EUROPEAN SEA PORTS ORGANISATION ASBL/VZW
ORGANISATION DES PORTS MARITIMES EUROPEENS ASBL/VZW

FACTUAL REPORT ON THE EUROPEAN PORT SECTOR

2004-2005

Treurenberg 6 – B-1000 Brussel/Bruxelles
Tel: 32-2-736 34 63 – Fax: 32-2-736 63 25
E-mail: mail@espo.be – Web site: http://www.espo.be

1 FACTUAL REPORT – WORK PACKAGE 1 (FR-WP1)

Overall market dynamics and their influence on the port sector

Final report
December, 2004

Report commissioned by
European Sea Ports Organisation (ESPO)

And prepared by

Prof. Dr. Theo Notteboom & Prof. Dr. Willy Winkelmans
ITMMA – University of Antwerp (Belgium)
Keizerstraat 64, 2000 Antwerp, Tel: +32 3 275.51.51,
fax: +32 3 275.51.50
E-mail: theo.notteboom@ua.ac.be

Table of contents of Work Package 1 (FR-WP1)

INTRODUCTION

European ports find themselves embedded in ever changing economic and logistics systems. The global market place, with powerful and relatively footloose players, extensive business networks and complex logistics systems, have a dramatic impact on the raison d'être of seaports. The logistics environment creates a high degree of uncertainty and leaves European port managers puzzled with the question how to respond effectively to market dynamics. Port authorities and port management teams are forced to re-assess their role and to specify competencies that should lead to competitive advantage and should position the port for growth.

This report gives a bird's eye view on the economic and logistics market developments affecting European seaports. In part 1 key market developments in trade and logistics are identified. Part 2 attempts to analyse how the economic and logistics trends as described in part 1 affect European ports. The perspective is that of the European port system as a whole.

This report does not include a policy approach to seaports, nor does it provide a detailed traffic analysis of the market position of individual ports and port ranges in the European seaport system.

1.1 MARKET DYNAMICS

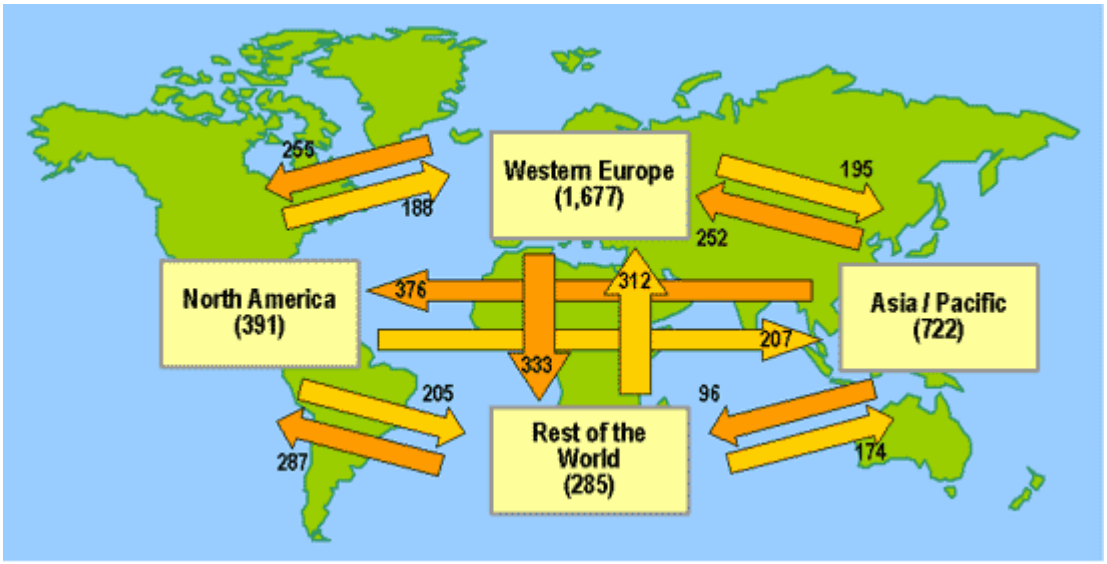
1.1.1 Trade and shifts in economic power centres

1.1.1.1 Trends in world trade

International trade represents a growing share of global output, and growth in trade is expected to outstrip overall growth in output for the foreseeable future. On the basis of current trends, international trade may grow to the equivalent of 30% of world output by 2010 (from its current level of around 15%). The rising significance of trade is a consequence of the increasing integration of the global economy. Legal and cultural obstacles to trade are diminishing at the same time as the motivation to trade is increasing. Integration is occurring both at the regional level, through initiatives such as NAFTA and the EU Single Market, and at the global level, supported by the continuing evolution of WTO.

The last three decades have seen important modifications in international trading flows. The bulk of international trade occurs within economic blocs, especially the European Union and NAFTA. Other significant flows are between Asia / Pacific and North America (especially the United States), between Europe and North America and between Europe and Asia / Pacific. For several reasons, such as geographical proximity (Eastern Europe), energy (Middle East) and colonial (Africa), the European Union has significant trading linkages with the rest of the world, Figure 1.

Figure 1: World trade flows, 2001 (billion $US)



Source: based on data World Trade Organisation

Table 1: World merchandise trade by region and selected economy, 1948-2002 (billion $US and percentages)

	1948	1953	1963	1973	1983	1993	2002
				Exports			
				Value			
World	58,0	84,0	157,0	579,0	1835,0	3671,0	6272,0
				Share			
World	100,0	100,0	100,0	100,0	100,0	100,0	100,0
North America	27,3	24,2	19,3	16,9	15,4	16,6	15,1
Latin America	12,3	10,5	7,0	4,7	0,0	4,4	5,6
Mexico	1,0	0,7	0,6	0,4	5,8	1,4	2,6
Brazil	2,0	1,8	0,9	1,1	1,4	1,1	1,0
Argentina	2,8	1,3	0,9	0,6	1,2	0,4	0,4
Western Europe	31,5	34,9	41,4	45,4	38,9	44,0	42,4
C./E. Europe/Baltic States/CIS a	6,0	8,1	11,0	9,1	9,5	2,9	5,0
Africa	7,3	6,5	5,7	4,8	4,4	2,5	2,2
South Africa b	2,0	1,7	1,5	1,0	1,0	0,7	0,5
Middle East	2,0	2,7	3,2	4,1	6,8	3,4	3,9
Asia	13,6	13,1	12,4	14,9	19,1	26,1	25,8
Japan	0,4	1,5	3,5	6,4	8,0	9,9	6,6
China	0,9	1,2	1,3	1,0	1,2	2,5	5,2
India	2,2	1,3	1,0	0,5	0,5	0,6	0,8
Australia and New Zealand	3,7	3,2	2,4	2,1	1,4	1,5	1,3
Six East Asian traders	3,0	2,7	2,4	3,4	5,8	9,7	9,6
				Imports			
				Value			
World	66,0	84,0	163,0	589,0	1881,0	3768,0	6510,0
				Share			
World	100,0	100,0	100,0	100,0	100,0	100,0	100,0
North America	19,8	19,7	15,5	16,7	17,8	19,7	22,0
Latin America	10,6	9,3	6,8	5,1	4,5	5,1	5,4
Mexico	0,8	1,0	0,8	0,6	0,7	1,8	2,7
Brazil	1,7	1,6	0,9	1,2	0,9	0,7	0,8
Argentina	2,4	0,9	0,6	0,4	0,2	0,4	0,1
Western Europe	40,4	39,4	45,4	47,4	40,0	43,0	40,8
C./E. Europe/Baltic States/CIS a	5,8	7,6	10,3	8,9	8,4	2,9	4,6
Africa	7,6	7,0	5,5	4,0	4,6	2,6	2,1
South Africa b	2,2	1,5	1,1	0,9	0,8	0,5	0,4
Middle East	1,7	2,0	2,3	2,8	6,3	3,3	2,7
Asia	14,2	15,1	14,2	15,1	18,5	23,3	22,4
Japan	1,0	2,9	4,1	6,5	6,7	6,4	5,2
China	1,1	1,7	0,9	0,9	1,1	2,8	4,5
India	3,1	1,4	1,5	0,5	0,7	0,6	0,9
Australia and New Zealand	2,6	2,4	2,3	1,6	1,4	1,5	1,3
Six East Asian traders	3,0	3,4	3,1	3,7	6,1	9,9	8,4

a Figures are significantly affected by: (i) changes in the country composition of the region and major adjustment in trade conversion factors between 1983 and 1993; and (ii) the inclusion of the Baltic States and the CIS mutual trade between 1993 and 2002.

b Beginning with 1998, figures refer to South Africa only and no longer to the Southern African Customs Union.

c Membership as of the year stated.

Note: Between 1973 and 1983 and between 1993 and 2002 export and import shares were significantly influenced by oil price developments.

Source: World Trade Organization, International Trade Statistics, Table II.2

Table 1 provides more detail on the evolution of the relative share of regions in world imports and exports. Mexico, China and East Asian economies have substantially increased their relative importance in recent years.

1.1.1.2 Shifts in extra EU-15 trade

Between 1990 and 2001 the average export growth rate of the EU has been 8.7%. During the 1990s the total share of the main exporting nations (France, Italy, United Kingdom and Germany) remained stable at around 70%. Ireland's export share in the EU trebled since 1990 to reach 3.5% in 2001 (Eurostat, 2002). The general trend in extra-EU imports is quite similar to that for exports.

The United States remains the most important trading partner of the EU-15, although its relative share in imports is declining (Table 2). The imports share of the main trading partners in Asia (Japan, China and dynamic Asian Economies) fluctuates at around 25 to 26 % throughout the observed period. At the export side the share stagnates at around 15 to 16 per cent. However, considerable shifts are taking place within the Asian continent. Japan is fast losing ground to other Asian economies, in particular to China who in recent years has overtaken Japan to become the most important Asian trading partner of the EU.

Table 2: Extra EU-15 trade by main trading partners (relative shares based on FOB-values in € 1000 million)

	IMPORTS					EXPORTS				
	1992	1995	1998	2001	2003	1992	1995	1998	2001	2003
Norway	4,4%	4,7%	4,0%	4,4%	4,9%	3,5%	3,0%	3,4%	2,7%	2,7%
Switzerland	8,1%	7,9%	7,0%	5,9%	5,7%	10,1%	8,9%	7,8%	7,6%	7,0%
Russian Federation	2,3%	3,9%	3,3%	4,6%	5,2%	1,7%	2,8%	2,9%	2,8%	3,4%
United States	19,9%	19,0%	21,4%	19,0%	15,3%	19,1%	18,0%	22,0%	24,4%	22,7%
China (including Hong Kong)	3,9%	4,8%	5,9%	7,4%	9,6%	1,8%	2,6%	2,4%	3,1%	4,1%
Japan	12,1%	10,0%	9,3%	7,4%	6,8%	5,3%	5,7%	4,3%	4,6%	4,1%
Dynamic Asian economies*	9,2%	10,0%	11,0%	9,5%	9,2%	9,0%	11,4%	8,2%	8,3%	7,5%
OPEC-Countries	9,2%	7,0%	5,7%	7,5%	7,2%	10,4%	6,8%	6,4%	6,5%	6,8%
Cotonou agreement**	6,0%	5,1%	4,4%	4,6%	4,4%	5,7%	4,6%	4,5%	4,1%	4,1%
Other	24,8%	27,6%	28,2%	29,6%	31,7%	33,4%	36,0%	38,1%	35,9%	37,5%
Total extra EU-15 (1000 million €)	465,39	545,25	710,54	1028,36	1082,73	415,3	573,28	733,43	982,97	1012,92

* includes Singapore, Thailand, South Korea, Taiwan and Malaysia
** African, Caribbean and Pacific countries, signatories of the Partnership Agreement (Cotonou agreement) - 77 countries

Source: calculations based on Eurostat – External Trade data

More details on the trade balance are depicted in Table 3. The figures clearly demonstrate a trade surplus with Switzerland and the United States and moderate to strong import-based relations with most other regions and countries, in particular China.

Table 3: Trade balance (exports as percentage of imports) in relation to the main trading partners of the EU-15 (based on values extra EU trade)

	1992	1995	1998	2001	2003
Norway	69,5%	68,5%	89,2%	58,0%	53,0%
Switzerland	111,1%	118,1%	115,6%	122,9%	122,2%
Russian Federation	65,5%	75,1%	91,4%	58,5%	63,8%
United States	85,5%	99,7%	106,3%	122,5%	145,8%
China (including Hong Kong)	42,1%	55,8%	41,5%	39,7%	42,1%
Japan	39,4%	60,6%	47,8%	58,9%	60,0%
Dynamic Asian economies*	86,7%	120,6%	77,1%	83,5%	80,5%
OPEC-Countries	100,8%	101,4%	116,2%	83,0%	93,3%
Cotonou agreement**	84,6%	96,0%	104,7%	84,4%	93,0%

* includes Singapore, Thailand, South Korea, Taiwan and Malaysia

** African, Caribbean and Pacific countries, signatories of the Partnership Agreement (Cotonou agreement) - 77 countries

Source: calculations based on Eurostat – External Trade data

1.1.1.3 The China effect

For most of the past quarter century, no region of the world has been more economically dynamic than East Asia. The unprecedented economic growth of East Asia transformed the patterns of world trade. The Asian financial crisis in the summer of 1997 meant a temporary setback for a number of countries. Especially China now attracts a lot of international attention, not the least because of the country's stunning economic development and its fairly recent accession to the World Trade Organization. As one of the world's most rapidly growing economies, China achieved an average GDP growth of 9% which it has been able to maintain since 1979. In the new millennium economic growth fluctuates between 7 and 8%, compared to 9.3% in the 1990s (Unctad, 2002). On the domestic front, a new wave of consumption boom has emerged, and private investment has strengthened as well. Externally, export growth has been stronger than predicted, leading to an unexpected increase in trade surplus despite a strong import growth.

In each sector, China succeeded to link foreign investor capital and expertise with a large and low-cost Chinese labour force. Moreover, export-oriented enterprises were encouraged by the designation of a growing number of special economic zones (SEZs), coastal open cities, and economic and technological development zones (EDTZs), all designed to encourage manufacturing exports.

Logistics has become a major growth market. The working practice of many Western companies was to sell their products to a local Chinese trader who takes care of the distribution in China. More and more big shippers are now taking steps towards the control of the distribution flows by a logistics service provider.

Table 4: Chinese container ports in world port ranking – in million TEU

			1985	1990	1995	1998	2000	2002	2003	Annual growth 98-02	
	Container ports with a throughput exceeding 1.7 million TEU in 2002										
1	Hong Kong	CHINA	2,29	5,10	12,55	14,58	18,10	19,14	20,45	7,8%	
2	Singapore	Singapore	1,70	5,09	11,85	15,14	17,04	16,94	18,41	3,0%	
3	Busan	Korea	1,16	2,35	4,50	5,75	7,54	9,54	10,37	16,5%	
4	Shanghai	CHINA	0,20	0,46	1,53	3,07	5,61	8,61	11,28	45,2%	*
5	Kaohsiung	Taiwan	1,90	3,49	5,05	6,27	7,43	8,49	8,84	8,9%	
6	Shenzhen	CHINA	0,00	0,03	0,37	2,06	3,99	7,61	10,65	67,4%	*
7	Rotterdam	Netherlands	2,65	3,67	4,79	6,01	6,27	6,52	7,11	2,1%	
8	Los Angeles	USA	1,10	2,12	2,56	3,38	4,88	6,11	7,18	20,2%	
9	Hamburg	Germany	1,16	1,97	2,89	3,55	4,25	5,37	6,14	12,9%	
10	Antwerpen	Belgium	1,24	1,55	2,33	3,27	4,08	4,78	5,54	11,6%	
11	Port Klang	Malaysia	n.a.	0,47	1,13	1,82	3,21	4,53	4,80	37,3%	
12	LongBeach	USA	1,14	1,60	2,84	4,10	4,60	4,52	4,66	2,6%	
13	Dubai Ports	Jebel Ali	n.a.	0,92	2,07	2,80	3,06	4,19	n.a.	12,4%	
14	New York	USA	2,37	1,87	2,22	2,52	3,05	3,79	4,40	12,7%	
15	Qingdao	CHINA	0,00	0,14	0,60	1,21	2,12	3,41	4,24	45,3%	*
16	Tokyo	Japan	n.a.	1,56	2,18	2,49	2,90	3,03	3,20	5,3%	
17	Bremen	Germany	0,99	1,16	1,52	1,81	2,75	2,98	3,19	16,2%	
18	Gioia Tauro	Italy	0,00	0,00	0,02	2,13	2,65	2,95	3,15	9,7%	
19	Manila	Philippines	n.a.	1,01	1,69	1,85	2,29	2,46	2,55	8,2%	
20	Tanjong Priok		n.a.	0,64	1,50	1,90	2,77	2,90	n.a.	13,2%	
21	Lam Chabang	Thailand	n.a.	n.a.	0,53	1,56	2,11	2,66	3,18	17,6%	
22	Tanjung Pelepas	Malaysia	0,00	0,00	0,00	0,00	0,42	2,67	3,49		
23	Jakarta	Indonesia	n.a.	n.a.	1,50	1,90	2,48	2,70	2,76		
24	Tianjin	CHINA	0,00	0,29	0,70	1,02	1,71	2,41	3,01	34,1%	*
25	Yokohama		1,33	1,65	2,73	2,06	2,32	2,36	2,47	3,7%	
26	Algeciras	Spain	0,35	0,55	1,15	1,83	2,01	2,23	2,52	5,5%	
27	Guangzhou	CHINA	0,00	0,08	0,51	0,85	1,43	2,17	2,76	39,1%	*
28	Kobe	Japan	1,86	2,60	1,46	1,86	2,03	2,38	2,39	7,0%	
29	Nhava Sheva		0,00	0,00	0,24	0,67	1,12	1,95	n.a.	47,7%	
30	Nagoya	Japan	n.a.	0,90	1,48	1,43	1,90	1,93	2,05	8,7%	
31	Ningbo	CHINA	0,00	0,00	0,16	0,35	0,90	1,86	2,76	106,7%	*
32	Xiamen	CHINA	0,00	0,03	0,33	0,65	1,08	1,75	2,33	42,1%	*
33	Le Havre	France	0,57	0,86	0,97	1,32	1,46	1,72	1,98	7,6%	
	Other Chinese ports										
	Dalian	CHINA	0,00	0,13	0,37	0,53	1,01	1,35	1,68	39,3%	*
	Jingmen	CHINA						0,49	0,74		*
	Fuzhou	CHINA	0,00	0,00	0,00	0,06	0,34	0,48	0,55	175,6%	*
	European port system (*)		12,36	17,00	24,75	35,06	41,20	46,50		8,2%	
	Chinese mainland, incl. HK (**)		2,49	6,25	17,13	24,38	36,30	48,81	59,71	25,0%	*
	Chinese mainland, excl. HK (**)		0,20	1,15	4,58	9,80	18,20	29,66	39,26	50,7%	*
	North-American port system (***)		11,36	14,99	20,90	25,35	29,73	31,00		5,6%	

