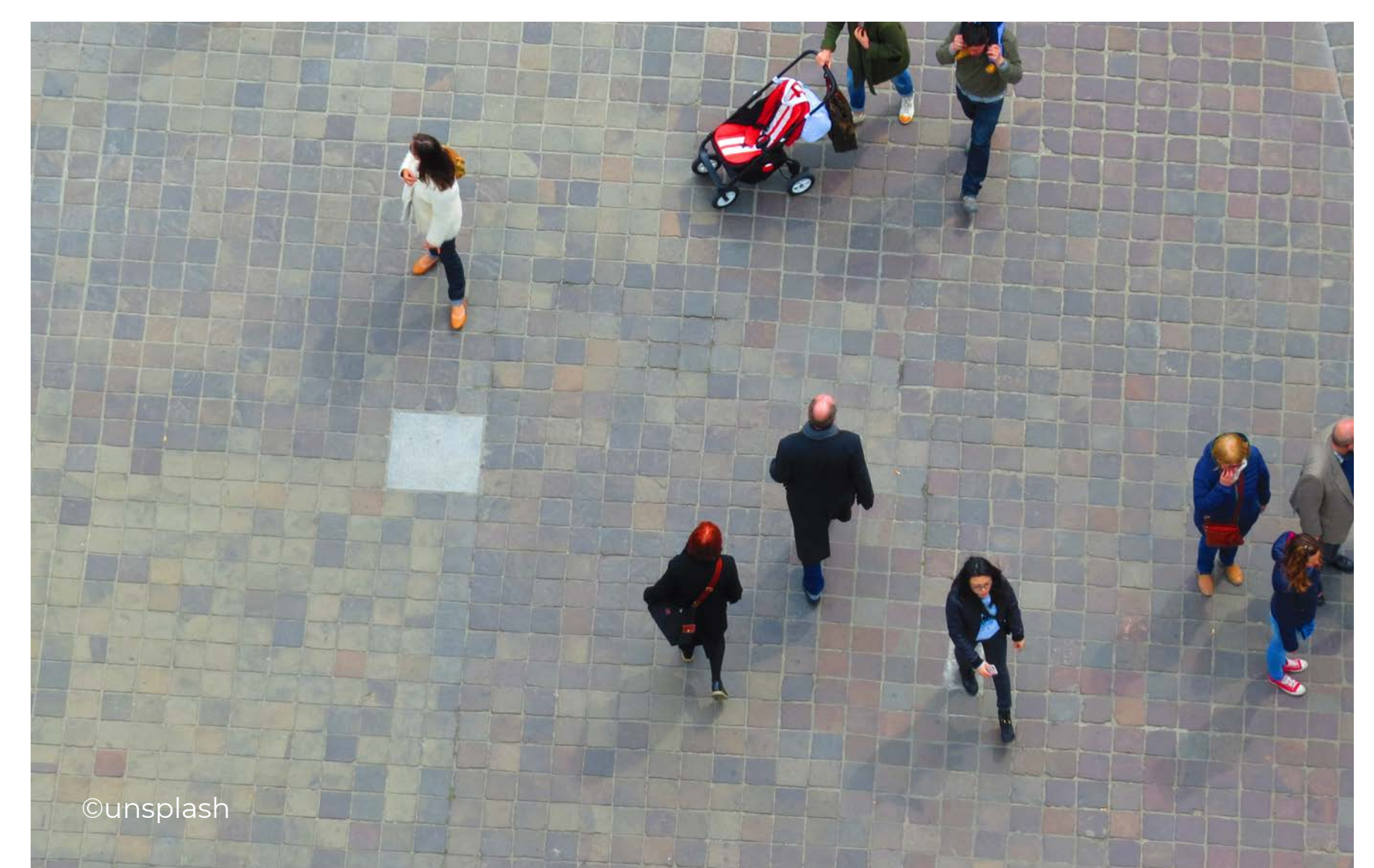
1. City Docks
2. Tivoli Docks
3. Ringaskiddy (East and West)
4. Cobh
5. Marino Point
6. Bantry





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## Society, Heritage, and Culture in Cork Harbour



### Settlements and Communities

Cork City (including the City Docks area where the Port of Cork has operated for many years) is located slightly upstream on the River Lee on the northwest corner of Cork Harbour. Many of the settlements from Cork City and the surrounding suburbs have a strong association with the harbour and many use it for recreational purposes such as sailing, boating, and other water-based activities.

### Islands

Cork harbour contains a number of islands of various sizes, some of which are connected to the mainland by bridges. The land use and character of these islands vary considerably, and some have changed over time. There is a rich maritime heritage associated with all of these islands and the coastal areas within the harbour itself.

### Economic, Commercial and Industrial Development

Cork Harbour is one of the most important industrial areas in Ireland. Several traditional industries such as shipbuilding at Verolme Dockyards, steelmaking on Haulbowline Island and fertiliser manufacturing at IFI have ceased. They have been replaced with newer industries and the harbour is now of considerable importance for the pharmaceutical industry which is a large employer in the region. Ireland's only oil refinery is located on the south-eastern shore together with the adjacent Whitegate and Aghada power stations.

Historically the port has been an energy hub for the region by facilitating the import of fuels such as coal and oil, with land based wind turbines also being commissioned in its vicinity. As import volumes of these fossil fuels decline, the port will continue to play a key role in facilitating the future energy needs of the region as a hub for renewable fuels and offshore energy streams.

### Tourism, Recreation and Heritage

As a tourism and amenity destination, the appeal of Cork Harbour is underpinned by its vast scale and diversity of uses. Visitor experience of the harbour, either on land or on water, is of an authentic living and working harbour, with a mix of natural and built landscapes and seascapes. The co-existence of heritage, landscape, industry, settlements, energy infrastructure, amenity, tourism, the harbour, and the port, is what makes Cork Harbour so compelling to visit.

There are a number of beaches within the harbour itself including Gobby Beach and Lough Beg beach, both located close to Ringaskiddy. Given the location of Ringaskiddy along the shoreline it is important to maintain public access to the water for local boating and leisure craft and facilitate the expansion of such facilities for residents, visitors, and local craft owners. Recent upgrades to Paddy's Point with a new recreational jetty and local community park reflect this importance.





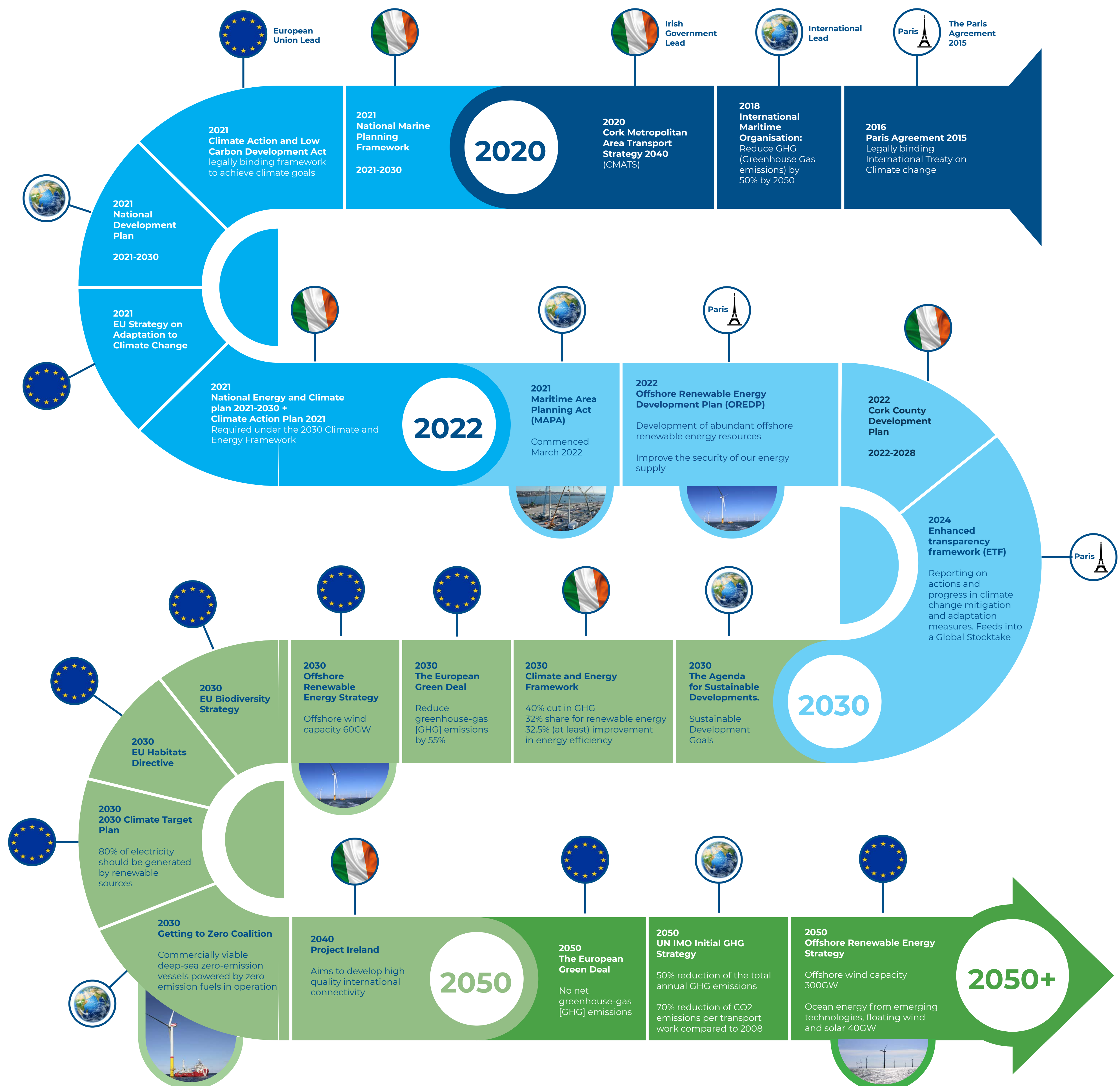
### Biodiversity and the Environment

Special Areas of Conservation (SACs) are protected under the Habitats Directive 92/43/EEC and the European Communities (Birds and Natural Habitats) Regulations 2011, as amended. Special Protection Areas (SPAs) are protected under the Birds Directive 2009/147/EC and European Communities (Birds and Natural Habitats) Regulations 2011, as amended. These are also called Natura 2000 or European sites. Natural Heritage Areas (NHAs/pNHAs) are national designations under the Wildlife Act 1976, as amended. There are two European sites located within the harbour along with several pNHAs. This rich biodiversity resource is significant to the harbour.



### The Port of Cork and Climate Targets

In 2018 the International Maritime Organisation (IMO) adopted an initial strategy introducing mandatory measure to reduce Greenhouse Gas (GHG) emissions across the shipping industry. The aim is to reduce GHG by 50% by 2050 with a view to phasing them out as early as possible this century. The ambitions are intended to be consistent with the Paris Agreement temperature goals adopted to the constraints of the maritime business. Other legislation and targets linked to the sustainable development of the port are shown in this timeline.







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## The Port of Cork Energy Hub

### The Port of Cork: An EcoPort

The shipping industry is looking to reduce GHG by 50% by 2050 under the 2018 IMO initial emission reduction strategy.

EcoPorts is the main environmental initiative of the European port network and has been fully integrated into the European Sea Ports Organisation (ESPO) since 2011. The Port Environmental Review System (PERS) within this initiative is the only port specific environmental management standard. PoCC are EcoPorts certified using PERS to facilitate their transition to a decarbonised, sustainable future.



### The Port of Cork Energy Plan

The Port of Cork will develop a whole-life carbon management framework, shaping interventions required to address capital, operational and user carbon, linked to a holistic view of the port energy system.

Interventions currently being planned to create the Port of the Future are:

- Electrification of port equipment
- Provision of zero carbon shorepower for vessels
- Provision of zero carbon fuels for vessels
- On-site energy generation and storage
- Smart energy management and microgrids
- Battery recharging facilities for land-based transport
- Carbon Capture and Storage (CCS)

### The Port of Cork Energy Hub

#### Future Cargoes Solid Biomass Fuels

Solid Biomass Fuels are seen as important in reducing dependency on electricity and increasing resilience of energy systems, through diversification. These biomass fuels require substantial amounts of dry storage due to the hydrophilic nature of many of the products.

Dry Bunks in the form of Solid Fuel Biomass have potential to be enabled through Ringaskiddy West Deepwater berth by simply modifying the existing dry bulk business.

