

ROTTERDAM CRUISEPORT. MAKE IT HAPPEN.

LOCATIESTUDIE
ZEECRUISE TERMINAL
ROTTERDAM

VERKENNING
CRUISESTEDEN

Bijlage VII



Port of
Rotterdam

ROTTERDAM.
MAKE IT
HAPPEN.



Gemeente Rotterdam

COLOFON

Datum: maart 2019

Opgesteld door: Rebel Group, Rotterdam. www.rebelgroup.com

Vormgeving: Buro voor de Boeg, Rotterdam. www.burovoordeboeg.nl

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LOCATIE STUDIE ZEECRUISETERMINAL ROTTERDAM VERKENNING CRUISESTEDEN

BIJLAGE VII

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INTRODUCTION

In the subsequent paragraphs, the following ports are described and their circumstances compared to the decisions being discussed by Port of Rotterdam are discussed.

- Barcelona, Spain;
- Copenhagen, Denmark;
- Hamburg, Germany;
- Le Havre, France;
- Liverpool, UK;
- Porto, Portugal;
- Southampton, UK;
- Vancouver, Canada.

Passenger figures for 2016 are presented below.

	Passenger Numbers						Unique ship visits*	
	Embarking	Disembark	Transit	Total			Turnaround	Transit
				2016	2007	10 year growth		
Barcelona	773,623	782,196	1,127,775	2,683,594	789,409	340%	5	72
Copenhagen	211,000	211,000	309,000	731,000	502,000	146%	17	47
Hamburg	342,255	338,142	41,318	721,715	7,678	9400%	20	17
Le Havre	1,769	1,769	328,977	332,515	77,393	430%	1	40
Liverpool	13,840	13,840	49,828	77,508	20,790	373%	2	20
Porto	172	172	71,454	71,799	15,863	453%	0	39
Southampton	834,000	834,000	192,000	1,860,000	798,463	233%	30	12
Vancouver	410,172	406,083	10,565	826,820	960,554	86%	26	5
Rotterdam	43,500	43,500	104,000	191,000				

Source: GP Wild (International) Ltd from individual port's data

*These columns represent unique ship visits. It does not represent the total number of calls at a port as one ship may call at a port more than once.

Using European averages¹, the passenger figures for Rotterdam in 2016 suggest the following total economic impact on Rotterdam and the wider Netherlands.

Transit pax: 104,000 X €80 to €100 = €9.5 million

Turnaround pax: 43,500 x €150 to €200 = €7.5 million

Total: €17 million

Ports typically receive around 20% of this figure and the remainder is passenger spending. It can be seen from what is on sale on cruise line shore excursion websites that more than half of passengers might be estimated to be touring directly to Amsterdam. The total economic impact on the Rotterdam and south Netherlands region is hence roughly estimated to be in the region of €10 million.

Any decision to relocate the terminal in Rotterdam should keep this figure in mind.

¹ Source: GP Wild (International) Ltd annual work on behalf of CLIA Europe

1. BARCELONA

1.1. Transport and Logistics

Barcelona cruise port developed originally around the foot of the famous thoroughfare Las Ramblas. From the area around the Columbus Monument, passenger ferries operated to the Balearic Islands. As cruise business increased, ships began to be berthed on the Adossat pier, which forms the breakwater protecting the harbour. This however involved passengers in a long journey around the northern end of the harbour to reach the city centre or the airport, which lies to the south. The staging of the Olympic Games in Barcelona in 1992 brought greatly increased visitor numbers to the city and was the catalyst for significant capital investment. Part of this investment was spent on connecting Adossat Pier to the city by a road bridge. This then allowed an opening in the pier to be created just north of the bridge giving direct access from the Balearic Sea to the northern part of the harbour, used by ferries, smaller cruise ships and yachts at South, North and East piers that surround the World Trade Centre. These smaller ships were thus removed from transiting the southern harbour, used by large cruise ships, large container ships and bulk carriers. This work was completed during the early 2000's. This can be seen in the map below.



Layout of Barcelona Cruise Terminals²



Bridge to City adjacent to Terminal A

The large cruise terminals in Barcelona are now connected directly to the city and the famous thoroughfare Las Ramblas by a short road journey or a walk to the Columbus Monument. Shuttle buses to the city serve all seven cruise terminals, that is Terminals A, B, C and D on Quay Adossat and the North, South and East Terminals around World Trade Centre. The road bridge from Quay Adossat adjacent to Terminal A is illustrated below.

The above photo also illustrates clearly the substantial waiting area dedicated to tour buses adjacent to each terminal. The southernmost terminal, Terminal D is dedicated to Costa Cruises. A further terminal, Terminal E is to be developed south of Terminal D for the use of the Carnival Group.

All the terminals in Barcelona have been developed or redeveloped in recent years. All are spacious and modern and give a good impression to the arriving cruise passenger.



Terminal D for Costa Cruise Line

2 All photos taken from Port of Barcelona website

Barcelona International Airport is 12 kilometers to the south of Columbus Monument via the main motorway network. One cruise line consulted about their experiences in Barcelona advised that port operations were considered “good” but that port operations were sometimes congested with too many ships being in port together. However, they went on to say that such congestion was common to the Western Mediterranean in general.

1.2. Additional Exploitation

This subject can be divided into those newer, larger terminals on the Adossat Pier and the small, older terminals at the World Trade Centre.

As might be expected, the World Trade Centre has many different tenants from banks to shops and cafes and a four-star hotel. Being at the foot of Las Ramblas, there is considerable footfall from non-cruise business year-round.

In contrast, all the terminals on Adossat Pier are purely designed for cruise passenger handling. There are a few small shops and café concessions which open when a ship is alongside. Barcelona has both turnaround and transit business.

No other commercial exploitation takes place at any of these newer terminals.

1.3. Ownership Structure

In 1978 Barcelona port was granted a Statute of Autonomy and in 1992 the port was reconstituted as a State Public Port under the Barcelona Port Authority. The Management Board of the latter includes representatives from the Catalan government, the State Administration, City Council, Chamber of Commerce and user and trade union interests.

The Barcelona cruise terminals are owned by this entity.

The cruise terminals are largely operated by concessions, notably Creuers del Port de Barcelona, which operates five terminals, four as concessionaire. Creuers is now a subsidiary of the much larger Turkey-based port operator Global Port Holdings which also operates cruise terminals in Malaga, Lisbon, Malta, Turkey and Singapore.

Barcelona has also reached an agreement with Carnival Corp & plc to build and operate a further terminal, Terminal E, on the port’s Adossat wharf. This is to the south of the existing terminals A, B, C and D, closer to the port entrance as is depicted in sub-section 5.1. Carnival’s €20m (\$27m) approximate investment will cover 10,000 square metres (107,640 ft²) and enable turnarounds of post-panamax cruise ships with a capacity of 4,500 passengers. Barcelona is investing €3.5m (\$4.8m) on urban development works around the new terminal and to improved signage. It was due to come on stream in 2016.

1.4. Environmental surroundings

The terminals on Adossat Pier are in an area dedicated to cruise terminals alone. It is neither urban nor industrial but a purely marine environment built on the back of the port breakwater. At the seaward end of the pier there are a number of industrial facilities and cargo traffic passes along the terminal road to access these facilities. Other than when their ship passes these facilities when arriving or departing the port, the passengers are otherwise unaware of their existence.

1.5. Location vis-à-vis city center and attractions

The World Trade Centre is a few minutes’ walk from Las Ramblas. The Cruise Terminal website advises that:

It is not recommended to walk to the city centre if you are arriving at cruise terminals A, B, C or D (Adossat Quay) because you have a long walk (about 2 km) from the terminal to the Columbus Monument which is at the foot of La Ramblas. If you have luggage you will not find this walk too comfortable in the midday heat.



Shuttle Bus Serving Adossat Quay

The range of shore excursions offered by P&O Cruises at Barcelona is listed below. It can be seen that some are in the nearby city centre but others involve a coach ride to the hinterland of Catalonia. Each of the terminals has a substantial apron area right outside the building where the tour buses can wait for the tour passengers.

Barcelona by Bike	A fun and unique way to explore the oldest area of Barcelona - the Gothic Quarter.
Barcelona Loop	The perfect option for those of you who prefer to sightsee on your own.
F.C. Barcelona	Visit the prestigious home of F.C. Barcelona – one of the biggest clubs in Europe and Europe’s largest football stadium.
Fantasy Island Waterpark	Make a splash at the Water Park of Isla Fantasia!
Highlights of Barcelona	An introduction to many of Barcelona’s most famous sights, including its historic heart, Gothic Quarter and the Spanish Village.
Montserrat by Rail	The unique ‘jagged mountain’ formations of Montserrat are a magnificent setting for Catalonia’s sacred Benedictine monastery.
Palau Güell and Gothic Quarter	Visit Palau Güell, the beautiful mansion designed by Antoni Gaudi, before a guided walk of the Gothic Quarter.
Panoramic Barcelona	Relax in the comfort of your coach as this panoramic drive introduces you to Barcelona’s attractions at a leisurely pace
Transfer to Sitges Coastal Village	Sitges, a sophisticated resort on the Costa Brava. This transfer is an ideal option for independent explorers.

1.6. Nautical location from sea

The distance from the harbour mouth is dependent upon which terminal is being accessed. The longest run is 5,000 meters to the World Trade Centre. The shortest run is to Terminal E which is 3,000 meters from the harbour mouth. Pilots board the arriving ships approximately 3,000 meters to seaward of the breakwater.

1.7. Transit and Turnaround Calls Per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	707	399,293	392,092	611,258	1,405,3563
2007	820	489,435	486,994	789,409	1,765,838
2008	892	574,831	576,666	923,057	2,074,554
2009	799	587,247	592,992	971,226	2,154,273
2010	851	632,443	630,863	1,084,670	2,347,976
2011	881	749,500	749,500	1,158,000	2,657,244
2012	774	721,029	716,454	970,251	2,408,634
2013	835	754,038	752,248	1,092,946	2,599,232
2014	764	607,110	615,377	1,141,805	2,364,292
2015	749	684,907	680,966	1,175,500	2,541,373
2016	758	773,623	782,196	1,127,775	2,683,594

Source: Port Authority of Barcelona

1.8. Fleet Composition

Cruise Ships calling at Barcelona 2016

Name	Operator	Ships	Lower Berth C capacity					Barcelona		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
Aegean Odyssey	Voyages to Antiquity	1				408		408		1
AidaAura	Aida Cruises	1				1,262		1,262		1
AidaBlu	Aida Cruises	1				2,194		2,194		1
AIDAcara	Aida Cruises	1				1,186		1,186		1
Albatros	Phoenix Reisen GmbH	1				884		884		1
Amadea	Phoenix Reisen GmbH	1			594			594		1
Arcadia	P&O Cruises	1			2,020			2,020		1
Artania	Phoenix Reisen GmbH	1			1,200			1,200		1
Azamara Journey	Azamara Club Cruises	1		676				676	1	1
Azamara Quest	Azamara Club Cruises	1		694				694		1
Azura	P&O Cruises	1			3,105			3,105		1
Black Watch	Fred. Olsen Cruises	1				804		804		1
Braemar	Fred. Olsen Cruises	1				929		929		1
Brilliance of the Seas	Royal Caribbean	1				2,110		2,110	1	
Britannia	P&O Cruises	1		3,657				3,657		1
Carnival Vista	Carnival Cruise Lines	1				4,000		4,000	1	
Celebrity Constellation	Celebrity Cruises	1			2,038			2,038	1	1
Celebrity Equinox	Celebrity Cruises	1		2,850				2,850	1	
Costa Deliziosa	Costa Cruises	1				2,260		2,260		1
Costa Diadema	Costa Cruises	1				3,724		3,724	1	1
Costa Fascinosa	Costa Cruises	1				3,016		3,016	1	1
Costa Favolosa	Costa Cruises	1				3,016		3,016	1	1
Costa Luminosa	Costa Cruises	1				2,260		2,260		1
Costa Magica	Costa Cruises	1				2,718		2,718	1	1
Costa Mediterranea	Costa Cruises	1				2,114		2,114	1	1
Costa neoRomantica	Costa Cruises	1				1,578		1,578		1
Costa Pacifica	Costa Cruises	1				3,008		3,008		1
Crystal Symphony	Crystal Cruises	1		960				960	1	1
Deutschland	Phoenix Reisen	1		520				520		1
Disney Magic	Disney Cruise Line	1			1,750			1,750	1	
Emerald Princess	Princess Cruises	1			3,092			3,092		1
Eurodam	Holland America Line	1			2,104			2,104	1	
Europa	Hapag-Lloyd	1	408					408	1	1
Europa 2	Hapag-Lloyd	1	500					500		1
Harmony of the Seas	Royal Caribbean	1			5,496			5,496	1	1
Horizon	Croisieres de France	1				1,442		1,442		1
Independence of the Seas	Royal Caribbean	1				3,634		3,634		1
Insignia	Oceania Cruises	1			684			684		1
Jewel of the Seas	Royal Caribbean	1				2,112		2,112		1
Koningsdam	Holland America Line	1			2,650			2,650		1
Marina	Oceania Cruises	1		1,258				1,258		1
Mein Schiff 1	TUI Cruises	1			1,924			1,924		1
Mein Schiff 3	TUI Cruises	1		2,506				2,506		1
Mein Schiff 4	TUI Cruises	1		2,506				2,506		1
Mein Schiff 5	TUI Cruises	1		2,506				2,506		1
Minerva	Swan Hellenic	1			352			352	1	1
MSC Armonia	MSC Cruises	1				1,952		1,952		1
MSC Fantasia	MSC Cruises	1			3,274			3,274		1
MSC Magnifica	MSC Cruises	1			2,518			2,518		1
MSC Opera	MSC Cruises	1			2,142			2,142		1
MSC Orchestra	MSC Cruises	1			2,550			2,550		1
MSC Poesia	MSC Cruises	1			2,550			2,550		1
MSC Preziosa	MSC Cruises	1		3,502				3,502	1	
MSC Splendida	MSC Cruises	1			3,274			3,274		1
Nautica	Oceania Cruises	1			684			684	1	