(*) total for 47 container ports (source: port authorities figures)
(**) total for Chinese container ports featuring in this table (with or without Hong Kong)
(***) total for 35 container ports, 2002 is an estimate (source: AAPA)

Source: Based on port authority figures, AAPA and various sources

The Chinese economic boom is reflected onto the liner service schedules of major shipping lines. The liner trade speaks of the China effect. Shipping lines are dedicating higher capacities and deploying larger vessels to cope with the increasing Chinese container imports and exports, especially in relation to the China-Europe trade (Yap et al, 2003). The boost of Chinese exports to Western countries led to low freight rates on the return haul, creating new opportunities for the containerisation of low-value goods. On the eastbound leg between Europe and China, metal scrap, fertilizers and waste paper are among the many goods increasingly being containerised. Chinese container carriers such as Cosco and China Shipping have some privileges, but overall

there is some level-playing field for container shipping lines that want to develop their business in China. Customs procedures have been improved substantially and foreign shipping lines can operate independently to serve the Chinese market.

The China effect has also resulted in changes to the ranking of the world's largest container ports (Table 4). China's top ten container ports posted a growth of 34% in 2003 reaching 40 million TEU. Average annual growth at container ports in mainland China (excluding Hong Kong) amounted to 61 per cent in the period 1998-2003. Since China containerises only 5% of its cargo, at present, the container business can be expected to increase dramatically during the next 10 years. The rising throughput figures appear to justify investment efforts to keep capacity in line with growing demand, with most major ports either earmarked for expansion, or already undergoing massive construction, e.g. the massive terminal development at Yangshan near Shanghai.

1.1.1.4 Europe in transition

Intra-EU trade has always represented more than 50% of the EU's trade total. At present it is around 60%, meaning that despite the globalisation trend intra-European trade is becoming even more significant. The volume of intra-EU trade increased significantly with the enlargement of the EU in 1995, since the trade of Austria, Sweden and Finland is strongly geared to the EU market. The share of intra-EU trade varies widely from one member state to another. For small open economies such as Luxembourg, Portugal, Belgium and Denmark the shares of intra-EU trade in total imports and exports are above 70%.

The Western European markets are becoming mature. The total market volume in Europe's most important countries and in traditional market sectors such as consumer goods or automotive are showing moderate growth rates which contrast the boom in these markets of the 1970s and 1980s.

GDP growth rates in the core of the EU are expected to reach between 1 and 2.5% in the coming years (see Table 5). Greece and Ireland are among the fastest growers in the EU-15. Economic development in Central and Eastern Europe is expected to grow significantly in the future, with forecasted annual GDP growth of 4% to 4.8% until 2009 (European Commission, 2001). At this rate, more advanced countries such as the Czech Republic could reach the GDP per capita level of low-income European Union countries in 15 years.

After the crisis that followed the dissolution of Comecon, the central and east European countries (CEECs) quickly redirected their trade towards the EU markets. In 1990, the CEECs represented 6.2% of total EU-15 exports and 5.4 of total imports. In 2001 these figures had risen to 14.1% and 11.4% respectively (Eurostat, 2002). With the recent enlargement of the European Union with 10 new members states (mostly CEECs), trade flows are expected to increase even further. The enlargement means a 20 % rise in population (an additional 75 million citizens – Eurostat figures), while adding only 5% (€ 500 billion) to the Union's real GDP. The economic gap is substantial: GDP per capita of the new member states is less than a quarter of the EU average. It goes without saying that large differences also exist among the new member states.

Table 5: Growth rate of GDP at constant prices (1995) - percentage change on previous year

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
EU (25 countries)	**:**	**:**	**1.7**	**2.6**	**2.9**	**2.9**	**3.6**	**1.7**	**1.1**	**0.9**	**2.0 (f)**	**2.4 (f)**
EU (15 countries)	**2.8**	**2.4**	**1.6**	**2.5**	**2.9**	**2.9**	**3.6**	**1.7**	**1.0**	**0.8**	**1.9 (f)**	**2.3 (f)**
Belgium	3.2	2.4	1.2	3.5	2.0	3.2	3.8	0.6	0.7	1.1	2.0 (f)	2.5 (f)
Luxembourg	3.8	1.4	3.3	8.3	6.9	7.8	9.0	1.3	1.7	2.1	2.4 (f)	3.1 (f)
Netherlands	2.9	3.0	3.0	3.8	4.3	4.0	3.5	1.2	0.2	-0.7	1.0 (f)	1.6 (f)
Germany	2.3	1.7	0.8	1.4	2.0	2.0	2.9	0.8	0.2	-0.1	1.5 (f)	1.8 (f)
France	2.1	1.7	1.1	1.9	3.4	3.2	3.8	2.1	1.2	0.5	1.7 (f)	2.4 (f)
United Kingdom	4.4	2.9	2.8	3.3	3.1	2.9	3.9	2.3	1.8	2.2	3.0 (f)	2.8 (f)
Ireland	5.8	9.9	8.1	11.1	8.6	11.3	10.1	6.2	6.9	1.4	3.7 (f)	4.6 (f)
Sweden	4.2	4.1	1.3	2.4	3.6	4.6	4.3	0.9	2.1	1.6	2.3 (f)	2.6 (f)
Finland	3.9	3.4	3.9	6.3	5.0	3.4	5.1	1.1	2.3	1.9	2.6 (f)	2.7 (f)
Denmark	5.5	2.8	2.5	3.0	2.5	2.6	2.8	1.6	1.0	0.5	2.1 (f)	2.2 (f)
Austria	2.6	1.6	2.0	1.6	3.9	2.7	3.4	0.8	1.4	0.7	1.8 (f)	2.5 (f)
Greece	2.0	2.1	2.4	3.6	3.4	3.4	4.4	4.0	3.9	4.3	4.0 (f)	3.3 (f)
Portugal	1.0	4.3	3.5	4.0	4.6	3.8	3.4	1.8	0.5	-1.2	0.8 (f)	2.2 (f)
Italy	2.2	2.9	1.1	2.0	1.8	1.7	3.0	1.8	0.4	0.3	1.2 (f)	2.1 (f)
Spain	2.4	2.8	2.4	4.0	4.3	4.2	4.2	2.8	2.0	2.4	2.8 (f)	3.3 (f)
New member states												
Czech Republic	:	:	:	:	:	0.5	3.3	3.1	2.0	2.9	2.9 (f)	3.4 (f)
Hungary	2.9	1.5	1.3	4.6	4.9	4.2	5.2	3.8	3.5	2.9	3.2 (f)	3.4 (f)
Poland	:	2.7	6.0	6.8	4.8	4.1	4.0	1.0	1.4	3.8	4.6 (f)	4.8 (f)
Slovenia	5.3	11.2	3.6	4.8	3.6	5.6	3.9	2.7	3.4	2.3	3.2 (f)	3.6 (f)
Slovakia	6.2	5.8	6.1	4.6	4.2	1.5	2.0	3.8	4.4	4.2	4.0 (f)	4.1 (f)
Cyprus	5.9	6.5	1.9	2.3	4.8	4.7	5.0	4.0	2.0	2.0	3.4 (f)	4.1 (f)
Malta	:	:	:	:	:	4.1	6.4	-1.2	1.7	0.4 (f)	1.4 (f)	2.0 (f)
Estonia	-1.6	4.5	4.5	10.5	5.2	-0.1	7.8	6.4	7.2	5.1	5.4 (f)	5.9 (f)
Latvia	2.2	-0.9	3.8	8.3	4.7	3.3	6.9	8.0	6.4	7.5	6.2 (f)	6.2 (f)
Lithuania	-9.8	3.3	4.7	7.0	7.3	-1.7	3.9	6.4	6.8	9.0	6.9 (f)	6.6 (f)

(:) Not available
(f) Forecast

Source: based on Eurostat data

In trade two categories of CEECs can be identified: Hungary, the Czech Republic and Slovakia are increasingly exporting more technology-driven or high-skill products. By contrast countries like Latvia remains focused on low-skill or labor-intensive products.

Due to the fact that the EU market is expanding and because it will add some high growth markets it is not unlikely that international companies will be keen to invest in the new Europe. This might for instance imply a move of global plants to the European Union.

It is expected that some manufacturing activities will move from Western Europe towards the low-cost regions in Eastern Europe. This tendency will generate larger bi-directional East-West flow within the European Union of raw materials and consumer products. The East-West flows require an extensive infrastructure to be in place (road, rail, inland waterways and SSS). A large part of this transportation will take the form of inland waterway transport, especially over the Danube River. Germany, the Czech Republic, Poland, Slovenia and Hungary have strong rail networks while road networks in the Eastern European countries are less well developed. Transport in Eastern European countries will therefore favour rail transport. A rise in multimodal

transport infrastructures is therefore expected on the borders between Eastern and Western Europe particularly on the borders of Germany (with Germany having both well developed road and rail transport infrastructures).

In the medium term the traditional 'blue banana' will approach the shape of a boomerang as a result of extensions to central and east Europe and significant investments in the Mediterranean (Spain in particular), see Figure 2.

Since the European Union will be largely expanding towards the east, the geographical centre of gravity within the new EU will move eastwards from the Benelux region to Germany. Whether this will lead to a shift in the location behaviour of European Distribution Centres (EDCs) is highly debatable (see later in the section on logistics trends). Less debatable is that northern ports, in particular Hamburg, are likely to benefit the most from EU enlargement, whereas new development opportunities might arise for secondary port systems in the Adriatic and the Baltic Sea.

Figure 2: The 'blue banana' in transition

Source: Cushman & Wakefield, Healey & Baker

The expansion of the 'blue banana' goes hand in hand with a strong development of trade flows in the Baltic area (see Figure 3) and the Latin arc (stretching along the coastline from southern Spain to northern Italy). Both in the Baltic and the Mediterranean, extensive hub-feeder container systems and shortsea shipping networks came into existence in the last decade to cope with the increasing volumes and to connect to other European port ranges (the Hamburg-Le Havre range in particular). For instance, since the mid 1990s a number of container hubs have been developed at strategic locations in the Mediterranean to act as turntables in a growing sea-sea transhipment business in the region (cf. Marsaxlokk on Malta, Gioia Tauro, Cagliari and Taranto in Italy and Algeciras in Spain). In feeder flows to ports in the

Baltic Sea, the ports of Bremen, Rotterdam, Antwerp and in particular Hamburg primarily serve as turntables.

Figure 3: Trade flows in the Baltic Sea Region - 1998

Note: Trade flows show the sum of both directions
Source: 'Compendium on Spatial Planning Systems in the Baltic Sea Region' - based on data IMF

1.1.1.5 Maritime trade of the EU

The extra EU trade of the European Union by maritime transport has increased during the last five years, with regards both to the volume and the value of the goods exchanged. The increase in the value of these goods was much higher than the increase in their volume. In trade using maritime transport, the volume of imports of the European Union was significantly higher than exports. In 2002, 75% of the volume of goods exchanged by the European Union using maritime transport was imports, but their value represented only 50% of the total value. Petroleum products had the largest share in the trade of goods by sea in the European Union. In 2002, 382 million tonnes of petroleum products were imported by the European Union, which represented 42% of the total volume of imports.

Table 6: Share of each product in the total volume (tonnes) of goods exchanged by maritime transport between EU and world regions, 2002

	NST/R chapters	America	Asia	Africa	Oceania and Polar regions	Other European countries
0	Agricultural products and live animals	5%	4%	6%	3%	8%
1	Foodstuff and animal fodder	17%	8%	5%	4%	3%
2	Solid mineral fuels	11%	6%	15%	**53%**	7%
3	Petroleum products	**26%**	**48%**	**48%**	0%	**46%**
4	Ores and metal waste	19%	3%	9%	31%	4%
5	Metal products	3%	3%	2%	2%	5%
6	Crude and manuf. minerals, building materials	5%	5%	3%	1%	15%
7	Fertilizers	1%	1%	3%	0%	2%
8	Chemicals	6%	7%	2%	1%	5%
9	Machinery, transport equipment, manufactured and miscellaneous articles	7%	15%	7%	4%	6%

Source: Eurostat (2004), Statistics in focus, theme 6/7, 4/2004, p. 2

Table 7: Volume (1000 tonnes) and value (million euros) of imports and exports between EU and the world regions by maritime transport, 2002

	Imports of EU			Exports of EU			Total		
	Volume	Value	euros / Tonne	Volume	Value	euros / Tonne	Volume	Value	euros / Tonne
Other European countries	**212 432**	64 214	302	48 071	47 738	993	**260 503**	111 952	430
North Africa	111 140	27 885	251	28 164	24 243	861	139 304	52 128	374
Other African countries	116 443	23 507	202	19 607	22 089	1 127	136 050	45 596	335
North America	75 858	57 532	758	**88 817**	**123 742**	1 393	164 675	181 274	1 101
Central America and Caribbean	17 147	8 131	474	9 055	16 364	1 807	26 202	24 495	935
South America	139 094	29 269	210	10 228	17 177	1 679	149 322	46 446	311
Near and Middle Eastern countries	120 182	26 512	221	23 445	34 740	1 482	143 627	61 252	426
Other Asian countries	73 482	**145 111**	**1 975**	45 978	84 816	1 845	119 460	**229 927**	**1 925**
Australia and New Zealand	42 966	7 264	169	3 085	10 866	**3 522**	46 051	18 130	394
Other countries of Oceania and Polar regions	764	623	815	444	1 078	2 428	1 208	1 701	1 408

Source: Eurostat (2004), Statistics in focus, theme 6/7, 4/2004, p. 2

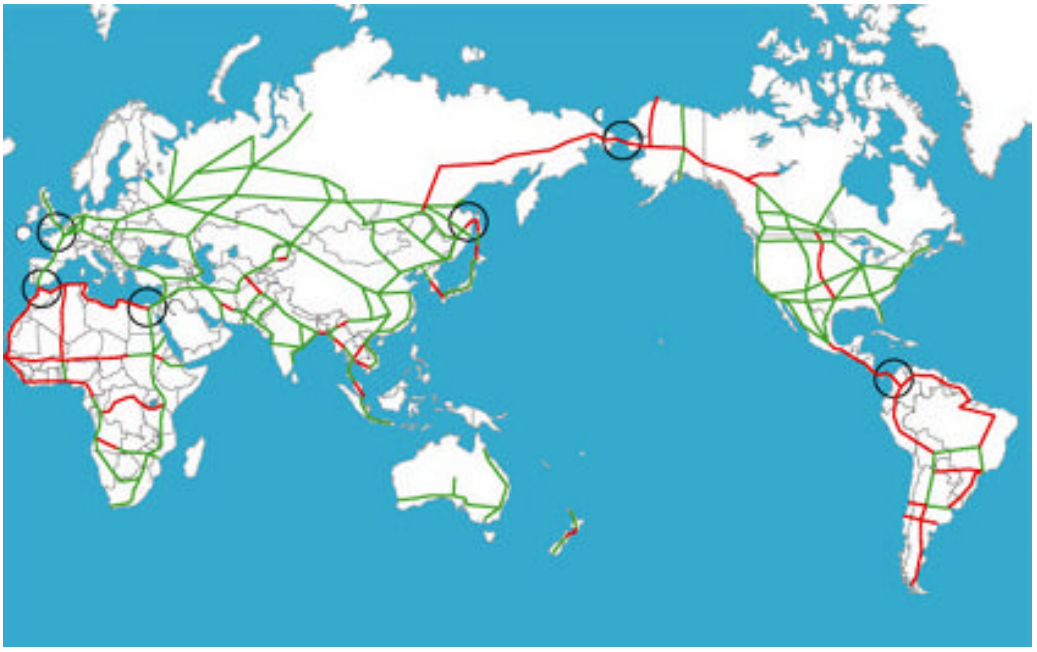
1.1.1.6 New maritime and land corridors

A number of poorly utilized transport corridors are expected to become more important in the future. As the Russian market has become a close neighbour of the new European Union due to EU enlargement Russia might develop a transit function for goods flows between Asia Pacific and the European Union. Higher maritime rates on the Westbound route and shorter transit time of the rail alternative make existing rail corridors such as the Trans-Siberian railway (an annual traffic of around 100,000 TEU in the last few years) more serious alternatives on the Asia-Europe link to the all-water route via the Suez Canal. This alternative import route might even grow in importance because of the continuing economic growth in China.

