



Appendix A  
**MP2 PROJECT:  
PROJECT RATIONALE**





**COMHLACHT CHALAFORT  
ÁTHA CLIATH  
DUBLIN PORT COMPANY**

**MP2 Project**

**Project Rationale**

**11<sup>th</sup> July 2019**

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## Introduction

Dublin Port is the largest and most important port in the country. The combination of reasonable depth of water, proximity to the largest concentration of population on the island and excellent access to the national road and rail networks gives Dublin Port its importance in both the EU TEN-T network<sup>1</sup> and in the national port system.

In common with other important parts of national infrastructure, there has been significant underinvestment in Dublin Port for many decades. For example, for 31 years from 1979 to 2010 Dublin Port & Docks Board and latterly Dublin Port Company (DPC) sought permission to expand the port by infill into Dublin Bay opposite Clontarf rather than optimising existing quays and lands.

A new direction for the development of the Port was established by the Dublin Port **Masterplan 2012-2040** published in February 2012.

The Masterplan was reviewed and updated and the current version is **Masterplan 2040 Reviewed 2018**, published in June 2018.

Between the publication of the original Masterplan in 2012 and the updated version in 2018, the challenges facing the Port changed significantly due to a number of factors:

- Rapid economic recovery after the 2008 recession led to large growth in cargo volumes from 28.1m gross tonnes in 2011 to 38.0m gross tonnes in 2018, an increase of 35.2%.
- The country's population increased by 6.2% from 4.6m in 2011 to 4.9m in 2018.
- Following the referendum in the UK in June 2016, Brexit is anticipated in the near future and patterns of trade have already begun to change with increased growth on services between Dublin and ports in Continental Europe such as Rotterdam, Zeebrugge and Cherbourg.

The review of the Masterplan modified DPC's view of how Dublin Port needs to be developed:

- Firstly, the long-term growth rate assumption for capacity planning<sup>2</sup> was increased from 2.5% to 3.3%
- Secondly, where the original Masterplan had posited the ultimate deepening of the Port to -12.0m CD, it is now accepted that the ultimate depth will be -10.0m CD.

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<sup>1</sup> The Trans European Network for Transport (TEN-T) is a central concept within EU Transport Policy as set out in the EU white paper *Roadmap to a Single European transport area – Towards a competitive and resource efficient transport system*, COM(2011) 144 final and in many EU policy and funding initiatives subsequently. The TEN-T network recognises ports as key nodes within the wider road, rail and shipping networks that facilitate trade within and outside the EU. There are 319 ports identified in the network. 83 (including Dublin) are in the *core* network and 236 are in the *comprehensive* network.

<sup>2</sup> 30 year average annual growth rate of gross tonnes of cargo

- Thirdly, where the Masterplan published in 2012 had envisaged a possible return to the eastwards expansion of the Port, this has now been ruled out and all remaining developments will be based on the existing footprint of the Port.
- Finally, it is envisaged that major works in Dublin Port will need to be completed before 2040 at which stage the Port will have reached its maximum and ultimate capacity of 77.2m gross tonnes.

Figure 3 in the Masterplan (reproduced in Appendix 1) identifies the land uses and development projects on port lands which will allow the Port to increase its capacity to 77.2m gross tonnes by 2040.

DPC envisages that the development of Dublin Port to its ultimate capacity will be achieved by three large developments, all SID projects:

1. Alexandra Basin Redevelopment (ABR) Project (PA0034), which is under construction.
2. MP2 Project, now proposed.
3. A final project including development of land areas K, L, M, N and O (as shown in Appendix 1) and possibly also including the development of the Southern Port Access Route (SPAR) to provide connectivity between the Dublin Port Tunnel and the south port lands as envisaged in NTA's Transport Strategy for the Greater Dublin Area 2016 to 2035.

The MP2 Project complements the ABR Project in providing capacity for growth in the Ro-Ro and Lo-Lo modes<sup>3</sup> in **Area C** and **Area D** on the north side of the Port and at its eastern end (as shown in Appendix 1).

## MP2 Project Objectives

The MP2 Project is intended to provide a second tranche (after the ABR Project) of the additional capacity required to cater for a projected demand of 77.2m gross tonnes by 2040.

The project has been carefully devised by DPC to ensure that:

- It is consistent with the Dublin Port Masterplan 2040
- The proposals selected for development make optimum use of the Port's finite resources of river berths and quayside lands
- The proposed configuration reflects and responds to assessments of the potential environmental impact of different options to achieve the project's objectives
- The chosen project option best meets all applicable environmental and ecological requirements

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<sup>3</sup> Roll-On-Roll-Off (Ro-Ro) and Lift-On-Lift Off (Lo-Lo)

- The project can be constructed in a way that minimises the impact on existing port operations
- The project is consistent with the principles of proper planning and sustainable development
- The project makes provision for future population growth and a concomitant increase in demand for port infrastructure at the location closest to where the need for additional capacity arises

The landside works proposed in the MP2 Project are all on the north side of Dublin Port at its eastern end. The existing layout of this area of the Port is shown in Appendix 2<sup>4</sup>.

The MP2 Project is designed to provide:

- A new Ro-Ro jetty (Berth 53) for ferries up to 240 metres in length on an alignment north of the Port's fairway and south and parallel to the boundary of the South Dublin Bay and River Tolka SPA (004024).
- A reorientation of the already consented (ABR Project, PA0034) Berth 52<sup>5</sup>.
- Consolidation of passenger terminal buildings, demolition of redundant structures and buildings, and removal of connecting roads to increase the area of land for the transit storage of Ro-Ro freight units.
- A lengthening of an existing river berth (50A) to provide the DFT Container Terminal with additional capacity to handle larger container ships. These works will include the infilling of the basin east of the now virtually redundant Oil Berth 4 on the Eastern Oil Jetty.
- The redevelopment and future-proofing of Oil Berth 3 as a future deep water container berth (-13.0m CD) for the DFT Container Terminal. The future-proofing will facilitate the change of use of the berth from petroleum importation to container handling when the throughput of petroleum products through Dublin Port declines as a result of national policies to decarbonise the economy.

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<sup>4</sup> Berth 52 and Berth 53 as shown in Appendix 2 will be removed as part of the ABR Project and the basin between them will be infilled. The new river berth to be developed east of Berth 49 and to the south of this infilled basin will be designated as Berth 52. The designation Berth 53 is likewise being retained for the new jetty berth now proposed in the MP2 Project.

<sup>5</sup> Berth 52 is designed to accommodate ferries up to 240 metres in length. Elsewhere within the ABR Project, the extension of the existing Berth 49 is already consented to also make this berth capable of accommodating ferries up to 240 metres in length. The combination of the ABR Project with the MP2 Project will deliver three river berths all capable of accommodating ferries up to 240 metres in length.

## Berth 53

The additional long river berth to accommodate ferries up to 240m in length is essential to meet the objectives of Masterplan 2040:

- Berth 53 is required to deliver additional Ro-Ro capacity in Dublin Port in line with the projections set out in the Masterplan 2040
- It is optimally located at the North Eastern corner of the Port to provide access to 38.8 hectares of shared passenger and freight terminal lands at **Area C** in Appendix 1
- The design of Berth 53 has been developed through an extensive process which had at its core the requirement to ensure that any development in this location respected the integrity of the nearby SPA
- As a consequence, the location, design and functionality of Berth 53 have evolved since the project was first conceived and the proposal ensures that Berth 53 will not negatively affect the qualifying interests of the South Dublin Bay and River Tolka SPA

Capacity constraints for Ro-Ro are foreseeable in Dublin Port and have led DPC to introduce policies to maximise the use of existing infrastructure in two ways:

- Firstly, in March 2019 DPC introduced a booking policy for cruise ships with the objective of limiting the number of bookings accepted for cruise ships from 2021 to ensure that future Ro-Ro freight capacity would not be compromised during and after major construction works<sup>6</sup>.
- Secondly, in April 2019 DPC introduced a policy to reduce the dwell time of containers and trailers in the port with the objective of maximising the utilisation of the capacity of existing Ro-Ro and Lo-Lo terminals<sup>7</sup>

The additional capacity of the proposed new Berth 53 would increase the Port's Ro-Ro capacity and would mitigate capacity constraints foreseeable for Ro-Ro freight. The above policies, particularly the dwell time initiative, would ensure that the utilisation of this capacity would be maximised.

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<sup>6</sup> <https://www.dublinport.ie/briefing-document-minister-shane-ross-dublin-ports-new-cruise-ship-berthing-pricing-policy/>

<sup>7</sup> <https://www.dublinport.ie/dublin-port-announces-new-dwell-time-initiative-increase-port-capacity-post-brexit/>

## Brexit

The consenting phase of the MP2 Project coincides with Brexit and the construction and operational phases of the project will take place in the aftermath of Brexit.

In the context of the long life cycle for the development and operation of port infrastructure, DPC believes that the impacts of Brexit (which are unknown) will be short-term.

Just as the enormous shock to the Irish economy in the recession post 2008 has already been absorbed and port volumes in Dublin are on course this year for a fifth consecutive annual record, so also the effects of Brexit in years to come (as the MP2 Project is constructed and comes into operation) are not expected to be significant.

These potential effects are twofold:

- Firstly, a diminution in economic growth with a consequent effect on the growth of port volumes
- Secondly, a changing of trade patterns with an increasing proportion of Ro-Ro and Lo-Lo trade on direct routes to Continental Europe at the expense of UK routes

The first effect is a timing effect. A negative economic impact from Brexit will result in a lower growth in port volumes than there would otherwise have been in future years. This is consistent with the February 2018 Copenhagen Economics Brexit report for Government which concluded that a hard Brexit would reduce Ireland's GDP in 2030 by 7.0% compared to what it otherwise would have been with no Brexit<sup>8</sup>.

Over the 12 years from 2019 to 2030, this 7.0% reduction would be equivalent to an annual reduction in GDP of 0.6%.

Against a background of 36.0% growth in Dublin Port volumes over the six years to 2018, such a slowdown in the years to 2030 would have no perceptible influence on the demand for the additional port capacity which the MP2 Project will deliver.