Name	Operator	Ships	Lower Berth C capacity					Barcelona		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
Navigator of the Seas	Royal Caribbean	1				3,114		3,114		1
Norwegian Epic	Norwegian Cruise Line	1			4,200			4,200	1	
Norwegian Jade	Norwegian Cruise Line	1				2,402		2,402	1	
Norwegian Spirit	Norwegian Cruise Line	1				2,018		2,018	1	
Norwegian Star	Norwegian Cruise Line	1				2,348		2,348	1	
Oceana	P&O Cruises	1				2,016		2,016		1
Oosterdam	Holland America Line	1			1,916			1,916	1	
Ovation of the Seas	Royal Caribbean	1			4,180			4,180	1	
Pacific Princess	Princess Cruises	1			688			688	1	1
Prinsendam	Holland America Line	1			835			835	1	1
Queen Elizabeth	Cunard	1		2,092				2,092		1
Queen Victoria	Cunard	1		2,014				2,014	1	1
Rhapsody of the Seas	Royal Caribbean	1				2,000		2,000	1	1
Riviera	Oceania Cruises	1		1,258				1,258	1	1
Rotterdam	Holland America Line	1			1,404			1,404		1
Royal Princess	Princess Cruises	1			3,560			3,560	1	
Saga Sapphire	Saga	1			706			706		1
Sea Cloud II	Sea Cloud Cruises	1	96					96	1	
Seabourn Odyssey	Seabourn Cruise	1	450					450	1	1
Seabourn Sojourn	Seabourn Cruise	1	450					450	1	
SeaDream I	SeaDream Yacht	1	112					112	1	1
SeaDream II	SeaDream Yacht	1	112					112	1	
Serenissima	Noble Caledonia	1					107	107		1
Seven Seas Explorer	Regent Seven Seas Cruises	1		750				750	1	1
Seven Seas Navigator	Regent Seven Seas Cruises	1		490				490	1	1
Seven Seas Voyager	Regent Seven Seas Cruises	1	690				690	1		
Silver Cloud	Silversea	1		296				296	1	1
Silver Spirit	Silversea	1	540					540	1	
Silver Wind	Silversea	1		296				296	1	1
Sirena	Oceania Cruises	1			684			684	1	
Sovereign	Pullmantur	1				2,306		2,306	1	1
Star Breeze	Windstar Cruises	1		212				212	1	
Star Flyer	Star Clippers	1				170		170	1	
Star Legend	Windstar Cruises	1		212				212	1	
Star Pride	Windstar Cruises	1		212				212	1	
The World	ResidenSea	1	400					400		1
Thomson Discovery	Thomson	1				1,804		1,804		1
Thomson Majesty	Thomson	1				1,462		1,462		1
Thomson Spirit	Thomson	1				1,254		1,254		1
Ventura	P&O Cruises	1			3,078			3,078		1
Viking Sea	Viking Ocean Cruises	1		928				928	1	
Viking Star	Viking Ocean Cruises	1		928				928	1	
Vision of the Seas	Royal Caribbean	1				1,998		1,998	1	
Wind Star	Windstar Cruises	1				148		148	1	
Wind Surf	Windstar Cruises	1			312			312	1	
Zenith	Croisières de France	1				1,440		1,440		1
TOTAL		101	3,068	32,013	65,564	71,091	107	171,843	5	72

Source: G. P. Wild (International) Limited.

1.9. Itineraries Sailed

With over 100 ships calling at Barcelona in 2016, the range of itineraries sailed is too numerous to set out in detail. Examples of itineraries are:

- Seven-night Western Mediterranean embarking Barcelona.
- Transit port on seven-night Western Mediterranean embarking in locations such as Genoa, Marseilles or Civitavecchia.
- Ten-night cross Mediterranean cruise embarking Barcelona and disembarking in Venice, Piraeus or Istanbul.
- Transit port on longer cruises from Southampton or Hamburg.
- Transit or home port for deluxe cruise lines operating a wide variety of Mediterranean itineraries serving smaller ports such as Monaco and Nice.

1.10. Discussion in relation to Rotterdam circumstances

In terms of the decisions to be made by Rotterdam, the pertinent issue at Barcelona is the nature of terminal buildings themselves. In terms of passenger throughput, Barcelona is one of the busiest ports in Europe. The terminals have been built simply and inexpensively with a view to minimizing passenger throughput times. No attempt has been made to build an iconic building or to add revenue streams.

By contracting the management of the terminal buildings to third parties, the Port of Barcelona guarantees its annual revenues based on passenger numbers.

The terminals in Barcelona are able to accommodate the largest cruise ships in the world and have their 4,000 plus passengers speedily on their way to their day ashore either in the city or on coach tours.

Should Rotterdam choose to grow cruise business and build on a new, regenerated site, this could be a good example of how to maximize throughput of passengers at minimum construction costs.

2. COPENHAGEN

2.1. Transport and Logistics

Copenhagen has four cruise terminals, Langelinie Quay, Nordre Toldbod, the Freeport (Frihavnen) and Ocean Quay (Oceankaj). The new cruise terminal Ocean Quay in Copenhagen’s North Harbour, Nordhavn, was inaugurated in 2014 and is expected to welcome 60% of cruise calls in Copenhagen.

The website VisitCopenhagen.com has detailed information on bus and taxi access to and from the various terminals to the city centre and of car parking for passengers starting their cruise in Copenhagen.

Bus users can buy a City Pass or Copenhagen Card online. This allows them to travel easily from and to the port without having to think about where to purchase tickets, the types of tickets available or travel zones.



Location of Copenhagen Cruise Terminals³

3 Source: Visit Copenhagen website

As can be seen from the above map, travel by bus or taxi to the centre of the city is desirable. The structures at each of the terminals are fairly simple and provide basic passenger handling needs.



Ocean Terminal

Whilst the majority of cruise passengers visit the city itself, there are several tour destinations in wider Denmark such as Hamlet's Castle at Elsinor. The motorway network can be readily accessed by tour coaches. Traffic websites show the journey to the motorway to take 30 minutes for a seven-kilometer drive. The tour to Hamlet's Castle is advertised as taking four hours.

2.2. Additional Exploitation

All the terminal buildings in Copenhagen are simple structures providing normal cruise passenger boarding needs.



Cruise Ships berthed at Freeport

Nirex, the developers of the new Ocean Terminal describe the facility in the following manner on their website. It will be noted that all the emphasis is on the environmental credentials of the facilities rather than on any additional exploitation.

Quote:

The long-awaited new cruise terminal, Krydstogtskajen, which is located in the Nordhavn district of Copenhagen, was officially inaugurated on 2 May 2014 by CPH City and Port Development and Copenhagen Malmö Port, with attendance from Her Majesty the Queen of Denmark.

The 1,100 meter long quay, with space for up to three cruise ships at a time, is part of an effort to maintain and develop the capital of Denmark as a leading destination for cruise ship tourists from around the world.

The new quay area is a part of a large-scale development project for the Nordhavn district and 18 million tonnes of soil have been used for the 100-hectare expansion, which is the largest in the capital's history.

Present at the opening were three proud and happy members of the NIRAS team, who have followed the construction for three years along with the rest of the team from CPH City & Port Development, client advisor Grontmij, and the contractor consortium Züblin, Möbius and MJ Eriksson.

The cruise ship quay is divided into three quay and terminal areas with each their own terminal building and parking spaces for both busses and taxis. Behind the terminal area, a distribution road is situated along with turn areas at each end of the quay.

In the southern part of the quay area, curious tourists can ascend the six meter high observation tower and take in the amazing views of Copenhagen.

A popular cruise ship destination

Copenhagen is the most popular city for cruise ships in the Oresund region, thus City Mayor, Frank Jensen and Director Jens Kramer Mikkelsen from CPH City & Port Development, were both happy to see the completion of the new quay with its increased capacity.

"Cruise ship tourism creates a large turnover and many jobs in our companies, so it is very important that we can deliver an excellent service for the tourists and maintain our position as one of the world's best cruise ship ports," says Frank Jensen to business.dk.

Technical design and construction challenges

The soil conditions in the entire project area vary a great deal geologically. Some areas are very solid chalk and others much softer beds. This has resulted in great challenges for the design of the structures as well as construction techniques.

Wastewater

The new cruise ship terminal is one of the few port of call locations in the Nordic countries, where cruise ships can dispose of wastewater directly into the public sewage system. In this case, Denmark's largest wastewater treatment plant, Lynetten in Copenhagen.

In a few years, ships will no longer be allowed to discharge wastewater into international waters. Thus, NIRAS is looking forward to using the experience learnt from the new Copenhagen Cruise Terminal in the receipt and handling of wastewater for future harbour projects.

See more at: <http://www.niras.com/current-events/news/2014/niras-behind-new-copenhagen-cruise-ship-terminal.aspx#sthash.Rr2Qa2A4.dpuf>

2.3. Ownership Structure

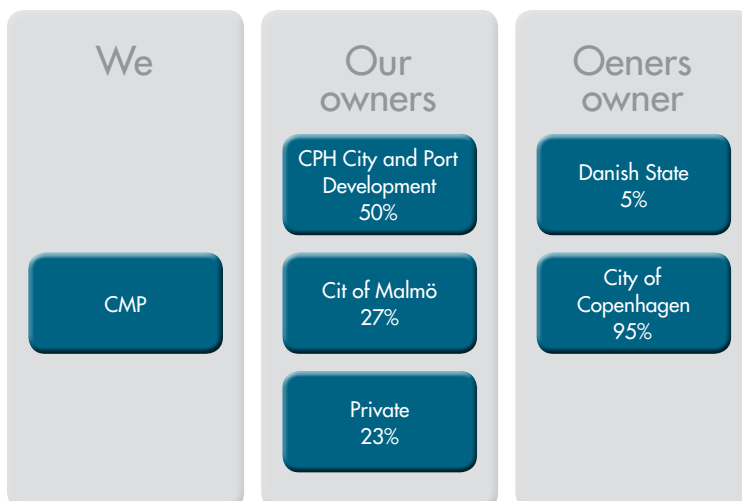
Copenhagen Malmö Port (CMP) operates all the cruise terminals in Copenhagen.

CMP is a Danish-Swedish joint venture. The shareholders in the holding companies reflect public and private interests.

CMP is a Swedish-registered limited liability company. The company is port and terminal operator in Copenhagen (Denmark) and Malmö (Sweden). The company is owned by City & Port Development I/S (50 %), City of Malmö (27 %) and various private owners with 23 % of the shares in total. The Board consists of 12 members. The 8 shareholder elected members are composed according to the number of shares. The 4 employees' representatives are elected 2 from the Danish employees and 2 from the Swedish organizations.

CMP leases fixed plants such as quays, warehouses, buildings etc. from City & Port Development and City of Malmö. The annual lease is based upon the cost of existing facilities and the cost of investment in new plant.

The port website illustrates the ownership structure in the following manner.



Marketing to the cruise industry is undertaken by an organization called CruiseCopenhagen. Their website states that:

CruiseCopenhagen was established in 1992 and consists of all the key players within the Danish cruise industry. Over the years, our partners have gained all the experience and knowledge needed in order to execute a smooth operation, both when it comes to transit and turnarounds.

The competences and quality focus of our partners have resulted in several awards within the international cruise industry. These awards have not only been given by the cruise media, but more importantly from some of the key operators within the business.

The network comprises of more than 50 dedicated partners working within all the key sectors, e.g. destination management, transportation, attractions, hotels etc.

CruiseCopenhagen is not only representing the Danish capital, but also several other beautiful destinations in Denmark that have experienced growth over the past few years.

These destinations are spread out over the entire country from Skagen in Northern Denmark to Rønne located on the island of Bornholm in the Baltic Sea. All of the destinations offer something different and unique.

2.4. Environmental surroundings

The surroundings of the Copenhagen facilities are urban and the newer facilities are built on reclaimed land. There is some limited industrial activity.