Plans even exist to connect the Eurasian land-bridge system to the north-American land-bridges by creating a fixed link over the Bering Strait (Figure 4). The feasibility

of such a link remains insecure due to high investment cost needs, harsh climate conditions and low economic potential along the new link. Some have developed a keen interest in using the northern maritime passage (north of Siberia and crossing the Barents sea) as a potential new maritime route between Asia Pacific and Europe.

Figure 4: A blueprint of a world-encircling rail-based transportation system



Note: Red lines are missing links. Green lines are corridors already in place.
Circles indicate key interconnection points with ample possibility for land-sea interchanges

Source: Schiller Institute

Another project having a high potential impact on the routing of trade flows is the extension of the lock capacity at the Panama Canal. Five percent of world shipping passes through the Panama Canal, but as the average size of ships increases, the canal risks becoming less crucial to world trade. The Panama Canal Authority is in the final stage of feasibility studies for a plan to add a third set of locks at each of the existing lock sites with dimension 180' wide and 1,400' long (compared to 106' wide and 965' long for the existing locks). The new locks would allow Aframax and Suezmax vessels to pass through the canal. It would also allow over-panamax container ships to make the passage from the Pacific to the Atlantic, thereby opening opportunities to container lines to introduce new round-the-world service concepts.

In Europe, existing transport corridors by rail, road and inland navigation between the core of the EU, the Baltic, the Mediterranean, east and central Europe and third countries are likely to grow in importance whereas a number of new corridors will emerge to deal with growing transport volumes between member states. The development of these corridors is enhanced by the EU's policy as regards the creation of TEN-T and initiatives of rail operators, megacarriers and other market players to extend their European transport networks.

1.1.2 Trends in logistics

1.1.2.1 Globalisation in a demand-driven economy

One of the main basic driving forces to change in the port industry emerges from the globalisation process and with it a structural shift from supply-driven to demand-driven economies. The supply-driven economy was based on the concept of economies of scale in production, through standardisation and on mass consumption of standard products. This approach was being scrutinized as productivity increases linked to economies of scale met their structural boundaries and as a growing individualism began to reflect on consumption patterns. The outcome was a shift to a more demand-driven economic system, combined with collaborative networks on the supply side of the markets.

Multinational enterprises (MNE) are the key drivers of globalisation. A shift has taken place from capital intensive activities – such as ownership and management of a large number of manufacturing sites, distribution centres and sales outlets – towards another type of activity, which is far less capital intensive and focuses more on developing a strong brand. Branding forms a key concept in the new business model of MNEs. This involves a strong focus on customers and product innovation, whereas production is outsourced to a network of suppliers. MNEs increasingly develop long-term relationships with a limited number of logistics suppliers on the basis of co-makership (Christopher, 1992). As such, a large number of MNEs have adopted flexible multi-firm organisation structures on a global scale.

Many of the world's largest MNEs manage extensive networks of globally dispersed inputs. Global sourcing as such is a major driver of world trade. Yet at the customer end of the value chain, very few of the world's largest multinational enterprises actually operate globally, in the sense of having a broad and deep penetration in foreign markets across the world. Instead they are regionally based in terms of breadth and depth of market coverage with most of their sales situated within their home leg of the 'triad', namely in North America, the European Union or Asia. The broad geographic distribution of sourcing and production (back end) versus less broad geographic distribution of sales (customer end) is reflected onto trade patterns, supply chain management needs and shipping requirements.

1.1.2.2 Shifts in supply chains

Logistics models evolve continuously as a result of influences and factors such as the globalisation and expansion into new markets, mass customisation in response to product and market segmentation, lean manufacturing practices and associated shifts in costs. Service expectations of customers are moving towards a push for higher flexibility, reliability and precision. In many industries product innovation has become a large competitive factor. This has led companies to compete to be the first to launch new products and technologies. As a result average product life cycles and supply chain cycles have decreased. The number of products to be shipped and the shipment frequency increase whereas batch sizes are becoming smaller. There is a growing demand from the customer for "make-to-order" or "customized" products, delivered at maximum speed, with supreme delivery reliability, at the lowest possible cost. The

focus is on supply chain excellence, with superior customer service and lowest cost to serve.

As a result international supply chains have become complex and the pressure on the logistics industry is increasing. In 2001 logistics costs amounted to 9.6% of sales. The worldwide logistics industry is expected to grow by 4% to 5% every year and in Europe by 6.5% every year (IBM, 2003). In Europe, transport costs have increased from 30-40 per cent of total logistics cost in the early 1980s up towards 60 per cent in the past decade, while carrier margins have declined to around 4 to 6% and falling. Logistics services that still offer value today, will in the future become basic services only generating a small margin. This is especially the case for physical added value. The prospects for margins on information added value are more promising.

The supply chains need to be supported by a wide range of advanced communication tools and new powerful, reliable and cost effective transportation networks to be set up and operated by IT-supported logistics service providers. Modern IT systems are geared towards improving pipeline visibility in three core areas:

- Improved product flow visibility through real time information on flows with information presented based on user needs and the ability to re-plan, re-direct product flows.
- Event management in order to forecast events, to have real-time information on actual events and to generate proactive notifications of failures. All this information goes to the people that need it.
- Performance management supported by quantitative carrier and asset performance data, performance accountability and continuous performance improvement opportunities.

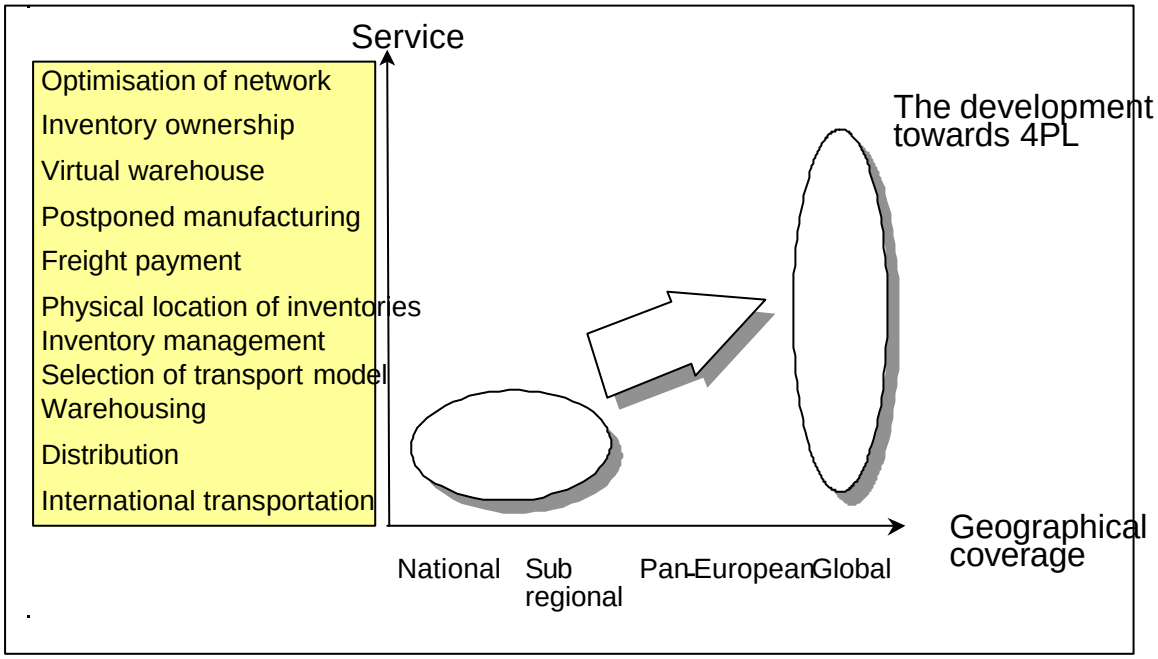
1.1.2.3 Outsourcing: 3PL and 4PL on the rise

Leading-edge companies are taking a broader view of the parts of their business they seek to control and manage. The re-engineering of supply chain processes (including customer order management, procurement, production planning, distribution, etc..) to enhance performance typically results in collaborative networks with logistics partners. Many companies have acknowledged that warehousing and transportation is not part of their core business and as a result these operations are outsourced to logistics service providers. Outsourcing comes in many forms (Figure 5). A recent CGE&Y study (CGE&Y 2002 3PL study) indicates that in Europe 94% of companies have already outsourced part of their warehousing and transportation operations to logistics service providers. Roland Berger reports the following shares of outsourcing in EU-15 in 2001: transport/haulage 94%, distribution/contract logistics 65%, warehousing operations 48%, e-logistics tools 13%, light manufacturing 13% and inventory management 13% (Eurimpro & Roland Berger, 2003). IBM (2003) reported that the share of outsourced logistics will grow worldwide by 15 to 20%, and in Europe by 9% every year.

Figure 5: Segmentation in logistics outsourcing

Source: Buck Consultants International

Figure 6: The development of fourth party logistics providers



Source: KPMG Transportation & Distribution, 2000

Increasing customer demands drive the 3PL service industry (Third Party Logistics) forward. Customers' need for a wider array of global services and for truly integrated services and capabilities (design, build and operate) triggered a shift from transportation-based 3PLs to warehousing and distribution providers and at the same time opened the market to innovative forms of non-asset based logistics service provision, i.e. 4PL (Fourth Party Logistics, Figure 6). Whereas a 3PL service provider typically invests in warehouses and transport material, a 4PL service provider restricts its scope to IT-based supply chain design. Consultants and IT shops help 3PLs and 4PLs to expand into new markets and to become full service logistics providers. A 4PL can be defined as a *'supply chain integrator who assembles and manages the*

resources, capabilities, and technology of its organization with those of complementary service providers to deliver a comprehensive supply chain solution' (Bade and Mueller, 1999). The competence of 4PLs lies in the selection, linking and bundling of service providers as well as the alignment of interests of all concerned in the supply chain.

The rise of 4PLs and related online players in the market triggered a whole range of e-market business models with proper functionalities, often with mixed success. Acquiring critical mass seems to be the main obstacle. The e-business environment creates new distribution requirements in terms of e-fulfillment (Table 8).

Table 8: Traditional fulfillment versus e-fulfillment

	Traditional fulfilment	E-fulfilment
Orders:	Predictable, large	Variable, small
Order cycle time:	Weekly	Daily, hourly
Customer:	Strategic	Unknown
Customer service:	Reactive, rigid	Responsive, flexible
Replenishment:	Scheduled	Real-time
Distribution model:	Supply-driven (push)	Demand-driven (pull)
Demand:	Stable, consistent	Seasonal, fragmented
Shipment type:	Containers, pallets	Small package, express
Destinations:	Concentrated	Dispersed
Warehouse models:	Storage, order-picking	Transformation, consolidation
Transportation model:	Dedicated, load driven	Shared services, netw. Driven
Client value	1) Cost, 2) speed, 3) quality	1) Quality, 2) Reliability

Notwithstanding the emergence of non-asset based 4PLs, they will not take over the role of key player in the European logistics market from the asset-based 3PLs. Hence, asset-based full service providers such as the express integrators DHL and FedEx increasingly install the IT control systems themselves. Moreover, many European logistics users prefer to keep control on the design of the supply chain in-house instead of being totally dependent on 4PLs.

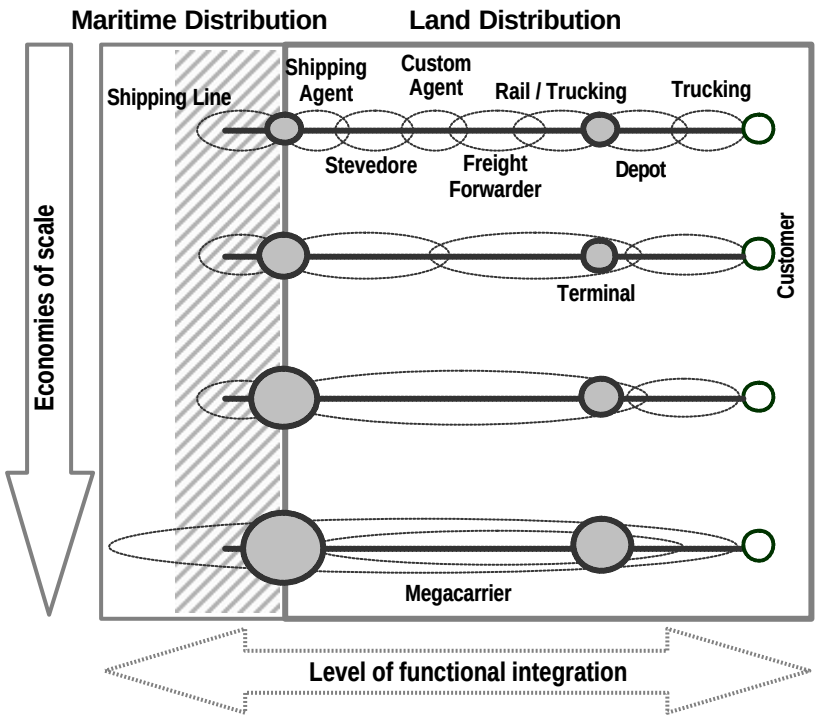
1.1.2.4 Logistics integration and consolidation in the logistics service provider industry

Globalisation and outsourcing open new windows of opportunities for shipping lines, forwarders, terminal operators and other transport operators. Manufacturers are looking for global logistics packages rather than just straight shipping or forwarding. Global logistics is the name of the game. Most actors in the transport chain have responded by providing new value-added services in an integrated package, through a vertical integration along the supply chain.

The vertical integration in the logistics industry has enabled many freight forwarders to take control of larger segments of the supply chain. European companies like

Danzas (since 1999 part of Deutsche Post), Schenker/BTL (the merger between Schenker Logistics and Scan-sped), Frans Maas and Kühne und Nagel have evolved from basic forwarders or road haulage companies to full logistics service providers (Figure 7 and Figure 8). The level of functional integration of land distribution is increasing rapidly. Many distribution functions which used to be separated are now controlled by a single entity. In a conventional situation, the majority of distribution activities were performed by different entities ranging from maritime shipping lines, shipping and custom agents, freight forwarders and rail and trucking companies. Regulations were often preventing multimodal ownership, leaving the system fragmented. With an increasing level of functional integration many intermediate steps in the transport chain have been removed. Mergers and acquisitions have permitted the emergence of large logistics operators that control many segments of the supply chain: the megacarrier. The megacarriers meet the requirements of many shippers to have a single contact point on a regional or even global level (the 'one-stop shop'). Technology also has played a particular role in this process namely in terms of IT (control of the process) and intermodal integration (control of the flows).