The second effect of changing trade patterns is already evident with increased deployment of new large ships (e.g. Irish Ferries *W.B. Yeats* and CLdN's *Celine* and *Laureline*) on direct routes to Continental Europe.

The additional capacity of Berth 53, of the extended Berth 50A and the future availability of OB3 as a Lo-Lo berth all facilitate the provision of services to support these changed trade patterns.

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<sup>8</sup> *Ireland & the Impacts of Brexit Strategic Implications for Ireland arising from changing EU-UK Trading Relations:* <https://dbej.gov.ie/en/Publications/Publication-files/Ireland-and-the-Impacts-of-Brexit.pdf>



## Capacity enhancements as a result of the MP2 Project

The MP2 Project will deliver additional capacity in each of the Ro-Ro and Lo-Lo modes in circumstances where existing facilities are inadequate for future growth.

The **first focus** of the MP2 Project is to complete the development of a single unified Ro-Ro ferry terminal in **Area C** to cater both for existing operators (Irish Ferries, Stena Line and P&O) and for possible new operators. Current arrangements are not adequate to cater for anticipated growth and for the emerging changes in trade patterns. The existing operators provide services to ports in Britain and, increasingly, to ports in France. It is expected that there will be a further increase of ferry services to France post Brexit.

The various traffics serviced by these ferries are:

- Driver accompanied freight vehicles
- Unaccompanied freight vehicles
- Passenger traffic mostly in vehicles (private cars and coaches) but also as foot passengers

The unified Ro-Ro ferry terminal will also cater for seasonal fast craft operations (currently by Irish Ferries and the Isle of Man Steam Packet Company).

The MP2 Project will complete development in this part of the Port for Ro-Ro ferry operations and will deliver three long river berths (49, 52 and 53), all with double tier ramps, together with Berth 51 (double-tiered ramp) and Berth 51A (single tiered ramp)

The **second focus** of the MP2 Project is to bring the development of capacity for Lo-Lo operations in the DFT Container Terminal to completion in **Area D**.

In the wider context of Masterplan 2040, the MP2 Project is one of a number of projects which together will deliver the capacity required to cater for the Masterplan's projections to 2040.

In particular, the MP2 Project directly links with three other projects (all consented with one complete and two under construction) to deliver the Masterplan's vision for **Area C** and **Area D**. These three projects are summarised in Table 1.

**Table 1: Developments complementary to the MP2 Project**

Project name	Planning reference	Status	Comment
ABR Project	PA0034	Underway	Includes the infill of the Berth 52/53 basin to provide additional land in <b>Area C</b> .
Roads project	3084/16	Underway	Provides expanded capacity for Dublin Port's internal roads network sufficient for projected volumes to 2040.
Redevelopment of Blugas Yard	2429/17	Complete	Provides an additional 2.8 hectares of terminal storage area for the DFT Container Terminal ( <b>Area D<sub>2</sub></b> in Appendix 1).

In Masterplan 2040, DPC is planning to develop port capacity based on a projected average annual growth rate (AAGR) of 3.3% over the period from 2010 to 2040. Table 2 shows the projections of cargo volumes by mode.

**Table 2: Masterplan 2040 growth projections<sup>9</sup>**

'000 gross tonnes	2010 Actual	2040 Projected	AAGR
Ro-Ro	16,403	54,287	4.1%
Lo-Lo	6,317	15,270	3.0%
Bulk Liquid	4,009	4,000	0.0%
Bulk Solid	2,054	3,500	1.8%
Break Bulk	96	100	0.1%
<b>Total tonnes</b>	<b>28,879</b>	<b>77,157</b>	<b>3.3%</b>
Ro-Ro ('000 units)	701	2,249	4.0%
Lo-Lo ('000 units)	377	926	3.0%
<b>Totals</b>	<b>1,078</b>	<b>3,174</b>	<b>3.7%</b>
Lo-Lo ('000 TEU)	641	1,574	3.0%

<sup>9</sup> The figures for '000 gross tonnes are five year rolling averages. The term *Gross tonnes* includes the weight of goods, their immediate packaging and (for the unitised modes) the tare weight of containers and freight trailers. Gross weight is derived from ships manifests and differs from the weight of goods shown by the CSO in its statistics. CSO tonnages for the unitised modes do not include the tare weights of containers and freight trailers.

Table 3 shows the ultimate capacities in **Area C** and **Area D** envisaged in Masterplan 2040 and the contribution which reaching these ultimate capacities will make to catering for the volume projected by 2040.

**Table 3: Impact of expanding the capacity of Area C and Area D**

	<b>Area C</b>	<b>Area D</b>	<b>Comment</b>
Use	Ro-Ro units	Lo-Lo TEU	
Area	38.8	18.5	Hectares
Franchise Policy <sup>10</sup> target	30,000 units	40,000 TEU	Per hectare per annum
Capacity	1,164,000 units	740,000 TEU	Per annum
Masterplan projections 2040	2,249,000 units	1,574,000 TEU	
% of capacity required by 2040	52%	47%	

Table 3 highlights the importance of the developing **Area C** and **Area D** for Ro-Ro and Lo-Lo respectively. **Area C** is targeted to provide 52% of all capacity required for Ro-Ro in 2040 and **Area D** is targeted to provide 47% of all Lo-Lo capacity in Dublin Port.

The total envisaged increase in Dublin Port’s capacity over the 30 years to 2040 is 48.3m gross tonnes (being the increase from a throughput of 28.9m gross tonnes in 2010 to 77.2m by 2040 shown in Table 2).

Already, 9.1% of this increased throughput has occurred (as volumes grew from 28.9m gross tonnes in 2010 to 38.0m in 2018). The MP2 Project will provide capacity for a further **30.2%** of the projected volume growth over the 30 years to 2040 as shown in Table 4.

**Table 4: Contribution of the MP2 Project to increasing Dublin Port’s throughput**

	<b>Units / TEU</b>	<b>Gross tonnes</b>
<b>Area C</b> increased Ro-Ro capacity above 2018 throughput	439,000 units	10.6m
<b>Area D</b> increased Lo-Lo capacity above 2018 throughput	409,000 TEU	4.0m
<b>MP2 Project increased tonnes</b>		<b>14.6m</b>
Masterplan increased tonnes		48.3m
MP2 Project increased capacity as %		30.2%

<sup>10</sup> Following the adoption of Masterplan 2012-2040 in February 2012, DPC completed a land use review which culminated in the publication of Dublin Port’s Franchise Policy in May 2014 (<https://www.dublinport.ie/wp-content/uploads/2019/06/Dublin-Port-Franchise-Policy-Doc.pdf>). This policy specifies a target of not less than 40,000 units per hectare per annum for Accompanied Ro-Ro and 20,000 units per hectare per annum for Unaccompanied Ro-Ro. The actual proportions of Accompanied and Unaccompanied units in the future will be a function of supply / demand dynamics. In this table, an average of 30,000 units per hectare per annum is used for illustrative purposes.

## Berth capacity, land capacity and projected utilisation levels

By 2040, there will be considerably increased levels of activity and throughput for both Ro-Ro and Lo-Lo.

Table 5 shows indicatively how shipping activity and throughput will increase in **Area C** by 2040.

**Table 5: Indicative increase in Ro-Ro throughput in Area C from 2018 to 2040**

	<b>2018</b>	<b>2040</b>	<b>% increase</b>
Volume (units)	725,000	1,164,000	61%
Average units per day	1,986	3,189	61%
Average sailings per day	13	18	38%
Average units per sailing	153	177	16%

The growth in the volume of Ro-Ro freight to 2040 will come on routes to the UK (Holyhead, Liverpool and Heysham) and also on routes to Continental Europe (to ports such as Cherbourg, Zeebrugge and Rotterdam).

Berths dedicated to services to Holyhead can achieve high throughput levels (in the order of 350,000 units per annum) due to the reliability of shipping schedules on the short Dublin to Holyhead route and due to fast cargo handling operations because much of the Ro-Ro freight is accompanied.

Berths used for services to Liverpool, Heysham or ports in Continental Europe have lower potential throughput levels (up to 240,000 units per annum) due to the lower schedule reliability of longer sea routes and due also to the longer time needed for cargo handling operations as a result of a preponderance of unaccompanied Ro-Ro freight units.

In addition to providing capacity for freight and combined freight / passenger ferries, the five berths in **Area C** will also provide capacity for seasonal fast craft services (such as Irish Ferries' *Dublin Swift* service to Holyhead and the Isle of Man Steam Packet Company's service to Douglas).

Taking these uses together, Table 6 shows the indicative Ro-Ro freight berth capacity in 2040 for the five berths in **Area C**.

**Table 6: Indicative berth throughout capacities in Area C**

	<b>Units p.a.</b>	<b>Indicative use</b>
Berth 51	240,000	Freight services to Liverpool
Berth 51A	100,000	Fast craft passenger services and occasional use for freight services
Berth 49	350,000	Combined freight / passenger ferry services to Holyhead
Berth 52	350,000	Combined freight / passenger ferry services to Holyhead
Berth 53	240,000	Combined freight / passenger ferry services to Continental Europe
<b>Totals</b>	<b>1,280,000</b>	

The berth capacity of 1,280,000 units per annum shown in Table 6 compares to the land capacity of 1,164,000 units per annum for **Area C** shown in Table 3.

A margin of surplus berth capacity over land capacity is essential to provide contingency capacity for berth downtime for a range of reasons including: planned maintenance; equipment failure; impact of adverse weather on ship schedules.

The layout of the land area of **Area C** will be capable of being adapted to the requirements of the trade. In general, the higher the proportion of accompanied Ro-Ro units, the greater will be the throughput capacity of **Area C**.

Should there be a higher proportion of unaccompanied Ro-Ro in 2040 than is envisaged in Table 3, then it will be necessary for DPC to implement measures to increase the utilisation of the capacity of **Area C**, such as:

- Moving trailer units to back areas within Dublin Port (notably Area E in Appendix 1)
- Implementing further pricing initiatives which financially penalise trailers with long dwell times

The Lo-Lo developments in **Area D** entail the immediate loss of OB4 and the planned cessation of petroleum imports through OB3 at some point in the future as petroleum imports decline.