#### Offshore Renewable Energy

PoCC can be an enabler of the green energy sector in Ireland by taking advantage of its deep-water channels and berths; reclaiming land to accommodate large project cargoes for offshore wind marshallling and assembly activities; upgrading infrastructure; leasing landside and/or near shore storage and providing access to berth and quays for operation & maintenance activities.



#### Future Cargoes Liquid Bunks

There are several green energy liquid fuels quickly emerging as part of the new green energy sector:

- Green hydrogen
- E-Methanol
- Green Ammonia
- Liquefied Natural Gas

PoCC can be an enabler of these energy vectors by leasing port lands to energy providers for infrastructure and storage. PoCC can similarly provide access to quays and jetties for the distribution, import and export of these green bunks.





### The Port of Cork Masterplan 2050 will:

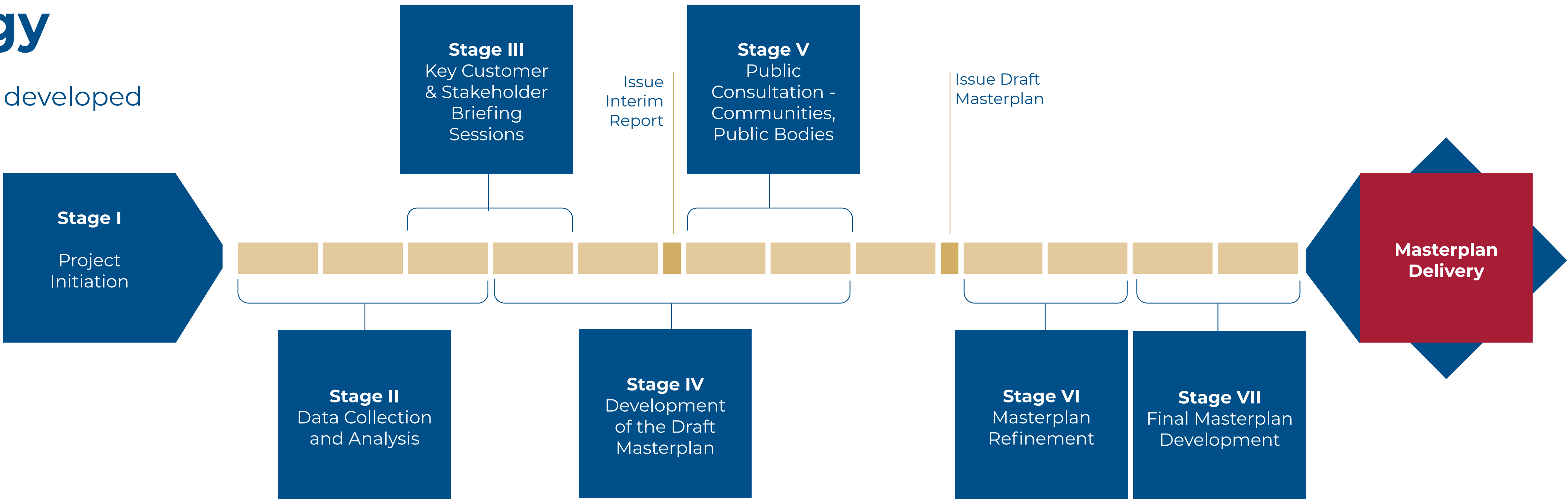


### The Port of Cork Masterplan 2050 aims to achieve strategic goals in relation to:



### Methodology

The Masterplan is being developed through 7 stages:



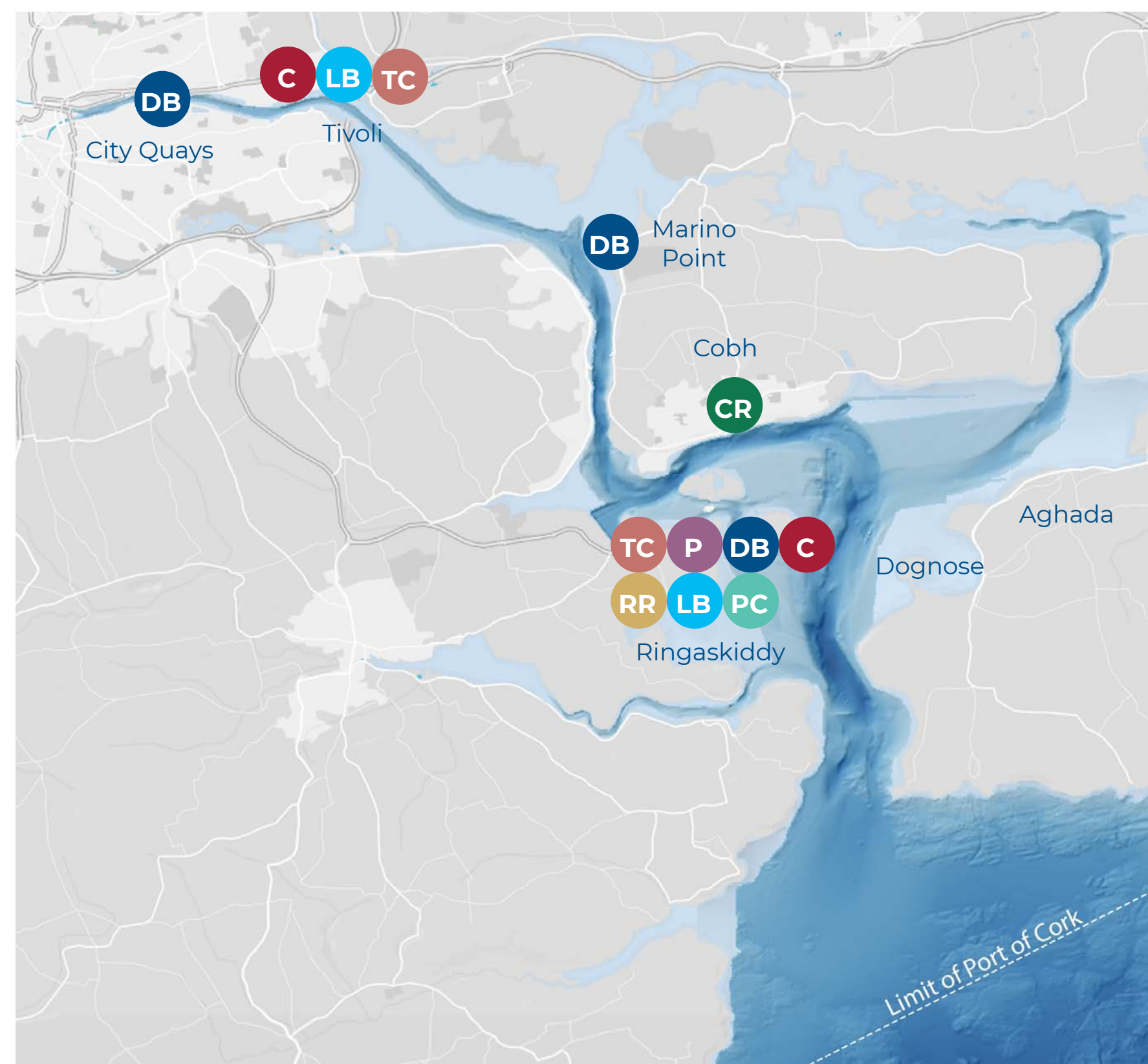




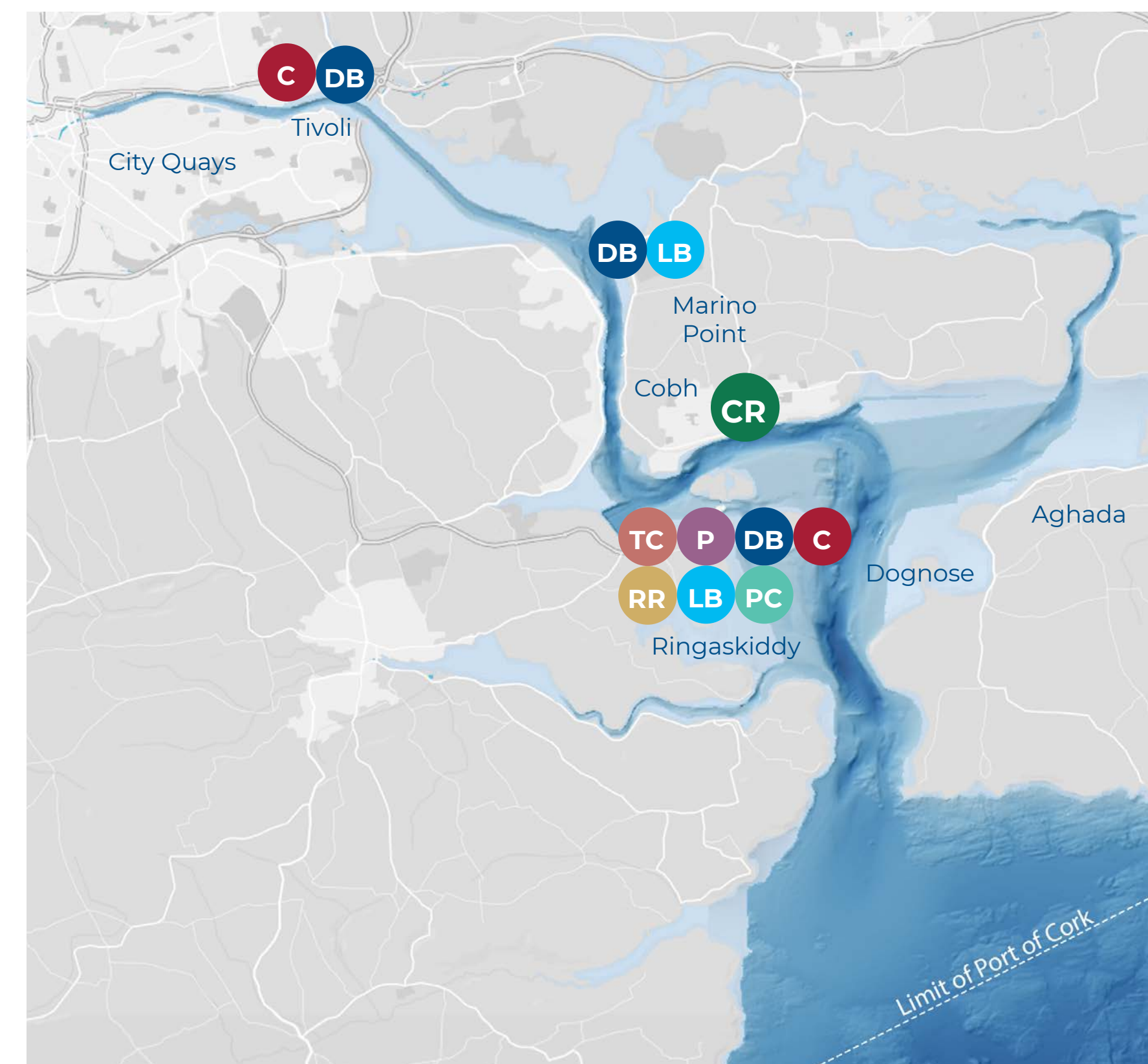
## Development Timeline

Over the course of the masterplan timeline, it is envisaged that operations in City Docks and Tivoli Docks will migrate towards the lower harbour, thereby providing more efficient deep water port terminals closer to the main shipping lanes and releasing brownfield sites in City and Tivoli Docks for regeneration.