Site of Ocean Terminal

2.5. Location vis-à-vis city centre and attractions

As described above, the city centre is a bus or taxi ride from the terminals. Once on the motorway, the journey to Hamlet's Castle takes about half an hour.

2.6. Nautical location from sea

As can be seen in the above photograph, the Ocean Terminal accesses directly onto the Sound linking the Baltic Sea with the Kattegat.

2.7. Transit and Turnaround Calls Per Year

Copenhagen - Transit and Turnaround Calls per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	286	141,800	141,500	174,700	458,000
2007	292	164,600	164,500	172,900	502,000
2008	303	158,305	155,675	246,139	560,119
2009	333	224,800	224,800	225,400	675,000
2010	306	224,000	224,000	214,000	662,000
2011	368	280,000	280,000	260,229	820,229
2012	375	239,250	239,250	361,500	840,000
2013	347	207,125	205,125	388,250	800,500
2014	315	227,000	227,000	286,000	740,000
2015	283	224,825	224,825	227,850	677,500
2016	309	211,000	211,000	309,000	731,000

Estimates in *italics*.

Source: G. P. Wild (international) Limited from Port Copenhagen and other sources

2.8. Fleet Composition

Cruise Ships calling at Copenhagen 2016

Name	Operator	Ships	Lower Berth Capacity					Copenhagen calls		
			SDX	DLX+	DLX	STD	ECN	Total	T/arrived	Transit
AidaAura	Aida Cruises	1				1,262		1,262		1
AidaDiva	Aida Cruises	1				2,050		2,050		1
AidaLuna	Aida Cruises	1				2,050		2,050		1
AIDA Vita	Aida Cruises	1				1,262		1,262		1
Amadea	Phoenix Reisen GmbH	1			594			594		1
Arcadia	P&O Cruises	1			2,020			2,020		1
Aurora	P&O Cruises	1			1,868			1,868		1
Azamara Quest	Azamara Club Cruises	1		694				694	1	1
Azura	P&O Cruises	1			3,105			3,105		1
Balmoral	Fred. Olsen Cruises	1				1,350		1,350		1
Birka Stockholm	Birka Cruise Line	1				1,468		1,468		1
Black Watch	Fred. Olsen Cruises	1				804		804		1
Braemar	Fred. Olsen Cruises	1				929		929		1
Celebrity Eclipse	Celebrity Cruises	1		2,852				2,852		1
Celebrity Silhouette	Celebrity Cruises	1		2,886				2,886		1
Costa Favolosa	Costa Cruises	1				3,016		3,016	1	
Costa Luminosa	Costa Cruises	1				2,260		2,260		1
Costa Pacifica	Costa Cruises	1				3,008		3,008		1
Crystal Symphony	Crystal Cruises	1		960				960	1	1
Deutschland	Phoenix Reisen GmbH	1		520				520		1
Disney Magic	Disney Cruise Line	1			1,750			1,750	1	
Emerald Princess	Princess Cruises	1			3,092			3,092		1
Europa	Hapag-Lloyd	1	408					408		1
Europa 2	Hapag-Lloyd	1	500					500		1
Insignia	Oceania Cruises	1			684			684		1
Koningsdam	Holland America Line	1			2,650			2,650		1
L'Austral	Ponant Cruises	1			264			264	1	1
Le Boreal	Ponant Cruises	1			264			264	1	
Magellan	Cruise and Maritime	1				1,452		1,452		1
Marco Polo	Cruise and Maritime	1					800	800		1
Marina	Oceania Cruises	1		1,258				1,258	1	1
Mein Schiff 1	TUI Cruises	1			1,924			1,924		1
Mein Schiff 4	TUI Cruises	1		2,506				2,506		1
Mein Schiff 5	TUI Cruises	1		2,506				2,506		1
Minerva	Swan Hellenic	1			352			352		1
MSC Musica	MSC Cruises	1			2,550			2,550		1
MSC Opera	MSC Cruises	1			2,142			2,142		1
National Geographic Orion	Lindblad Expeditions	1		106				106	1	
Nautica	Oceania Cruises	1			684			684	1	1
Navigator of the Seas	Royal Caribbean	1				3,114		3,114		1
Norwegian Star	Norwegian Cruise Line	1				2,348		2,348	1	
Pacific Princess	Princess Cruises	1			688			688		1
Prinsendam	Holland America Line	1			835			835		1
Queen Elizabeth	Cunard	1		2,092				2,092		1
Regal Princess	Princess Cruises	1			3,560			3,560	1	
Saga Pearl II	Saga	1				449		449		1
Sea Cloud II	Sea Cloud Cruises	1	96					96		1
Seabourn Quest	Seabourn Cruise	1	450					450	1	
Serenade of the Seas	Royal Caribbean	1				2,110		2,110	1	
Seven Seas Voyager	Regent Seven Seas Cruises	1		690				690	1	1
Silver Whisper	Silversea	1	382					382	1	
Silver Wind	Silversea	1		296				296		1
The World of ResidenSea	ResidenSea	1	400					400		
Viking Sea	Viking Ocean Cruises	1		928				928		1

Name	Operator	Ships	Lower Berth Capacity					Copenhagen calls		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
Viking Star	Viking Ocean Cruises	1		928				928		1
Wind Surf	Windstar Cruises	1			312			312	1	1
Zuiderdam	Holland America Line	1			1,964			1,964	1	
TOTAL		57	2,236	19,222	31,302	28,932	800	82,492	17	47
% of total			2.7	23.3	37.9	35.0	1.0			

Source: G. P. Wild (international) Limited

2.9. Itineraries Sailed

Copenhagen is one of the principal ports of the Baltic Sea cruise itinerary. Two types of cruise operate as follows.

- Baltic Sea cruises using Copenhagen as a home port.
- Baltic Sea cruises which have originated in Southampton, Hamburg or similar ports and for which Copenhagen is a transit port.

In addition, some vessels homeporting in Copenhagen over a season intersperse Baltic cruises with cruises up to the more southerly Norwegian fjords.

2.10. Discussion in relation to Rotterdam circumstances

The strong growth of cruise business and the size of ships at Copenhagen in recent years has meant that the port has needed to expand its facilities. It has chosen to do so by moving further from the city centre in order to make sufficient space available.

The result is that the new facility is in a rather soulless location but provides efficient passenger handling.

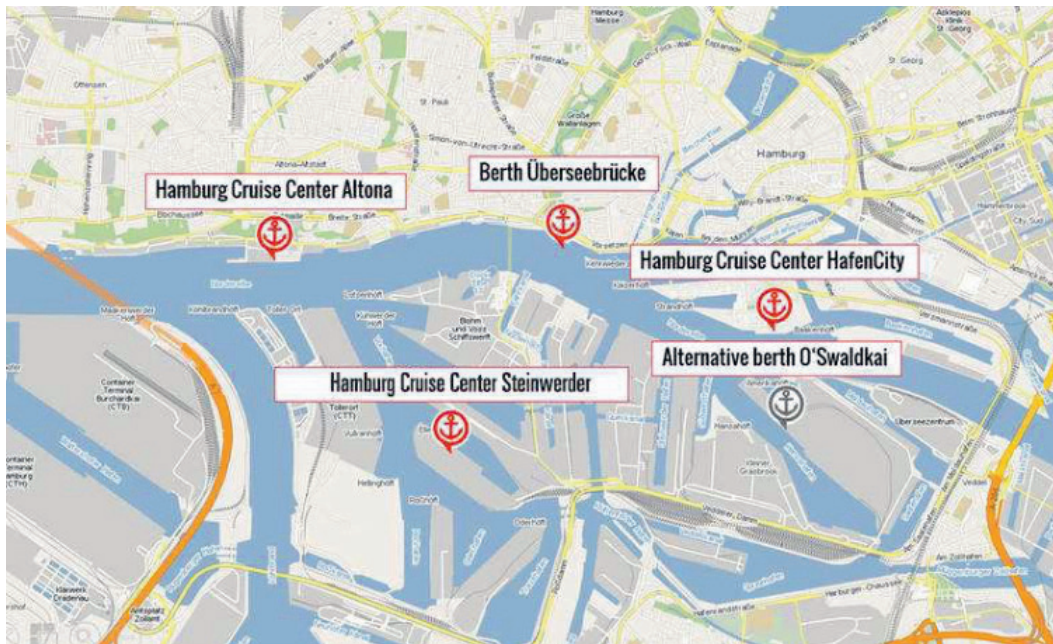
Copenhagen is therefore in a similar position to Barcelona, albeit that Copenhagen is building on land reclaimed from the sea rather than on existing industrial land.

3. HAMBURG

3.1. Transport and Logistics

As can be seen from Figure 3.1, at present Hamburg offers four alternative options with five berths for the docking of visiting cruise ships with the primary focus being at Hamburg Cruise Center terminals at Altona, HafenCity and Steinwerder. In addition, the port offers berthing at Überseebrücke.

Figure 3. 1: Location of Cruise Facilities in Hamburg



Note: It is understood that the alternative berth O'Swaldkai, shown on this map, is not used by cruise ships.
Source: Internet

All the cruise terminals in Hamburg are relatively new. The terminal at Altona opened for business in June 2011. The first terminal in HafenCity was commissioned in 2014 with the second opening in 2016. The Steinwerder terminal entered service in June 2015.

Key Operational Constraints at Hamburg's Cruise Berths

Item	Altona	HafenCity	Steinwerder	Überseebrücke
No. of Berths	1	2	1	1
Terminal Buildings	1	① 2	2	0
Operational area (m ²)	1,800	1,200 x 2	10,600	
Max. length (m)	300	345	② 330	300
Max depth (m)	10.5	12.0	13.0	10.0
Max. air draught	None	None	None	None

① One of these two terminal buildings at HafenCity has been demolished. It is planned that the other building will be dismantled by 2021 and replaced by a new building which will have an operational area of 10,200 m².

② The Consultants understand that it may be possible to handle ships longer than 330 m at Steinwerder.

Source: GP Wild (International) Ltd from Port of Hamburg data

With the exception of Royal Caribbean's Genesis Class, which are the largest cruise ships in the world, it is clear from the Table that between them the five cruise berths can handle all the cruise ships currently in service or planned. Even so it should be noted that 23-cruise ships, either on order or in service exceed 330 meters in length and this number increases to 52 if ships which are more than 300 meters in length are considered. Given the trend by owners towards the continued commissioning of very large cruise ships it is likely that these numbers will increase in the future. Eventually this may mean that the Hamburg Port Authority may have to consider either lengthening an existing berth up to 365 meters or introducing an additional larger berth. The depth of water at all the berths meets the current needs of the cruise ship fleet.

From the above analysis it can be concluded that while there are some operational constraints in Hamburg in relation to the handling of a small number of very large cruise ships, these factors are unlikely to inhibit the continued development of cruise tourism traffic in the future. Nevertheless, some further investment in additional facilities may be required in the longer run if Hamburg wishes to retain pole position and maintain its competitive edge.

As can be seen from the Table in section 3.7, almost all of Hamburg's cruise business is turnaround. Passengers arrive from across Germany by Air, Rail and private car. There is some pre and post cruise stay business. In terms of transport and logistics, the principal requirements therefore relate to access for stores deliveries to the ships and the parking of private cars for the duration of the cruise.

Long term car parking is not provided adjacent to any terminal. Instead, long term valet parking is advertised on the Hamburg Cruise website hamburgcruisecentre.de

Passenger luggage handling is also an important element. The website offers a bespoke luggage service from across Germany:

"Services for passengers and a fluent ship operation are the main priorities at all cruise terminals and berths. To ease the luggage handling from/to the passenger's home door to/from the cruise terminals, there are special logistic services. One of these service providers is the TEfra Travel Logistics GmbH".

Individual circumstances at each of the terminals are described below.

ALTONA

The Altona Terminal is located some 2,000 meters west of the city centre at St Pauli and is the oldest facility. It provides all the necessary facilities for a turnaround call. Public observation decks on top of the building allow views of the ships.



4

ÜBERSEEBRÜCKE

Überseebrücke is a smaller berth close to the city centre. During major maritime events or when several cruise ships are in port simultaneously, Überseebrücke, located between the Hafencity and Altona terminals, is available as a berth. Large sailing ships and small passenger vessels, especially, tie up here.

It was built in 1930 by the Hamburg Süd shipping company and newly built after World War II. From this jetty rich in tradition ferries used to leave for England; today, smaller cruise ships and sailing boats moor here. A lot of things can be discovered from here; it is the heart of the port of Hamburg.

4 All images sourced from Port of Hamburg website

HAFENCITY

Hafen City is an area of Hamburg in which significant regeneration is taking place. It is located some 2,000 meters to the east of the city centre. Terminal 1 went into operations in 2014, 2 years later the terminal 2. Like the container facade, the interior is also of modular construction, with flexible divider walls facilitating individual adjustment of space to the differing requirement parameters of each vessel being handled.



STEINWERDER

The Cruise Centre 3 is built in the port area of Steinwerder, right in the heart of the Port of Hamburg. The berth at Kronprinzkai will be able to accommodate modern cruise liners and since June 2015 the next generation of cruise ships can dock there.