Table 7 shows the average throughputs and capacity utilisations of the Port's four oil berths over the five years to 2018.

**Table 7: Oil berths' throughput and capacity utilisation, five year averages from 2014 to 2018**

	<b>Tonnes</b>	<b>Share</b>	<b>Utilisation</b>
OB 1	1,732,287	43.3%	48.7%
OB 2	2,109,846	52.7%	57.8%
OB 3	147,395	3.7%	11.3%
OB 4	15,222	0.4%	1.1%
<b>Totals</b>	<b>4,004,751</b>	<b>100.0%</b>	

The proposed loss of OB4 is of no consequence to the Port's overall throughput capacity.

Although both the throughput and utilisation of OB3 are also low, it provides essential back-up capacity in the event of an outage on OB1 or OB2. This is important given that petroleum imports through Dublin Port account for over 55% of national consumption.

Finally, the Eastern Oil Jetty which contains OB3 and OB4 is now almost 60 years old and the requirement for major capital refurbishment works is foreseeable within the lifetime of the Masterplan. It is timely now to plan to complete this refurbishment and, in doing this, to future proof OB3 for use for alternative purposes.

The developments in **Area D** significantly increase both the berthage and the land area of the DFT Container Terminal and Table 8 shows indicatively how shipping activity and throughput will increase 2040.

**Table 8: Indicative increase in Lo-Lo throughput and utilisation levels in Area D from 2018 to 2040**

	<b>2018</b>	<b>2040</b>	<b>% increase</b>
Berthage	560 metres	927 metres	65%
Berth usage (TEU per metre p.a.)	590	798	35.0%
Land area <sup>11</sup>	12.7 hectares	18.5 hectares	46%
Land usage (TEU per hectare p.a.)	26,027	40,000	54%
Capacity (TEU p.a.)	508,000	740,000	147%
Capacity utilisation	65%	100%	
Average TEU per week	6,357	14,231	124%
Ships per week	8.3	11.0	33%
Average TEU per ship	766	1,294	69%

The levels of activity and throughput in **Area C** and in **Area D** which the MP2 Project will facilitate are high by current standards and high by the standards of other comparable northwest European ports.

The achievement of high land utilisation levels requires pricing mechanisms to decrease the dwell time of containers and unaccompanied trailer units as envisaged in DPC's Franchise Policy, 2014. Decreasing dwell times increases capacity. DPC announced Phase 1 of the Dublin Port Dwell Time Initiative on 10th April 2019<sup>12</sup> and further phases will follow in coming years.

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<sup>11</sup> The increased land area in 2040 comes both from the MP2 Project (3.0 hectares) and from the inclusion of **Area D<sub>2</sub>** (2.8 hectares). This latter area has already been developed for container operations but is not yet in use as part of the DFT Container Terminal. Appendix 1 shows the DFT Container Terminal in 2040 with a total land area of 18.5 hectares comprising two areas designated as **Area D<sub>1</sub>** (15.7 hectares) and **Area D<sub>2</sub>** (2.8 hectares).

<sup>12</sup> <https://www.dublinport.ie/dublin-port-announces-new-dwell-time-initiative-increase-port-capacity-post-brexit/>

## MP2 Project and ferry passenger traffic

In addition to being the country's largest port for cargo, Dublin is also the largest port for passengers, both on ferries and cruise ships. Table 9 below shows that two million passengers passed through Dublin Port in 2018, the vast majority (90.3%) on ferry services to Holyhead, Liverpool and Cherbourg.

**Table 9: Dublin Port passenger numbers, 2018**

Ferries	1,827,674	90.3%
Cruise	196,899	9.7%
<b>Total</b>	<b>2,024,573</b>	<b>100.0%</b>

The significance of Dublin Port's ferry passenger business is emphasised in Table 10 which shows the ferry passenger numbers through Irish ports and also the passenger numbers through Irish airports in 2017.

Dublin Port handles more passengers on ferries than the airports of Shannon, Knock and Kerry.

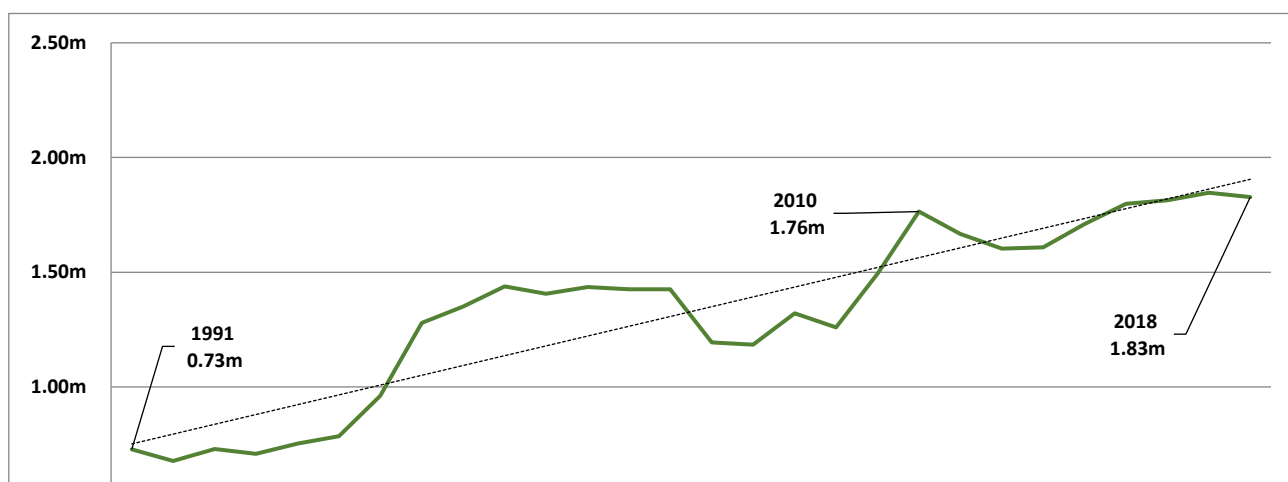
**Table 10: Comparison of port ferry passenger and airport passenger numbers 2017**

Ports		Airports	
Dublin	1,843,000	Dublin	29,454,474
Rosslare	844,000	Cork	2,301,450
Cork	83,000	Shannon	1,599,390
		Knock	748,505
		Kerry	335,480
<b>Total</b>	<b>2,770,000</b>	<b>Total</b>	<b>34,439,299</b>

Source: CSO

Notwithstanding the impact of low cost aviation, ferry passenger numbers are on an upward trend as shown in Figure 1 below and the planned introduction by major ferry operators (Irish Ferries and Stena Line) of large new ships in the next two years will support a continuing increase in ferry passenger numbers not only on routes to Holyhead but also increasingly to France.

**Figure 1: Trend in Dublin Port ferry passenger numbers, 1991 to 2018**





Although the main focus of the developments proposed in the MP2 Project is on cargo, the overall development of **Area C** (both as a result of the works proposed within the MP2 Project and as a result of other Masterplan projects) will provide capacity for the continued growth of Dublin Port's ferry passenger business.

**Area C** will be the only area in Dublin Port where passenger ferry services will operate.

## MP2 Project in the context of National Port Policy and the EU TEN-T network

The MP2 Project is derived from Dublin Port's Masterplan 2040.

This Masterplan is, in turn, supported by National Ports Policy<sup>13</sup> in the following terms:

*Dublin Port Company is the State's largest port company. It handles approx. 43% of all seaborne trade in the State. The port's importance is even more pronounced in the higher-value unitised (Lo-Lo and Ro-Ro) sectors, where it handles approx. 70% of all Lo-Lo and 85% of all Ro-Ro trade in the State (IMDO, 2012).*

*In February 2012, Dublin Port published its Masterplan, which sets out a vision of development over the next 30 years. The plan represents a comprehensive framework for the long-term development of the port and is underpinned by three core principles:*

- *Maximisation of usage of existing port lands.*
- *Reintegration of the port with the city.*
- *Development of the port to the highest environmental standards.*

*It is recognised that the location of Dublin Port Company inevitably gives the port competitive advantage over other ports and will give rise to competition concerns. However, a continuation and strengthening of the landlord model of operation in the port's estate will allow for continued intra-port competition between the privately operated port terminals within the port estate.*

*The Government endorses the core principles underpinning the company's Masterplan, and the continued commercial development of Dublin Port Company is a key strategic objective of National Ports Policy.*

National Ports Policy categorises Dublin Port as a Port of National Significance or a Tier 1 port. The other Tier 1 ports are Cork and Shannon Foynes. Tier 1 ports are defined by reference to their:

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<sup>13</sup> National Ports Policy 2013, <http://www.dttas.ie/sites/default/files/node/add/content-publication/National%20Ports%20Policy%202013.PDF>, page 25

- Accounting for at least 15% to 20% of national port tonnage
- Having the potential to lead the development of future port capacity in the medium and long term as and when required

Beyond this, National Ports Policy clearly states that additional nationally important port capacity to be provided to service the Greater Dublin Area should be provided at Dublin Port<sup>14</sup>:

*In relation to the TEN-T core network, it is proposed that the Greater Dublin Area (GDA) Ports Cluster be included as a core port. This port cluster concept encompasses the existing ports within the GDA, and any future port facilities that might be developed up to 2050. This is consistent with the current Regional Planning Guidelines for the GDA 2010–2022, which support examination of the expansion of Dublin Port and/or a new port facility on the east coast of the GDA.*

*However, National Ports Policy categorises only Dublin Port Company as a Port of National Significance (Tier 1) within the Greater Dublin Area.*

Since National Ports Policy was published, Dublin Port’s Masterplan 2040 has been reviewed (in 2018), the National Planning Framework has been published and the Eastern & Midland Assembly Draft Regional Spatial & Economic Strategy (RSES) has been published<sup>15</sup>.