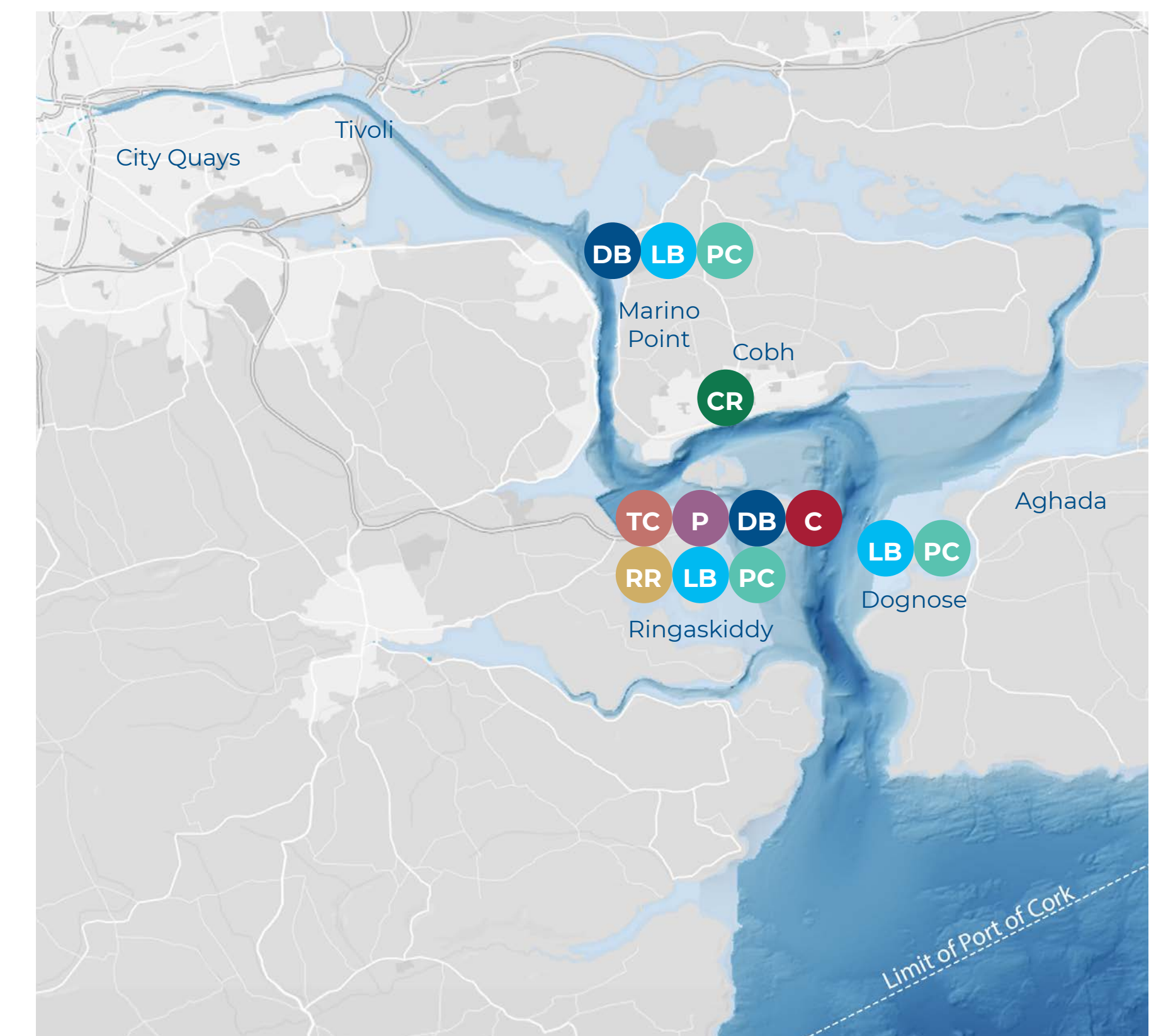
### Short-term



### 2030



### 2040 and beyond



DB Dry Bulks C Containers PC Project Cargos LB Liquid Bulk RR RoRo TC Trade Cars CR Cruises P Passengers

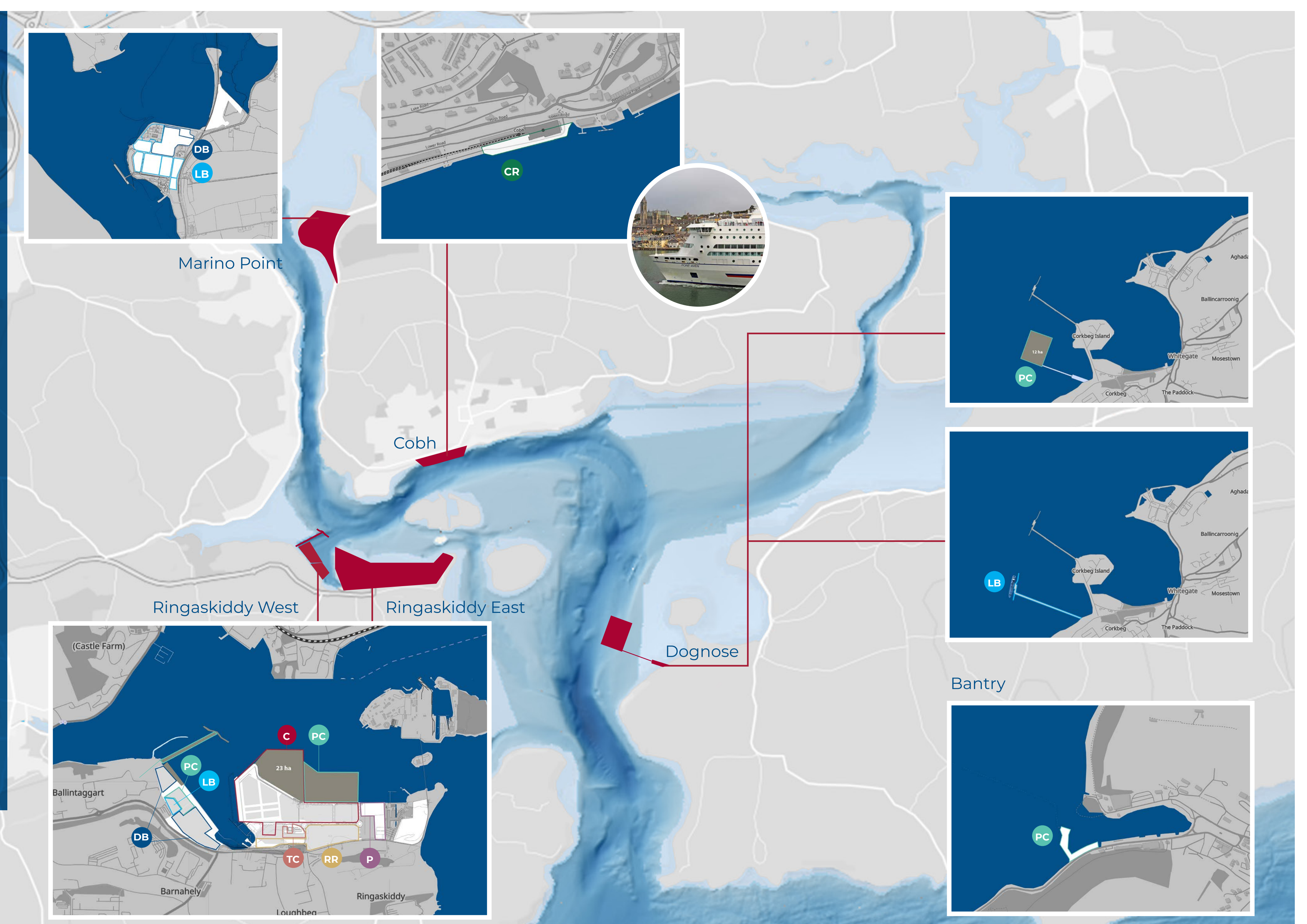
## Port of Cork Masterplan 2050

### City Docks and Tivoli Docks

The Proposed relocation of Port of Cork activities to lower harbour will leave room for the development of City Docks and Tivoli Docks. The Draft Cork City Development Plan 2022 – 2028 envisages new sustainable, people-centred city neighbourhoods in these locations.

The replacement of the city quays for Port related activity is a key component of the masterplan. New facilities will need to be in place and operational prior to vacating the city.

Available space  
New land reclamation





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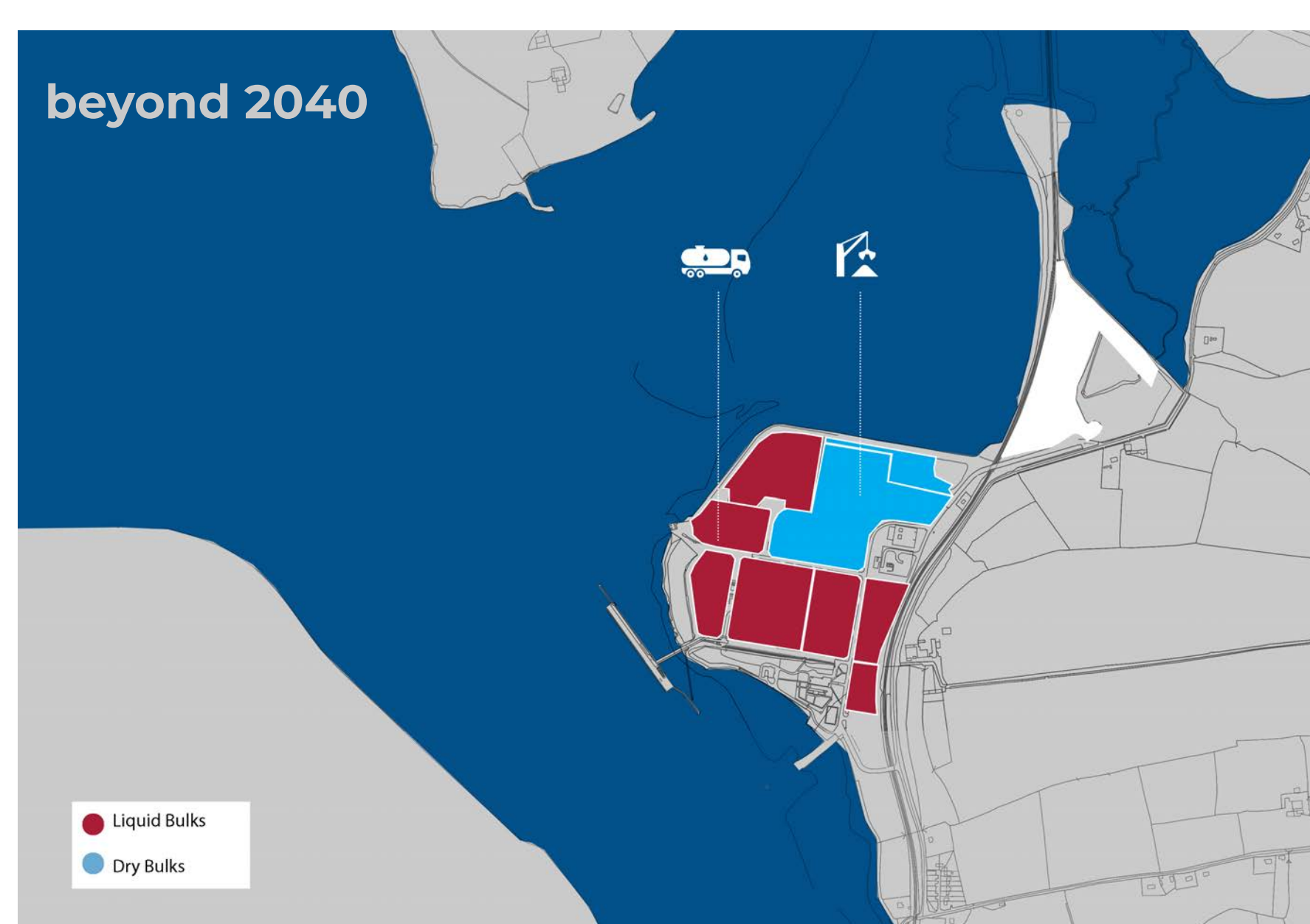
## Tivoli, Marino Point and Ringaskiddy West



### Masterplan Elements

The City Docks will close in the near future. Cobh cruise terminal will continue it's operations. Tivoli, Marino Point, and Ringaskiddy will all see progressive development during the period of the masterplan.

### Marino Point



#### Marino Point Now

There is 46Ha of land available at Marino Point for development.