Unlike the existing terminals in Altona and HafenCity the new terminal will have one building for arriving and one building for departing passengers. This is to ensure that the new class of cruise ships with higher passenger-carrying capacity can be serviced fast and efficiently.

A 35.000 m² large area right next to the embarkation and disembarkation buildings will offer sufficient long-term and short-term parking facilities. The plans provide for up to 1,500 parking spaces for private vehicles and more than 20 coach bays as well as taxi passenger drop-off and pick-up points.

3.2. Additional Exploitation

Little additional exploitation takes place in any of the Hamburg terminals. There are small cafes located in most buildings.

3.3. Ownership Structure

Hamburg Port Authority is a national body established by statute. Cruise Gate Hamburg GmbH is a subsidiary of the Hamburg Port Authority AöR. As the operator of the three cruise centres (Altona, HafenCity and Steinwerder) CGH is the single point of contact for all cruise lines.

CGH Cruise Gate Hamburg GmbH (CGH), a terminal operator founded as a joint venture between the HPA and Flughafen Hamburg GmbH (Hamburg Airport) in September 2014, had a successful year of business in 2015. The Cruise Center Steinwerder, officially opened on 9 June, was completed one month ahead of schedule, well below the projected costs. By the end of the first season, 36 calls had been made – eight more than planned for in the business case – by four different ships, and over 194,000 passengers passed through the new terminal. All in all Hamburg was visited by 153 cruise ships; out of over 520,000 passengers 96% started or ended their journey in Hamburg. With effect from 1 January 2016 the HPA acquired the shares of FHG under a share purchase agreement and now is the sole shareholder of CGH.

The following visual illustrates the situation in Hamburg.

One face to the customer – players and responsibilities



Source: Port of Hamburg

Marketing of Hamburg to the cruise industry is undertaken by an organization named *Hamburg Cruise Centre*. It describes itself on the website in the following manner.

Almost 20 founding members initiated the association in 1998 with the aim of reviving the cruise business in Hamburg. Together with the members, including shipping companies, agents, port companies, ship equipment, gastronomy and hotel companies, the club has made Hamburg one of the most popular cruising destinations in Europe.

The association structure and the associated tasks are regarded as a best practice example in the international cruise industry. The association brings together the interests of today about 130 members, all of which are located along the value chain cruise and thus find a common meaningful platform through the association.

The association has two main objectives; 1. location marketing in cruise industries and 2. to increase the economic importance in the awareness of the public, the media and politics:

- Reederakquise- and support at special events at the terminals
- Trade fair appearances and event organization (network of the German cruise ports: "Destination Germany" and Atlantic Alliance)
- PR (press conference / announcements / actions)
- Monitoring
- Specialist lecturers
- Membership and support
- Internet presence & social media
- Publications

Many participants have contributed to this success, and we would like to thank them at this point. Now we have to face the challenges of the future: to establish Hamburg as a competence center for the cruise industry in the north.

At the beginning of January 2011, the Chamber of Commerce, the Tourist Board and the Hamburg Cruise Center eV published a joint resolution on the strengthening of the cruise location in Hamburg. Some of the key requirements are:

- Development of a cruise development plan
- Continuation of the successful work of the HCC as marketing organization for the cruise industry in Hamburg
- Exploiting the synergies between Hamburg Marketing GmbH, Hamburg Tourismus GmbH and HCC
- Use of the Hamburg policy for an improvement of the basic conditions for the arrivals of cruise ships in Hamburg

Apart from material contributions by individual members, the association finances itself exclusively from fixed membership fees. We therefore ask for your support! If we have aroused your interest, we are happy to talk to you about the arrangements for joining and the benefits of membership.

3.4. Environmental surroundings

Three of the terminals, Altona, Überseebrücke and Hafencity are in urban surroundings. Steinwerder is in more of an industrial zone.

3.5. Location vis-à-vis city centre and attractions

Other than the small terminal at Überseebrücke, all the terminals are a taxi ride or a drive from the city centre. In Hamburg's case and as an almost exclusively home port, the location of the terminals is not so critical as for transit business.

3.6. Nautical location from sea

The Port of Hamburg lies some 100 kilometers from the North Sea along the river Elbe.

3.7. Transit and Turnaround Calls Per Year

The growth of cruise tourism at Hamburg over the last five years is detailed in the following table, which also provides a breakdown of the traffic in terms of embarkations, disembarkations and transit calls. For most years the number of ship calls at Hamburg is also provided.

Table Hamburg - Transit and Turnaround Calls per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	n.k.	35,500	35,500	4,586	75,586
2007	n.k.	62,500	62,500	7,678	132,678
2008	n.k.	35,500	35,500	8,791	89,791
2009	87	60,000	60,000	6,839	126,839
2010	104	104,000	104,000	37,761	245,761
2011	118	127,000	127,000	60,494	314,494
2012	160	178,400	178,400	73,529	430,329
2013	178	261,231	258,753	32,475	552,459
2014	189	277,812	281,458	29,420	588,690
2015	154	232,000	232,000	55,453	519,453
2016	171	342,255	338,142	41,318	721,715

Estimates in *italics*.

Source: G. P. Wild (international) Limited from Port of Hamburg and other sources

Clearly embarking and disembarking passengers account for almost all the business in Hamburg with only a relatively few transit calls. In the view of the Consultants this pattern of business is likely to continue for the foreseeable future.

It is noteworthy that the average annual growth in cruise traffic for the period covered by the Table up to 2017 is +7.57%. This is well ahead of the cruise market development in either Germany or Western Europe which over the last five years has amounted to +5.49 and +0.74% per annum respectively.

3.8. Fleet Composition

Cruise Ships calling at Hamburg 2016

Name	Operator	Q	Lower Berth Capacity						Hamburg calls	
			SDX	DLX+	DLX	STD	ECN	Total	T/Around	Transit
AidaAura	Aida Cruises	1	0	0	0	1,266	0	1,266	1	
AidaDiva	Aida Cruises	1	0	0	0	2,050	0	2,050	1	
AIDAmar	Aida Cruises	1	0	0	0	2,194	0	2,194	1	
AIDAprima	Aida Cruises	1	0	0	3,250	0	0	3,250	1	1
AidaSol	Aida Cruises	1	0	0	0	2,194	0	2,194	1	
AIDAvida	Aida Cruises	1	0	0	0	1,262	0	1,262	1	
Albatros	Phoenix Reisen GmbH	1	0	0	0	884	0	884		1
Amadea	Phoenix Reisen GmbH	1	0	0	594	0	0	594	1	
Arcadia	P&O Cruises	1	0	0	2,020	0	0	2,020		1

Name	Operator	Q	Lower Berth Capacity						Hamburg calls	
			SDX	DLX+	DLX	STD	ECN	Total	T/Around	Transit
Astor	Transocean	1	0	0	0	590	0	590	1	
Aurora	P&O Cruises	1	0	0	1,868	0	0	1,868		1
Balmoral	Fred. Olsen Cruises	1	0	0	0	1,350	0	1,350		1
Black Watch	Fred. Olsen Cruises	1	0	0	0	804	0	804		1
Boudicca	Fred. Olsen Cruises	1	0	0	0	880	0	880		1
Braemar	Fred. Olsen Cruises	1	0	0	0	929	0	929		1
Bremen	Hapag-Lloyd	1	0	164	0	0	0	164	1	
Caribbean Princess	Princess Cruises	1	0	0	3,112	0	0	3,112		1
Costa Pacifica	Costa Cruises	1	0	0	0	3,008	0	3,008	1	
Crystal Symphony	Crystal Cruises	1	0	960	0	0	0	960	1	
Deutschland	Phoenix Reisen GmbH ①	1	0	520	0	0	0	520	1	
Europa	Hapag-Lloyd	1	408	0	0	0	0	408	1	
Europa 2	Hapag-Lloyd	1	500	0	0	0	0	500	1	
Hamburg	plantours & partner	1	0	0	0	408	0	408	1	
Hanseatic	Hapag-Lloyd	1	184	0	0	0	0	184	1	
Insignia	Oceania Cruises	1	0	0	684	0	0	684		1
Magellan	Cruise and Maritime	1	0	0	0	1,452	0	1,452		1
Marina	Oceania Cruises	1	0	1,258	0	0	0	1,258		1
Mein Schiff 1	TUI Cruises	1	0	0	1,924	0	0	1,924	1	
Mein Schiff 4	TUI Cruises	1	0	2,506	0	0	0	2,506	1	
Mein Schiff 5	TUI Cruises	1	0	2,506	0	0	0	2,506	1	
MSC Splendida	MSC Cruises	1	0	0	3,274	0	0	3,274	1	
Nordsjernen	Hurtigruten	1	0	0	0	152	0	152	1	
Ocean Diamond	IcelandPro	1	0	0	0	189	0	189	1	
Ocean Dream	Peace Boat	1	0	0	0	1,422	0	1,422		1
Ocean Majesty	Hansa Kreuzfahrten	1	0	0	0	0	535	535	1	
Prinsendam	Holland America Line	1	0	0	835	0	0	835		1
Queen Elizabeth	Cunard	1	0	2,092	0	0	0	2,092		1
Queen Mary 2	Cunard	1	0	2,620	0	0	0	2,620	1	
Queen Victoria	Cunard	1	0	2,014	0	0	0	2,014	1	
Sea Cloud II	Sea Cloud Cruises	1	96	0	0	0	0	96	1	
The World of ResidenSea ②	ResidenSea	1	400	0	0	0	0	400		1
Total, 2016		41	1,588	14,640	17,561	21,034	535	55,358	26	17
% of total			2.9	26.4	31.7	38.0	1.0			

Source: G. P. Wild (International) Limited.

3.9. Itineraries Sailed

The majority of Hamburg's business is turnaround by ships serving the German-speaking market. These ships sail a variety of itineraries such as:

- Norway and the Northern Lights;
- Baltic;
- Iceland and around Britain;
- South to the sun.

Transit calls are made mostly by ships serving the British market sailing from Southampton or Dover. These might be en-route to the Baltic or operating around the North Sea.

3.10. Discussion in relation to Rotterdam circumstances

Hamburg's business is dominated by home porting by German lines. The small number of transit passengers and calls may be indicative of the high fuel and time costs associated with sailing the 100 kilometres from the North Sea.

The present berth in Rotterdam is approximately 30 kilometers from the mouth of the Maas and whilst not so critical as the 100 kilometers to Hamburg, to some extent the same applies in terms of fuel costs for the cruise lines. It should be noted that three financial variables apply for cruise lines when selecting an itinerary and ports of call. These are:

- Fuel costs;
- Port dues;
- Potential shore excursion revenue.

It may be that Rotterdam has to offset the additional fuel costs resulting from the 30 kilometer sail up the Maas by some adjustment to port dues.

Neither of the two proposed new sites for a cruise terminal in Rotterdam will make much difference to this issue.

4. LE HAVRE

4.1. Transport and Logistics

The port of Le Havre is located on the right bank of the mouth of the river Seine in Seine- Maritime in northern France. It is the closest deep-sea port to Paris and in 2017 is celebrating the 500th year of its foundation in 1517. Over the last decade cruise tourism at Le Havre has grown rapidly from around 78,000 cruise tourists in 2007 to over 330,000 in 2016. Visiting cruise ships are accommodated at La Pointe de Floride, which depending on the ship size can berth between three and four cruise ships simultaneously. La Pointe de Floride offers two cruise berths, Quai Roger Meunier to the North, which is shown with a single cruise ship alongside in the picture below and Quai Pierre Callet to the South. Over the preceding decade the majority of calls have been transit calls although this is changing with increasing number of calls either involving a turnaround or inter-porting.

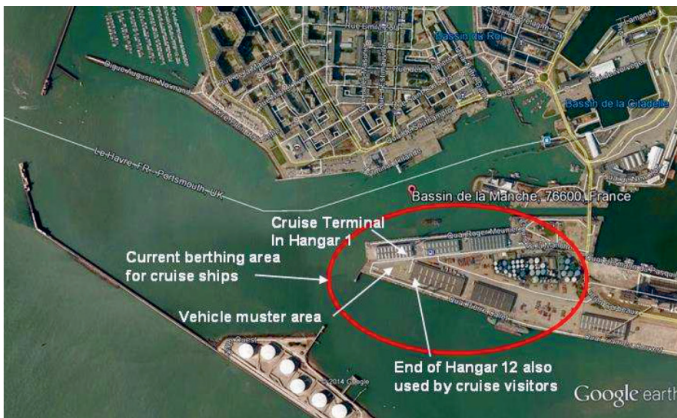


Three Cruise Ships alongside at La Pointe de Floride

At present Le Havre is using some of the existing sheds, which the French call Hangars, on La Pointe de Floride. The two sheds in question are Hangar 1, which is at the seaward end of Quai Roger Meunier and Hangar 12, which is located at the seaward end of Quai Pierre Callet. Hangar 1 has been converted in part as a cruise terminal and painted and labelled as a cruise terminal. In its current configuration of 2,400 m² it can handle a turnaround of up to around 1,200 to 1,500 cruise tourists as well as transit passengers. It offers 24 coach parking spaces, a taxi rank and disabled access, the latter of which is in compliance with European regulation 1177/2010. In comparison only a small part of Hangar 12, amounting to 600 m², is utilised to handle primarily transit passengers although some turnarounds are also handled through this terminal. Hangar 12 has 31 coach parking spaces, a taxi rank and disabled access.