The RSES states:

*Dublin Port is the largest port in the country handling almost 50% of all trade in Ireland and growth of 25% over the last four years. In 2017 there was a record throughput of 36.4 million gross tonnes, a 4% increase on 2016. Dublin Port is one of five major ports classified as Tier 1 / Tier 2 ports in National Port Policy and categorised as core / comprehensive ports in the EU’s TEN-T network. Dublin Port is recognised in this draft RSES as a critical national facility a key economic driver for the Region and the nation and an integral part of Dublin City, in line with the Dublin Port Masterplan 2040 (reviewed 2018).*

In addition, the RSES sets a specific Regional Policy Objective for Dublin Port in the following terms:

*EMRA will support the role of Dublin Port as a Port of National Significance (Tier 1 Port) and its continued commercial development, including limited expansion and improved road access, including the Southern Port Access Route. [RPO 8.19]*

The extent of Dublin Port’s acknowledged importance in Ireland’s port system for Ro-Ro and Lo-Lo is shown in Table 11 below which compares throughput in Dublin with that in the only other Tier 1

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<sup>14</sup> National Ports Policy 2013, page 25

<sup>15</sup> <https://emra.ie/dubh/wp-content/uploads/2018/11/EMRA-DRAFT-RSES.pdf>

port which handles unitised freight (Cork) and in the country's two Tier 2 ports (Rosslare and Waterford)<sup>16</sup>.

**Table 11: Ro-Ro and Lo-Lo volumes in Irish ports, 2018, and average annual growth rates over the five years from 2013 to 2018**

Ro-Ro Units	2018	% share	AAGR (5)
Dublin	1,031,897	88.7%	6.3%
Rosslare	128,414	11.0%	1.5%
Cork	3,561	0.3%	30.1%
<b>Total</b>	<b>1,163,872</b>	<b>100.0%</b>	<b>5.7%</b>

Lo-Lo TEU	2018	% share	AAGR (5)
Dublin	726,212	72.6%	7.0%
Cork	229,761	23.0%	6.2%
Waterford	43,943	4.4%	2.0%
<b>Total</b>	<b>999,916</b>	<b>100.0%</b>	<b>6.6%</b>

Only two ports in Ireland handle significant volumes of Ro-Ro freight (Dublin and Rosslare). Dublin Port is significantly larger than Rosslare (by a factor of eight) and has a higher rate of growth over the past five years (6.3% versus 1.5%).

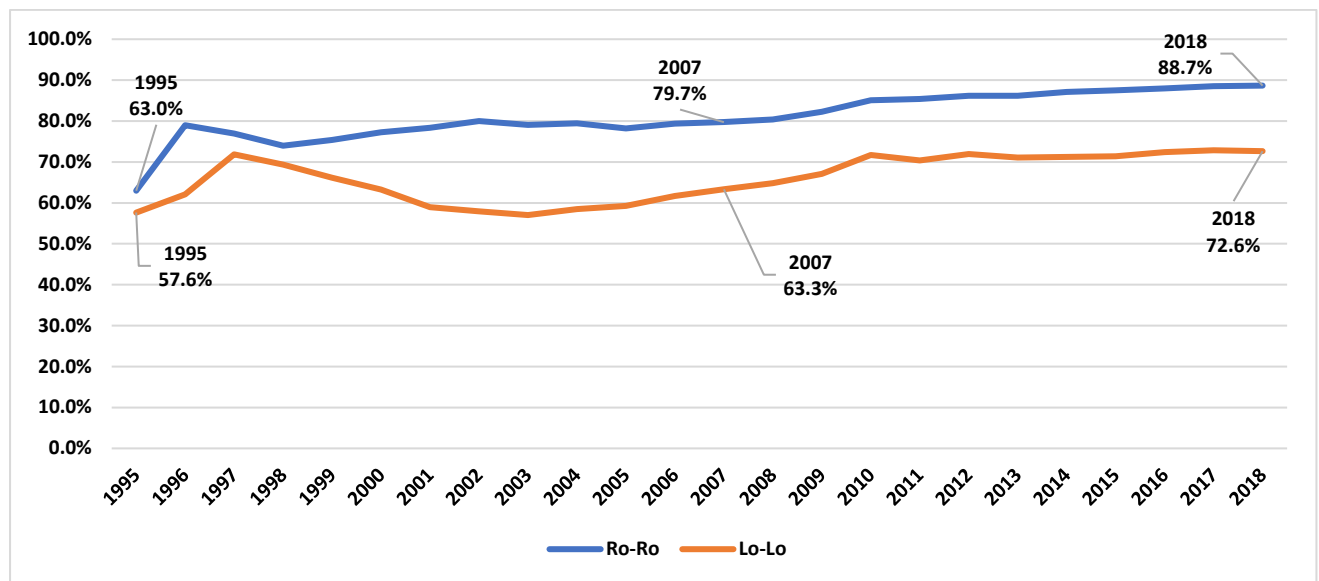
In the case of Lo-Lo, Dublin is more than three times larger than the next biggest port (Cork) and has the highest growth rate over the past five years of the three Irish ports that have container terminals.

Figure 2 below shows the development of Dublin Port's share of national Ro-Ro and Lo-Lo volumes over the period 1995 to 2018. Annual statistics of Ro-Ro and Lo-Lo throughput for the major Irish ports are shown in Appendix 3.

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<sup>16</sup> Tier 2 ports are ports responsible for at least 2.5% of national tonnage and, in the words of National Ports Policy, *have clear demonstrable potential to handle higher volumes of unitised trade*

**Figure 2: Dublin Port share of unitised volumes, 1995 to 2018**



Dublin Port and the other Tier 1 and Tier 2 ports are part of a national ports system which, in aggregate, provides virtually all of the country’s port capacity.

Dublin Port is a key part of the Irish port system made up of these major ports.

Dublin Port’s large share of national volumes in the two unitised cargo modes arises as a result of its location (close to the centre of the largest population concentration in the country) and to the depth of water available.

The demand for port infrastructure is a derived demand and the high volumes through Dublin Port arise from the choices made by shipping lines. These choices do not arise from capacity constraints elsewhere in the Irish port system in either the Ro-Ro or Lo-Lo modes as explained below.

Table 12a below shows Dublin Port’s Ro-Ro and Lo-Lo volumes in 2017 and 2018 and the growth in volumes year on year.

**Table 12a: Growth in Dublin Port Ro-Ro and Lo-Lo, 2018**

Dublin	Ro-Ro units	Lo-Lo TEU
2018	1,031,897	726,212
2017	992,062	698,348
Growth in one year	39,835	27,864

In Table 12b, these year on year growths are compared to the spare capacity for Ro-Ro and Lo-Lo in Rosslare, Waterford and Cork<sup>17</sup>.

**Table 12b: Comparison of Dublin Port's growth with spare capacity in other ports**

<b>Rosslare (Ro-Ro)</b>		
Capacity	338,000	Units p.a.
2018 throughput	128,414	Units
Utilisation <sup>18</sup>	38%	
Spare capacity	210,000	Units p.a.
# years of Dublin Port's annual growth	<b>5</b>	

<b>Waterford (Lo-Lo)</b>		
Capacity <sup>19</sup>	200,000	TEU p.a.
2018 throughput	43,943	TEU
Utilisation	22%	
Spare capacity	156,000	TEU p.a.
# years of Dublin Port's annual growth	<b>6</b>	

<b>Cork (Lo-Lo)</b>		
Capacity <sup>20</sup>	240,000	TEU p.a.
2018 throughput	229,761	TEU
Utilisation	96%	
Spare capacity	10,000	TEU p.a.
# years of Dublin Port's annual growth	<b>0.3</b>	

In the case of Rosslare and Waterford, each port has spare capacity due to low demand and low utilisation of the existing capacity in each port. However, the capacity in each port is small by comparison to Dublin Port. In Rosslare, the spare capacity is equivalent to just five years of Dublin Port's annual growth in Ro-Ro. For Waterford, it would take only six years of Dublin Port's annual growth in Lo-Lo to fill up the terminal there.

<sup>17</sup> Ro-Ro capacity in Cork was not considered because the demand for Ro-Ro freight through the port is so small. In 2017 the total volume was 556 units and in 2018 increased to just 3,561 units.

<sup>18</sup> <https://www.rte.ie/news/ireland/2019/0405/1040949-rosslare-brexit/>

<sup>19</sup> DPC estimate based on Waterford's actual throughput of 186,507 TEU in 2007

<sup>20</sup> Capacity shown is for the new Ringaskiddy Container Terminal:  
([https://www.ringaskiddyportredevelopment.ie/contentfiles/Ringaskiddy%20Port%20Redevelopment\\_2.pdf](https://www.ringaskiddyportredevelopment.ie/contentfiles/Ringaskiddy%20Port%20Redevelopment_2.pdf))

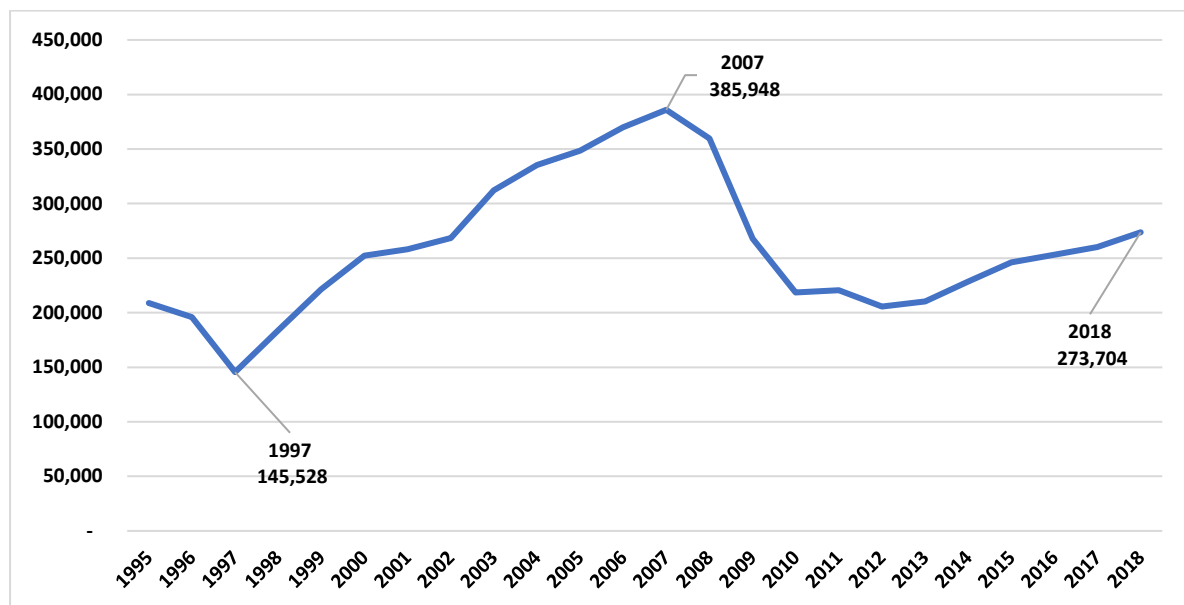
Rosslare and Waterford have much lower growth rates than Dublin for Ro-Ro and Lo-Lo respectively. From 2013 to 2018, Rosslare’s annual average growth was 1.5% compared to Dublin Port’s 6.3%. Over the same years, Waterford grew by 2.0% on average compared to 7.0% in Dublin.