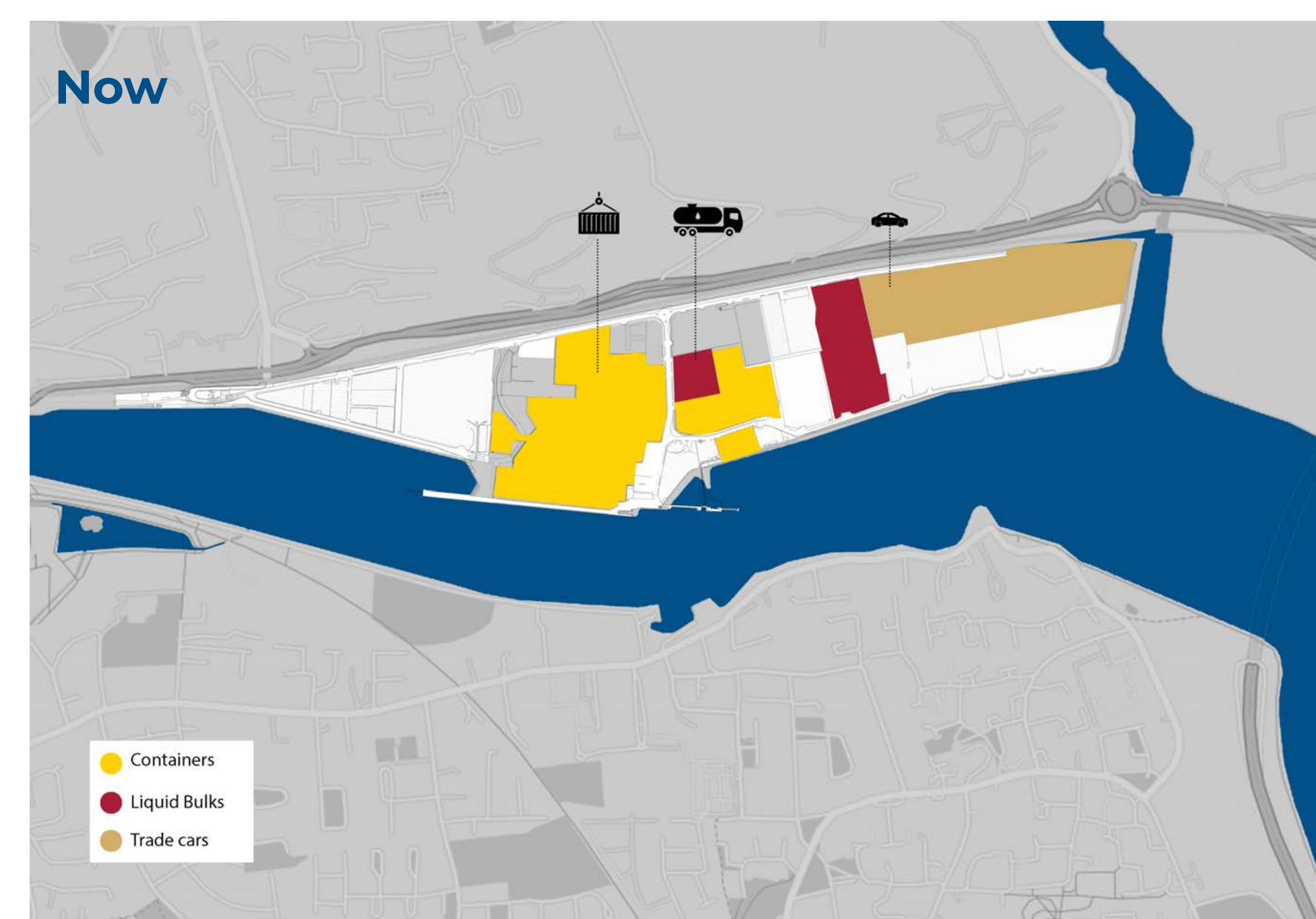
#### Marino Point 2030

Some commodities and cargoes will be relocated to Marino Point following the vacation of City Docks. Upgrades in the infrastructure and equipment will allow the facility to handle dry bulks and project cargoes.

#### Marino Point 2040 and Beyond

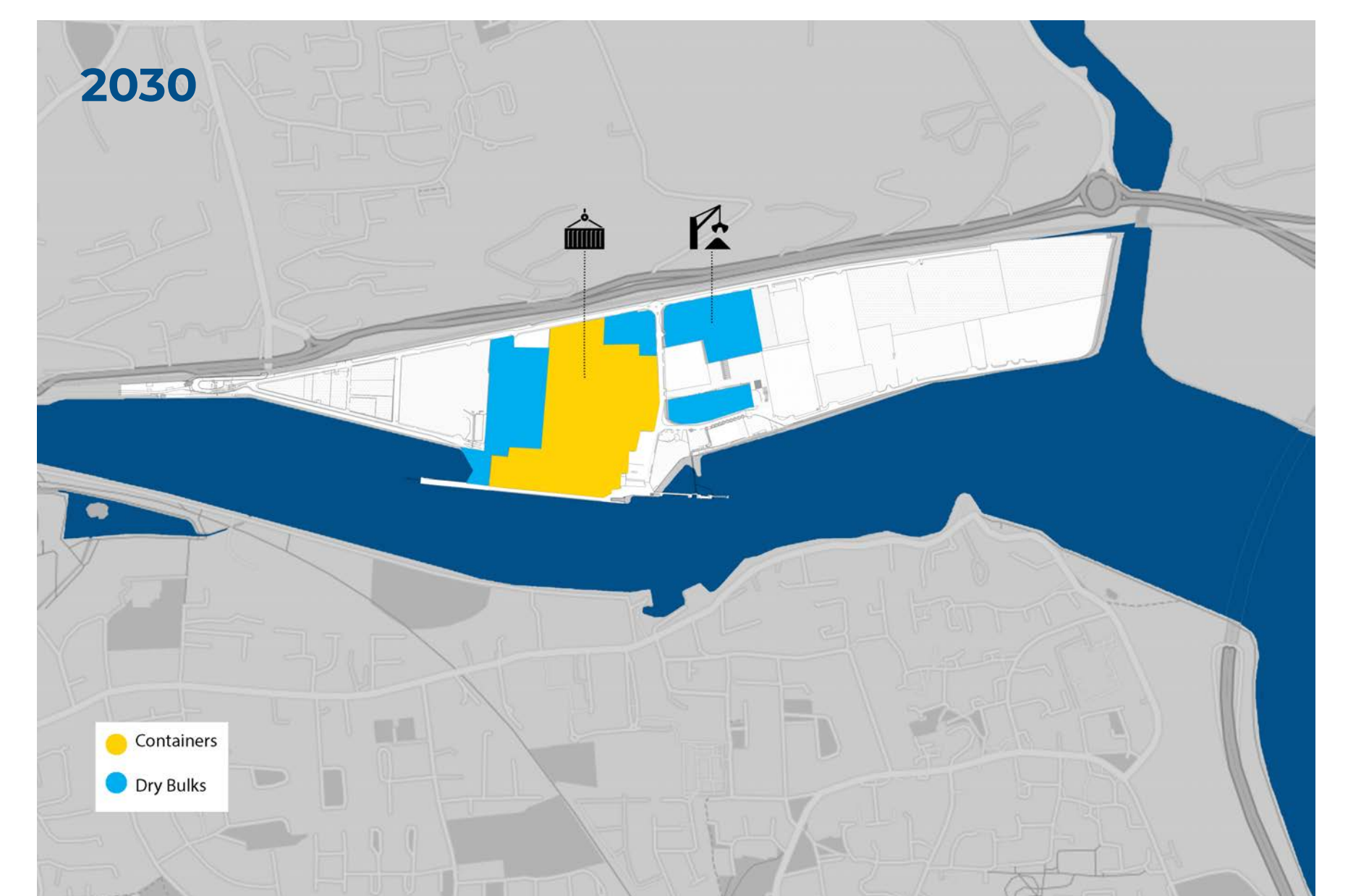
By 2040, some commodities will need to be relocated from Ringaskiddy West to Marino Point due to increasing volumes and storage space limits in the former.

### Tivoli



#### Tivoli Docks Now

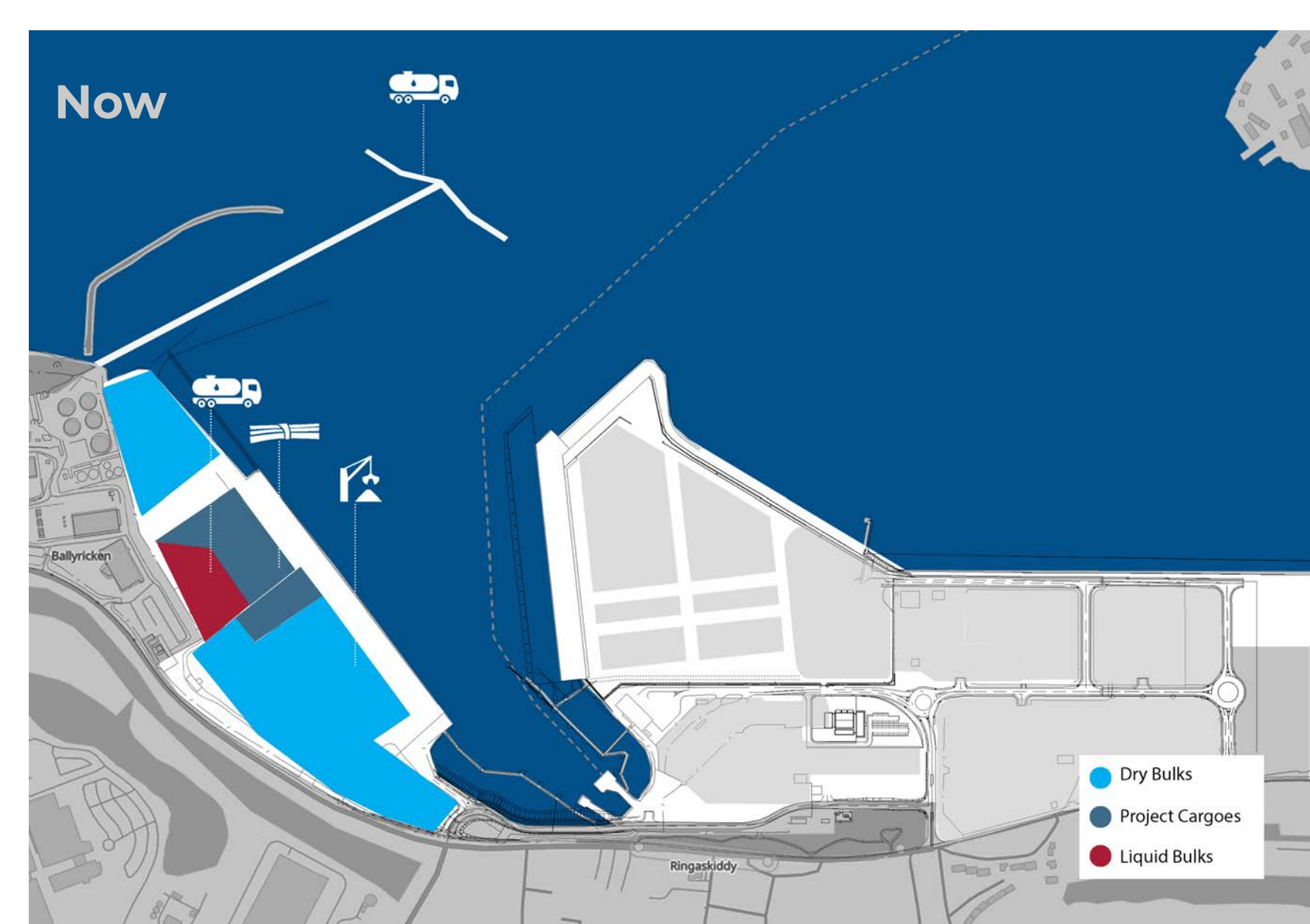
Cargo projections demonstrate the need for Port operations to continue in Tivoli Docks until 2030. The timeline for this phased move is being driven by a planning constraint limiting throughput in Ringaskiddy until the construction of the M28 motorway has been completed.



#### Tivoli Docks 2030

Some commodities and cargoes will be moved from City Docks to Tivoli Docks in the near future. Sufficient storage for relocated cargoes will be maintained while reducing the container yard. By 2040 the masterplan envisages Tivoli Docks will have ceased operations with all cargoes moving to Ringaskiddy.