Figure 7: Functional Integration of Supply Chains

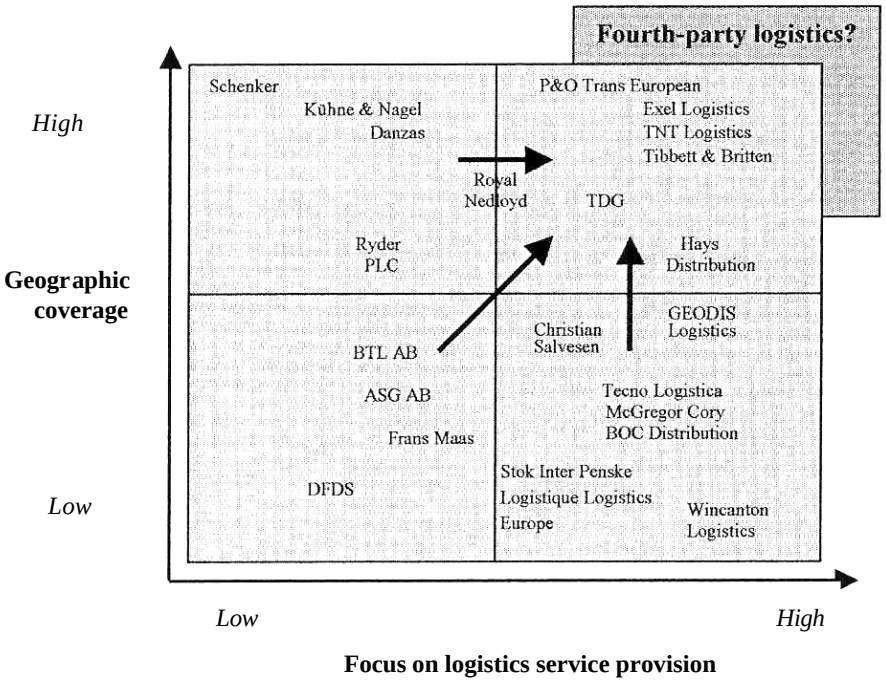


Source: Notteboom & Rodrigue (2004), adapted from Robinson (2002)

Mergers and acquisitions shape the contemporary business environment. Mergers and acquisitions are not only driven by companies searching for take-over candidates, but also by companies who have decided to divest aspects of their businesses and are consequently looking for buyers of these businesses. Over the last decade a large industry consolidation has started within the European logistics service provider industry, triggered by companies such as ABX Logistics and Deutsche Post. Recent examples during the summer of 2004 are the take-over of the Swedish Wilson Logistics by the Dutch TPG and the take-over of Tibbett & Britten by Excel. The logistics challenges emerging from mergers and acquisitions stretch from a

profileration of customer service policies to multiple, overlapping distribution networks and infrastructure overcapacity.

Figure 8: Strategic repositioning of European logistics service providers



Source: based on Brewer (2001:38)

Consolidation and vertical integration strategies have created a logistics market consisting of a wide variety of service providers ranging from megacarriers to local niche operators. Not only the geographic coverage of the players differs (from global to local). Major differences can also be observed in the focus (generalist versus specialist), in the service offering (from single service to one-stop shop) and in asset-orientation (asset based versus non-asset based).

Although it is often asserted that at present no true global logistics service provider exists, one cannot deny that the top forwarding and transport groups have networks of offices and freight handling facilities that stretch around the world. Large logistics service providers recognised the need for pan-European logistics services and this resulted in the acquisition of numerous other companies to improve their European supply chain network. However, even in Europe there still is a lack of logistics service providers with pan-European coverage. Most companies have therefore outsourced their European warehousing and/or transport operations to multiple logistics service providers, but this seems to be changing as more pan-European operators emerge. In Europe, 80% of companies employed more than one 3PL in 1991 versus only 40% in 2002, thereby giving evidence of a trend towards one-stop shopping.

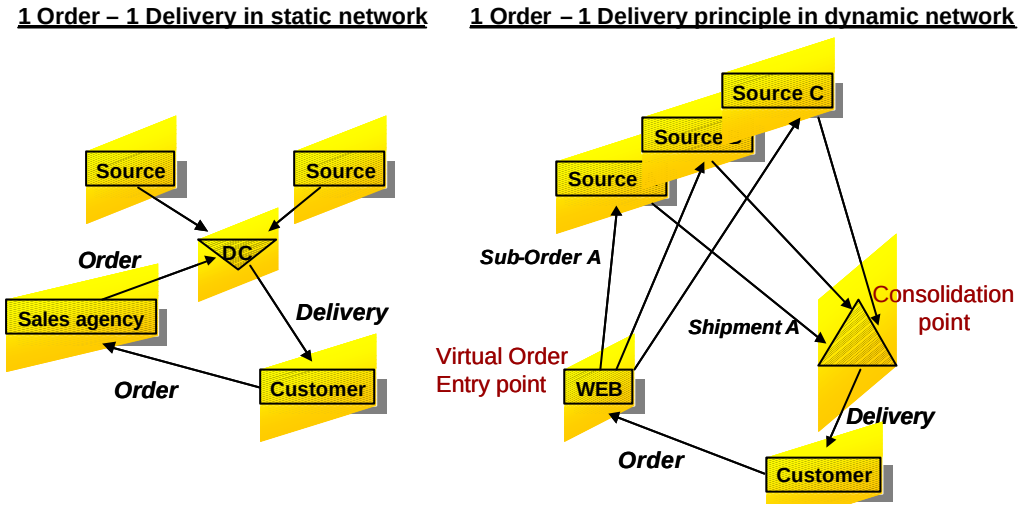
1.1.2.5 New approaches towards logistics networks

1.1.2.5.1 European distribution systems

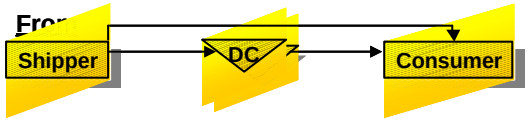
The logistics networks are being reconfigured. Two main developments concern the decoupling of order and delivery and the transition from chains to networks (see Figure 9). Distributions systems have to adapt to the new requirements.

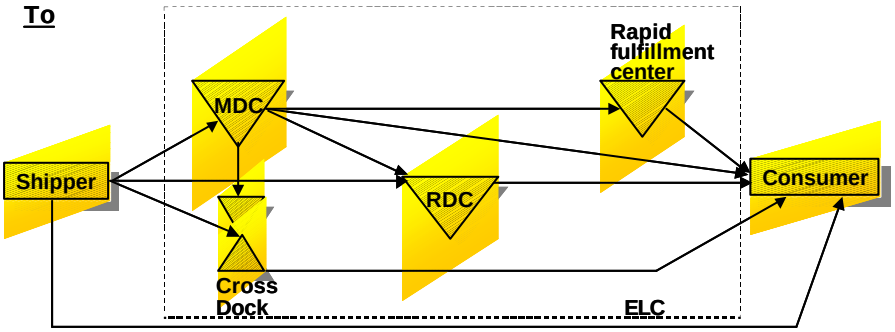
Figure 9: The reconfiguration of logistics networks

The de-coupling of order and delivery



Chains become networks





ELC = European logistics center

Note: DC = distribution center, MDC = Main DC, RDC = Regional DC
The principle of cross docking means that the products are almost immediately transferred from the discharge area to the load area (no temporary storage).

Source: Buck Consultants International

When it comes to European distribution of their overseas goods, a general distribution structure does not exist. Companies can opt for direct delivery without going through a distribution centre, distribution through an EDC, distribution through a group of

NDCs or RDCs or a tiered structure in which one EDC and several NDCs/RDCs are combined to form a European distribution network. The choice between the various distribution formulas depends on among other things the type of product (consumer goods, semi-finished products, foodstuffs, etc., see Table 9) and the frequency of deliveries. In the fresh food industry for example, worldwide or European distribution centres are unusual because the type of product (mostly perishables) dictates a local distribution structure. In the pharmaceuticals industry, European distribution centres are common but regional or local distribution centres are not present, because the pharmaceutical products are often manufactured in one central plant and delivery times are not very critical (hospitals often have own inventories). However, in the high tech spare parts industry, all of the distribution centre functions can be present because spare parts need to be delivered within a few hours and high tech spare parts are usually very expensive (which would require centralised distribution structures).

Table 9: The logistics structures for the distribution of import cargo

	Automotive	Electronics	Food	Health care	Textile
Present					
Direct (*)	+++	+	+	+	+
EDC	+	+	+	+	+++
NDC/RDC	+	++	+++	++	-
Tiered (**)	-	+	-	+	+
Future					
Direct (*)	++	+	+	+	+
EDC	++	+	+	++	++
NDC/RDC	-	+	+++	+	-
Tiered (**)	+	++	-	+	++

- = no application, + = limited application, ++ = broad application , +++ = dominant logistics concept

(*) Direct distribution from production-unit to final customer
(**) Distribution network consisting of a main distribution center and several RDCs

Source: Buck Consultants (1999)

Before the creation of the EU the distribution structure of most companies was based on a network of national distribution centers in the major countries in which they were present. Over the last 15 years many barriers for cross-border transactions between countries within the EU have decreased. As a result many companies consolidated their distribution operations into one central European Distribution Centre (EDC) covering all European Union countries.

The rise of EDCs meant longer distances to the final consumers and in some market segments local market demand has led companies to opt for RDCs. A certain degree of decentralisation of European distribution structures has taken place. At present, the tiered structure consisting of one EDC in combination with some smaller local warehouses, 'merge in transit' concepts or 'cross docking' facilities offers the best results for many companies in terms of high level of service, frequency of delivery and distribution cost control. Companies today often opt for a hybrid distribution structure of centralized and local distribution facilities. For instance, they use an EDC for medium- and slow-moving products and RDCs for fast-moving products. These

RDCs typically function as rapid fulfilment centers rather than holding inventories. The classical or multi-country distribution structures are being replaced by merge-in-transit, cross-docking, consolidarity or other fluid logistics structures (see bottom part of Figure 9).

The EU enlargement might further promote a two-tiered European distribution structure consisting of an EDC together with regional distribution centres in Northern Europe, UK/Ireland, Southern Europe, Eastern Europe and Italy/Greece. Favourite countries in Eastern Europe for locating such an RDC include Germany, the Czech Republic and Hungary. The new European Union covers a much larger geographic region making it more difficult to deliver all EU countries out of one EDC within two to three working days.

The above implies growth of investment in EDCs in North West Europe is expected to slow down. At present, the majority of EDCs is still opting for a location in the Benelux region or northern France. In the period 1997-2002, Ernst & Young identified 1,031 foreign investment projects in European Distribution Centres (EDC) in Europe[1]. France has been the most popular host country for distribution activities (216 projects, market share of 21%). Other important locations are the UK, Belgium, Germany and the Netherlands. According to recent studies the market share of the Netherlands in EDCs is the highest in Europe followed by Flanders, the United Kingdom and France (Sleuwaegen et al, 2001). Besides the dedicated transport services companies, companies in the automotive, food, retail, chemicals, electronics and pharmaceuticals industries are the main investors in distribution activities.

Supply chains across Europe are being redesigned to respond to varying customer and product service level requirements. The variables which affect site selection are numerous and quite diverse and can be of a quantitative or qualitative nature (cf. centrality, accessibility, size of the market, track record regarding reputation/experience, land and its attributes, labour (costs, quality, productivity), capital (investment climate, bank environment), government policy and planning (subsidies, taxes) and personal factors and amenities). Many companies fall back on intuition and rules of thumb in selecting an appropriate site. Logistics service providers have developed powerful tools to assist shippers in selecting an appropriate network configuration and in site selection. In several studies European regions have been ranked based on their intrinsic qualities in view of attracting EDCs, see e.g. Healey & Baker (2001, 2002) and IBM (2003). Based on these analyses Flanders, northern France and the Netherlands remain the top locations for EDCs, but more and more regions are vying for a position as attractive location for RDCs and potentially EDCs (Table 10).

[1] By definition a distribution centre (DC) is considered an EDC if more than five countries are serviced from the DC.

Table 10: Ranking of the attractiveness of European countries for the location of EDCs

Country	Occupancy costs	Land prices	Labour costs	Road density	Road congestion	Rail density	Air freight	Sea freight	Population density	Access to the EU core	Access to the east	Built new units >10,000 sq m	Land supply	RANKING
Austria	9	12	11	3	5	9	9	14	12	6	3	1	2	8
Belgium	3	11	13	1	3	2	8	4	2	1	10	4	5	1
Czech Rep.	5	3	2	8	11	1	16	14	6	7	2	3	3	5
Denmark	6	6	14	7	1	12	12	12	7	9	5	5	4	9
France	1	5	9	8	4	10	3	7	9	4	12	3	5	4
Germany	11	14	15	5	7	3	2	2	4	2	4	5	4	3
Hungary	8	4	3	4	13	5	15	14	11	10	6	5	3	11
Ireland	12	10	6	10	10	14	13	9	14	11	14	3	2	14
Italy	2	7	7	12	9	11	5	3	5	8	11	4	5	6
Netherlands	10	13	10	2	8	8	4	1	1	3	9	2	4	2
Poland	7	1	4	11	15	3	14	13	7	12	1	1	1	7
Portugal	4	9	5	13	6	13	11	10	9	15	16	1	3	13
Russia	14	1	1	16	16	4	7	11	16	16	7	3	3	13
Spain	15	15	6	14	14	16	6	6	13	14	15	1	2	16
Sweden	13	8	12	15	1	15	10	8	15	13	16	5	4	15
UK	16	16	8	6	12	7	1	5	3	5	13	4	5	11
	Costs 1 = lowest cost location			**Transport system** 1 = highest network density/low congestion 1 = largest freigh market					**Accessibility of markets** 1 = highest population density 1 = greatest accessibility			**Supply of property 1 = high supply 5 = no supply**		Ranking

Source: Cushman & Wakefield, Healey & Baker (2003)

The move of the logistics center of gravity eastwards following the EU enlargement (see earlier) is not expected to impact the location of EDCs in the blue banana as this zone still offers the best access to the EU's core markets and infrastructure. However, road congestion, increasing labour costs and scarcity of land may encourage companies to search for alternative distribution structures that might even degrade existing EDCs in the blue banana to RDCs. There is no shared understanding on the exact location of the future gateways to Central and Eastern Europe nor is there an overall best answer as to where locate DCs for Eastern Europe. Nevertheless some high potential candidates can be identified: northern Germany and Finland for northern access, Hungary and Austria for central access, northern Italy and the north Adriatic region for southern access and the Czech republic and Poland for eastern access.

1.1.2.5.2 Value-added logistics

Many products need to be made country or customer specific (labelling, kitting, adding manuals in local languages etc.) before they can be delivered to the customer. Historically these country or customer specific activities were mostly done in the factory, and this led to high inventory levels. Due to the increasing variety of products and shorter product life cycles, many companies have chosen to move their country and customer specific kitting or assembly operations as close to the customer as possible. This implied that the traditional storage and distribution functions of many EDCs are supplemented by semi-industrial activities such the 'customising' and 'localising' of products, adding components or manuals, product testing, quality control or even final assembly. In such ways, logistics service providers are taking over a large part of the added value creation within the product chain. These activities are referred to as value added logistics services (VAL) and they imply that the production and distribution parts of a supply chain become truly integrated into one. On top of low-end VAL activities that add little value to the goods (e.g. labelling,

insertion of manuals, etc..), logistics service providers are further upgrading the functional role of their logistics centres by developing high-end VAL activities. The latter might even include postponed manufacturing activities like systems assembly, testing, software installation, etc.

VAL comes into its own as the linchpin connecting the production chain and transport chain in areas where intercontinental inflows and outflows of goods can be linked to continental flows. Logistics platforms incorporate additional functions such as back-office activities, e.g. the management of goods and information flows, inventory management, tracking and tracing of goods and the fulfilment of customs and other formalities. While setting up their logistics platforms, logistics service providers favour locations that combine a central location (i.e. proximity to the consumers market) with an intermodal gateway function. Seaports and sites along hinterland corridors typically meet these requirements.

In the longer term, it is not unthinkable we would see a decrease in the number of value added logistics and postponed manufacturing operations in EDCs or RDCs in North West Europe because of two important trends. First, value added logistics and postponement operations are increasingly performed in low cost operations – East Europe or Asia. Second, value added logistics operations are increasingly performed in decentralised production centres and these products are shipped to the final customer by means of global logistics integrators (UPS, Fedex, TNT), e.g. the Dell-production system. Consequently the strong development of VAL in Europe in the last decade does not imply that the trend will continue.

1.1.2.5.3 Freight villages and inland ports

In the last fifteen years, the dynamics in logistics networks have created the right conditions for a large-scale development of freight villages and inland ports throughout Europe. The range of functions of inland logistics centres is wide ranging from simple cargo consolidation to advanced logistics services. Many inland locations with multimodal access have become broader logistics zones. They not only have assumed a significant number of traditional cargo handling functions and services, but also have attracted many related services, a.o. distribution centres, shipping agents, trucking companies, forwarders, container-repair facilities and packing firms. The concept of logistics zones in the hinterland is now well-advanced in Europe: e.g. 'platformes logistiques' in France, the Güterverkehrszentren (GVZ) in Germany, Interporti in Italy, Freight Villages in the UK and the Zonas de Actividades Logisticas (ZAL) in Spain. Logistics zones are usually created within the framework of regional development policies as joint initiatives by firms, intermodal operators, regional and local authorities, the central government and or the Chambers of Commerce and Industry.

Quite a few of these logistics zones are competing with seaports for what the location of European distribution facilities and VAL are concerned. Shortage of industrial premises, the high land prices, congestion problems, the inland location of the European markets and severe environmental restrictions are some of the well-known arguments for companies not to locate in a seaport.

In the future the further integration of intermodal transport and supply chain management will undoubtedly lead to new value-added services in inland locations.

This will enhance the provision of logistics services at key transfer points and the organisation of distribution patterns around such nodes. The availability of fast, efficient and reliable intermodal connections is one of the most important prerequisites for the further logistical development of inland terminals.