Both Rosslare and Waterford are characterised by small scale, low demand and underutilisation of existing capacity.

The situation for Lo-Lo in Cork is different. Port of Cork’s Tivoli Container Terminal is currently operating at high capacity and a new replacement terminal is under construction in Ringaskiddy in an €80m development project scheduled to be complete in 2020. However, the capacity of the terminal being built is not significantly greater than Port of Cork’s existing throughput of 229,761 TEU in 2018.

Taking Cork and Waterford together, their combined volumes have waxed and waned over time as shown in Figure 3. Their combined throughput in 2018 was only 70% of what it had been in 2007.

**Figure 3: Combined Lo-Lo volumes in Cork and Waterford, 1995 to 2018 (TEU)**



Within the Irish port system, the scale of throughputs and the rates of growth in Dublin Port are at different levels to those in other Tier 1 and Tier 2 ports that meet national requirements.

Dublin Port’s shares of national Ro-Ro volumes (88.7%) and national Lo-Lo volumes (72.6%) mirror that of Dublin Airport’s share of air passenger volumes (85.3%). Shipping lines choose to use Dublin Port because of its proximity to the ultimate destinations for imported goods and to the origin of export goods. This proximity minimises road haulage which is beneficial both economically and environmentally.

DPC is seeking to increase port capacity by developing the MP2 Project to ensure that national capacity constraints do not emerge in the face of projected rising demand which could undermine Dublin Port’s ability to contribute to achieving the objectives of National Port Policy. If capacity

constraints are likely in Dublin Port, then they can only be met by creating new capacity in Dublin and not in some distant port elsewhere in Ireland.

At the EU level, Dublin Port is a *core port* and is located on one of the TEN-T networks nine corridors, the North Sea Mediterranean Corridor<sup>21</sup>.

National Port Policy is fully aligned with EU transport policy and infrastructure developments in Dublin Port are already supported by the EU through EIB banking facilities<sup>22</sup> and CEF funding under TEN-T policy<sup>23</sup>.

## MP2 Project and land utilisation in Dublin Port

The increased levels of Ro-Ro throughput in **Area C** (Table 5) and of Lo-Lo throughput in **Area D** (Table 8) will result in Dublin Port’s throughput per unit of land area increasing towards the Masterplan target of 283,000 tonnes per hectare per annum by 2040.

The fundamental approach of the Masterplan to providing capacity in Dublin Port for the 77.2m gross tonnes projected by 2040 is to favour the efficient and effective use of previously developed (brownfield) land over the use of greenfield land (whether in Dublin Bay or at another east coast location). Based on this approach, DPC has ruled out any increase in the land area of Dublin Port by further infill into Dublin Bay.

Not only is this the most sustainable approach, it is the only approach as shown in Table 13 and as explained below.

**Table 13: Capacity for expansion and land utilisation levels in Dublin, Barcelona and Rotterdam**

	Volume growth			Capacity to expand		Land use	
	2013	2018	Increase	Area available for expansion	Hectares per million tonnes	Hectares	Tonnes per hectare per annum
Barcelona	41.4m	65.9m	59.2%	250 ha	3.8	1,065	61,878
Rotterdam	440.5m	469.0m	6.5%	600 ha	1.3	5,299	88,507
Dublin	28.8m	38.0m	31.9%	-	-	260	146,154

<sup>21</sup> [https://ec.europa.eu/transport/themes/infrastructure\\_en](https://ec.europa.eu/transport/themes/infrastructure_en)

<sup>22</sup> <https://www.eib.org/en/projects/pipelines/all/20140463>

<sup>23</sup> <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/2014-ie-tm-0222-w>

In major European ports such as Barcelona and Rotterdam, large expansion projects have been completed which provide options for future increases to these ports' capacities. These projects have involved the development of large breakwaters to facilitate progressive infill to create additional land area and allow new berths to be constructed.

Dublin Port has no such option and Masterplan 2040 explicitly ruled out such an approach in Dublin because of the potential environmental impact on nearby Natura sites.

Whereas Barcelona has the capacity to expand by 3.8 hectares for every million tonnes of its throughput in 2018, Dublin Port has zero. The equivalent figure in Rotterdam is 1.3 hectares per million tonnes of annual throughput in 2018.

Even today, Dublin Port has a significantly higher land utilisation than either Barcelona or Rotterdam.

As shown in Table 13, Barcelona had a throughput of 62,000 tonnes per hectare per annum in 2018 and Rotterdam had 89,000,

By comparison, Dublin Port is already achieving 146,000 tonnes per hectare per annum.

The Masterplan target is to increase still further to 283,000 tonnes per hectare per annum by 2040.

Construction of the MP2 Project is an essential step in achieving this ambitious land utilisation target.

In addition to construction works, DPC is increasingly using pricing measures to encourage operators to make more efficient use of port lands. This approach was signposted in DPC's Franchise Policy in 2014 and the most recent initiative was taken by DPC in April 2019<sup>24</sup>.

DPC's strategy of providing more capacity on the same land area while simultaneously increasing utilisation of that capacity is driven by the company's commitment to the principles of proper planning and sustainable development.

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<sup>24</sup> <https://www.dublinport.ie/dublin-port-announces-new-dwell-time-initiative-increase-port-capacity-post-brexit/>



## Future growth of Ro-Ro and Lo-Lo in Dublin Port

The need for the developments envisaged in the Masterplan and, in particular, the need now for the MP2 Project arises from the level of future growth which DPC is projecting. The basis of these projections is discussed below by reference to trends over the long, medium and short terms.

### *Long-term growth trends (1950 to 2040)*

The key driver of growth in Dublin Port is population increase. The *National Planning Framework* envisages the country's population growing by 20% from 2016 to 2040. This is equivalent to a population increase of just over one million with 49% of this increase occurring in the Eastern & Midland region, the natural hinterland of Dublin Port.

Table 14 below shows the historic and projected levels of national population and of Dublin Port cargo throughput from 1950 to 2040. The population projection for 2040 is the planning assumption used in the *National Planning Framework*. The volume projection for 2040 is from Dublin Port's Masterplan 2040.

**Table 14: National population and Dublin Port volumes 1950 to 2040**

	Population	Gross tonnes	AAGR
1950	3.0m	2.9m	
1980	3.4m	7.3m	3.2%
2010	4.6m	28.9m	4.7%
2040	5.6m	77.2m	3.3%

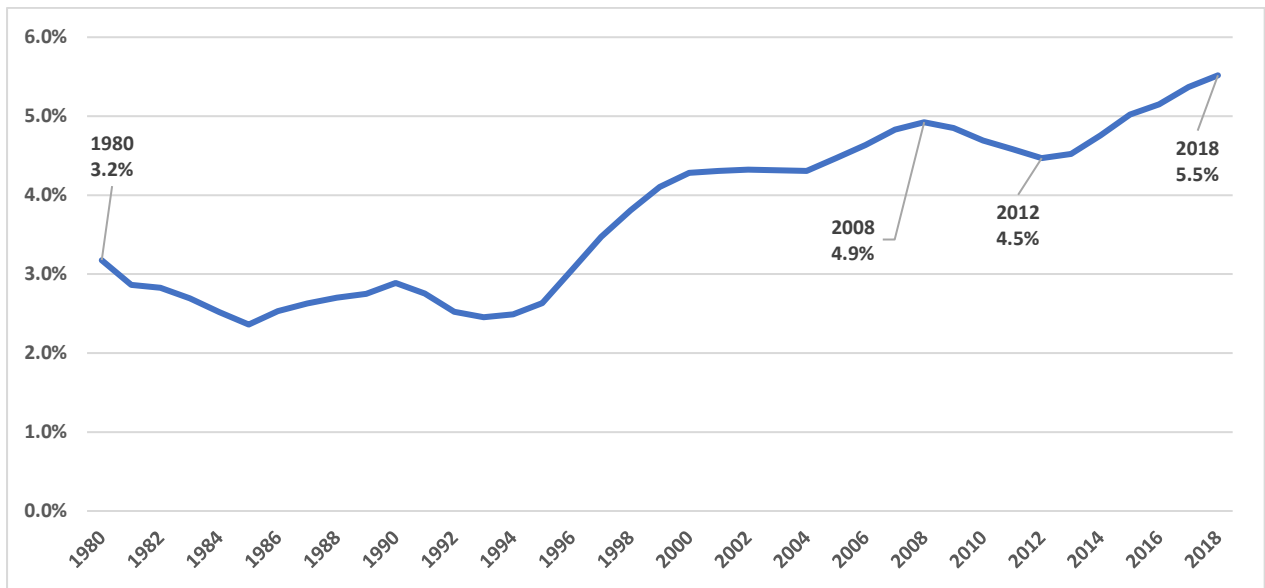
DPC looks at growth trends over long periods (30 years). The current planning projection of an average annual growth rate (AAGR) of 3.3% over the 30 years to 2040 is unremarkable by comparison with historic trends as Table 14 shows.