### Ringaskiddy West

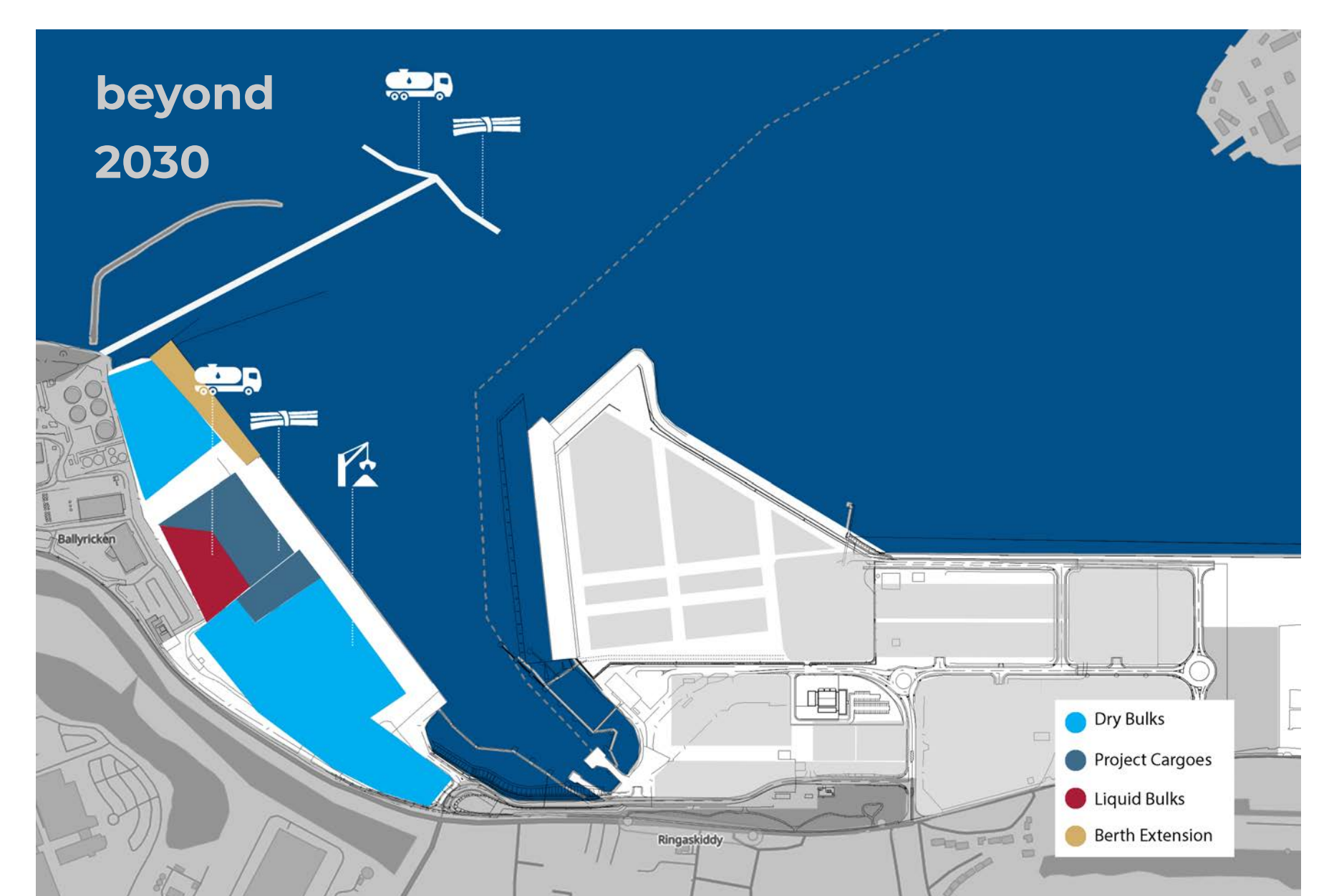


#### Ringaskiddy West Now

Ringaskiddy West has enough capacity to handle the current liquid bulks, dry bulks and project cargoes through the port. There is currently 9.6Ha of landside storage.

#### Ringaskiddy West 2030

By 2030, it is proposed that some commodities and cargoes will be moved from City Docks to Ringaskiddy West. The planned berth extension of 230m will allow the terminal to handle up to 2 million tonnes of dry bulks and project cargoes per year. An additional 7.8Ha of offsite landside storage will be required achieve this giving a total of 17.4Ha.



#### Ringaskiddy West 2040

It is expected that an additional 3.4Ha of offsite landside storage will be required during this period to achieve 2040 targets, giving a total of 20.8Ha.

#### Ringaskiddy West 2050

Future volume projections indicate that an additional 4.2Ha of offsite landside storage will be required during this period to achieve 2050 targets, giving a total of 25Ha.



## Ringaskiddy East Cork Container Terminal (CCT)



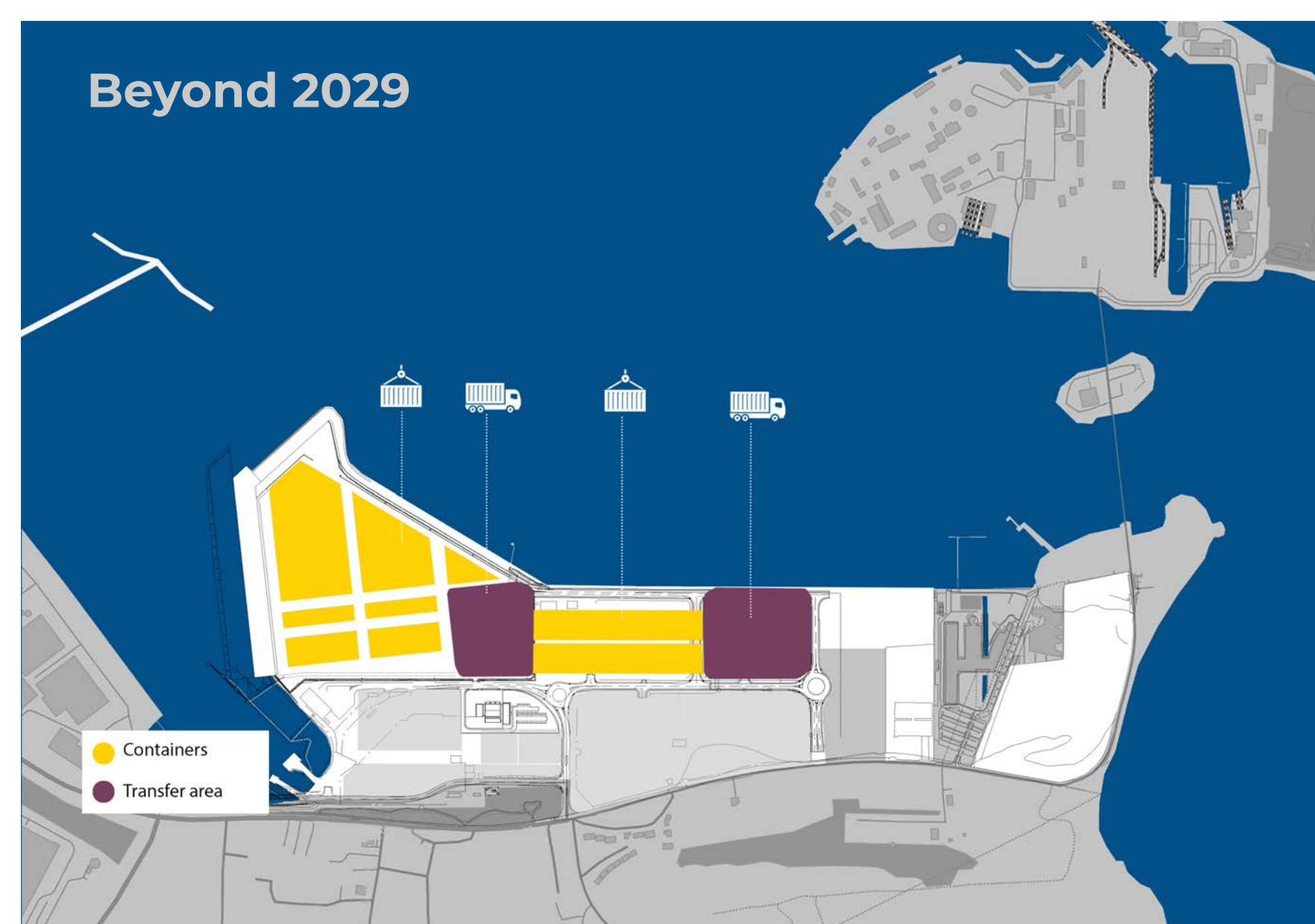
### Ringaskiddy East Cork Container Terminal (CCT)



#### Ringaskiddy East: Now until 2029

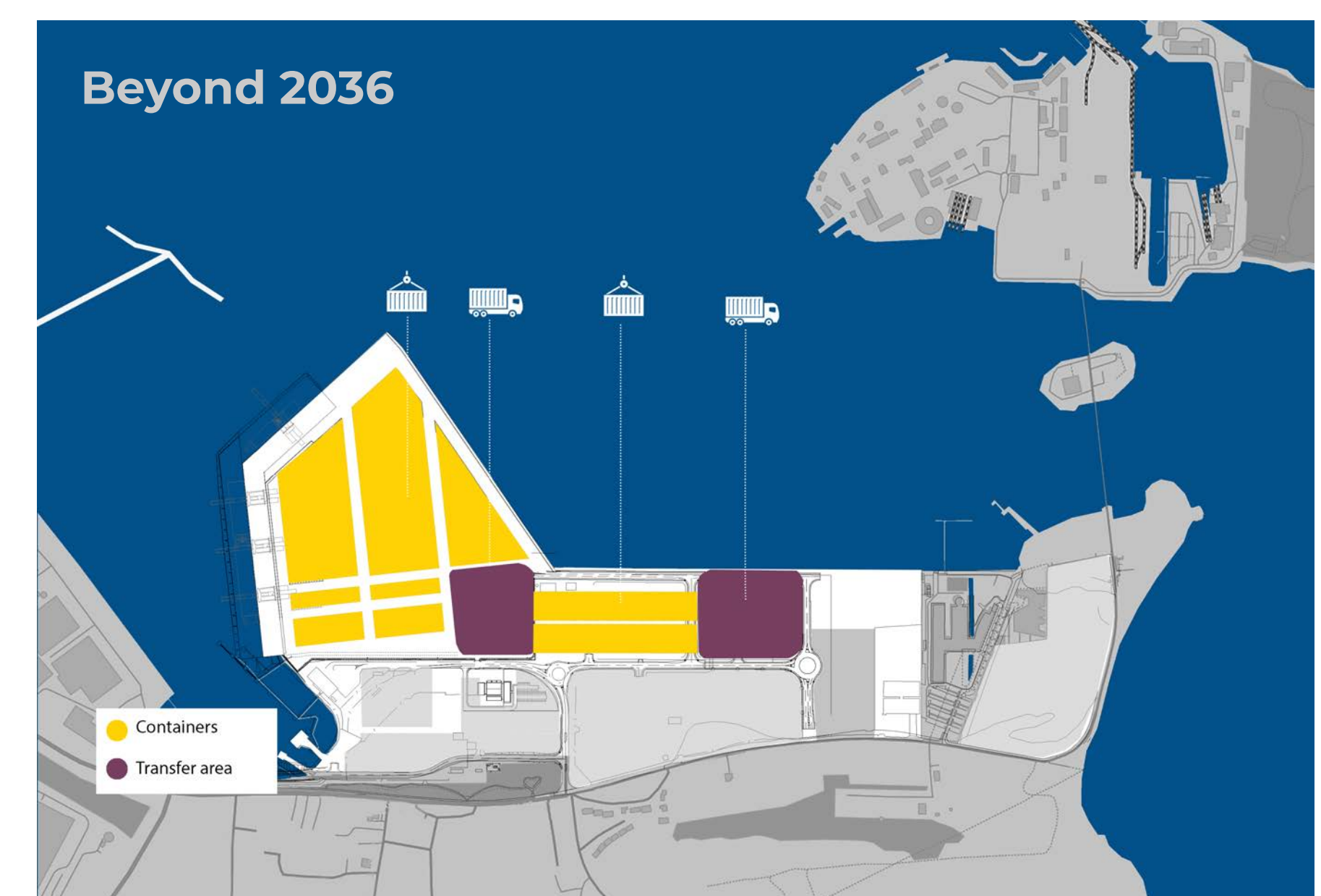
The new Cork Container Terminal (CCT) officially opened in September 2022. Large Panamax vessels can be accommodated along the 360m long quay, where 2 Ship-to-Shore gantry cranes are installed. Trade vehicles are discharged at the linkspan in Ringaskiddy East which also houses the Ferry Terminal which provides Brittany Ferries' services to Roscoff.

The current infrastructure will allow the port to have sufficient capacity up to 2029, however a planning condition limits throughput at the permitted Ringaskiddy Port facility to 322,846 TEU until such time as the M28 and Dunkettle road schemes are complete. As a consequence, the Port will operate dual container operations at both Tivoli and CCT in the interim.