When three ships are berthed alongside at the same time a separate area is brought into service at the foot of the third ship. This is comprised of a 25 m² welcome pavilion. Such an arrangement offers coach parking spaces and a taxi rank, but is only suitable for transit calls.

As can be seen from the photograph that shows the layout of the cruise berths at Le Havre La Pointe de Floride is within easy walking distance of the city of Le Havre. A Shuttle used to be provided and long-term parking is available.



Layout of Cruise Berths and Terminals at Le Havre



Cruise ship alongside Hangar 1 Cruise Terminal ⁵

As can be seen from the above photograph which shows Hangar 1, which is painted in red and white and Hangar 2, which is green in colour, the Hangars being used to handle cruise ships in Le Havre are relatively old and in need of either renovation or replacement. The approaches to the Hangars are also in need of improvement. The same can be said of Hangar 12 on Quai Pierre Callet and the other Hangars located at La Point de Floride.

Independence of the Seas berthed alongside Hangar 12 with marshalled coaches and taxis



⁵ Images per GPW

4.2. Additional Exploitation

Presently Le Havre is reviewing its offer to the cruise industry. Operations are conducted in empty sheds. It recognizes this has to be improved.



Renovated Hangar at Le Havre

Fundamentally two options are being considered. These are to:

1. Renovate and modernise the existing Hangars and facilities that are used by the cruise industry at La Pointe de Floride;
- or
2. Demolish the Hangars and replace them with one or more dedicated terminals.

The adoption of modern sophisticated gangways is also being examined. At the time of writing no final decision on which approach will be taken has been made, but leaving things as they are is an unlikely result.

4.3. Ownership Structure

Le Havre is state owned and under the ultimate control of the port authority the Grand Port Maritime du Havre (GPMH).

The port at Le Havre is a "Grand Port Maritime" which has the effect of preventing the port authority from operating the services required by customers at the port installations, including cruise installations.

The situation at Le Havre for ocean cruises is complicated, probably for historical reasons and port structural reasons. Le Havre also suffers from the problem that most of the investment would be made by the port, most of the services requiring manpower would be provided by (local) third parties and most of the income would be received by the tourist industry, locally, regionally and in Paris.

At present all the activity outside the terminal such as pilotage, towing, harbour master services, the movement and positioning of gangways and mooring and unmooring are undertaken by dockworkers under agreements with GPMH. These services are all ISO 9001 certified. All activity within the cruise terminals, Hanger 1 and Hanger 12, are the responsibility of the Office de Tourisme de L'Agglomération Havraise (OTAH) – Tourist Office. Following an agreement with GPMH the cruise department of the Tourist Office works exclusively on the development, promotion, operations and services for cruise passengers.

4.4. Environmental surroundings

As can be seen from the aerial view, the cruise terminals in Le Havre are located in an industrial environment. However, Le Havre operates in an environmentally responsible and sustainable manner. LNG, TTS and STS bunkering operations are permitted at La Pointe de Floride. These can take place when passengers are embarking and disembarking.

The port collects all types of waste associated with cruise ships operations. Closed loop scrubbers can be used at the port. LNG powered cruise ships have unrestricted access to the cruise terminals at La Pointe de Floride.

4.5. Location vis-à-vis center and attractions

A shuttle to and from the town centre is provided. The town centre itself is about 15-minutes' walk away from the cruise berths at La Pointe de Floride. Cycling in to the town centre is also possible and cycles can be hired if required.

The initial attraction of Le Havre for cruise tourists and the cruise lines has been its proximity to Paris and this is likely to remain a major draw in the future. There is, however, a growing awareness that Le Havre has much to offer in locations nearby and the City is keen to develop local tourism activity.



Shuttle buses which used to operate on Pointe de Floride

Excursions and tourist attractions in or close to Le Havre include:

- A UNESCO World Heritage Site in the centre of the City which include the distinctive Volcan, the Historic Show Flat and St Joseph Church which is a notable landmark;
- Le Havre is the birthplace of impressionism and the local Le MuMa art museum, regarded as an authority on the subject, has the largest collection of impressionist paintings in France outside Paris. These include many paintings by Monet the founder of the impressionist movement through his painting "Impression, Sunrise".
- Historic sites in the City include the Ship owner's mansion museum, the museum of the Dubocage de Bléville mansion, the Natural History Museum and Graville abbey.
- The monastery complex in Montivilliers, which contains St-Martin church, provides a medieval atmosphere with its cobbled streets and half-timbered houses.
- Le Havre has many beautiful parks and gardens including gardens and greenhouses built in the remains of a former military fort. It also offers all the activities of a seaside resort, including two kilometres of beaches.

There are also many attractions in the wider surrounding Normandy region including the D- Day landing beaches and the medieval town of Rouen.

The impressive results of this campaign to market the city and the region rather than simply be an entrepot to Paris are shown in the table below. Sales of tours to Paris have been progressively reduced from 52% of the total in 2005 to 36% in 2016.

year	number of pax	number of calls	shuttle to LH (number of users)	average shuttle pax per call	% of passengers using shuttle	Excursions (sold on board)	Nb pax on excursion	Total excursions saison	Percentage of paxx touring to Paris
2005	71,199	51	18402	361	26%	Le Havre	400	38360	52%
						Côte d'Albâtre	3000		
						Seine-Vallée	3600		
						Basse Normandie	11520		
						Paris and around	19840		
2010	128,239	70	53434	763	41%	Le Havre	855	75915	49%
						Côte d'Albâtre	6705		
						Seine-Vallée	8820		
						Basse Normandie	22095		
						Paris and around	37440		
2015	224,367	95	76507	805	34%	Le Havre	424	87498	41%
						Côte d'Albâtre	7100		
						Seine-Vallée	8830		
						Basse Normandie	34565		
						Paris and around	36579		
2016	332,515	118	102074	865	30%	Le Havre	2297	125882	36%
						Côte d'Albâtre	11397		
						Seine-Vallée	12054		
						Basse Normandie	53778		
						Paris and around	46356		

Source: Le Havre Tourisme

4.6. Nautical location from the sea

The port of Le Havre is located at 49° 29' N 00° 06' E. The cruise terminals are the nearest berths to the harbour entrance. The distance from the cruise terminals to the harbour mouth is approximately 2,500 meters.

The limits of the Grand Port Maritime du Havre (GPMH) cover the port of Le Havre and the oil port of Antifer and its accesses, the latter of which is large enough to handle super-tankers up to 564,760 dwt. The port district goes out to sea up to the territorial limit and ashore over 27 kilometers from West to East (breakwaters to Tancarville) and over a maximum distance of five kilometers north to south. In total the Le Havre Port zone covers 10,000 hectares (100,000,000 m²). An environmental zone, which is mainly part of the Seine Estuary nature reserve, covers 2,000 hectares (20,000,000 m²).

Pilotage is compulsory for all vessels with an LOA of 70 meters or more. For vessels with up to 12m draft, which covers all cruise ships, pilots at Le Havre board at latitude 49° 31.7' N, longitude 00° 05.8' W some 22 miles from the port. Docking normally occurs less than one hour after taking the pilot on-board. Berthing is possible at any time whatever the state of the tide

The port is ISPS compliant.

4.7. Transit and Turnaround Calls per Year

Le Havre - Transit and Turnaround Calls Per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	n.k.	200	200	58,175	58,575
2007	n.k.	290	291	77,393	77,974
2008	n.k.	250	250	76,648	77,648
2009	50	821	821	84,673	86,315
2010	70	817	817	126,220	127,854
2011	95	8,090	8,095	169,009	185,194
2012	108	8,815	8,815	195,195	212,825
2013	121	2,746	2,746	240,739	246,231
2014	119	2,426	3,207	251,271	256,904
2015	95	656	1,461	222,250	224,367
2016	118	1,769	1,769	328,977	332,515

Estimates in italics (based from 2009 on actual total turnaround pax.).

Source: G. P. Wild (international) Limited from Port of Le Havre and other sources.

4.8. Fleet Composition

Cruise Ships calling at Le Havre 2016

Name	Operator	Ships	Lower Berth Capacity					Le Havre calls		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
AidaDiva	Aida Cruises	1				2,050		2,050		1
AIDAmar	Aida Cruises	1				2,194		2,194		1
AIDAprima	Aida Cruises	1			3,250			3,250		1
AidaSol	Aida Cruises	1				2,194		2,194		1
Amadea	Phoenix Reisen GmbH	1			594			594		1
Artania	Phoenix Reisen GmbH	1			1,200			1,200		1
Astor	Transocean	1				590		590		1
Azura	P&O Cruises	1			3,105			3,105		1
Britannia	P&O Cruises	1		3,657				3,657		1
Caribbean Princess	Princess Cruises	1			3,112			3,112		1
Celebrity Eclipse	Celebrity Cruises	1		2,852				2,852		1
Celebrity Silhouette	Celebrity Cruises	1		2,886				2,886		1
Costa Favolosa	Costa Cruises	1				3,016		3,016		1
Costa Luminosa	Costa Cruises	1				2,260		2,260		1
Costa neoRomantica	Costa Cruises	1				1,578		1,578		1
Costa Pacifica	Costa Cruises	1				3,008		3,008		1
Disney Magic	Disney Cruise Line	1			1,750			1,750		1
Emerald Princess	Princess Cruises	1			3,092			3,092		1
Independence of the Seas	Royal Caribbean	1				3,634		3,634		1
Insignia	Oceania Cruises	1			684			684		1
Koningsdam	Holland America Line	1			2,650			2,650		1
Marina	Oceania Cruises	1		1,258				1,258		1
Mein Schiff 1	TUI Cruises	1			1,924			1,924		1
Mein Schiff 4	TUI Cruises	1		2,506				2,506		1
Mein Schiff 5	TUI Cruises	1		2,506				2,506		1
MSC Opera	MSC Cruises	1			2,142			2,142		1
MSC Splendida	MSC Cruises	1			3,274			3,274		1
National Geographic Orion	Lindblad Expeditions	1		106				106		1
Navigator of the Seas	Royal Caribbean	1				3,114		3,114		1
Norwegian Star	Norwegian Cruise Line	1				2,348		2,348		1
Ocean Dream	Japan Peace Boat	1				1,422		1,422		1
Ovation of the Seas	Royal Caribbean	1			4,180			4,180		1
Pacific Princess	Princess Cruises	1			688			688		1
Prinsendam	Holland America Line	1			835			835		1
Queen Mary 2	Cunard	1		2,705				2,705		1
Saga Pearl II	Saga	1				449		449		1
Saga Sapphire	Saga	1			706			706		1
Serenade of the Seas	Royal Caribbean	1				2,110		2,110		1
Sirena	Oceania Cruises	1			684			684	1	
Viking Sea	Viking Ocean Cruises	1		928				928		1
Viking Star	Viking Ocean Cruises	1		928				928		1
Total		41	0	20,332	33,870	29,967	0	84,169	1	40
% of total			0.0	24.2	40.2	35.6	0.0			

Source: G. P. Wild (International) Limited.

4.9. Itineraries Sailed

Le Havre features on itineraries sailed from Northern European ports such as Southampton, Dover, Amsterdam and Hamburg to warmer climates along the Atlantic Coast, Madeira, Canary Islands and the Mediterranean.

It also features on round British Isles cruises.

4.10. Discussion in relation to Rotterdam circumstances

The principal matter which Rotterdam and Le Havre have in common is that they both serve, in the main, as the entrepot to another city which is more well known to tourists.

In the case of Le Havre it is Paris, the capital city of France which attracts the tours from Le Havre. In the case of Rotterdam, it is the better known neighbour Amsterdam. Both are around one hour by coach from their respective ports but such is the draw of these two cities that the tourists are prepared to spend two hours in a coach to visit them.

This phenomenon results in the port and port city being denied a very high proportion of the revenue which a cruise ship call generates. In general, a port will receive only 20% of all the revenues. This 20% comprises such items as port charges, pilotage and ground handling. The remaining 80% is spent in the wider business community.

Le Havre and the regional tourism authority have recognized this and are making strong efforts to market their region to the cruise lines and their passengers. Whilst Paris will always be the main attraction, Le Havre is seeking to take as much as possible of the 80% cake.

The Rotterdam of today has many attractions to offer the visiting cruise line passenger and the same efforts should be made. One advantage of the present terminal in Rotterdam, just like Le Havre, is that it is easy to attract people to walk or take a shuttle to the nearby city centre. Moving the terminal to some more remote location would dilute this advantage.