Figure 4 shows the 30 year average annual growth rate from 1980 to 2018<sup>25</sup>. This indicates that the AAGR grew during the boom years to reach a high of 4.9% in 2008. It then fell to 4.5% in 2012 before beginning to grow again, reaching 5.5% in 2018.

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<sup>25</sup> By way of explanation, the growth rate shown in 1980 is the average annual growth rate over the 30 years from 1950 to 1980. Likewise, the rate for 2018 of 5.5% is the average annual growth rate over the 30 years from 1988 to 2018.

**Figure 4: 30 year Average Annual Growth Rates, 1980 to 2018**



The trend shown in Table 4 suggests that the Masterplan’s long-term planning growth rate assumption of 3.3% is more likely to be an underestimate than it is to be an over-estimate.

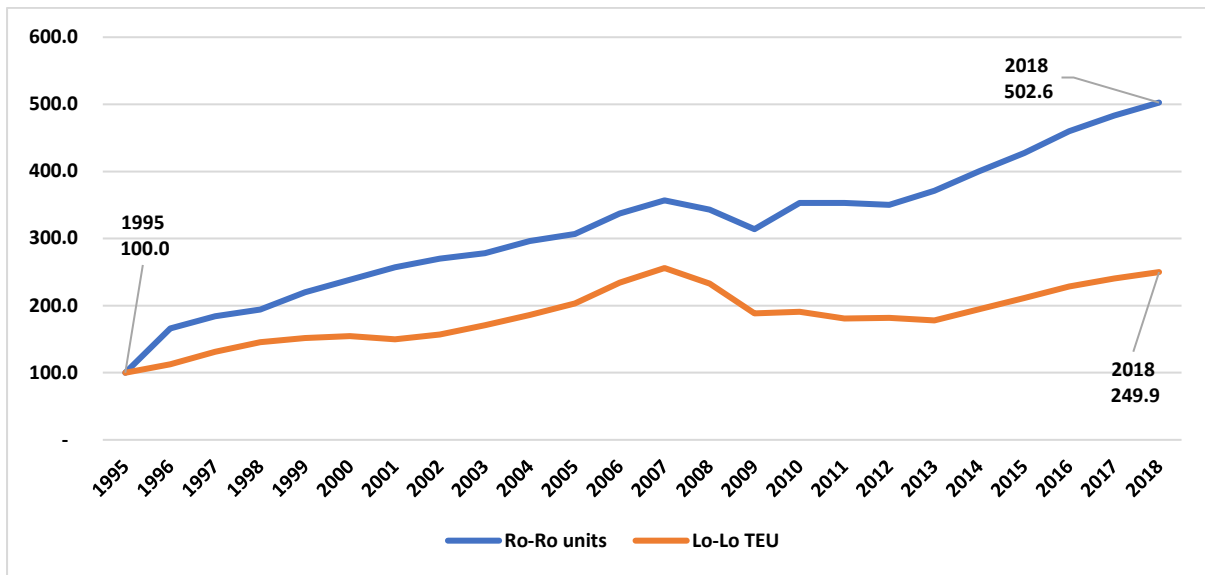
#### **Medium-term trends (1995 to 2018)**

The unitised modes (Ro-Ro and Lo-Lo) account for 82% of Dublin Port’s throughput and 97% of the growth projected over the period to 2040 is in these modes. It is this growth that generates the requirements for the works now proposed in the MP2 Project.

The rapid increase in Dublin Port’s unitised volumes began in the mid-1990s as result of major restructuring initiatives and reforms in Dublin Port in 1992. These changes led to an unprecedented period of growth with every year from 1993 to 2007 a record year for overall throughput.

This growth was driven by the unitised modes and Ro-Ro volumes in Dublin Port are now (2018) five times higher than they were in 1995. Lo-Lo volumes are two and a half times higher, as shown in Figure 5.

**Figure 5: Trends in Dublin Port Ro-Ro and Lo-Lo, 1995 to 2018 (1995 = 100)**



**Short-term growth trends (2013 to 2018)**

Looking at more recent trends, Dublin Port’s volumes have recovered strongly since the recession in 2008 and are now 23% higher than they were in 2007 (38.0m gross tonnes in 2018 compared to 30.9m in 2007). The growth trends seen from 1995 to 2007 have re-emerged as shown in Table 15.

**Table 15: Year on year growth rates of Ro-Ro and Lo-Lo in Dublin Port, 2013 to 2018**

	Ro-Ro	Lo-Lo
2013	5.9%	-2.0%
2014	7.9%	9.4%
2015	6.8%	8.6%
2016	7.6%	8.1%
2017	5.0%	5.2%
2018	4.0%	4.0%

DPC believes that future growth will slow down by comparison to recent trends as shown in Table 16. These year-on-year growth rates combined with the actual growth from 2010 to 2016 suggest the 30 year growth rate to 2040 of 3.3%.

**Table 16: Annual growth rates assumed 2017 to 2040**

	Year on year growth rate
2017 to 2019	5.0%
2020 to 2029	4.0%
2030 to 2040	3.0%

**Masterplan 2040 projections for Ro-Ro and Lo-Lo**

Table 17 below shows the projected volumes and growth rates for Ro-Ro and Lo-Lo in Masterplan 2040.

**Table 17: Masterplan projections for Ro-Ro and Lo-Lo, 2010 to 2040**

Dublin	2010	2040	AAGR (30)
Ro-Ro Units	701,000	2,249,000	4.0%
Lo-Lo TEU	641,000	1,574,000	3.0%

These projected levels of growth are consistent with historical trends over the long, medium and short terms. Importantly, they are also consistent with the *National Planning Framework's* Policy Objective 1b which foresees a growth in population of between 490,000 and 540,000 in the Eastern & Midland Region bringing the population in Dublin Port's natural hinterland to 2.85 million.

The MP2 Project is one of a series of Masterplan projects required to provide capacity for this growth and will, of itself, provide capacity for **30.2%** of the projected volume growth over the 30 years from 2018 to 2040 (as shown previously in Table 4).

## Growth in ship sizes

The future growth in Ro-Ro and Lo-Lo will be accompanied by increases in ship sizes and the MP2 Project will provide longer and deeper berths both for Ro-Ro ferries and for Lo-Lo container ships.

The MP2 Project is being proposed against a background where work is progressing within the ABR Project to deepen Dublin Port to -10.0m CD.

Moreover, Masterplan 2040 has confirmed that this will be the final deepening of Dublin Port.

These factors provide a clear context in which to relate the developments proposed in the MP2 Project to future ship sizes.

Looking firstly at the depth constraints in Dublin Port within which the MP2 Project is being proposed, Table 18 shows maximum ship draughts which Dublin Port will be capable of handling.

**Table 18: Draught handling capabilities at -10.0m CD**

	Mean high water	Channel depth	Max draught	Mean low water	Channel depth	Max draught
Spring tides	4.1m	14.1m	13.1m	0.7m	10.7m	9.7m
Neap tides	3.4m	13.4m	12.4m	1.5m	11.4m	10.4m

**Note: max draughts assume an under keel clearance of 1.0m**

In order to be able to maintain set schedules, **Ro-Ro** ferries need to be able to access Dublin Port at all stages of the tide. Table 18 above indicates that ferries with draughts up to about 9.7 metres will be able to access the port. This is sufficient for any conceivable size of Ro-Ro ferry that might be deployed by operators in the future.

Within the MP2 Project, therefore, the proposed draught at Berth 52 and at Berth 53 is -10.0m CD. This is also sufficient for any conceivable size of Ro-Ro ferry.

Table 19 below shows the dimensions of selected Ro-Ro ferries including both ferries in service in Dublin Port or planned to be introduced together with ferries in service elsewhere or under construction.

**Table 19: Sample Ro-Ro ferries**

Ship	Operator	LOA	Draught	Comment
Ulysses	Irish Ferries	209m	6.4m	In service in Dublin Port since 2001
W.B. Yeats	Irish Ferries	195m	6.7m	In service in Dublin Port since January 2019
Hull 777	Irish Ferries	226m	6.7m	Commences in Dublin Port in 2020
Stena Hollandica	Stena Line	240m	6.5m	In service on Harwich to Hook route
Stena E-flexer	Stena Line	215m	6.4m	Commences in Dublin Port in 2019
Stena E-flexer	Stena Line	240m	6.4m	Construction of two ships commenced in July 2018
Celine	CLdN	234m	8.1m	In service in Dublin Port since October 2017
Laureline	CLdN	216m	8.2m	In service in Dublin Port since March 2019

It is envisaged that both Irish Ferries and Stena Line will operate from the river berths (specifically Berth 49 and Berth 52). Each operator has ferries in operation or on order with lengths in excess of what can currently be accommodated.

Moreover, there are already large ferries (*Celine* with a length of 234m and *Laureline* at 216m) in operation elsewhere in Dublin Port.

There is, therefore, a clear requirement for the MP2 Project to provide three river berths capable of accommodating ships up to 240m in length.

In the case of **Lo-Lo** container ships, the maximum size which can currently be handled in Dublin is limited by a combination of constraints (including berth depths and channel depth) to give a practical maximum draught in the region of 9.0m. The maximum size of container ship which has called to the Port in recent years is in the order of 1,400 TEU.

The deepening of the Port to -10.0m CD as part of the ABR Project reduces the channel constraint. The lengthening of Berth 50A and the redevelopment of OB3 would lessen the existing berth constraints and allow large container ships to operate at the DFT Container Terminal.

The planned capacities of these berths are shown in Table 20 below.

**Table 20: Planned capacities of Berth 50A and OB3**

Berth	Length	Depth
50A	306 metres	-11.0m CD
OB3	239 metres	-13.0m CD

These berth capacities would allow considerably larger container ships berth at DFT.

The median ship capacity in 2018 at DFT was 864 TEU (nominal). Figure 6 shows the distribution of ship capacities for the 432 container ships handled at DFT in 2018.