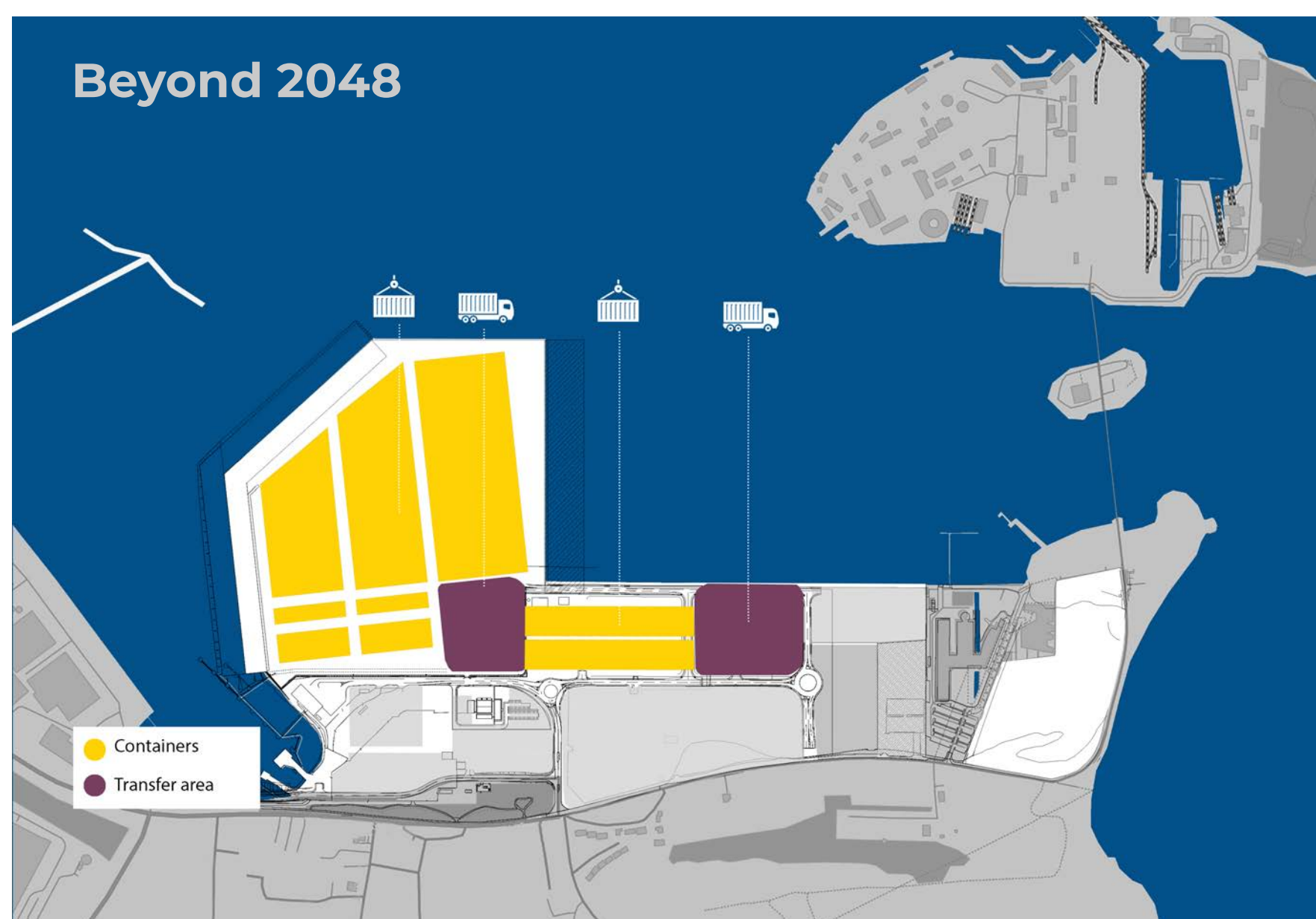
#### Ringaskiddy East: 2029 to 2036

To meet the projected increase in the container trade, the CCT in Ringaskiddy East will undergo infrastructure and logistics upgrades to guarantee the required capacity and allow efficient operations. This expansion can happen once the M28 has been completed.



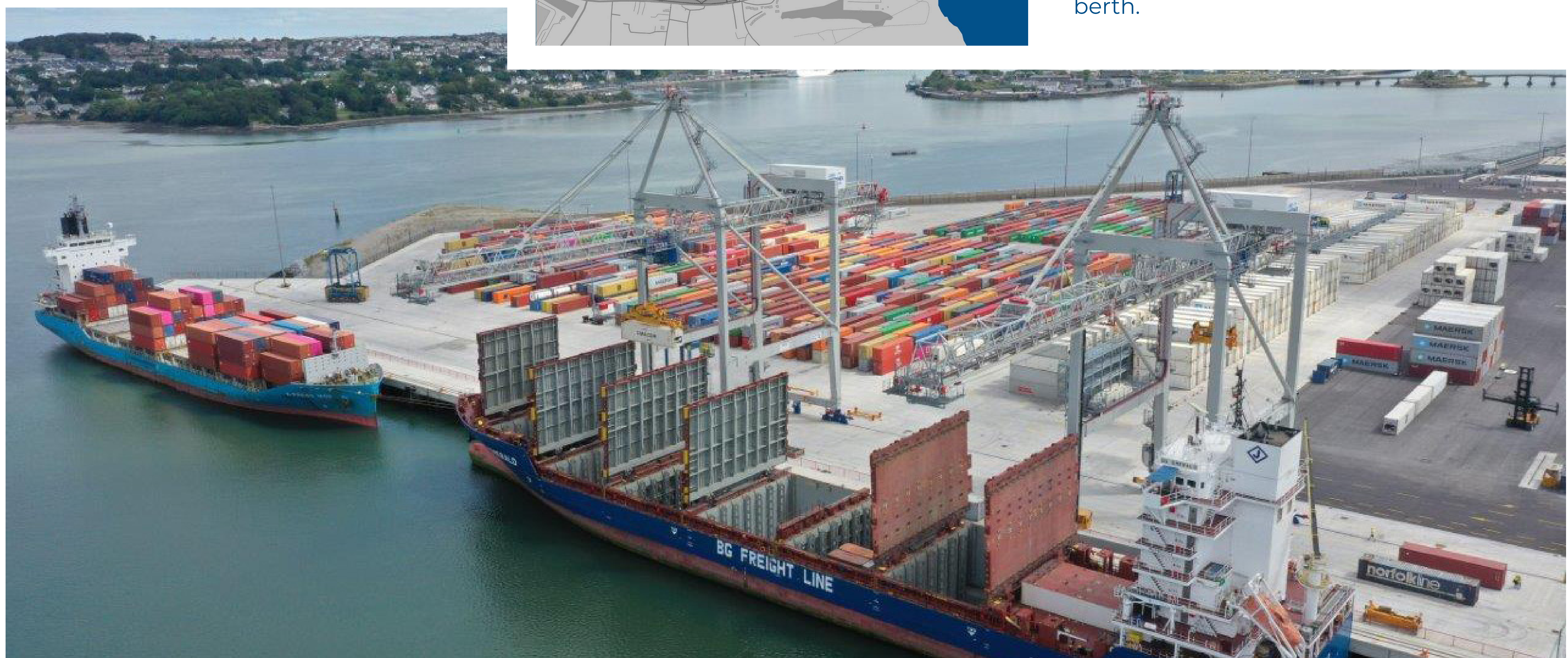
#### Ringaskiddy East: 2036 - 2048

From 2036 it is envisaged the terminal will need major infrastructure upgrades to accommodate the future demand of containers. A land reclamation of around 6.4ha will be developed and will allow the construction of a second berth.



#### Ringaskiddy East: Beyond 2048

Future volume projections indicate the demand in container trades will continue to grow and will require additional capacity from the port. Reclaiming 6.6ha towards Paddy's Point will allow the terminal to have sufficient storage area and berthing length. This second reclamation will allow the expansion of the container yard and facilitate the installation of a new RoRo berth.





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# Ringaskiddy East Additional Cargoes



## Ringaskiddy East Additional Cargoes



### Ringaskiddy East Additional Cargoes Now

The remaining locations at Ringaskiddy East will be developed alongside the expansion of the CCT. This site layout shows the current locations of the storage and marshalling areas for RoRo, ConRo, RoPax and Trade Cars.



### Ringaskiddy East Additional Cargoes 2030

RoRo, ConRo, RoPax and Trade Car businesses are expected to grow substantially in the future. Port of Cork will undergo significant infrastructure upgrades to satisfy the increasing demand. Between now and 2030, the Port of Cork will need to transition to a new RoRo, ConRo and Trade Cars layout at this location increasing the efficiencies within the existing area.



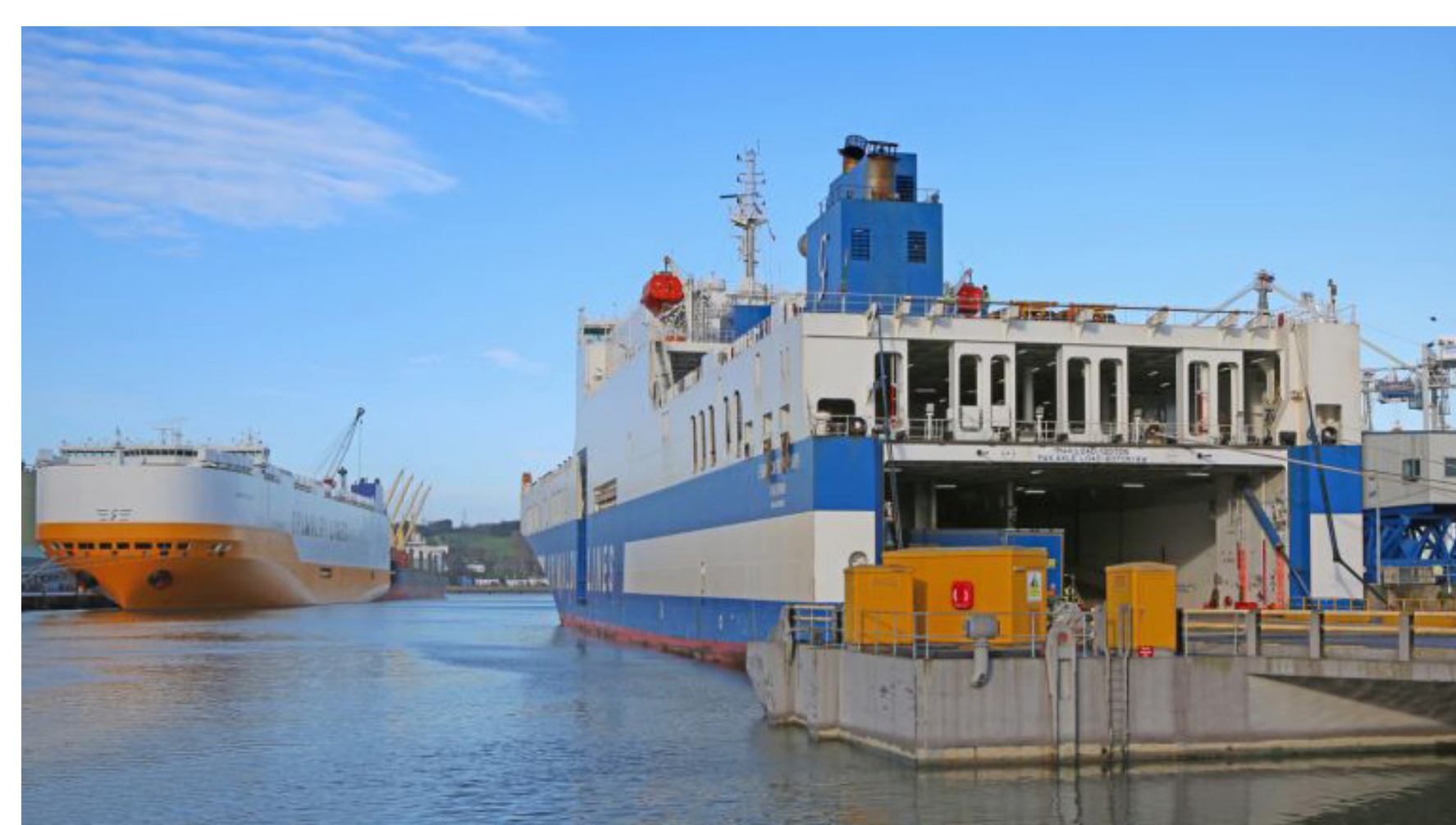
### Ringaskiddy East Additional Cargoes 2040

The land dedicated to RoRo, RoPax and Trade Cars will need to be expanded to accommodate the steady growth in these markets over this period. An expansion of the RoPax marshalling lanes will also guarantee sufficient capacity to handle the increased ferry passenger traffic.



### Ringaskiddy East Additional Cargoes 2050

By 2050 some of the storage and marshalling areas for RoRo, RoPax and Trade Cars will be moved offsite to provide sufficient capacity at the terminal. This increase in volumes will lead to additional vessel calls hence a second RoRo berth will be located on the northern part of the terminal on the newly reclaimed land.





Offshore Renewable

Energy & Future Cargoes



The Port of Cork Future

Cargoes

While developing the Port of Cork Masterplan 2050, the Port of Cork Company has engaged with several private sector and semi-state companies spearheading the delivery of renewable energy in Ireland, particularly Offshore Renewable Energy (ORE). The following future cargoes, emerging as part of this green energy sector, are under consideration by the Port of Cork Company.