5. LIVERPOOL

5.1. Transport and Logistics

The Liverpool cruise terminal is located on a floating landing stage next to the waterfront World Heritage Site at Pier Head. As such, road traffic can readily access the area from the main road passing close to the site. This road leads quickly onto the motorway network via the Mersey Tunnel. Tours to north Wales and Chester can readily leave by this route. However, parking for coaches and cars is very limited due to the nature of the roads and buildings immediately adjacent to the landing stage.

The stage is accessed down pedestrian ramps which change their angle as the tide changes. Liverpool has a tidal range in excess of 10 meters. The stage can also be accessed by vehicles using a ramp. At the early stages of planning, it was proposed that coaches would use this ramp and pick up passengers on the stage. This however proved impractical as the stage is quite narrow and the operation was too slow. Instead a system was devised by which coaches are called forward by radio a few at a time from a remote parking place and pick up passengers at a small terminal building at the top of the pedestrian ramp. Only service vehicles and trucks supplying the ships with stores are now allowed onto the stage.

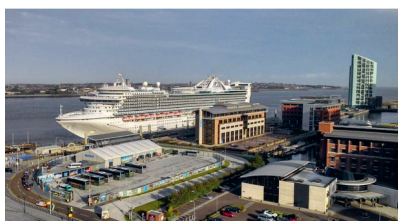
There is no on-site car parking. City center car parks are a short walk.



City Centre Location/World Heritage Site Buildings at right of picture ⁶

5.2. Additional Exploitation

The present facility comprises a small security building located on the floating landing stage. There were plans to construct a permanent terminal for turnaround business on land adjacent to the landing stage. At present the site is occupied by a temporary building capable of handling turnarounds of up to 1,200 passengers. The proposed building would be able to accommodate the turnaround of the largest ships carrying in excess of 3,600 passengers.



⁶ All images courtesy of Liverpool City Council cruise website

In the photo above, the temporary terminal building can be seen with four coaches parked in front. Up to eight coaches can be accommodated at one time. However up to 30 coaches are needed to service a ship the size of Caribbean Princess shown in the photo. The angled pedestrian ramp can be seen (with arch structure) right behind the temporary building.

More recently, another plan has come under discussion to build the new terminal further down the dockside and create a new linkspan access onto the stage from the northern end. This building, described as aspiring to being “iconic”, would most likely include other commercial functions since Liverpool’s cruise business is highly seasonal.



Nevertheless, in all these scenarios, the issue of coach numbers remains and the call forward system from a remote parking lot has been perfected over the ten years the facility has been in use. It requires close collaboration with the tour operator and can be labour intensive. Nevertheless, the system has been proven over time⁷.

5.3. Ownership Structure

The Liverpool Cruise Terminal is owned and operated by Liverpool City Council. In the early years of the present century, Liverpool City Council was keen for the city to re-enter the cruise business. The city, like Rotterdam, had been a major passenger sea port for travel to the Americas in the days before jet air travel. All the facilities from that era had however been scrapped, having comprised a wooden structure floating in the River Mersey. Passengers arrived by train at an adjacent station which has also been demolished.

Approaches were made to the port operator Peel Ports who showed little interest in the project given that cruise represents marginal business to a major commercial port.

The City Council therefore took the decision to design and build a new floating facility in the same location as the previous wooden structure.

A Cruise Manager is employed full time by the City Council and day to day operational matters are subcontracted. In addition to managing the subcontractor, the Cruise Manager is responsible for the marketing of the facility to the cruise industry.

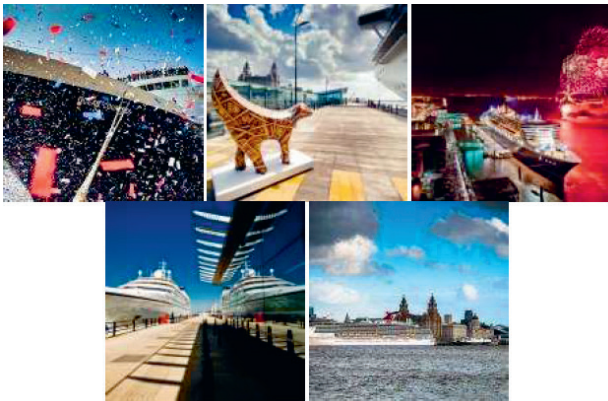
5.4. Environmental surroundings

AS can be seen from the photos, the facility is in a city center location next to a world heritage site.

5.5. Location vis-à-vis city center and attractions

One look at the www.cruise-liverpool.com website will demonstrate to readers the reasons behind Liverpool’s success. The city’s cruise business began from a near-zero base in 2008 just before the new landing stage in the River Mersey was commissioned and is now attracting some 50,000 cruise passengers annually. That growth was held back for several years due to the inability of the facility to host turnaround business. This was due to a legal challenge from ABP Southampton claiming unfair competition. The Liverpool facility was built with public money. Liverpool City Council has now cleared this challenge by repaying the public funds and some 59 ships are scheduled to call in 2017 including 23 turnaround calls.

⁷ Source: Angie Redhead, Head of Cruise Operations, Liverpool City Council



Tours of the city's many cultural attractions are just a short distance from the facility. Walking tours of the city are possible. Some cruise lines also offer longer distance tours to Chester, North Wales and even the Lake District. Good access onto the motorway system facilitates these tours.

5.6. Nautical location from sea

The cruise terminal is located some seven miles from the mouth of the river Mersey. Pilots normally board a ship far out in Liverpool Bay using a fast boats based at the pilot station on the Isle of Anglesea.

5.7. Transit and Turnaround Calls Per Year

Liverpool - Transit and Turnaround Calls Per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	n.k.	1,536	1,536	n.k.	3,072
2007	n.k.	n.k.	n.k.	n.k.	20,790
2008	n.k.	10,995	10,995	18,981	40,971
2009	38	4,741	4,741	20,629	30,111
2010	28	9,110	9,111	23,678	41,899
2011	23	7,536	7,537	26,654	41,727
2012	31	7,090	7,090	24,476	38,656
2013	34	9,839	9,839	24,800	44,478
2014	49	15,894	15,894	23,300	55,088
2015	53	10,576	10,576	56,200	77,352
2016	49	13,840	13,840	49,828	77,508

Estimates in italics (based from 2009-11 on actual total turnaround pax.).

Source: G. P. Wild (international) limited from Port of Liverpool and other sources

5.8. Fleet Composition

Cruise Ships calling at Liverpool 2016

Name	Operator	Ships	Lower Berth Capacity					Liverpool calls		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
AIDAvida	Aida Cruises	1				1,262		1,262		1
Amadea	Phoenix Reisen GmbH	1			594			594		1
Artania	Phoenix Reisen GmbH	1			1,200			1,200		1
Azamara Quest	Azamara Club Cruises	1		694				694		1
Black Watch	Fred. Olsen Cruises	1				804		804		1
Boudicca	Fred. Olsen Cruises	1				880		880	1	1
Braemar	Fred. Olsen Cruises	1				929		929		1
Caribbean Princess	Princess Cruises	1			3,112			3,112		1
Celebrity Silhouette	Celebrity Cruises	1		2,886				2,886		1
Crystal Symphony	Crystal Cruises	1		960				960		1
Disney Magic	Disney Cruise Line	1			1,750			1,750		1
Europa	Hapag-Lloyd	1	408					408		1
L'Austral	Ponant Cruises	1			264			264		1
Le Boreal	Ponant Cruises	1			264			264		1
Marco Polo	Cruise and Maritime	1					800	800	1	1
Marina	Oceania Cruises	1		1,258				1,258		1
Nautica	Oceania Cruises	1			684			684		1
Queen Elizabeth	Cunard	1		2,092				2,092		1
Seabourn Quest	Seabourn Cruise	1	450					450		1
Seven Seas Voyager	Regent Seven Seas Cruises	1		690				690		1
Total		20	858	8,580	7,868	3,875	800	21,981	2	20
% of total			1.8	20.6	41.2	34.5	1.9			

Source: G. P. Wild (International) Limited.

5.9. Itineraries Sailed

Liverpool is both a turnaround and a transit port. Turnaround ships normally offer cruises to warm locations such as Madeira, the Canary Islands or the Mediterranean region. Some northbound cruises are also offered to Norway, Iceland and the midnight sun at the height of summer.

Transit calls are made by ships sailing around the British Isles itineraries or sailing to and from Iceland or Norway from embarkation ports such as Hamburg or Southampton.

5.10. Discussion in relation to Rotterdam circumstances

The circumstances of the Liverpool facility are not unlike the situation presently described in Rotterdam where city center development and traffic management are problematic. On the positive side, both locations give easy access to the main attractions of the city without any significant travelling distance. This enhances the opportunities for passengers to spend in the city rather than leave by coach for remote locations such as Amsterdam.

By engaging in active traffic management and using remote locations for parking, the logistics of the cramped site have been overcome in Liverpool.

In their plans to build a permanent terminal to serve the landing stage, the city is considering building at a site a little north of the existing facility. This would entail creating a new access to the from the northern end of the landing stage to the dockside.

There is a parallel here for Rotterdam. Just a short walk from the current terminal stands the iconic Holland America Liner Building, now in use as Hotel New York.



There is a considerable amount of open space around this building. Consideration might be given to the conversion and extension of this building to create a new cruise terminal whilst moving cruise activities westwards along the quayside. The commercial opportunities created by the hotel and restaurant would remain. The present circumstances can be seen in the above image. The building might be enhanced and enlarged using such sympathetic construction as can be seen at the two old museums in Den Bosch where the two buildings have been joined by a modern extension. Any loss of public open space could be replaced by rooftop gardens and ship observation decks such as is achieved at Hamburg's Altona Terminal.



The port in 1959/"S.S. Nieuw Amsterdam" alongside shortly bound for New York

In the next image we see the circumstances of the port in 1959. It might be possible to reproduce this arrangement in twenty first century architecture in a similar manner to that undertaken in Southampton at Ocean Terminal. Given the necessary dredging, two berths might eventually be created, one either side of the New York Hotel.

The sympathetic blending of old and new at Den Bos museums is illustrated below.



Images of Den Bos Museums old and new

The concept that Rotterdam, in deciding on the future location of its cruise terminal, might consider building on its heritage as a major passenger liner port is supported by current developments in the Swedish port of Gothenburg. The following recent press report⁸ is relevant.

Over 100 years ago, the first Swedish American Line vessel sailed for the USA from Stigbergskajen in Gothenburg. This historic quay is now being resurrected as a cruise reception centre under the name America Cruise Terminal.

“Gothenburg has developed considerably as a maritime city,” said Jill Söderwall, Vice President Cruise at Gothenburg Port Authority.

2017 will be the final season in which cruise ships can dock at Frihamnen. The area will form part of a major urban development scheme with the construction of homes and offices, forcing the present cruise terminal to find a new location.

⁸ Source: newsletter@cybercruises.com

The new central cruise terminal will be at Stigbergskajen in Masthugget. The quay and part of the terminal building, Amerikaskjulet, are currently being restored and will be ready to welcome vessels from spring 2018. The new name - America Cruise Terminal – evokes memories of the terminal's illustrious past.

"The location is ideal as it is within walking distance of the inviting and vibrant districts of Majorna, Linné and Haga, and just a short journey by public transport or chartered bus into the city centre. Now that the beautiful and historically significant Amerikaskjulet is about to be revived as a passenger terminal, cruise guests can look forward to a warm, and authentic reception," Jill Söderwall explained.

Amerikaskjulet was constructed in 1912 and operated as a passenger terminal until 1975. The building was then converted into offices, even if the quay was used occasionally by naval vessels and school ships. Part of Amerikaskjulet will now be converted into a reception hall with a tourist information office, souvenir shop and other facilities.

Longer vessels than at Frihamnen

The maximum length for vessels calling at America Cruise Terminal will be 225 metres - 25 metres longer than the current maximum length at Frihamnen.

"We believe that America Cruise Terminal will lead to more cruise companies including Gothenburg on their itinerary," Jill Söderwall said. "The extremely keen competition to attract cruise ships makes a good welcome extremely important."

Around half of the ships that call each year sail under the Älvsborg Bridge and dock centrally. The largest vessels will continue to dock at the terminal at Arendal.

Quay renovation

Before the inaugural season in 2018, the whole of the outside of Stigbergskajen will be renovated. Ten metres of the quay will be demolished and rebuilt, the bollards will be reinforced, ramps will be constructed and parking spaces for buses will be created.

"It is an old quay - the first quay in Gothenburg for oceangoing traffic - and it is in considerable need of repair and renovation. We are working flat out to have the work completed before the first call in 2018," said Jill Söderwall.

Seventeen vessels are already scheduled to put into the new America Cruise Terminal.

6. PORTO

6.1. Transport and Logistics

Porto (also known as Leixões in Portuguese) has always been served by a cruise berth on the northern side of the harbour entrance. This berth however had become too small for today's generation of mega-ships.

The Porto Cruise Terminal (South Cruise Terminal) is the largest project ever for the opening of the Port of Leixões to the city and an important gateway of the region. It is situated at the South Mole of the Port of Leixões, just 3 Km from the city of Porto. Since April 2011, the new pier with 340 metres of length has received the biggest and the most glamorous cruise ships from the worldwide cruise fleet, boosting the cruise tourism in the North of Portugal region. With this new pier, the Port of Leixões became able to receive cruise ships of larger dimensions, up to 300 metres long. Since the opening of the new pier, the number of cruise ship calls and passengers at this port has been significantly increasing.