1.1.2.5.4 Container transport networks in rail and barge

In Europe, rail logistics are highly complex. A geographically, politically and economically fragmented Europe until recently prevented the realisation of greater intermodal scale and scope economies. In recent years following rail liberalisation, initiatives have emerged that should lead to real pan-European rail services on a one-stop shop basis. For instance, the Eurogate group has developed the Hannibal-project, a north-south rail corridor that connects the intermodal services of subsidiary Sogemar in Italy to the shuttle network of boxexpress.de in Germany.

The backbone of rail services in Europe is formed by direct shuttle trains that offer uninterrupted services between a port and one point of destination at a fixed time schedule and a fixed composition of wagons. These shuttle trains can only be exploited in a profitable way on a number of high-density traffic corridors such as the Rhine axis and the trans-Alpine route. Some carriers and rail operators have bundled container flows in centrally located nodes in the hinterland. For example, Qualitynet of Intercontainer-Interfrigo (ICF) uses Metz-Sablon in the north-east of France as hub linking up the Rhine-Scheldt delta ports with the rest of Western-Europe[2]. The hub-based networks have complemented the existing blend of direct shuttles, inter-port shuttles and block trains. Smaller container ports tend to seek connection to the extensive hinterland networks of the large ports by installing shuttle services either to rail platforms in the big container ports or to rail hubs in the hinterland.

Barge container transport in Europe has its origins in transport between Antwerp, Rotterdam and the Rhine basin, and in the last decade it has also developed greatly along the north-south axis between the Benelux and northern France. Volumes on the Rhine have increased from 200,000 TEU in 1985 to some 1.5 million TEU in 2002 leading to higher frequencies and bigger vessels. In order to raise the level of service and prevent destructive competition, the existing barge carriers started to operate joint liner services on the different navigation areas of the Rhine (lower Rhine, middle Rhine and upper Rhine), through operational collaboration agreements (e.g. “Fahrgemeinschaft Oberrhein” on the upper Rhine). These agreements still exist today, although some barge operators such as CCS started services independently from the consortium members.

At present the barge services offered on the Rhine typically call at 3 to 8 terminals per navigation area. The inland vessels used on the Rhine have capacities ranging from 90 to 208 TEU, although some bigger units and push convoys can be spotted occasionally. Although at present there still are no genuine hub-and-spoke structures for barge container transport on the Rhine, the market is tending towards large inland waterway hubs from where the containers can be further distributed by feeder barges, rail and/or road transport.

[2] Shuttle trains from the mainports carrying containers for many destinations arrive in Metz-Sablon on a regular basis. The wagon groups are exchanged between trains at Metz and are combined to form new single-destination shuttle trains heading for the distant hinterland of the Rhine-Scheldt delta ports.

The growing realisation of the potential offered by barge container shipping has led to a wave of investment in new terminals over the past few years, in northern France, the Netherlands and Belgium. The Benelux and northern France now have more than 35 container terminals, about as many as in the Rhine basin. In 1991 there was still no terminal network on the north-south axis (only two terminals). A lot of these new barge terminals are located close to the load centre ports. This evolution proves that container transport by barge can be both cost-effective and competitive on relatively short distances, given sufficient container volumes between the transhipment points. The next step is to establish a network of liner services connecting the various terminals outside the Rhine basin. Also other rivers are now seeing the development of container services by barge (cf. the Marseille-Lyon axis, the Seine and the Elbe river).

1.1.2.6 Logistics integration in the container industry: the case of shipping lines

1.1.2.6.1 Instability in liner shipping

Over the last decade container carriers have significantly under performed financially compared to other industries. The weaker performance can be related to the combination of the capital-intensive operation and the high risks associated with the revenues. Shipping remains a very capital-intensive industry where some assets are owned and other are leased and there exists a wide variability in cost bases.

Economic forces tend to push freight rates down. Economies of scale lead to surplus space onboard of the vessels that lines are eager to fill. Existing slot overcapacity in some trades made freight rates tumble down, neutralizing the achieved cost reductions. A lot of carriers ended up with smaller margins and lower return on investment. Lines vie for market share and capacity tends to be added as additional loops, that is in large chunks.

Lines operate regular, reliable and frequent services and incur high fixed costs. Once the large and expensive networks are set up, the pressure is on to fill them with freight. In an environment of overcapacity, high fixed costs and product perishability, lines will chase short run contribution filling containers at a marginal cost only approach, often leading to direct operational losses on the trades considered.

Rate erosion would not be that bad if changes in freight prices had a major impact on demand. Unfortunately, for most shipments freight revenue only accounts for a very small portion of the shipment's total value, but as carriers cannot influence the size of the final market, they will try to increase their short run market share by reducing prices. As such, shipping lines may reduce freight rates without substantially affecting the underlying demand for container freight. Lines have come to accept that they have to take whatever price is offered in the market. This acceptance has, in turn, led to intense concentration on costs.

1.1.2.6.2 Scale increases in vessel size

Throughout the 1990s a great deal of attention was devoted to larger, more fuel-economic vessels and this indeed produced substantial reductions in cost per TEU of capacity provided (Table 11). Larger ships typically have a lower cost per TEU-mile than smaller units with the same load factor[3].

Table 11: Scale increases in vessel size: evolution of the world cellular fleet 1991-2006

	Jan 1991	Shares	Jan 1996	Shares	Jan 2001	Shares	Jan 2006	Shares
>5000 TEU	0	0.0%	30648	1.0%	621855	12.7%	2355033	30.0%
4000/4999 TEU	140032	7.5%	428429	14.4%	766048	15.6%	1339978	17.1%
3000/3999 TEU	325906	17.6%	612377	20.6%	814713	16.6%	892463	11.4%
2000/2999 TEU	538766	29.0%	673074	22.6%	1006006	20.5%	1391216	17.7%
1500/1999 TEU	238495	12.8%	367853	12.3%	604713	12.3%	719631	9.2%
1000/1499 TEU	329578	17.7%	480270	16.1%	567952	11.6%	596047	7.6%
500/999 TEU	191733	10.3%	269339	9.0%	393744	8.0%	438249	5.6%
100/499 TEU	92417	5.0%	117187	3.9%	132472	2.7%	114976	1.5%
TOTAL	1856927	100.0%	2979177	100.0%	4907503	100.0%	7847593	100.0%

Note: Projection at January 2006 as compiled with existing fleet and order book as at 15 June 2003

Source: BRS Alphaliner Fleet Report, September 2003

Given that there seem to be no technical reasons preventing containerships from getting larger, it will be economic and operational considerations that will act as the ultimate barrier on post-panamax vessel sizes and designs of the future. Although some shipping lines are now looking into the possibility of deploying vessels of more than 9,000 TEU, it is expected that this vessel size will not become the general rule in the next 10 years. There are strong indications that the range of 5,500 to 6,500 TEU will reveal to be the most competitive vessel size for the time being as these ships offer more flexibility in terms of the number of potential ports of call and consequently the direct access to specific regional markets.

The ultra-large container ships can be deployed efficiently on the major trade lanes, provided they are full. However, many carriers have not been able to realize a continuous high utilization of available slot capacity on their bigger vessels. Unpredictable business cycles on the major trade lanes result in unstable cargo guarantees to shipping lines (even if service contracts are quite common).

[3] Samsung demonstrated that a vessel of 12000 TEU on the Europe – Far East route would generate a 11 per cent cost saving per container slot compared to a 8000 TEU vessel and even 23 per cent compared to a 4000 TEU unit. Similar calculations made by Drewry for the trans-Pacific route point to potential cost differences of around 50 per cent between a panamax unit of 4000 TEU and a mega post-panamax unit of 10000 TEU (Drewry, 2001). Cullinane et al (1999) have demonstrated that economies of scale for the trans-Pacific and Europe – Far East routes are enjoyed at ship sizes beyond 8000 TEU, even if one considers different scenarios as regards port productivity. The optimal size for the trans-Atlantic liner route would range between 5000 and 6000 TEU.

1.1.2.6.3 Co-operation, mergers and acquisitions

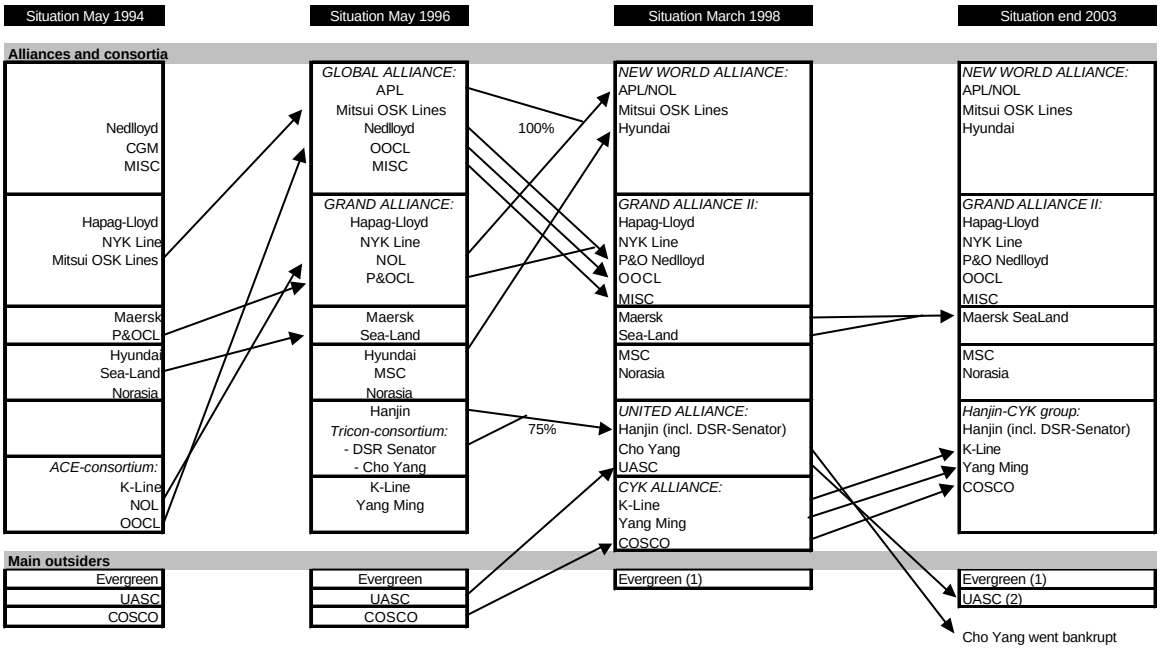
Horizontal integration in liner shipping comes in three forms: trade agreements such as liner conferences, operating agreements (that is vessel sharing agreements, slot chartering agreements, consortia and strategic alliances) and mergers and acquisitions. The top 20 carriers controlled 26 per cent of the world slot capacity in 1980, 41.6 per cent in 1992 and about 58 per cent on 2003 (see also Table 12). More important than which carriers are in the top 20 is the fact that only few container carriers outside the top 20 operate post-panamax vessels and that most of the top 20 carriers are involved in multi-trade strategic alliances.

Table 12: Slot capacity operated by the top twenty carriers

	January 1980		September 1995		January 2000		April 2003	
	Carrier	Slot cap.	Carrier	Slot cap.	Carrier	Slot cap.	Carrier	Slot cap.
1	Sea-Land	70000	Sea-Land	196708	Maersk - SeaLand	620324	Maersk - SeaLand	845614
2	Hapag-Lloyd	41000	Maersk	186040	Evergreen	317292	MSC	470006
3	OCL	31400	Evergreen	181982	P&O Nedlloyd	280794	Evergreen group	427749
4	Maersk	25600	COSCO	169795	Hanjin/DSR Senator	244636	P&O Nedlloyd	410990
5	NYK Line	24000	NYK Line	137018	MSC	224620	Hanjin/DSR Senator	288957
6	Evergreen	23600	Nedlloyd	119599	NOL/APL	207992	NOL/APL	250018
7	OOCL	22800	Mitsui OSK Lines	118208	COSCO	198841	COSCO	243162
8	Zim	21100	P&OCL	98893	NYK Line	166206	CMA/CGM	237115
9	US Line	20900	Hanjin Shipping	92332	CP Ships / Americana	141419	NYK Line	220600
10	APL	20000	MSC	88955	Zim	136075	CP Ships group	196938
11	Mitsui OSK Lines	19800	APL	81547	Mitsui OSK Lines	132618	K-Line	186805
12	Farrell Lines	16400	Zim	79738	CMA/CGM	122848	Mitsui OSK Lines	166635
13	NOL	14800	K-Line	75528	K-Line	112884	Zim	166611
14	Trans Freight Line	13900	DSR-Senator	75497	Hapag-Lloyd	102769	China Shipping	166213
15	CGM	12700	Hapag-Lloyd	71688	Hyundai	102314	OOCL	156173
16	Yang Ming	12700	NOL	63469	OOCL	101044	Hapag Lloyd	152937
17	Nedlloyd	11700	Yang Ming	60034	Yang Ming	93348	Yang Ming	136236
18	Columbas Line	11200	Hyundai	59195	China Shipping	86335	Hyundai	125474
19	Safmarine	11100	OOCL	55811	UASC	74989	CSAV	114189
20	Ben Line	10300	CMA	46026	Wan Hai	70755	Hamburg-Sud	111955
Slot capacity top 20		*435000*		*2058063*		*3538103*		*5074377*
C4-index		*38.6%*		*35.7%*		*41.4%*		*42.5%*
Share top 5 in top 20		*44.1%*		*42.3%*		*47.7%*		*48.2%*
Share top 10 in top 20		*69.1%*		*67.5%*		*71.7%*		*70.8%*

Source: compiled from BRS Alphaliner and Containerisation International.

Figure 10: M&A and strategic alliances on the trade Europe – Far East



Source: ITMMA-University of Antwerp

Note: the main mergers and acquisitions are shown on this figure by the joining arrows

Figure 10 underlines the dynamics in strategic alliance formation and in mergers and acquisitions in liner shipping (P&O Nedlloyd in 1997, Maersk SeaLand in 1999). The long list of acquisitions of CP Ships (that is Lykes Lines, TMM, etc.) is not included. The economic rationality for mergers and acquisitions is rooted in the objective to size, growth, economies of scale, market share and market power. Other motives for mergers and acquisitions in liner shipping relate to gaining instant access to markets and distribution networks, obtaining access to new technologies or diversifying. Alliances provide its members easy access to more loops or services with relative low cost implications and allow them to share terminals, to co-operate in many areas at sea and ashore, thereby achieving costs savings in the end.

1.1.2.6.4 Landside logistics as a revenue base

In a shipping industry already dominated by large vessels, mergers/acquisitions and strategic alliances the potential cost savings at sea still left are getting smaller and the pressure to find cost savings elsewhere is growing. Inland logistics is one of the most vital areas still left to cut costs. In a typical intermodal transport, inland transport now accounts for a much larger component of the cost than running the vessel. The portion of inland costs in the total costs of container shipping would range from 40% to 80%. For instance, Hastings (1997) reports that the inland costs for CP Ships account for 42 per cent of its overall costs or even 50% if the repositioning of empty containers is included. For P&O Nedlloyd inland transportation would account for 70% of total cost.

The shift of balance from vessel costs to landside costs is enhanced by transport price evolutions. Overcapacity keeps a limit on ocean pricing, while inland pricing is much more cost-driven. As such, cost increases in inland moves tend to pass through to price

levels more easily compared to ocean moves, thereby increasing the absolute difference between both items. In general the price difference per TEU-km between inland transport and long-haul liner shipping ranges from a factor 5 to a factor 30, further supporting the case tackling inland costs.

Carriers that have traditionally been concerned only with the transportation of goods from one point to another are now seeking logistics businesses in the area of just-in-time inventory practices, supply chain integration and logistics information system management. With only a few exceptions, however, the management of pure logistics services is done by subsidiaries that share the same mother company as the shipping line but operate independently of liner shipping operations, and as such also ship cargo on competitor lines (Heaver, 2002).

Some shipping lines such as Maersk Sealand have gone rather far in door-to-door services and integrated logistic packages (that is Maersk Logistics), managing the container terminal operation (that is APM Terminals with a network of dedicated terminals that has been opened to third users as well) and inland transport (for example European Rail Shuttle in joint venture with P&O Nedlloyd[4]) and bypassing the freight forwarder by developing direct relationships with the shipper. Other shipping lines stick to the shipping business and try to enhance network integration through structural or ad hoc co-ordination with independent inland transport operators and logistics service providers. A last group of shipping lines combines a strategy of selective investments in key supporting activities (for example agency services or distribution centres) with sub-contracting of less critical services. Shipping lines generally do not own inland transport equipment. Instead they tempt to use trustworthy independent inland operators' services on a (long-term) contract base.