Liquid Bulks:

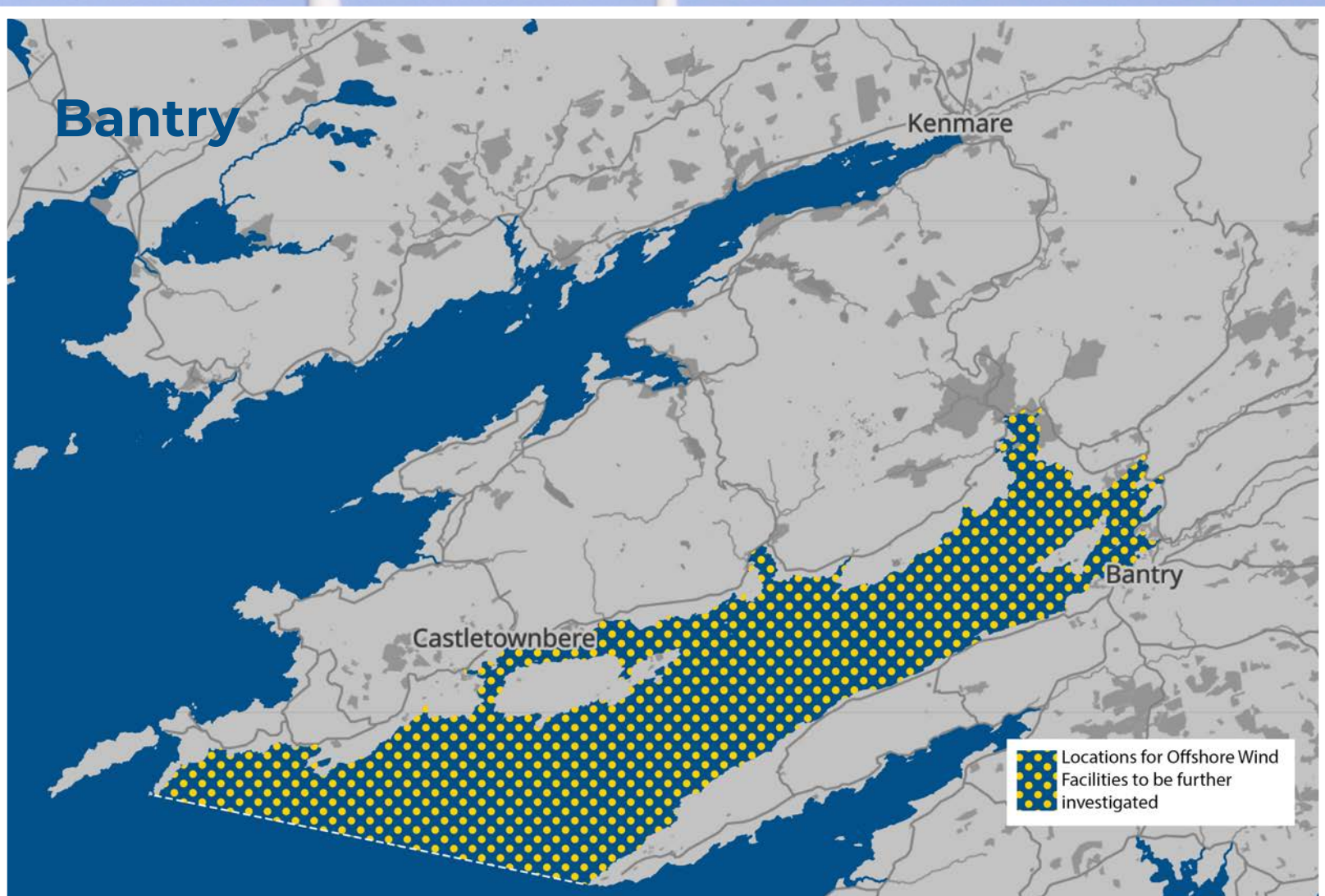
Green Hydrogen,  
E-Methanol, Green  
Ammonia and FSRU  
(Floating Storage and  
Regasification Unit)

Project Cargoes:

- Offshore Wind Related  
Activities
- Marshalling and  
Assembly Activities
  - Operation and  
Maintenance (O&M)  
Activities

Dry Bulks:

Solid Biomass Fuels



Ringaskiddy East

Ringaskiddy East has been identified as a potential location for the development of ORE - Offshore Wind activities, as Marshalling and Assembly in the short-term and O&M in the longer-term.

To achieve this, a reclaimed area of 23Ha would be required for Marshalling and Assembly (M&A) in the immediate future. In the longer term this space would be used for the expansion of the CCT and as an O&M Offshore Wind Facility. Space for each would change over time as follows:

	CCT	Offshore Wind
2022 – 2036	-	23Ha (M&A)
2036 – 2048	6.4Ha	16.6Ha (O&M)
Beyond 2048	13Ha	10Ha (O&M)

The reclamation will include the construction of additional berth lengths giving a total of 800m when completed.

Bantry

Bantry Harbour has the potential to provide facilities to support Marshalling & Assembly and Operation & Maintenance for Offshore Wind Activities. Further investigation is required to determine suitable locations for these facilities.

Ringaskiddy West

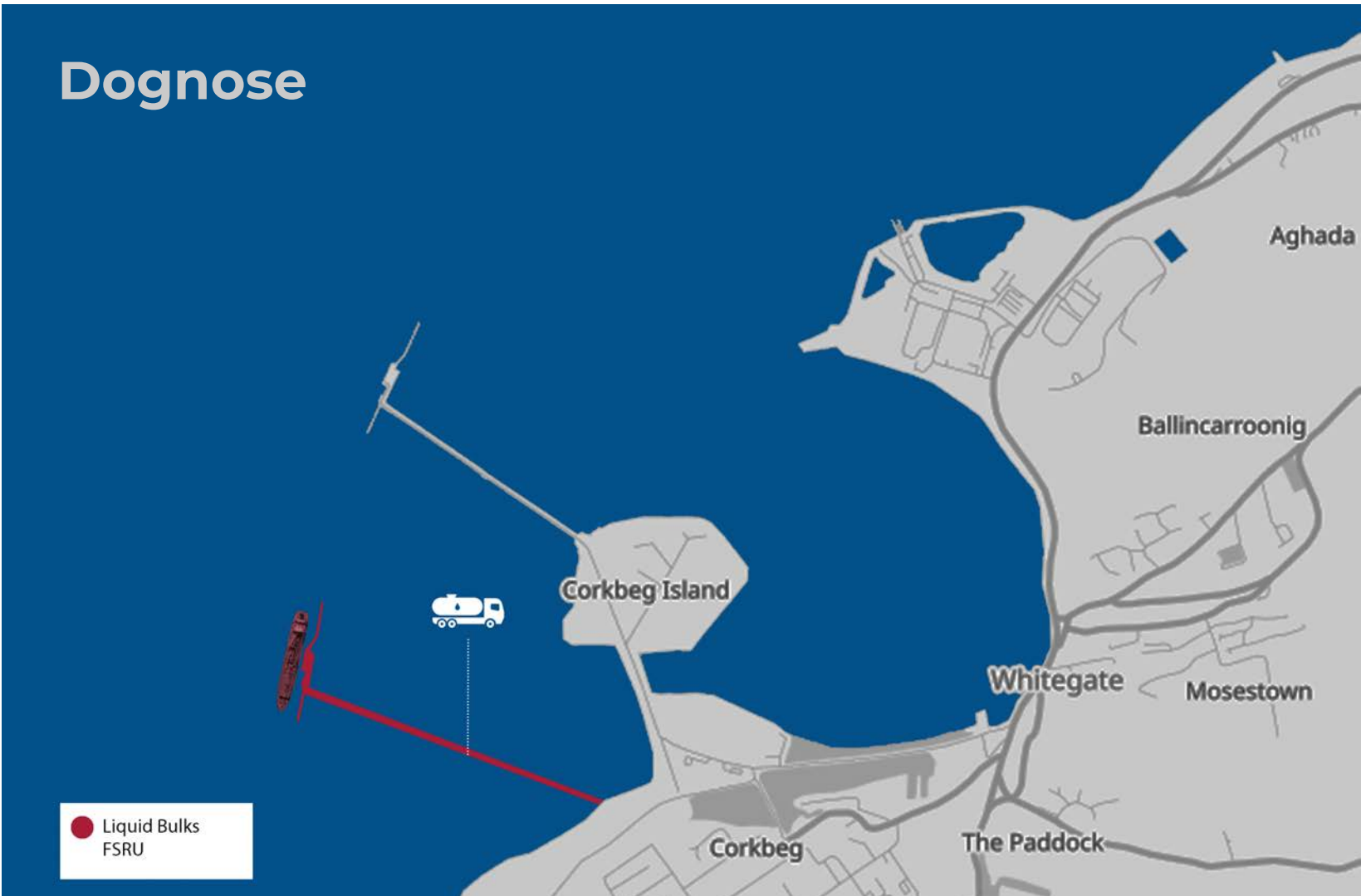
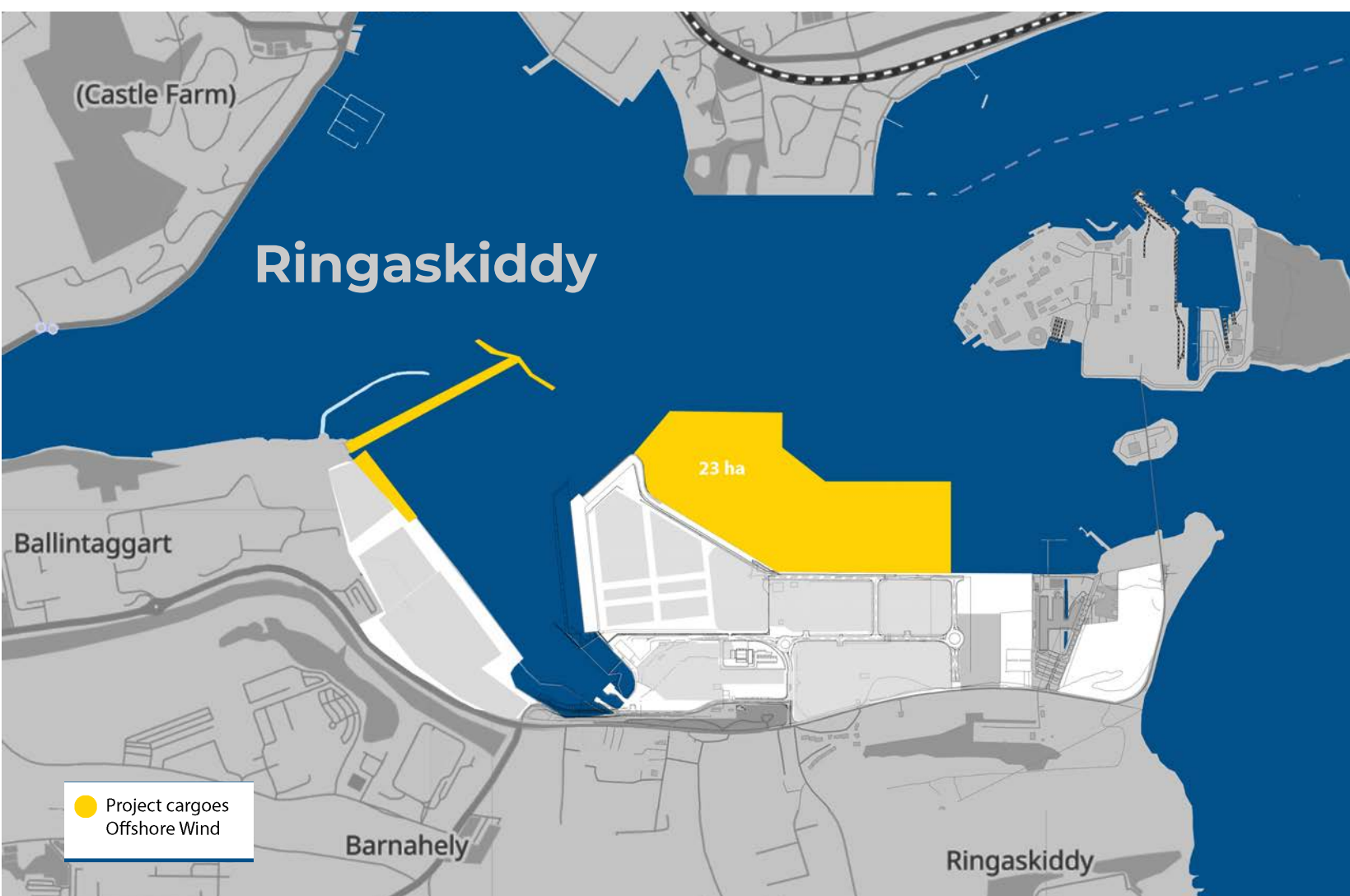
Dry Bulks in the form of Solid Fuel Biomass have potential to be enabled through Ringaskiddy West Deepwater berth by simply modifying the existing dry bulk business.

The ADM jetty at Ringaskiddy West could be widened and an additional hammerhead berth added to allow for ORE project cargoes which require deep water for the large shipping vessels.