**Figure 6: Distribution of container ship capacities at DFT (nominal TEU), 2018**

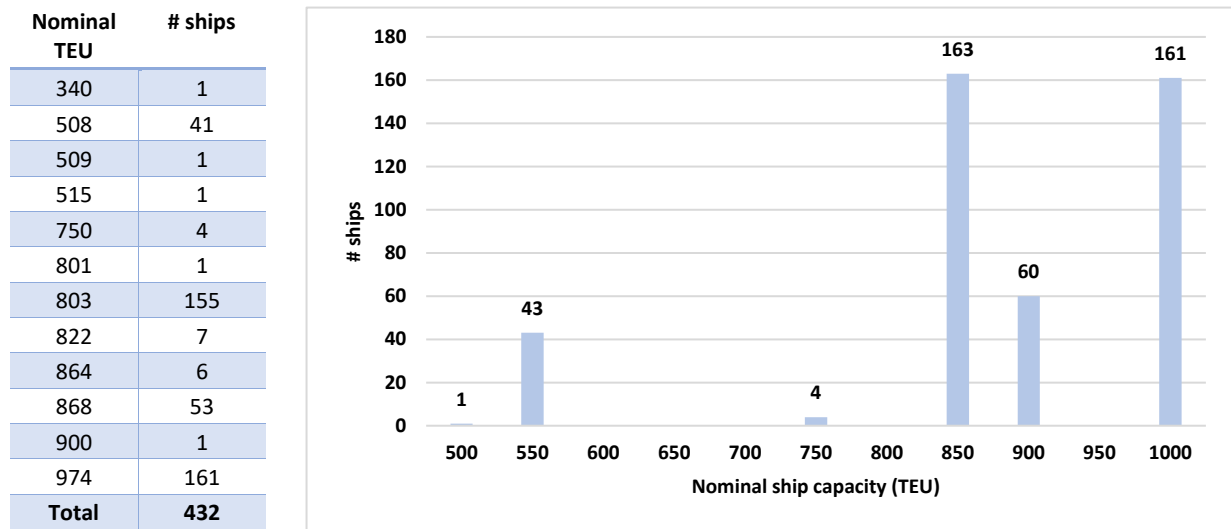


Table 21 shows an analysis of the distribution of ship lengths and ship draughts for 2,726 ships in the 1,000 TEU to 3,500 TEU subset of the worldwide fleet of container ships.

**Table 21: Distribution of container ship lengths and draughts in the range 1,000 TEU to 3,500 TEU<sup>26</sup>**

Length	# ships	Draught	# ships	Cumulative %
100m	11	8.0m	100	3.7%
150m	327	9.0m	460	20.5%
200m	1,620	10.0m	574	41.6%
250m	737	11.0m	545	61.6%
300m	31	12.0m	829	92.0%
		12.4m	111	96.1%
		13.0m	76	98.9%
		14.0m	31	100.0%
	<b>2,726</b>		<b>2,726</b>	

Comparing the berth capacities in Table 20 with the distribution of ship lengths and draughts in Table 21 shows that the MP2 Project would enable a large proportion of the world fleet of container ships in the capacity range from 1,000 TEU to 3,500 TEU to be handled at the DFT Container Terminal.

The ability to handle larger container ships at DFT is essential if the increased throughput projected at the terminal (740,000 TEU by 2040) is to be achieved.

<sup>26</sup> Based on data extracted from Sea-Web™ database (www.sea-web.com)

## Implementing the MP2 Project – the need for a 15 year permission

Given the Masterplan approach of redeveloping existing brownfield sites which are already in operation, constructing projects such as the MP2 Project is not straightforward. The areas in which construction work is proposed are in daily use and throughput volumes are growing.

DPC is currently constructing the ABR Project by way of discrete work packages designed to allow existing customers' growing businesses to continue with minimum disruption.

This same approach will be necessary with the MP2 Project and its construction will overlap with other projects which have already been consented including:

- ABR Project (PA0034)
- Dublin Port Roads Project (3084/16)
- Initial project at Dublin Inland Port (F18A/0139)

The experience of recent years suggests that there can be unforeseen circumstances which impact on the timing of planned project works in Dublin Port.

Looking to the future, an accelerated take-up of zero-emission cars could precipitate a faster decline in petroleum volumes than can be foreseen today. This, in conjunction with a high growth in Lo-Lo traffic (which is a possible consequence of Brexit), could necessitate bringing forward the works at OB3 and Berth 50A and perhaps pushing out works on Berth 53.

On the other hand, petroleum volumes might continue to grow as they have in recent years and persist at a high level for a long time. The throughput of petroleum products in Dublin Port in 2018 was 13% higher than prior to the recession (2007). More surprisingly, the volume in 2018 was 34% ahead of the low point reached in 2012 in the depths of the recession.

In such circumstances, it is very difficult to predict when individual works packages within the MP2 Project (such as the redevelopment of on OB3) should commence.

Because of such uncertainties, DPC requires a 15 year permission such that port capacity which is known to be required in the future can be delivered at the optimum time within that timeframe.

The vision of Masterplan 2040 shown in Appendix 1 needs to be realised by about 2035 in order for there to be sufficient capacity in Dublin Port to handle a projected throughput of 77.2m gross tonnes by 2040.

DPC estimates that the total cost of implementing Masterplan 2040 will be in the order of €1.6 billion (2018 prices). In the nearer term, DPC has a €1 billion ten year capital expenditure programme from 2019 to 2028. By any standards, the scale of the infrastructural development challenge in Dublin Port is enormous.

In addition to the MP2 Project, the Masterplan development programme includes works to complete the already consented ABR Project, other projects such as the Roads Project and, most



recently, the requirement to construct border control inspection facilities for State agencies as a result of Brexit.

In this dynamic environment, the construction timescales for individual projects within the overall Masterplan development programme are liable to change in response to circumstances. This is an inevitable consequence of DPC’s preferred sustainable approach to the brownfield development of the existing Dublin Port estate rather than the less sustainable greenfield development at another location where construction timelines could be far shorter and more certain. DPC’s choice of the brownfield approach rather than a greenfield approach is founded on DPC’s commitment to the principles of proper planning and sustainable development.

Table 22 below shows the key milestone dates for the MP2 Project within DPC’s overall Masterplan development programme.

**Table 22: Milestone construction dates for the MP2 Project within DPC’s long-term capital programme**

Item	Works	Start	Finish
1	Berth 52	Q2 2022	Q4 2024
2	Berth 53	Q1 2025	Q4 2026
2a	B52/ B53 Landside works	Q2 2022	Q3 2028
3	Oil Berth 3 and infill of OB4	Q3 2028	Q1 2031
4	Berth 50A	Q1 2031	Q2 2032

The particular complexities in implementing the MP2 Project include:

- The location of the proposed works on the river and the fairway
- The continuing high level of growth in Ro-Ro and Lo-Lo volumes in the area of the works (**Area C** and **Area D** respectively)
- Uncertainty on the future level of petroleum imports and, because of this, on the optimum start date for the reconstruction of OB3

In summary, the requested permission of 15 years is required for a number of reasons:

- The overriding imperative to ensure that Dublin Port continues to operate effectively during construction will require works to be staged in distinct phases.
- The works are to, a large extent, sequential and connected – one element cannot commence until an earlier related element is concluded.
- The works are all connected and need to be determined and assessed as a whole by An Bord Pleanála, rather than be subject to separate applications.
- Construction experience in Dublin Port in recent years shows that programme changes are both inevitable and difficult to predict. DPC’s best estimate currently is that the MP2 Project works could be completed by 2032 but experience suggests that the actual

construction period could be longer. DPC believes that it is preferable to address this reality at the outset and conduct the assessment of the MP2 Project on this basis.

The framework of the Masterplan (including the 2018 review) and the related Strategic Environmental Assessment (SEA) and Natura Impact Statement (NIS) in conjunction with the Environmental Impact Assessment Report (EIAR) and the NIS at the project level of the MP2 Project provide a robust basis for An Bord Pleanála to complete all relevant environmental assessments to facilitate a grant of 15 years duration.

The MP2 Project represents a significant part of the overall development of Dublin Port envisaged in Masterplan 2040. In the absence of a major future-proofed expansion project in Dublin Port (equivalent to Rotterdam's Maasvlakte 2 or the Port of Barcelona Expansion Project), a 15 year consent period would provide certainty that elements of the MP2 Project can be deferred, if required, as and when other Masterplan projects need to take priority because of market demand changes or other unforeseeable circumstances.

Having certainty on what can be constructed in Dublin Port over the next 15 years is a proxy for the certainty which ports such as Barcelona and Rotterdam have by virtue of the large greenfield port expansion projects they have completed including major infill works into the Mediterranean and North Sea respectively.

## Concluding remarks

The MP2 Project is the second major strategic infrastructure project to emerge from Dublin Port's Masterplan 2040. Completion of all of the developments needed to realise the vision of the Masterplan will likely involve one subsequent and final major strategic infrastructure project.