6.2. Additional Exploitation

The main building also comprises the Science and Technology Park of the Sea of the University of Porto, which includes the Maritime Research Centre in the New Cruise Terminal Building (occupying the basement ground, 2nd and 3th floor). This Park of Science and Technology focused in the Resources of the Sea managed by the University of Porto and is integrated in a recognized Strategy for Collective Efficiency, with the Ocean XXI Association for Research and Maritime Economy and the Cluster of the Creative Industries of the Northern Region.

6.3. Ownership Structure

Porto De Leixões or the Port of Porto (in English), is a joint-stock company with exclusively public capital, aimed at the administration of the Ports of Douro and Leixões, its economic operations, conservation and development.

The cruise terminals have been developed and are wholly owned by the port company.

The Cruise Marketing Manager Helena Gomes Fernandez is directly employed by the port company.

6.4. Environmental surroundings

The new Porto Cruise Terminal is a substantial new investment located at the south mole of the Port of Leixões and comprises:

- Cruise Quay

Total quay length: 340 m | Depths: – 10m (ZHL) | Maximum ship dimension: 320 m mooring | Pilotage compulsory (for entry and leaving) | No limit for ship stay | ISPS compliance



New Berth prior to construction of terminal building ⁹

In the above photo, taken before construction of the terminal building began, the short distance to the city center can be understood. The terminal building has been constructed on the site to by the bow of the ship.

- **Passenger Station building**, located in the central building of the complex, with several amenities for transit cruise liners or turnaround cruise vessels. With no limit capacity for passengers in transit and with capacity for 2,500 passengers in turnaround.

⁹ Images courtesy of Port of Porto



New South Terminal at Porto

- **River-sea Quay** for the mooring of vessels that will provide tourist routes in the River Douro.
- **Nautical Recreational Port for 170 vessels** and essential support services for vessels as well as convenience areas and support facilities for sailors.
- **Parking areas for coaches and vehicles**, along the pier and indoor parking.

6.5. Location vis-à-vis city centre and attractions

Porto has a detailed brochure of some seventeen potential shore excursions. These excursions are all given interesting and attractive titles. Some are within the city and others are a bus tour away. They are entitled:

- Old Porto, "A City with tradition".
- Historical centre of Porto; World Heritage and the Medieval Quarter.
- Matosinhos Welcomes You (nearby town with strapline: "The best fish in the world")
- Monumental Porto; "A surprising mixture of styles and languages".
- Romantic Porto; "A sophisticated and very British ambience".
- Baroque Porto; "Splendour in Great Style".
- Contemporary Porto; "A privileged space to admire architecture".
- Port Wine Secrets; "A Success Story".
- Douro Valley; The landscape that God did not want to make alone".
- Guimaraes; Portugal was born here".
- Guimaraes; "Tradition, culture and Vinho Verde".
- City of Braga; "The faith of the people and their festivities".
- Viana de Castelo; Handicraft and Folklore".
- Amarante; "Open air and other pleasures".
- Gastronomical North; "Replenishing body and soul".
- Street Shops; "The soul of Porto Centre".
- Seralves; "Art in a garden of aromas".

6.6. Nautical location from sea

The new terminal at Porto is right next to the harbour entrance.

6.7. Transit and Turnaround Calls Per Year

Leixoes - Transit and Turnaround Calls per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	n.k.	0	0	19,380	19,380
2007	n.k.	0	0	15,863	15,863
2008	n.k.	0	0	25,500	25,500
2009	38	608	609	16,407	17,624
2010	49	182	182	27,130	27,494
2011	55	238	238	41,353	41,829
2012	70	463	463	74,687	75,613
2013	67	431	432	45,593	46,456
2014	78	434	434	63,572	64,440
2015	85	531	532	78,002	79,065
2016	84	172	173	71,454	71,799

Estimates in italics (based from 2009 on actual total turnaround pax.).

6.8. Fleet Composition

Cruise Ships calling at Leixoes – 2016

Name	Operator	Ships	Lower Berth Capacity					Leixoes calls	
			SDX	DLX+	DLX	STD	ECN	Total	T/around
Aegean Odyssey	Voyages to Antiquity	1				388		388	1
Amadea	Phoenix Reisen GmbH	1			594			594	1
Artania	Phoenix Reisen GmbH	1			1,200			1,200	1
Azura	P&O Cruises	1			3,105			3,105	1
Balmoral	Fred. Olsen Cruises	1				1,350		1,350	1
Berlin	FTI Berlin	1				412		412	1
Black Watch	Fred. Olsen Cruises	1				804		804	1
Boudicca	Fred. Olsen Cruises	1				880		880	1
Bremen	Hapag-Lloyd	1		164				164	1
Celebrity Constellation	Celebrity Cruises	1			2,038			2,038	1
Corinthian	Grand Circle Travel	1				100		100	1
Costa neoRomantica	Costa Cruises	1				1,578		1,578	1
Farm	Hurtigruten	1				256		256	1
Insignia	Oceania Cruises	1			684			684	1
Koningsdam	Holland America Line	1			2,650			2,650	1
Marina	Oceania Cruises	1		1,258				1,258	1
Mein Schiff 1	TUI Cruises	1			1,924			1,924	1
Mein Schiff 4	TUI Cruises	1		2,506				2,506	1
Minerva	Swan Hellenic	1			352			352	1
National Geographic Orion	Lindblad Expeditions	1		106				106	1
Nautica	Oceania Cruises	1			684			684	1
Oriana	P&O Cruises	1			1,868			1,868	1
Queen Elizabeth	Cunard	1		2,092				2,092	1
Queen Victoria	Cunard	1		2,014				2,014	1
Rotterdam	Holland America Line	1			1,404			1,404	1
Saga Pearl II	Saga	1				449		449	1
Saga Sapphire	Saga	1			706			706	1
Sea Cloud II	Sea Cloud Cruises	1	96					96	1
Seabourn Quest	Seabourn Cruise	1	450					450	1
Seven Seas Voyager	Regent Seven Seas Cruises	1		690				690	1
Silver Explorer	Silversea	1		132				132	1
Silver Wind	Silversea	1		296				296	1
Sirena	Oceania Cruises	1			684			684	1
Star Legend	Windstar Cruises	1		212				212	1
The World of ResidenSea	ResidenSea	1	400					400	1
Thomson Spirit	Thomson	1				1,254		1,254	1
Ventura	P&O Cruises	1			3,078			3,078	1
Viking Sea	Viking Ocean Cruises	1		928				928	1
Wind Surf	Windstar Cruises	1			312			312	1
TOTAL		39	946	10,398	21,283	7,471	0	40,098 0	39
% of total			2.4	25.9	53.1	18.6	0.0		

Source: G. P. Wild (International) Limited.

6.9. Itineraries Sailed

Ships calling at Porto are on voyages starting and finishing in north European ports and en- route to the Mediterranean, Canary Islands and Madeira.

Ships re-positioning from the Mediterranean to Northern Europe for the summer also call at Porto.

Porto is a member of the Cruise Atlantic Europe alliance of ports. These ports have formed a joint marketing initiative with a view to attracting custom to an area which used to be bypassed by most cruise ships. Members of the alliance include:

- Dover, UK;
- Cork, Ireland;
- St Malo, France;
- Brest, France;
- Bilbao, Spain;
- La Coruña, Spain;
- Porto and
- Lisbon, Portugal.



6.10. Discussion in relation to Rotterdam circumstances

Porto has responded to the success of its marketing through the Cruise Atlantic Europe alliance and the need to accommodate much larger ships than can use the old northern berth by building a new terminal which includes some additional cultural attractions.

The advantages of a marketing alliance between ports cannot be over emphasized. Ports should not see themselves as rivals but as individual components in a cruise itinerary. Cruise lines are always seeking new ports to offer to their customers and during a given season, will wish to offer a variety of port calls rather than repeating the same itinerary each week..

Despite its recent success, passenger numbers are still modest compared to most of the ports in this study. Hence it was felt that building a new terminal could only be justified by adding other attractions and functions.

7. SOUTHAMPTON

Southampton is the pre-eminent cruise port in both northern Europe and the UK and is home to leading cruise lines Carnival UK with its P&O, Cunard and Princess brands and RCI with its Royal Caribbean and Celebrity brands.

7.1. Transport and Logistics

There are three cruise terminals providing four berths in Southampton, each of which is located in the dock estate owned and operated by Associated British Ports (ABP). Each is a short distance from the city center albeit that traffic on the roads outside the dock area can be very congested at peak times. However, from both Mayflower and City Cruise terminals, it is a very short distance onto the highway leading to the motorway network. Southampton Central Railway Station is also close by.

From Ocean Terminal, traffic congestion can be problematic at times principally because a very large shopping complex has been built on West Quay Road, right outside the dock gates.



Location of Southampton Terminals¹⁰

The road to the motorway network is shown in yellow on the above map. Southampton Central railway station is shown thus:



These logistical matters are of significant importance because Southampton is purely a home port with passengers arriving from across the UK and from abroad. Many overseas visitors will add a stay in London before or after their cruise. By train, London is one hour away.

The buildings at City Cruise Terminal and Mayflower Cruise Terminal have been converted from former cargo transit sheds. They provide cruise related facilities such as a check-in and baggage.

¹⁰ All images courtesy of ABP



Mayflower Cruise Terminal

The Ocean Cruise terminal is situated on the site from where the major transatlantic liners of Cunard Line; Queen Mary and Queen Elizabeth amongst others, set sail for New York. Unfortunately, the original art deco building was demolished some years ago and a new modern building now stands in its place.



Ocean Cruise Terminal

Because large numbers of UK residents travel to Southampton to start a cruise, car parking is an important element in the port's operation. The dock estate is fortunate in having large areas behind the terminals where both long term and short term parking can be provided. This is also significant revenue stream for the port.



7.2. Additional Exploitation

The terminal buildings in Southampton are not used for any other purpose than cruise operations. The very high volume of cruise traffic through the port means that the facilities can be self-sustaining from a business point of view. The cost of converting former cargo transit sheds to cruise use is modest.

7.3. Ownership Structure

The Port of Southampton is owned and operated by Associated British Ports, a PLC listed on the London Stock Exchange.

7.4. Environmental surroundings

All the Southampton terminals are located in the industrial surroundings of a dock estate. Buses, cars and taxis have to negotiate the internal road systems of the dock estate together with commercial traffic.

7.5. Location vis-à-vis city center and attractions

It is possible to walk into the city center from both the City and Ocean Terminals. From the Mayflower terminal it is a longer walk. However, the city is not considered a major tourist attraction in its own right. The majority of passengers pass by en-route to join their ship or to travel home at the end of the cruise.

7.6. Nautical location from sea

Southampton is located on the Solent estuary midway along the south coast of England. The Solent is protected by the adjacent Isle of White. However, this results in a long, 40 kilometer run in from the pilot station which is outside the Solent near Portsmouth.

Unlike many UK ports, there is only a small rise and fall of tide at Southampton and this allows 24/7 operations for all but the very biggest ships.

7.7. Transit and Turnaround Calls Per Year

Southampton - Transit and Turnaround Calls Per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	n.k.	362,000	362,100	13,628	737,728
2007	n.k.	398,700	398,850	913	798,463
2008	n.k.	488,400	482,858	0	971,258
2009	n.k.	548,600	506,400	0	1,055,000
2010	n.k.	618,959	618,959	5,545	1,243,463
2011	n.k.	722,000	722,000	11,245	1,455,245
2012	n.k.	776,000	776,000	25,790	1,577,790
2013	n.k.	814,000	814,000	55,160	1,683,160
2014	n.k.	740,440	740,440	92,548	1,573,428
2015	n.k.	800,400	800,400	91,900	1,692,700
2016	n.k.	834,000	834,000	192,000	1,860,000

Estimates in italics.