Dognose Bay

Dognose Bay is seen as a site that can support ORE sector by facilitating the offshore wind industry for Marshalling and Assembly through the reclamation of 12Ha. Due to challenges with hinterland connectivity, components would be shipped in for such operations or fabricated on the quays. Proximity of Dognose Bay to the national grid at this location is a positive driver for energy production.

Dognose Bay is seen as a site that can support future cargoes both in the form of Floating Storage and Regasification Unit (FSRU) by adding an additional jetty and berth for a permanent vessel. Other liquid bulks could also be considered at this location.





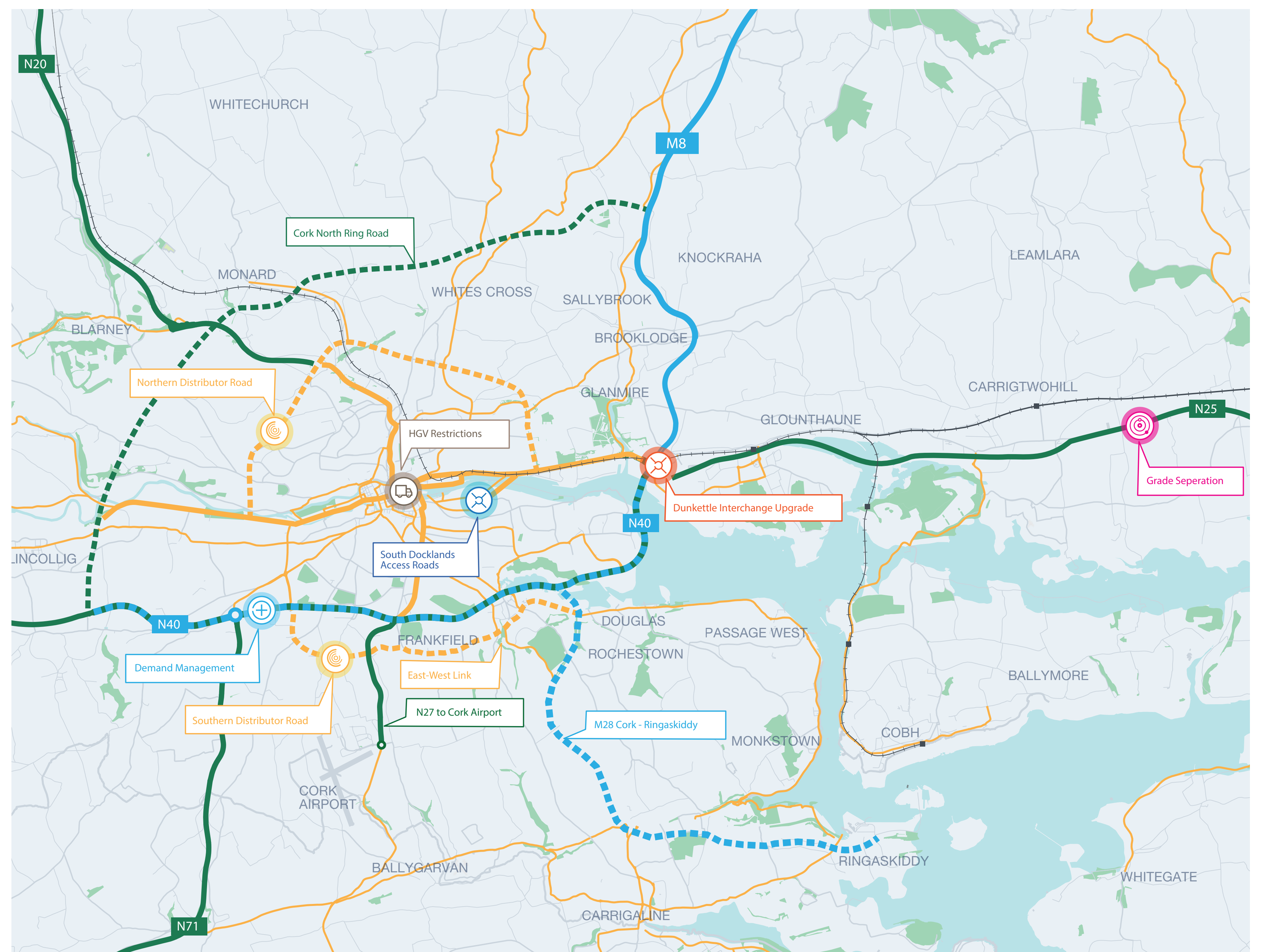
## Hinterland Transport and Connectivity



### Hinterland Transport and Connectivity

With the Port of Cork identified as part of the core network in the European TEN-T network, hinterland access is a priority. High-quality road access to the port is required to fulfil the port's obligations in this regard and such roads are considered as “*motorways, express roads, or conventional strategic roads*”.

Currently container and bulk cargoes are distributed from the port by road to regional and national destinations. The upgrade of the N28, from a single carriageway, is seen as a critical piece of infrastructure to achieve these requirements.



CORK METROPOLITAN AREA TRANSPORT STRATEGY 2040 - Proposed Road Network 2040

#### Road Access Ringaskiddy

The Cork Metropolitan Area Transport Strategy 2040 (CMATS) aligns with this priority stating that “the proposed upgrade of the N28 (to become the M28) is a long-term strategic objective for both Cork City and County Councils” and this has been reiterated in the most recent National Development Plan (NDP) identifying it as a national economic priority. The M28 will enable the relocation of the Port of Cork’s activities to Ringaskiddy.

The planning application for the M28 Cork to Ringaskiddy project was approved by An Bord Pleanála in June 2018.

#### Road Access Marino Point

CMATS states that “***the R624 (Cobh Road to Marino Point) road will require safeguarding in its function and form to facilitate existing and future port related uses***”. Cork County Council are actively pursuing the planning and design for the upgrade of the R624 including the provision of an enhanced bridge crossing at Belvelly, however no date has been released for its future upgrade.

#### Rail Access Marino Point

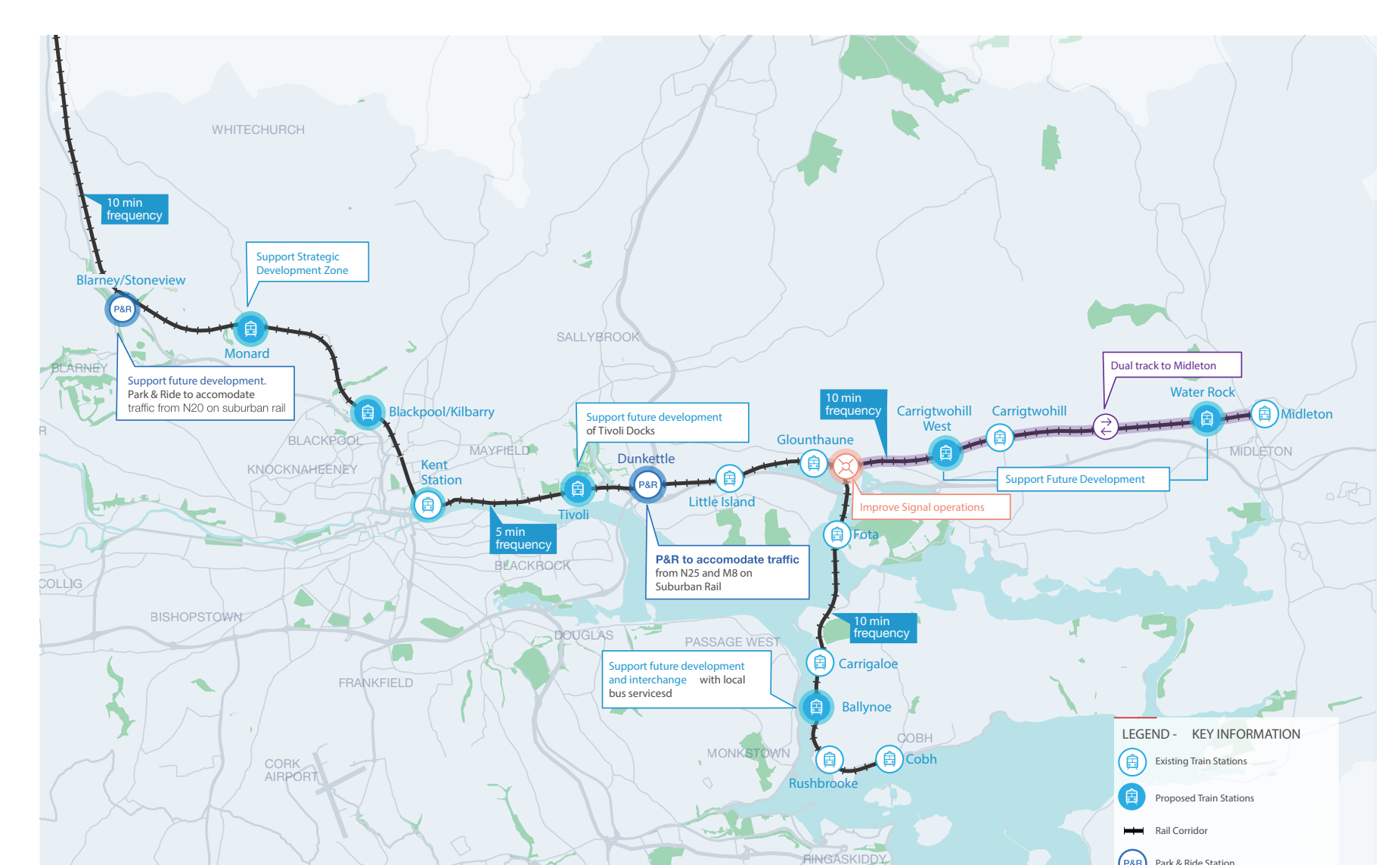
The upgrading of rail services with fast, reliable services at national, suburban and city level is seen as intrinsic to the reduction of road traffic and an increase in the use of public transport.

The potential of rail freight has been recognised within CMATS. An additional station adjacent to Marino Point may be suitable to facilitate rail freight options complementing the ***European Rail Traffic Management System*** a horizontal priority to the Trans-European Transport Network (TEN-T).

#### Coastal Shipping

“***Motorways of the Sea***” is seen as another horizontal priority to support the TEN-T networks in Europe. It proposes the development of new intermodal maritime-based logistics chains in Europe and identifies a lack of connection between sea, inland waterways, and rail. Growing this transport mode could be inexpensive and less damaging to the environment through the reduction of road congestion. Bulk cargoes, mainly liquid bulks, are re-distributed from the Port of Cork by sea to other Irish Ports such as Dublin, Galway, Bantry, and Greenore.

CORK METROPOLITAN AREA  
TRANSPORT STRATEGY 2040  
Proposed Rail Network







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## Next Steps for the Port of Cork

These next steps have been identified as a pathway for the successful implementation of the Port of Cork Masterplan 2050

### Next Steps

#### Engage

Engage in the development of planning and transport policy with local and national government

#### Examine

Examine any proposals for development based on this Masterplan in relation to environmental impacts and comply with all statutory requirements

#### Raise

Raise the profile of the required road upgrades to the R624 link road from Marino Point to the N25

#### Review

Review opportunities to link into the rail system at Marino Point to increase hinterland connectivity of the Port through environmentally sensitive solutions

#### Involve

Involve all relevant stakeholders following the publication of this Masterplan during the design, planning, and implementation of projects

#### Evaluate

Evaluate this Masterplan every 5 years to consider its continued appropriateness in reflecting market trends.

Complete a thorough review, with possible updates, every 10 years

#### Adopt

Adopt sustainable development principles throughout operations, infrastructure development, and within future commodities

#### Develop

Develop a decarbonisation and energy plan to reduce the dependencies on hydrocarbons and increase the use of alternative energy sources

#### Investigate

Investigate opportunities to facilitate the development of future cargoes such as Green Hydrogen, E-Methanol, Ammonia, FSRU (Floating Storage and Regasification Units), Solid Biomass Fuels and ORE (Offshore Renewable Energy)

#### Support

Support the advancement of proposals to redevelop City Docks and Tivoli Docks as a strategic benefit to the Draft Cork City Development Plan 2022 -2028

#### Explore

Explore opportunities with private sector partners for renewable energies and future cargoes

#### Embrace

Embrace appropriate technology solutions to modernise port operations increasing efficiencies and minimising environmental impacts. This includes noise reduction, air and water quality improvements, responsiveness to climate change, and the introduction of more circular waste management systems

#### Acquire

Acquire land to facilitate the development of Offshore Renewable Energy opportunities and engagement with new future cargoes

#### Monitor

Monitor trends in port-centred logistics and pursue initiatives that can use adjacent land banks to serve customer needs

For more information or any other queries please visit

**[www.portofcork.ie](http://www.portofcork.ie)**