Carriers are using IT solutions to face the challenges in inland logistics and to manage global container flows taking into account the effects of global trade imbalances. Moreover, they have learned to lessen equipment surpluses/deficits through container cabotage, inter-line equipment interchanges, chassis pools and master leases[5]. Equipment interchange agreements are often, but not always, maintained among some liner conference members and some members of the same strategic alliance (for example New World Alliance). So-called 'grey box' agreements are quite rare: the concept has not proven workable partly because many carriers attach too much attention to company branding via the equipment used.

The formation of global alliances has taken inter-carrier co-operation to new heights, with members sharing inland logistics information, techniques and resources as well as negotiating collectively with suppliers (terminals, rail operators, feeders, barge operators, etc.). By extending to the landside, alliances clearly differ from older forms of operating agreements.

[4] ERS operates shuttle trains mainly out of the port of Rotterdam to inland destinations in the Benelux, Germany, Poland, Italy, Belgium, the Czech republic, Hungary and Slovakia. Started at 3 shuttles a week in 1994 ERS now offers 200+ shuttles a week.

[5] Container cabotage makes it possible to considerably cut the costs related to the repositioning of empty containers: carriers will build up relationships with inland transport operators which move their equipment to where it is needed free of charge. In return the inland operator gets free one-way use of the box. Master leases allow carriers to pick up/drop off equipment at will, placing the repositioning problem to the leasing company. The pick up/drop off charges reflect imbalances.

Shipping lines and alliances seek to increase the percentage of carrier haulage on the European continent. The share of carrier haulage presently is about 30 per cent on an average, but large differences can be observed among routes and regions (MDS Transmodal, 1998). A few carriers have succeeded in attaining a high level of carrier haulage. For instance, P&O Nedlloyd had a carrier haulage percentage in Europe of 49% in 2002 compared to 45.4 per cent in 1999. Some other carriers with less experience or interest in European inland transport control less then 10% of inland container movements.

Liner conferences such as TACA (Trans-Atlantic Conference Agreement) have tried to install shared fixing of intermodal inland rates. The European Commission opposed to such practices and decided that the broad block exemption from the usual ban on restrictive agreements given to traditional maritime liner conferences (Council Regulation no. 4056/86) cannot be broadened to include inland operations.

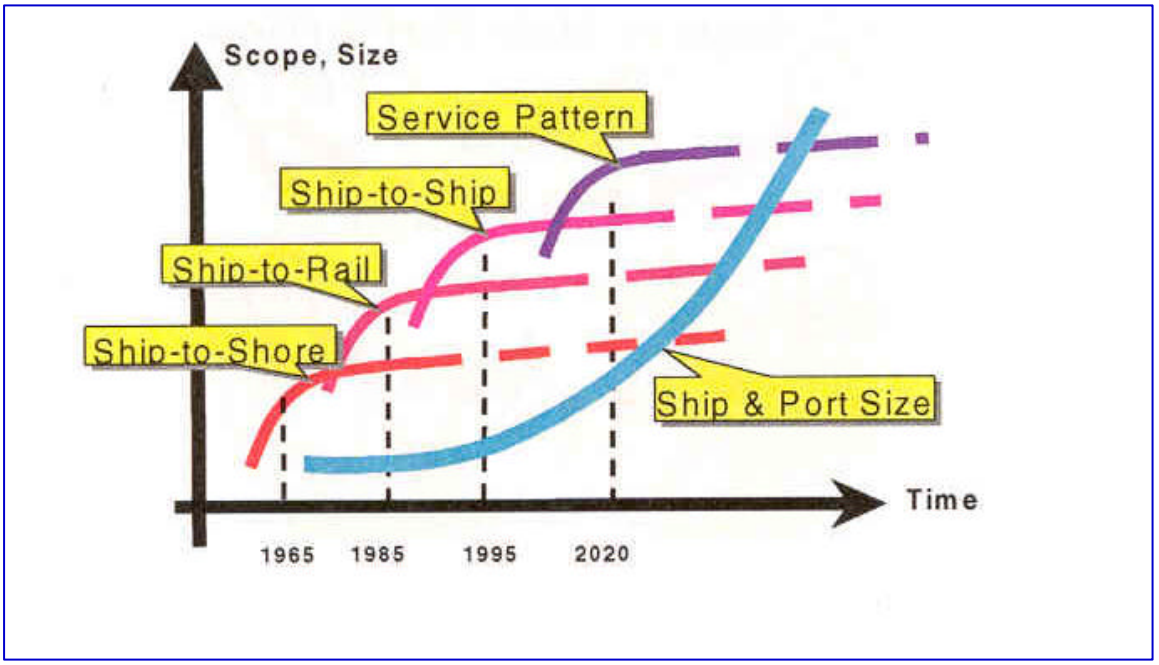
Inland and container logistics thus constitute an important field of action to shipping lines. Lines that are successful in achieving cost gains from smarter management of inland and container logistics can secure an important cost savings advantage.

1.1.2.6.5 Changes in liner service network design

Container revolutions

The evolution in liner shipping is not just a question of growth in dimensions. The growth in size goes ahead with a whole series of operational and organisational changes, which are changing substantially the world of ports and harbours. The container evolution is as subsequent revolutions inducing growth in the ship/port duo (see Figure 11): (1) The invention of the marine container resulted into improving the ship to shore handling, (2) Afterwards an intermodal revolution took place, which extended the land penetration of maritime containers (e.g. in the USA by creating land bridges), (3) Next came the transhipment revolution through which shortages in port infrastructure were overcome, and a hierarchical system of hub & feeder ports came into existence, (4) Today we notice a revolution in service pattern, enforcing the parallel evolution in ship and port size and further inducing institutional/organizational changes in the structure of the maritime industry.

Figure 11: Revolutions in containerization



Source: Ashar (2002)

Limits to the hub-and-spoke principle

In the last two decades increased cargo availability has made carriers and alliances to reshape their liner shipping networks through the introduction of new types of end-to-end services and pendulum services, especially on the main east-west trade lanes. Pendulum services rely on hub ports that act as turntables between liner services of two different trades and that are served by post-panamax vessels. This kind of liner service design has become popular on high-volume international trade routes such as the trade Europe-Far East- US West coast. As a result the last decade has seen the emergence of a new breed of load centres along the east-west shipping lanes.

Some suggest that the most efficient east/west pattern is the equatorial round-the-world, following the beltway of the world (cf. Ashar, 2002 and De Monie, 1997). This service pattern focuses on a hub and spokes system of ports that allows shipping lines to provide a global grid of east/west, north/south and regional services. The large ships on the east/west routes will call mainly at transhipment hubs where containers will be shifted to multi-layered feeder subsystems serving north/south, diagonal and regional routes.

Liner service network design tends to move from a pure cost-driven exercise to a more customer-oriented differentiation exercise, as the optimal network design is not only a function of carrier-specific operational factors, but more and more of shippers' needs (for transit time and other service elements) and of shippers' willingness to pay for a better service. The reality of deepsea operations is that even the largest ships operate on multi-port itineraries. Alliances and consolidation have created multi-string networks on the major trade routes and both shippers and liners are used to it. As liner service network design has become a more customer-oriented differentiation exercise, this could very well introduce a tendency towards less transhipment and more direct port of calls (even for the bigger vessels).

Global coverage

Notwithstanding existing similarities in liner service design, large differences can be observed among container carriers when it comes to the global coverage of liner services. Most alliances deploy almost 90 per cent of their weekly slot capacity within the triad East Asia, North America and Europe. They have hardly any presence on the secondary routes.

Table 13: The participation of shipping lines in strategic alliances (early 2003)

1.1.2.6.5.1.1.1 Alliance	**Number of ships in the alliance**	**Total fleet (number)**	**%**	**Slot capacity in the alliance (TEU)**	**Total slot capacity**	**%**
Grand Alliance						
P&O Nedlloyd	39	146	26.7	182 550	386 901	47.2
OOCL	24	50	48.0	119 391	156 016	76.5
Hapag Lloyd	24	38	63.2	115 449	141 717	81.5
NYK	24	67	35.8	96 436	167 001	57.7
MISC	4	32	12.5	16 622	49 808	33.4
Cosco/K-Line/Yangming Alliance						
Cosco	38	104	36.5	154 892	219 324	70.6
K-Line	31	58	53.4	135 205	174 945	77.3
Yangming	16	40	40.0	72 867	119 695	60.9
New World Alliance						
APL	39	76	51.3	177 100	240 237	73.7
Hyundai	18	31	58.1	99 158	121 890	81.4
Mitsui OSK Lines	16	48	33.3	77 410	130 090	59.5
United Alliance						
Hanjin	32	52	61.5	139 205	201 005	69.3
Senator	28	32	87.5	97 566	104 895	93.0

Source: on the basis of Containerisation International and carrier information

Notwithstanding the customers' push for global services, a large number of individual carriers typically remain regionally based, offering the bulk of their services on a limited number of trade routes. Asian carriers such as APL, Hanjin, NYK, China Shipping and HMM typically focus on intra-Asian trade, transpacific trade and the Europe – Far East route, partly because of their huge dependence on export flows generated by their Asian home bases. MOL and Evergreen are among the few exceptions frequenting secondary routes such as Africa and South-America. Many of these carriers have allocated 70 to 80 per cent of their slot capacity to a strategic alliance (Table 13).

Maersk Sealand, MSC, CMA-CGM and P&O Nedlloyd are among the truly global liner operators, with a strong presence also in secondary routes. Especially Maersk Sealand has created a balanced global coverage of liner services. The networks of CMA-CGM and MSC differ from the general scheme of traffic circulation through a network of specific hubs (many of these hubs are not among the world's biggest container ports) and a more selective serving of secondary markets such as Africa (strong presence by MSC), the Caribbean and the East Mediterranean.

The above reveals the profound differences in service design among shipping lines. Some carriers have clearly opted for a true global coverage, others are somewhat stuck in a triad-based service network forcing them to develop a strong focus on cost bases.

1.1.2.7 Logistics integration in the container industry: the case of container port operators

1.1.2.7.1 Challenges faced by container port operators

The terminal and stevedoring industry is confronted with bigger and fewer shipping lines demanding more for less. On top of this, terminal operators face competition from new entrants, in particular from container carriers, railway companies, logistics companies and investment groups. In Europe for instance, shipping lines have recently entered the market via the development of dedicated terminals at major load centres Table 14). Dedicated terminals are even more widespread in Asia and North America[6].

Table 14: Some examples of shipping lines' direct interest in European terminals

Shipping line	Terminals	Status
Maersk Sealand (APM Terminals)	APM Terminals Rotterdam (100%) North Sea Terminal Bremerhaven (50%) Medcenter - Gioia Tauro (10%) Muelle Juan Carlos I - Algeciras (100%) Aarhus (100%) APM Contstanza Terminal (100%)	In operation since 2000 In operation In operation In operation In operation In operation
MSC	Dedicated terminal Antwerp (joint venture with HesseNoordNatie) Le Havre (joint-venture with Terminaux De Normandie)	Operational since 2003 Upgrading in 2004-2005 Under development
Hapag-Lloyd	Altenwerder Terminal – Hamburg (minority stake of 25.1%)	In operation since 2002
CP Ships	Traffic concentration at P&O Ports' terminal in Antwerp's Deurganck dock (west side)	Under construction

1.1.2.7.2 The emergence of international terminal networks

In a response to the concentration trend that is unfolding in container shipping, a number of terminal operators have opted for scale increases. This trend is facilitated by the privatisation of port activities. The move towards transparent and open concession procedures results in local terminal operators no longer relying on shelter-based strategies for their survival. At the same time it facilitated the local market entry of global players with deep pockets and specific know how.

These global investors base their investment strategy on exhaustive analyses of profitability and of operational efficiency. The ability to take firm control is also a key issue. Sometimes operators opt for a joint venture with local partners in order to set up successful operations within the confines of the local commercial, economic and governmental environment. Other criteria include a high level of indigenous cargo and a stable political and economic outlook.

[6] Drewry Shipping Consultants (2003) collected throughput figures for terminals in which carriers have a non-minority shareholding: Evergreen handled 5.7 million TEU worldwide on its terminals in 2002, Cosco 4.7 million TEU, Hanjin 4.7, APL 4.3, NYK Line 3.5 (including 1.3 million TEU at its subsidiary Ceres Terminals), OOCL 3, NOL 2.5, K-Line 2.2, MSC 2.2, Yang Ming 1.3 and Hyundai 1.1 million TEU. Container shipping lines approach terminal management in a different way: they seek control over berths while other 'pure' terminal operating companies manage multi-user facilities. Many of these liner terminals offer stevedoring services to third carriers as well thereby creating some hybrid form in between pure dedicated facilities and independently operated multi-user facilities.

P&O Ports is set to join Hutchison, PSA and APM Terminals at the head of the global port operator league table. These companies have established a truly global presence, collectively operating in over 90 ports throughout 37 different countries.

In developing a global expansion strategy, HPH, PSA Corp, APM Terminals and P&O Ports try to keep a competitive edge by building barriers to prevent competitors entering their domains or against them succeeding if they do. These barriers are partly based on the building of strongholds in selected ports around the world and on advanced know how on the construction and management of container terminals. The scale of operations has created deep pockets or substantial surplus resources that allow them to withstand an intensive competitive war and that enable them to financially outperform rival companies in case of bidding procedures for new terminal operations. The deep pockets are used to move resources wherever they are necessary either to preserve their own interests or tackle competition. In the current market situation, the global players seem to be best placed to meet the high capital requirements to cover initial investments in a terminal of a reasonable scale.

For example, PSA Corporation first built a stronghold at its home base Singapore before taking the step towards global scale and coverage. The critical mass and its focused strategy at Singapore enabled PSA Corp. to develop exceptional competencies in terminal handling. Once the company established itself as an international benchmark, the company's ambitions went global through a mixed strategy of organic growth (new terminals) and acquisitions (for example HesseNoordNatie in 2002) backed up by a sound financial status. This development was accelerated by increased competition at its Singapore terminals, not at the least from newcomer Tanjung Pelepas - Malaysia, and with it less opportunities for internal growth.

Smaller terminal operators have not been successful in neutralising the power of these giants. Many of them avoid direct competition by concentrating on market niches, for example on the shortsea market. Over the course of the next five years the gap between the four largest companies and the remaining global operators (many of which are carrier-based operators) is therefore set to widen further. By 2008, the top four operators will control over one third of total world container port capacity (Drewry Shipping Consultants, 2003). This figure is set to continue increasing if the current level of acquisition activity continues.

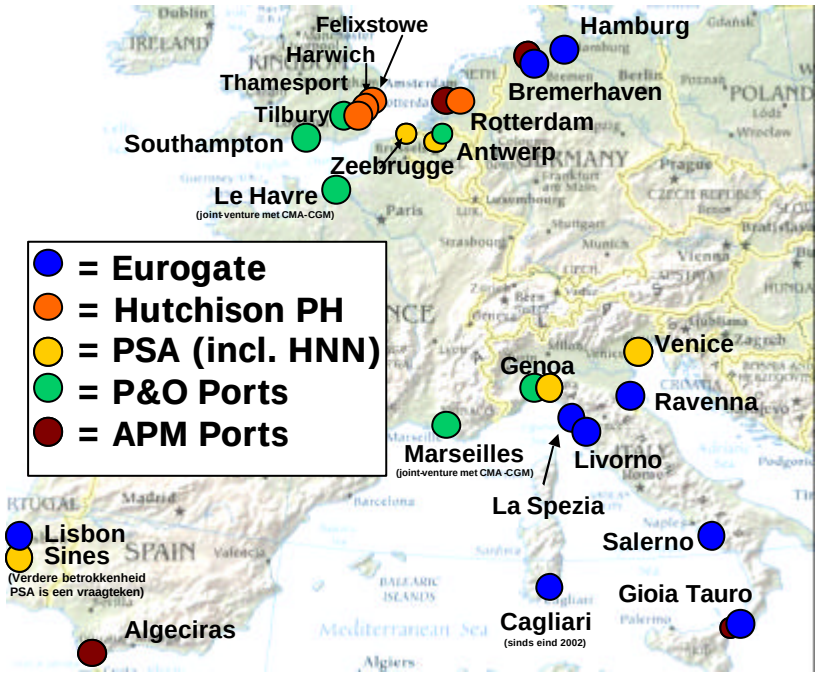
Table 15: Global terminal operators' presence in the European container port system

	Worldwide throughput 2002	European throughput 2002	European throughput 1998	*Annual growth Europe 98-02*
Hutchison Port Holding (HPH) - China	36.70	6.90	7.75	*-2.7%*
Felixstowe (UK), Thamesport (UK), Harwich (UK), ECT-Rotterdam (the Netherlands)				
PSA Corp - Singapore	26.20	5.44	0.60	*201.7%*
Voltri-Genoa (Italy), Sines (Portugal), VECON-Venice (Italy), HesseNoordNatie-Antwerp/Zeebrugge (Belgium)				
APM Terminals - Denmark	17.20	3.24	1.00	*56.0%*
Bremerhaven (Germany), Rotterdam (the Netherlands), Algeciras (Spain), *Gioia Tauro (Italy, 10% stake)*				
P&O Ports - UK	12.80	2.76	1.25	*30.2%*
Antwerp (Belgium), Marseille/Le Havre (France, joint-venture CMA-CGM), Southampton (UK), Tilbury (UK)				
Eurogate - Germany	9.59	9.59	5.73	*16.8%*
Eurokai-Hamburg (Germany), BLG-Bremen (Germany), La Spezia (Italy), CICT-Cagliari (Italy) Medcenter-Gioia Tauro (Italy), Liscont-Lisbon (Portugal), Livorno (Italy), Salerno (Italy)				
HHLA - Germany	4.00	4.00	2.35	*17.6%*
Hamburg (Germany)				
Total of six major European container terminals operating companies	106.49	31.93	18.68	*17.7%*
Grand total	275.00	46.50	35.06	*8.2%*
Share 6 operators in grand total	38.7%	68.7%	53.3%	

Note: figures include all terminals in which non-minority shareholdings were held.