7.8. Fleet Composition

Cruise Ships calling at Southampton – 2016

Name	Operator	Ships	Lower Berth Capacity					Southampton calls		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
AidaAura	Aida Cruises	1				1,262		1,262		1
AID Amar	Aida Cruises	1				2,194		2,194		1
AIDAprima	Aida Cruises	1			3,250			3,250		1
AIDAsol	Aida Cruises	1				2,194		2,194		1
AIDAvida	Aida Cruises	1				1,262		1,262		1
Arcadia	P&O Cruises	1			2,020			2,020	1	
Aurora	P&O Cruises	1			1,868			1,868	1	
Azamara Quest	Azamara Club Cruises	1		694				694	1	
Azura	P&O Cruises	1			3,105			3,105	1	
Balmoral	Fred. Olsen Cruises	1				1,350		1,350	1	
Black Watch	Fred. Olsen Cruises	1				804		804	1	

Name	Operator	Ships	Lower Berth Capacity					Southampton calls		
			SDX	DLX+	DLX	STD	ECN	Total	T/around	Transit
Boudicca	Fred. Olsen Cruises	1				880		880	1	
Braemar	Fred. Olsen Cruises	1				929		929	1	
Britannia	P&O Cruises	1		3,657				3,657	1	
Caribbean Princess	Princess Cruises	1			3,112			3,112	1	
Celebrity Eclipse	Celebrity Cruises	1		2,852				2,852	1	
Celebrity Silhouette	Celebrity Cruises	1		2,886				2,886	1	
Emerald Princess	Princess Cruises	1			3,092			3,092	1	
Europa	Hapag-Lloyd	1	408					408		1
Harmony of the Seas	Royal Caribbean	1			5,496			5,496	1	
Independence of the Seas	Royal Caribbean	1				3,634		3,634	1	
Marina	Oceania Cruises	1		1,258				1,258	1	
Mein Schiff 1	TUI Cruises	1			1,924			1,924		1
Mein Schiff 5	TUI Cruises	1		2,506				2,506		1
MSC Musica	MSC Cruises	1			2,550			2,550		1
MSC Splendida	MSC Cruises	1			3,274			3,274		1
Nautica	Oceania Cruises	1			684			684	1	
Navigator of the Seas	Royal Caribbean	1				3,114		3,114	1	
Oceana	P&O Cruises	1				2,016		2,016	1	
Oriana	P&O Cruises	1			1,868			1,868	1	
Ovation of the Seas	Royal Caribbean	1			4,180			4,180	1	
Queen Elizabeth	Cunard	1		2,092				2,092	1	
Queen Mary 2	Cunard	1		2,620				2,620	1	
Queen Victoria	Cunard	1		2,014				2,014	1	
Rotterdam	Holland America Line	1			1,404			1,404		1
Saga Pearl II	Saga	1				449		449	1	
Saga Sapphire	Saga	1			706			706	1	
Seven Seas Voyager	Regent Seven Seas Cruises	1		690				690	1	
Silver Whisper	Silversea	1	382					382	1	
Silver Wind	Silversea	1		296				296	1	
Ventura	P&O Cruises	1			3,078			3,078	1	
Viking Sea	Viking Ocean Cruises	1		928				928		1
Total		42	790	22,493	41,611	20,088	0	84,982	30	12
% of total			0.9	26.5	49.0	23.6	0.0			

Source: G. P. Wild (International) Ltd.

7.9. Itineraries Sailed

Home porting ships sail from Southampton to itineraries in the Caribbean, Mediterranean, Canary Islands, Norway and the far north, the Baltic Sea and around-Britain.

Shorter sampler cruises are offered to first timers to ports such as Amsterdam, Guernsey and Hamburg.

Cunard Line's flagship QM2 offers transatlantic sailings to New York during the summer months.

Several ships begin and end a round world cruise from Southampton, departing early in January and returning three months later.

Other long winter itineraries such as the River Amazon or around South America are also offered.

7.10. Discussion in relation to Rotterdam circumstances

The circumstances of Southampton demonstrate that given sufficient passenger volumes and ship calls, cruise terminals can be financially self-sustaining given the port fees that can be charged for turnaround business. This business also brings with it lucrative long-term car parking charges.

There are few similarities between the circumstances in Southampton and those applying in Rotterdam. Southampton is one of the leading home ports of the world.

8. VANCOUVER

The Port of Vancouver is located on one of the great natural harbours of the world. The principal cruise terminal in Vancouver is known as Canada Place. It is located immediately in front of the downtown area of the city and within walking distances of the many amenities the city has to offer. It is also close to the tourist attractions, bars and restaurants of Gastown.

There is a second terminal at nearby Ballantyne Pier. This was converted from a cargo transit shed and was in use before Canada Place was built. Nowadays, Ballantyne is used for overflow or additional capacity when Canada Place is full of ships. Ballantyne is not so convenient for downtown Vancouver since it is a taxi ride away.



Canada Place ¹¹



Location of the Vancouver Facilities

8.1. Transport and Logistics

One drawback of the downtown location of Canada Place is that cars, buses and trucks must use the local road system. The basement level of the terminal is given over to a large coach parking zone together with public car parking. Trucks delivering stores to the ships also access the quaysides via this level.

Vancouver is a turnaround port and many passengers arrive by air from across North America. Vancouver Airport is 8 kilometers from Canada Place and the drive is along city streets with many sets of traffic lights.

Given the volume of passengers boarding in Vancouver compared with the available air lift, many are routed through Seattle Airport and then bused across the border. There is thus a high volume of bus traffic into and out of the terminal building.

¹¹ All images courtesy of Port of Vancouver website



Car and Coach Entrance (directly into city)

Parking

The Canada Place website provides the following information to drivers.

Operated by WestPark, our 770-car, two level covered parking facility offers short to long term parking, and is open 24 hours a day. This parking facility caters to short term visitors to the area and convention centres, offers monthly parking subscriptions, houses hotel guest vehicles and event exhibitors, and provides long term vehicle stays for cruise ship guests.

Cruise ship and convention parking

WestPark can accommodate long term parking for cruise and convention guests as well as offer a solution for over height vehicles at a nearby facility. For more information please visit the [WestPark website](#).

Electric charging stations

Green initiatives are important to WestPark. In collaboration with Canada Place Corporation, WestPark is proud to offer four electric vehicle charging stations on level one of the parkade. Each station is available for up to four hours of charging time and are marked with special signage.

Park and bike program

WestPark is proud to manage Vancouver's first "Park and bike" program at the Canada Place parkade. Park your car in our conveniently located parkade in the heart of downtown Vancouver, and borrow a bike* at no cost. See the onsite ambassadors for additional information (*subject to availability).

8.2. Additional Exploitation

Vancouver cruise port serves only the Alaska cruise region and as such has a very short season from May until September. Hence in order to be viable, the Canada Place Cruise Terminal in Vancouver has many additional functions and services. The following descriptions are taken from the Canada Place website.

Pan Pacific Hotel

Named by Condé Nast Travel Magazine as one of the Top 10 International Business hotels, the [Pan Pacific Hotel Vancouver](#) at Canada Place is renowned for exceptional service and amenities, drawing international politicians, luminaries and celebrities.

The luxurious hotel features 504 guest rooms and suites, meeting and dining facilities, retail and health club amenities. Operated by Ocean Pacific Management and Pan Pacific Hotels and Resorts.

Located within the [Pan Pacific Hotel Vancouver](#), Spa Utopia offers guests a sanctuary of wellness featuring intimate VIP suites, spacious treatment and change rooms, and relaxing lounge areas.

Cafe Pacifica, offers all day dining and features superb 'East meets West' cuisine. On Saturday evenings enjoy the fabulous Italian Opera Buffet. Sunday is the popular Sunday Market Brunch. The Terrace, arguably one of the most beautiful patios in the city, offers stunning views of the Canada Place iconic white sails, Stanley Park, the North Shore mountains and Burrard Inlet.

The Cascades Lounge is a perfect place to enjoy a casual lunch, dinner or a drink after a long day.

The Five Sails restaurant offering a contemporary design with the flexibility of dining options and modern interpretations of classic cuisine inspired by the West Coast region.

World Trade Centre

The World Trade Centre office complex is Vancouver's most distinguished business address.

Owned and operated by Ocean Pacific Management, the World Trade Centre is anchored by the Vancouver Board of Trade

Convention Centre

The award winning Vancouver Convention Centre is recognized as one of the leading convention centres in the world.

The facility attracts 300+ events annually. The East Building of the Vancouver Convention Centre is located within Canada Place, and the West Building is located at 1055 Canada Place, just slightly west of Canada Place. The Vancouver Convention Centre is operated by BC PavCo and the Province of British Columbia.

FlyOver Canada

Canada Place is proud to be home to Vancouver's must-see attraction FlyOver Canada!

At its core, FlyOver Canada is a breathtaking, all-ages, flight simulation ride like no other! You will take off into a huge dome screen with the latest in projection and ride technology creating a true flying experience (complete with wind, scents, and mist!).

At FlyOver Canada you will spend approximately 30 minutes getting introduced to our great country. You will first enter the preshow area where you will be immersed in an audio-visual show of Canada "up close and personal" before heading to the boarding zone for your preflight briefing. You will then hit your flight deck and spend eight (8) minutes on the unforgettable Ultimate Flying Ride soaring east to west over some of the most spectacular scenery the country has to offer.

8.3. Ownership Structure

Canada Place is also home to the corporate offices of the Vancouver Fraser Port Authority, a public body which is responsible for the stewardship of federal port lands in and around Vancouver, British Columbia. The Vancouver Fraser Port Authority owns and operates both the Canada Place Cruise Terminal and Ballantyne Pier.

8.4. Environmental surroundings

Canada Place is in a downtown location. Ballantyne is in an industrial area.

8.5. Location vis-à-vis city center and attractions

Many of the attractions are within walking distance of Canada Place. Some tours offer visits to the surrounding region which is very mountainous and beautiful. Once clear of the city traffic, travel distances and times are fairly short.



Entrance to Vancouver Harbour (Canada Place is bottom right)

8.6. Nautical location from sea

Canada Place is three kilometers from the mouth of Vancouver Harbour and six kilometers from the pilot station.

8.7. Transit and Turnaround Calls Per Year

Vancouver - Transit and Turnaround Calls per Year

Year	Calls	Passenger Numbers			
		Embarking	Disembarking	Transit	Total
2006	n.k.	414,500	414,500	8,823	837,823
2007	n.k.	479,877	479,877	800	960,554
2008	254	421,213	418,310	14,970	854,493
2009	254	440,187	431,705	26,571	898,473
2010	177	285,824	288,651	4,511	578,986
2011	199	328,714	323,583	11,128	663,425
2012	190	331,130	327,438	7,672	666,240
2013	235	405,505	401,935	4,958	812,398
2014	243	406,322	401,438	4,335	812,095
2015	228	399,881	398,152	7,402	805,435
2016	228	410,172	406,083	10,565	826,820

Estimates in *italics*.

Source: G. P. Wild (International) Limited from Port Vancouver and other sources

8.8. Fleet Composition

Cruise Ships calling at Vancouver – 2016

Name of vessel	Operator	Ships	Lower Berths by Category					Vancouver calls		
			SDx	Dlx+	Delux	Std	Econ	Total	T/around	Transit
Amsterdam	Holland America Line	1			1,380			1,380	1	1
Maasdam	Holland America Line	1				1,258		1,258	1	1
Norwegian Jewel	Norwegian Cruise Line	1				2,376		2,376	1	1
Regatta	Oceania Cruises	1			684			684	1	1
Westerdam	Holland America Line	1			1,916			1,916	1	1
Carnival Legend	Carnival Cruise Lines	1				2,124		2,124	1	
Celebrity Infinity	Celebrity Cruises	1			2,046			2,046	1	
Celebrity Millennium	Celebrity Cruises	1			2,034			2,034	1	
Celebrity Solstice	Celebrity Cruises	1			2,850			2,850	1	
Coral Princess	Princess Cruises	1			1,974			1,974	1	
Crown Princess	Princess Cruises	1			3,082			3,082	1	
Crystal Serenity	Crystal Cruises	1		1,080				1,080	1	
Disney Wonder	Disney Cruise Line	1			1,750			1,750	1	
Island Princess	Princess Cruises	1			1,974			1,974	1	
Le Soleal	Ponant Cruises	1			264			264	1	
Nieuw Amsterdam	Holland America Line	1			2,106			2,106	1	
Noordam	Holland America Line	1			1,924			1,924	1	
Norwegian Pearl	Norwegian Cruise Line	1				2,394		2,394	1	
Norwegian Sun	Norwegian Cruise Line	1				1,936		1,936	1	
Radiance of the Seas	Royal Caribbean	1				2,139		2,139	1	
Ruby Princess	Princess Cruises	1			3,114			3,114	1	
Seven Seas Mariner	Regent Seven Seas Cruises	1		708				708	1	
Silver Shadow	Silversea	1	382					382	1	
Star Princess	Princess Cruises	1			2,602			2,602	1	
Volendam	Holland America Line	1			1,432			1,432	1	
Zaandam	Holland America Line	1			1,432			1,432	1	
2016 Total		26	382	1,788	32,564	12,227	0	46,961	26	5
% of total			0.8	3.8	69.4	26.1	0.0			

8.9. Itineraries Sailed

All the ships using Vancouver do so in order to offer cruises to Alaska, one of the most popular cruising regions of the world. Itineraries are a mixture of seven and ten-night round trips and seven-night one way voyages to the port of Seward in northern Alaska from where passengers return via Anchorage Airport.

8.10. Discussion in relation to Rotterdam circumstances

The principal lesson to be drawn from Vancouver is how many additional activities and revenue streams it is possible to create given a good, easily accessible city center location. In the case of Vancouver this is essential given the very short, five-month cruise season.

The lesson for Rotterdam is that it is possible for a cruise terminal to be part of a large scale urban regeneration scheme. Long term, this could be an example for the possible redevelopment in either of the proposed new locations.

ROTTERDAM.

MAKE IT

HAPPEN.