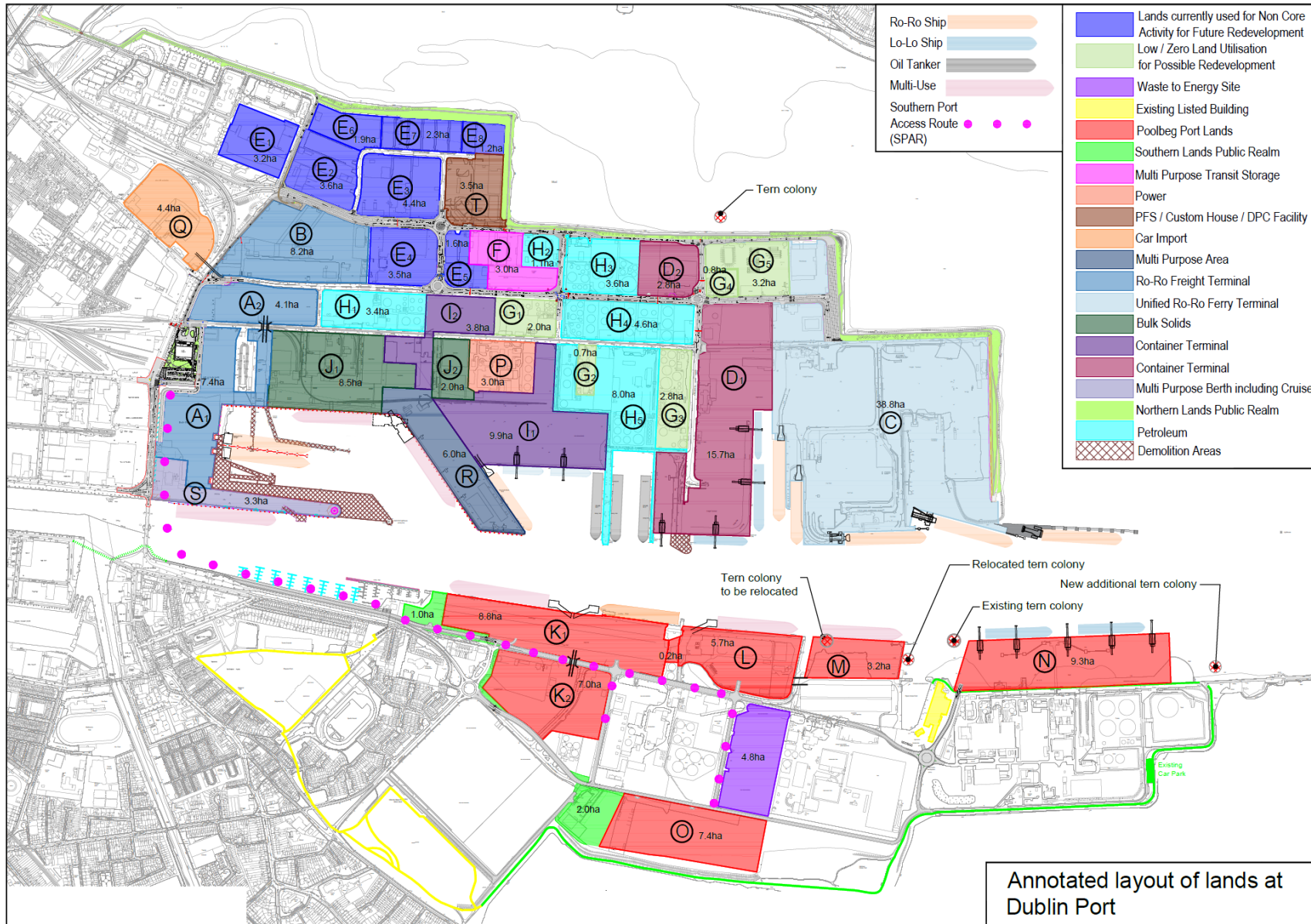
Between 2010 and 2018, 9.1% of the growth projected in Masterplan 2040 has occurred. The MP2 Project will provide capacity for a further **30.2%** of the volume projected in 2040.

The MP2 Project will bring development at the eastern end of Dublin Port on the north side of the Liffey to its ultimate limit and will provide much needed capacity for both Ro-Ro and Lo-Lo cargo. The Masterplan, as a whole, will bring Dublin Port to its ultimate capacity by 2040 and the MP2 Project is an essential step on this path.

The MP2 Project redevelops assets currently used for the importation of petroleum products and future-proofs these assets for alternative uses as and when national and EU policies result in a transition away from fuels such as petrol and diesel.

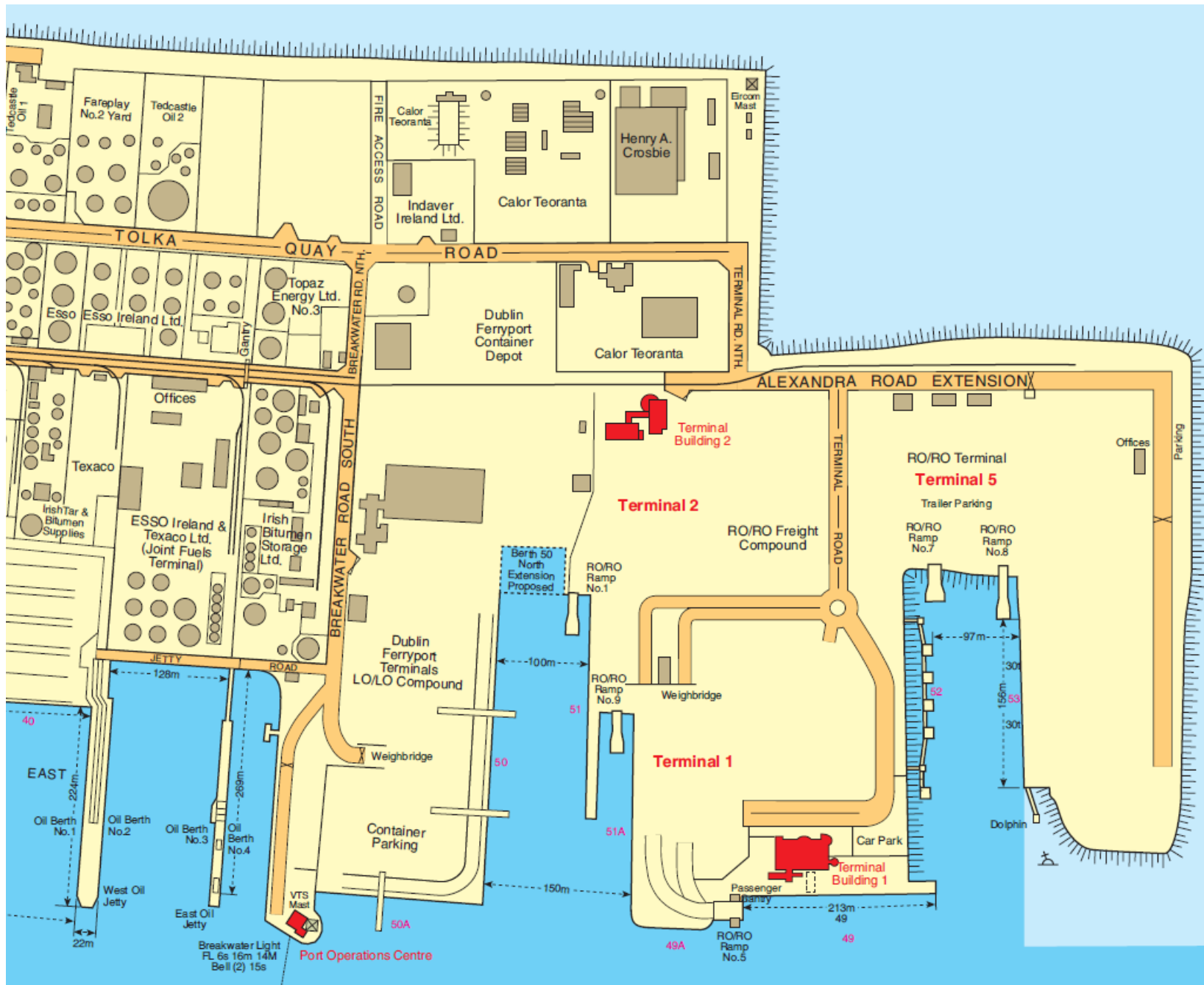
Finally, given the large rate of growth of cargo volumes in Dublin Port and the absence of either demand or significant capacity elsewhere in the Irish ports system, the MP2 Project is designed to provide essential nationally important port capacity in line with both Government policy (notably National Ports Policy and the National Planning Framework) and with EU transport policy (TEN-T).

## Appendix 1 – Dublin Port Masterplan 2040, Figure 3



Annotated layout of lands at Dublin Port

## Appendix 2 - Existing layout of the area in which the MP2 Project works are proposed



## Appendix 3 – Ro-Ro and Lo-Lo volumes in Ireland’s Tier 1 and Tier 2 ports, 1995 to 2018

*Source: IMDO*



	<i>Ro-Ro (units)</i>				<i>Lo-Lo (TEU)</i>			
	<i>Dublin</i>	<i>Rosslare</i>	<i>Cork</i>	<i>Dublin %</i>	<i>Dublin</i>	<i>Waterford</i>	<i>Cork</i>	<i>Dublin %</i>
1995	205,311	73,589	6,412	63.0%	290,564	149,779	59,091	57.6%
1996	340,983	70,147	6,104	78.9%	327,884	131,020	64,930	62.1%
1997	378,101	74,916	5,581	77.0%	381,334	61,345	84,183	71.9%
1998	398,636	92,125	6,207	74.0%	422,927	85,967	97,835	69.3%
1999	451,161	100,629	5,994	75.4%	440,892	105,896	115,495	66.2%
2000	489,669	100,950	3,940	77.3%	449,406	131,518	120,740	63.3%
2001	528,036	106,064	3,777	78.4%	435,451	140,579	117,703	58.9%
2002	554,496	104,718	3,712	80.0%	456,027	147,166	121,279	57.9%
2003	570,789	112,010	4,529	79.0%	495,862	175,049	137,246	57.0%
2004	608,088	121,493	5,895	79.5%	540,779	180,216	155,081	58.5%
2005	629,747	137,182	7,707	78.2%	590,367	181,309	167,300	59.2%
2006	692,992	156,515	4,558	79.4%	680,681	184,857	185,002	61.7%
2007	733,141	165,769	3,748	79.7%	743,937	186,057	199,891	63.3%
2008	704,209	156,488	1,001	80.4%	676,870	173,103	186,656	64.9%
2009	644,696	133,519	1,188	82.3%	548,123	119,220	148,623	67.1%
2010	725,297	122,326	3,820	85.1%	554,056	71,084	147,534	71.7%
2011	724,728	118,888	4,387	85.4%	525,016	63,823	156,669	70.4%
2012	719,121	113,781	828	86.2%	527,735	39,478	166,287	71.9%
2013	761,651	118,928	954	86.2%	517,086	39,835	170,410	71.1%
2014	821,876	119,641	793	87.2%	565,698	36,174	192,308	71.2%
2015	877,826	124,331	763	87.5%	614,226	40,224	205,828	71.4%
2016	944,531	128,350	522	88.0%	663,732	43,240	209,881	72.4%
2017	992,062	127,820	556	88.5%	698,419	42,408	217,764	72.9%
2018	1,031,897	128,414	3,561	88.7%	726,212	43,943	229,761	72.6%