Source: based on terminal operator data and Drewry Shipping Consultants (2003)

Figure 12: The presence of the main global container terminal operators in Europe



In Europe, the top six leading operators handled nearly 70% of the total European container throughput in 2002 compared to 53% in 1998, illustrating the mature and consolidated nature of this market (Table 15). These figures are expected to rise as consolidation still continues and as the big players plan new massive terminals: PSA in Flushing, Antwerp and Sines, P&O Ports along the Thames (London Gateway

project), Eurogate in Wilhelmshaven and HPH at Bathside Bay. The extensive terminal networks are considered as an effective means to counterbalance the power of carrier combinations in liner shipping, to realise economies of scale and to optimise the terminal function within logistics networks.

1.1.2.7.3 Integration along the supply chain

Terminal operators are well aware of the fact that the transport chain is viewed as a totally integrated system. The leading terminal operating companies have developed diverging strategies towards the control of larger parts of the supply chain. The door-to-door philosophy has transformed a number of terminal operators into logistics organisations. The services offered include warehousing, distribution and low-end value-added logistical services (for example customising products for the local markets). The recent focus of Hutchison on inland logistics in China is an example.

Especially German terminal operators are directly involved in intermodal rail transport. Some terminal operators have set up road haulage companies or operate own feeder services. Finally, many terminal operators have integrated inland terminals in their logistics networks (Table 16). These inland terminals in many cases serve as extended gates for deepsea terminals.

Table 16: The involvement of terminal operators in north European inland terminals

ECT of Rotterdam operates a rail terminal in Venlo (since 1982) and trimodal terminals in Willebroek (TCT Belgium – since 1999) and Duisburg (also since 1999, (*)). ECT plans to build a barge terminal in Venlo (Venlo Barge Terminal). ECT, Rotterdam Municipal Port Management and the forwarding company Eurotrafo have a joint share of 53 per cent in a network of rail terminals in the Czech Republic and Slovakia operated by CSKD-Intrans.
Seaport Terminals/Katoen Natie has invested in an inland terminal network in the Benelux (for example in Wielsbeke and Terneuzen).
The combination P&O Ports/Logport has developed a logistics zone and trimodal terminal on the site of Hafen Rheinhausen in Duisburg.
Gerd Buss of Hamburg is an indirect shareholder of DCH (Düsseldorfer Container-Hafen).
Unikai Hafenbetrieb, a subsidiary of HHLA (Hamburger Hafen- und Lagerhaus) recently sold its river container terminals in Wörth (Middle Rhine) and Ottmarsheim (Upper Rhine) to Rhenus.
CSX World Terminals is partner in the Rhine terminal CTG – Germersheim.

Note: (*) The ECT terminal in Duisburg merged in 2001 with the neighbouring DeCeTe terminal. ECT has a stake of 27 per cent in the new terminal company that operates under the name DeCeTe.

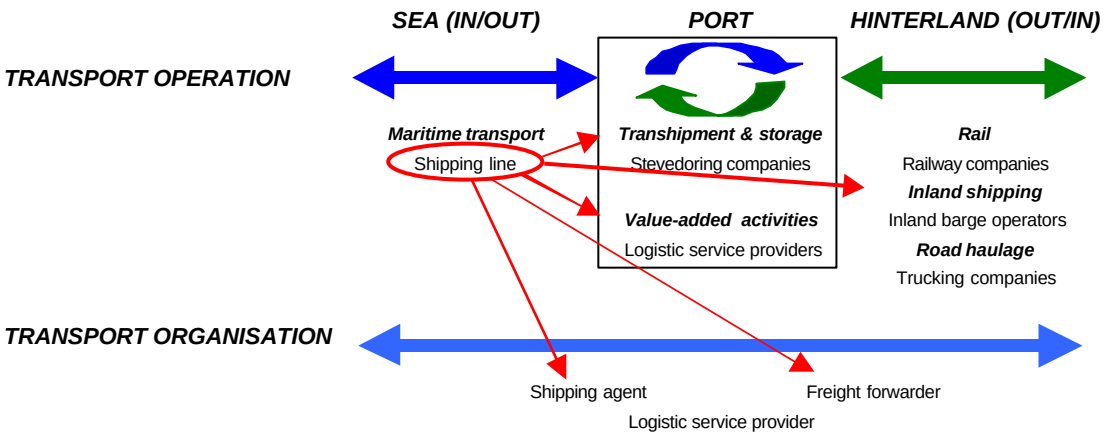
Source: Notteboom (2002)

Not every terminal operator is integrating by acquiring or setting-up separate companies or business units. In many cases, an effective network integration is realised through better co-ordination with third-party transport operators or logistics service providers.

1.1.2.7.4 Conclusion on freight integration in the container industry

The essence of shipping lines' existence is gradually shifting from pure shipping operations to integrated logistics solutions (Figure 13). Each carrier tries to give a meaningful answer to this paradigm shift. Through various forms of integration along the supply chain, shipping lines are trying to generate revenue, to streamline sea, port and land operations and to create customer value. For the time being, container terminal operators are mainly focused on increasing the scale of operations. Global terminal operators clearly have shifted their mindset from a local port level to a port network level, albeit that the terminal network effects still have to be exploited to the full. There even exist evidence of increasing logistics integration with inland terminals, hinterland transportation and broader logistics services. Also here, the paradigm shift is at the core of operators' refocusing.

Figure 13: The end of the traditional functional division of tasks within a chain – Example of a vertical integration strategy by a shipping line



Source: Notteboom (2000)

Individual terminal operators and shipping lines might walk different paths on a quest for higher margins and increased customer satisfaction. And more than once they change paths as the bases of competitiveness in the highly competitive markets are likely to erode sooner or later. As such, bases of competitiveness are likely to escalate in the port and maritime industries as companies seek to make different market moves, for example by entering new markets or building strongholds in existing markets, and building different barriers.

1.2 THE IMPACT OF ECONOMIC AND LOGISTICS TRENDS ON EUROPEAN PORTS

1.2.1 Introduction

Part 1.1 pinpointed to some key developments in the world economy and logistics: shifts in economic power centres, shifts in trade flows, the development of maritime and land corridors, logistics integration, etc... European ports find themselves embedded in ever changing economic and logistics systems. The global market place, with powerful and relatively footloose players, extensive business networks and complex logistics systems, have a dramatic impact on the raison d'être of seaports. The logistics environment creates a high degree of uncertainty and leaves European port managers puzzled with the question how to respond effectively to market dynamics. Port authorities and port management teams are forced to re-assess their role and to specify competencies that should lead to competitive advantage and should position the port for growth.

In part 1.2 of this report, European ports are the central focus. This part attempts to provide a bird's eye view on the way the economic and logistics trends as described in part 1 affect European ports. The perspective is that of the European port system as a whole. The authors are well aware of the diversity and scale differences that exist among ports in the European port system. Still, this section identifies the main generic impacts on European seaports.

1.2.2 Logistics chains are the relevant focus in European port competition

The vertical integration strategies of the market players have blurred the traditional division of tasks within the logistics chain and as such created an environment in which European ports are increasingly competing not as individual places that handle ships but within transport chains or supply chains. The logistics chain has become more than ever the relevant scope for analyzing port competitiveness. It also implies that a port's competitiveness becomes increasingly dependent on external co-ordination and control by outside actors.

As a result, major port clients consider ports merely as a sub-system in the logistics chain. Accordingly they concentrate their service packages not on the ports' sea-to-land interface but on the quality and reliability of the entire transport chain. Port choice becomes more a function of network costs. Port selection criteria are related to the entire network in which the port is just one node. The ports that are being chosen are those that will help to minimise the sum of sea, port and inland costs.

1.2.3 European seaports are increasingly confronted with powerful port users

Logistics integration in the transport industry results in a concentration of power at the port demand side. European seaports increasingly have to deal with large port clients who possess a strong bargaining power vis-à-vis terminal operations and inland transport operations.

In the contemporary logistic-restructured port environment it has become more difficult to identify the port customers who really exert power in the logistic chain. The question who really decides which port to choose, depends primarily on the type of cargo involved, the cargo generating power of the shipper and the characteristics related to specific trade routes.

In some cases market players are port user and port service supplier at the same time (e.g. a shipping line operating a dedicated terminal).

While co-operation at the operational level between the actors in the supply chain may have increased, this has not necessarily resulted in increased commitment to a long-term future relationship with the port. The purchasing power of the large intermodal carriers, reinforced by strategic alliances between them, is used to play off one port or group of ports against another. The loyalty of a port client cannot be taken for granted. Ports face the constant risk of losing important clients, not because of deficiencies in port infrastructure or terminal operations, but because the client has rearranged its service networks or has engaged in new partnerships with other carriers Because of the sheer size of the port users, the loss or the acquirement of a customer may in some cases imply loosing or acquiring 10 to even 20 per cent of the port's container traffic. Table 17 provides an example of the significance of a number of shipping lines in the total container throughput of Antwerp and Rotterdam.

Table 17: Major container clients in Antwerp and Rotterdam, 2002

		million TEU	% of port total
Antwerp	MSC	1,551	32,5%
	CP Ships	0,374	7,8%
	P&O Nedlloyd	0,322	6,7%
	CMA-CGM	0,155	3,2%
	Maersk-Sealand	0,130	2,7%
	Others	2,530	53,0%
	Total	**4,777**	**100,0%**
Rotterdam	Grand Alliance	1,01	15,5%
	Maersk-Sealand	0,604	9,3%
	New World Alliance	0,553	8,5%
	Hanjin	0,331	5,1%
	Evergreen	0,205	3,1%
	Others	3,812	58,5%
	Total	6,515	100,0%

Source: Ocean Shipping Consultants

Ports are trying to 'capture' some shippers and carriers who control huge cargo flows and who are in a good position to generate value-added for the port region. If a seaport wants to attract or retain some of the megacarriers, it has to position itself as an efficient intermodal hub and distribution service center acting within extensive transport and communications networks. A port management strategy solely based on the provision of terminal infrastructures does not provide all necessary conditions for capturing important 'footloose' clients on a sustainable basis. In this competitive environment, the ultimate success of a port will depend on the ability to integrate the port effectively into the networks of business relationships that shape supply chains. In other words, the success of a seaport no longer exclusively depends on its internal weaknesses and strengths. It is being more and more determined by the ability of the port community to fully exploit synergies with other transport nodes and other players within the logistics networks of which they are part. To be successful ports think along with the customer, try to figure out what his needs are, not only in the port but throughout the logistics chains and networks. This demands the creation of a platform in which various stakeholders (carriers, shippers, transport operators, labour and government

bodies) are working together to identify and address issues affecting logistics performance. Port authorities can be a catalyst in this process, even though their direct impact on cargo flows is limited.

The availability of powerful information channels and systems and the capability of having a knowledge transfer among companies are two of the main determinants for the success of economic clusters, so also for the success of logistics zones.

1.2.4 European seaports as habitats for logistics services

Seaports are key constituents of many supply chains and their pre-eminent role in international distribution is unlikely to be challenged in the foreseeable future. The gateway position of major seaports offers opportunities for the development of value-added logistics (VAL). A seaport can evolve from a pure transhipment centre to a complex of key functions within a logistics system. In co-operation with other parties involved European port authorities can actively stimulate logistics polarisation in port areas through the enhancement of flexible labour conditions, smooth customs formalities (in combination with freeport status) and powerful information systems.

Warehouses traditionally located just behind the terminals. At present logistics activities can take place on the terminal itself, in a logistics park where several logistics activities are concentrated or in case of industrial subcontracting on the site of an industrial company. While there is a clear tendency in the container sector to move away from the terminal, in other cargo categories an expansion of logistics on the terminals itself can be witnessed. As such, a mixture of pure stevedoring activities and logistics activities occurs.

As the hinterland becomes a competitive location, the question remains as to which logistics activities are truly port-related. As indicated earlier in this report, the total market for EDCs may be a stagnant one in North West Europe. However, this does not mean that also the chances for investing EDCs in seaports are small. The chances for EDCs in the traditional processing industries for a location in seaports may be good, because of the existence of large industrial clusters in seaports. Next, seaports may be attractive alternative locations for the relocation of EDCs – especially EDCs focussing on sea-sea operations. In the new logistic market environment, the following logistics activities typically find a good habitat in ports:

- Logistics activities resulting in a considerable reduction in the transported volume;
- Logistics activities involving big volumes of bulk cargoes, suitable for inland navigation and rail;
- Logistics activities directly related to companies which have a site in the port area;
- Logistics activities related to cargo that needs flexible storage to create a buffer (products subject to season dependent fluctuations or irregular supply);
- Logistics activities with a high dependency on short-sea shipping.

Moreover, port areas typically possess a strong competitiveness for distribution centres in a multiple import structure and as a consolidation center for export cargo.

Many seaports have responded by creating logistics parks[7] inside the port area or in the immediate vicinity of the port. The concentration of logistics companies in dedicated logistics

[7] A logistics park is considered to be seaport-based when most of the cargo entering the distribution centres located on the park has an overseas origin or destination, when the centre is located in the vicinity of deep-sea

parks offers more advantages than providing small and separated complexes. Five basic types of port-based logistics parks can be distinguished (Buck Consultants International, 1996, Kuipers 1999)[8],

- Traditional seaport-based logistics park: this type of logistics park is associated with the pre-container area in seaports.
- Container oriented logistics parks. This is the dominant type with a number of large warehouses close to the container terminal locations and intermodal terminal facilities.
- Specialised seaport-based logistics parks. This type of park specialises on different functions, often closely related to the characteristics of the seaport. The park may focus on the storage of liquid bulk (chemicals), on trade in which a combination of warehousing and office space is offered to a number of import-export companies from developing countries or on high-value office related employment in which Fourth Party Logistics Service Providers, logistics software firms, financial service providers to the maritime industry and consultants are located in the park.
- Peripheral seaport-based logistics parks. These parks are located just outside the port area which typically offers advantages with respect to congestion, costs of land and labour. These peripheral parks are part of the greater seaport region and may benefit from suppliers and other specialised inputs associated with the seaports.
- Virtual port-based logistics parks. These parks are located outside the greater seaport area, sometimes at a distance of more than hundred kilometres from the seaport itself, but have a clear orientation to one or more seaports with respect to the origins of the (containerised cargo).

The term 'virtual' is associated with a process called 'virtual subharborisation', the rise of port-based activities in the hinterland of the ports together with a stagnation of these activities in the ports itself. Distribution centres are the main example of this activity, Buck Consultants International (1996). The process of virtual subharborisation is closely linked to the creation of large logistics poles.

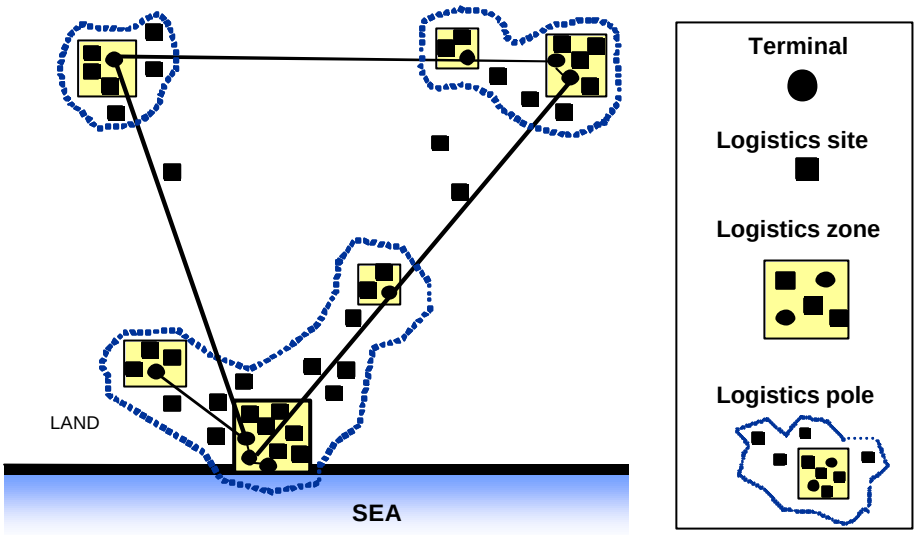
1.2.5 European ports become turntables in large logistics poles

Logistics companies frequently set up close to one another, since they are attracted by the same location factors such as the proximity of markets and the availability of intermodal transport and support facilities. The geographical concentration of logistics companies in turn creates synergies and economies of scale, which make the chosen location even more attractive and further encourage concentration of distribution companies in a particular area. Corridor development enhances the location of logistics sites in seaports and inland ports and along the axes between seaports and inland ports. The interaction between seaports and inland locations leads to the development of a large logistics pool consisting of several logistics zones (Figure 14). This trend towards geographical concentration of distribution platforms in many cases occurs spontaneously as the result of a slow, market-driven process. But also national, regional and/or local authorities try to direct this process by means of offering financial incentives.

(container) terminal or when other – but close –functional relations with seaports exists, like dedicated intermodal shuttle-services from the ports to the centre or when a container carrier or forwarder owns or uses the distribution centre.

[8] These five different types of logistics parks may be associated with different types of seaports. The largest seaports may be equipped with a large number of logistics parks. Small ports may have only one or two logistics parks, usual a traditional, a container oriented or a specialised logistics park related to the dominant activities of the port in question.

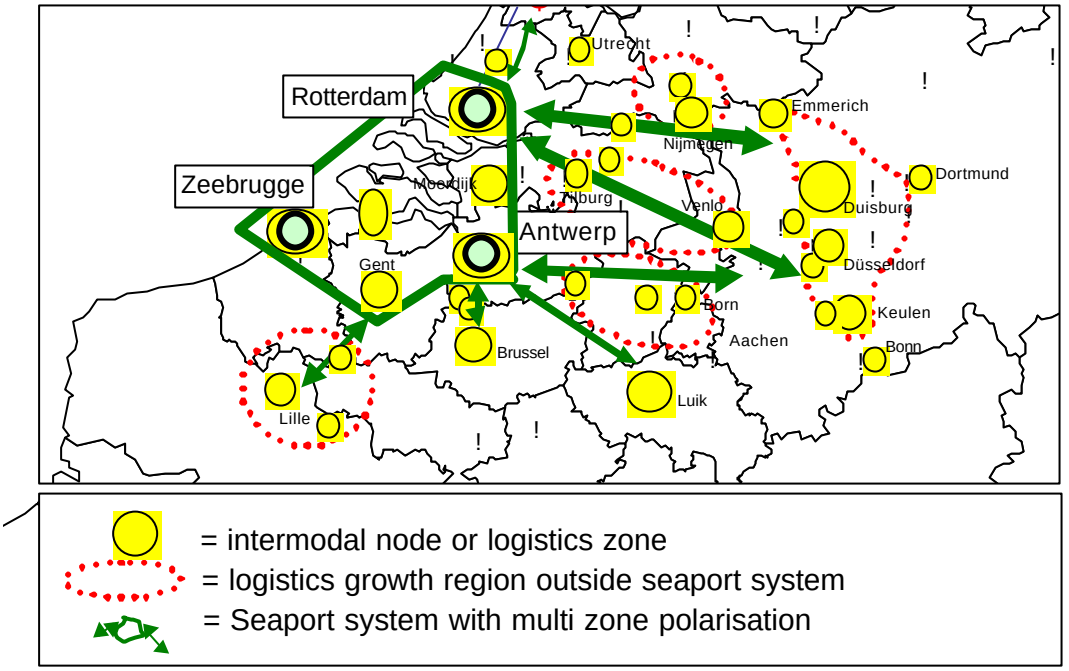
Figure 14: Logistics polarisation and the creation of logistics poles



Source: Notteboom (2000)

Logistics poles exert a locational pull on logistics sites by combining a strong intermodal orientation with cluster advantages. Geographical differences in labour costs, land costs, availability of land, level of congestion, the location vis-à-vis the service markets, labour mentality and productivity and government policy are among the many factors determining observed (de)polarisation of logistics sites. A virtuous cycle is created, producing scale effects, which ensures high productivity from intermodal synchronisation and the compatibility of goods flows with the logistics of shippers. Seaports are the central nodes driving the dynamics in such a large logistics pool. But at the same time seaports rely heavily on inland ports to preserve their attractiveness. An example of the formation of a logistics pole is provided in Figure 15. The logistics zones in the Netherlands are mainly located in ports or around new or existing barge or rail terminals in the hinterland. Dordrecht and Moerdijk are important overflow locations for the port of Rotterdam. There are now large concentrations of logistics sites in and around the inner port of Liège, along the Geel-Hasselt-Genk axis and the Antwerp-Brussels axis, and in the Kortrijk/Lille border region. The existing geographical concentration of logistics sites has stimulated the development of inland terminals in these areas.

Figure 15: Logistics polarisation in the Benelux



Source: ITMMA-UA

The creation of large logistics poles poses new challenges in the relations between seaports and inland ports. A large number of port authorities promote an efficient intermodal system in order to secure cargo under conditions of high competition. This includes for example the involvement in the introduction of new shuttle train services to the hinterland, together with the respective national railway companies, rail operators, terminal operators, shipping companies and/or large shippers. Many ports fear the creation of logistics poles makes port benefits to 'leak' to users in inland locations. This fear and port users' focus on logistics networks are clear invitations to port managers to consider co-operation with inland ports in the field of traffic management, land issuing, hinterland connections and services, environmental protection and research & development (R&D). In practice, mainly private market players are involved in setting up these types of cooperative networks. But informal programs of co-ordination between port authorities and inland ports are now slowly developing. Rotterdam, Marseille (in relation to Lyon), Le Havre (in relation to Rouen and Paris), Antwerp (in relation Liège) and Hamburg are some examples. Ports are more reluctant to engaging in advanced forms of strategic partnerships with inland ports (through strategic alliances, (cross-)participation, joint-ventures or even mergers and acquisitions) as they fear to lose added value and employment by 'giving away' activities, to lose captive cargo (port related companies in the hinterland are less dependent on one port for their maritime import and export), to lose clients as these might consider the cooperation with one specific hinterland location as a market restriction or distortion. Advantages of more co-operation with inland locations include:

- increasing productivity of space by a more efficient connection with inland locations
- stronger support field for the transit function of the port because of a more optimal use of space and increased possibilities for a successful modal shift

- stronger position to attract funds and subsidies because of an integrated hinterland product;
- expansion in the hinterland, invasion in the captive markets of competitor ports;
- binding of market players in the hinterland;
- better insight in the local markets;
- prevention of price corruption;
- increased potential for intermodal products, also on shorter distances;
- more attractive hinterland product because of an increased flexibility, reliability and frequency;
- further strengthening of the logistical pole, including advantages for both seaport and inland port.
- simplified custom procedures.

While most European ports are evolving towards a more proactive player, cooperating indirectly with different players in the hinterland, they are not involved as yet in a direct cooperation effort, in which profits and risks are shared.

1.2.6 A new port hierarchy in the European port system

The new port hierarchy in Europe is reflected by two main developments: (a) the changes in the European container port system and (b) the renewed role of smaller ports.

(a) The European container port system

New liner service networks and larger ships force previously non-competing ports into head-on-head competition. This leads to a new port hierarchy in the European container port system.

First of all, seaports located far way from each other are now to some extent competing. Evidence exists that ports in the Hamburg-Le Havre range are now competing with UK ports, especially for transshipment traffic. Competition is also growing between the Mediterranean port system and the Hamburg-Le Havre range, as these two different port systems are in a good position to reach the economic and industrial heartland of Europe.

Secondly, the new requirements related to deep-sea services do not necessarily make the existing large container ports the best locations for setting up hub operations. That is why the position of the large load centers is to some extent threatened by medium-sized ports and new hub terminals.

In Southern Europe new hubs have emerged (e.g. Marsaxlokk, Gioia Tauro, Taranto and Cagliari). The success of these ports is partly the result of the fact that a call involves a minimal diversion for a mainline vessel transiting the Mediterranean. A lot of carriers are now using these Med hubs to shift boxes between linehaul services in order to serve more markets with fewer vessels. The question is whether there is enough room for more hubs in the region. There are fewer lines left making direct calls to convince of the benefits of transshipment. Each of the hubs will, therefore, have to compete strongly with each other. Moreover, ports whose competitive strategy is completely based on their intermediacy may find themselves in an unstable and highly fragile position, as this kind of traffic flow is more volatile and footloose and depends solely upon the strategy of shipping lines with respects to their service networks.

In Northern Europe, successful upstream ports such as Antwerp and Hamburg as well as existing coastal ports will face competition from new terminal initiatives in the near future. Good examples are the Jadeport project in Wilhelmshaven-Germany, the planned Westerscheldt Container Terminal in Flushing and a number of terminal projects in the UK. Most of the planned new terminals are expected to act primarily as transshipment hubs. The new terminal facilities might give shipping lines and alliances more opportunities to use their bargaining power to play off one port against another. As it takes more than cranes and quay walls to become successful, some rightfully doubt whether the new terminals will be able to become effective competitors of the existing port cluster areas. However, the fact that most recent entrants in the container business have not been particularly successful (e.g. the new Ceres terminal in Amsterdam has not attracted any customers yet), does not imply that all new terminal projects in non-hub ports have few chances of becoming successful.

Competition between European container ports focuses mainly on their capacity to attract the maximum container volume in order to justify direct calls. The fate that awaits them otherwise is to become a secondary port, serving only the 'small' feeder ships. One direct result of the concentration of international goods flows in fewer ports has been longer inland hauls, a corollary of which has been even stronger pressure on the price of the inland haulage leg. On the maritime side, the concentration of ports of call led to the development of maritime haul services for ports, i.e. feedering. The Baltic and Atlantic ports have been linked for some time now to the major European ports by sea routes, as they had already been abandoned by large vessels. In some cases, feeders are facing competition from inland modes. There are inland and maritime transport alternatives from/to the northern range ports, particularly between Germany, Italy, Spain and the main English ports. Also the formation of inland hubs has an impact on European seaports. On the one hand, the formation of inland hubs enables smaller ports in the European port system to seek connection to the extensive hinterland networks of the large ports. On the other hand, inland terminals help the large ports to preserve their attractiveness and to fully exploit potential economies of scale. The corridors towards the inland terminal network create the necessary margin for further growth of seaborne container traffic. Inland terminals as such acquire an important satellite function with respect to seaports, as they help to relief seaport areas from potential congestion.

Finally, the consolidation process in the container handling industry also has a large impact on individual ports. First of all, the large terminal operators are becoming more footloose as the network approach loosens their former strong ties with one particular seaport. Secondly, competition is shifting form port authorities to private terminal operators who are trying to establish terminal networks. Third, the influx of overseas capital in several European ports together with the consolidation in the cargo handling business have created circumstances in which some stevedoring companies have acquired a very strategic position in a port's future. The key position of such terminal operators inevitably attracts a lot of attention of the local port community, as they want to secure that economic rents of these terminal operations stay local.

(b) The function of smaller ports

Smaller ports traditionally serve a more local hinterland. In many cases specific industries in the vicinity of the port generate the cargo volumes. Smaller ports often show a high degree of specialisation in a limited number of commodities, such as minor bulks (e.g. grain, sand or fertilizers) or conventional cargo (e.g. forest products, cars or fruit). With the increased containerisation of many of these niche trades and less favourable perspectives in many minor

bulk trades, a large number of smaller ports have developed a strategy towards safeguarding their position in those niche markets characterised by a high containerisation trend. The strategies followed are mixed:

- The development of feeder connections over land (rail or barge) or sea (feeder service) to the large container ports in order to guarantee frequent and reliable trunk lines for overseas containerised cargo;
- The development of a large-scale or medium-sized container terminal to attract direct calls of mainline vessels on the relevant routes;
- The intensification of their role as niche player in specific markets by underlining customer care (for large and small clients) and specialised know how through extensive development of value added logistical services.

Many small ports have proven to be rather successful in following a niche market strategy. They have understood that a dedicated supply chain approach to specific commodity flows can bind cargo to a port. Some smaller ports have been even so successful that they now form serious competitors of established diversified mainports at least in specific market niches. As such, small ports have become big players in a number of commodities. One of the outcomes of the renewed dynamics of smaller ports is that stevedoring companies who initially concentrated their business in larger ports are now increasingly diversifying their activities to include smaller ports (e.g. the Sea-Invest group in bulk commodities).

1.2.7 Structural changes in the hinterland service areas

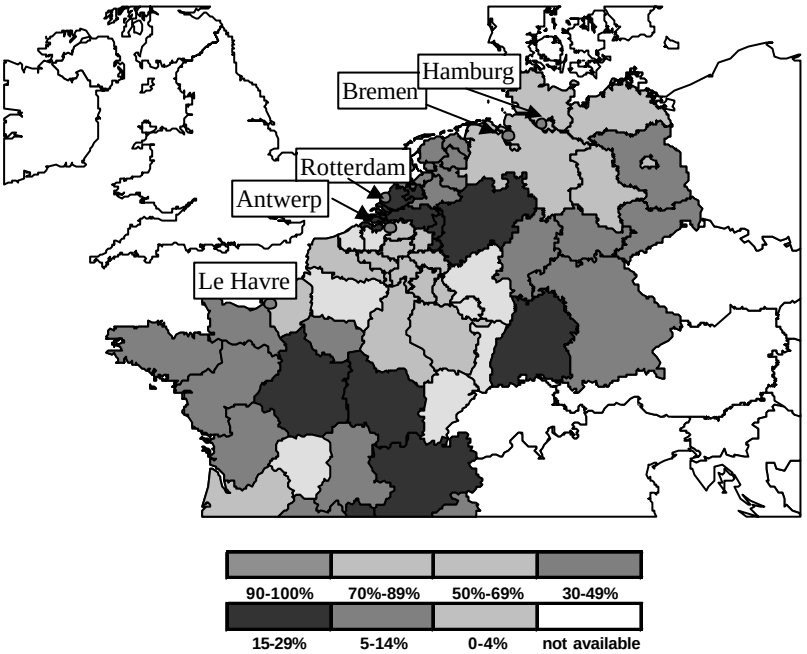
Structural shifts in economic power centres in Europe as described in part 1 have a profound impact on port hinterland routes. The hinterland of ports differs substantially with commodity and transport mode. For instance, the gateway function of iron ore and coal of major European ports only involved one traffic direction (incoming seaborne cargo), a limited number of market players and few transport nodes (the port and a limited number of steel plant and power plants in the hinterland). The hinterland for containerised cargo involved numerous origins and destinations dispersed over a vast hinterland, a large number of economic players and two traffic directions. It is expected that the hinterland reach of European ports for bulk commodities such as oil and iron ore is not going to shift dramatically in the years to come. More changes are expected to take place in the routing of container flows.

As inland transport has resisted the general trend towards lower intercontinental transports costs, it is now perceived as a key success factor of European ports. Global carriers and forwarders challenge a port's capacity to influence goods flows. Ports can no longer expect to attract cargo simply because they are natural gateways to rich hinterlands. A large part of the throughput of European ports remains locally generated and stimulated by the ports' centrality with respect to a strong regional hinterland. Nonetheless, most European container ports are witnessing a dramatic increase in the relative importance of long-distance transit flows and transhipment traffic in total port traffic. The growing role of intermediacy contributes to shrinking captive hinterlands. Instead, inter-port competition has intensified, even among more distant seaports.

Seaports are competing fiercely to extend their hinterlands across frontiers. The ability of one port to charge high rates to a shipper or shipping line for accommodating cargo flows for the local hinterland is tempered by the ability of the shipper or carrier to use other ports for cargo

with a destination in the more distant hinterland. The increased competition decreases 'natural' gateways and captive hinterlands. An example of this tendency is provided in Figure 16: mainport Antwerp faces tough competition from other ports in the region, even in relation to service areas in the immediate hinterland. The regions close to the port are not captive. This tendency is further enhanced by the development of intermodal corridors and inland terminals. By developing strong functional links with particular inland terminals a port might intrude in the natural hinterland of competing ports. 'Islands' in the distant hinterland are created in which the load centre achieves a comparative cost and service advantage vis-à-vis rival seaports.

Figure 16: The market share of Antwerp in hinterland traffic to/from the Benelux countries, France and Germany (basis= container flows in TEU in 1999)



Notes: Market shares are based on total hinterland container flows of Le Havre, Antwerp, Rotterdam, Bremen/Bremerhaven and Hamburg
Source: ITMMA - UA

The reorganisation of rail and barge shuttle services to the hinterland combined with growth in sea-sea transhipment has already contributed to a modal shift in the hinterland transportation of maritime containers in most European seaports away from road transport (Table 18). The modal shift results in most European ports look promising, though they still remain below the theoretical capabilities of inland navigation and in particular of rail. Moreover, the more inland waterway and rail traffic is concentrated on only few corridors between seaports and inland terminals, the higher the demand for end-hauls by truck.

Table 18: Modal split of major north European container ports (% of port volumes)

	Rail			Road			Barge			Transshipment		
	1998	2001	2003	1998	2001	2003	1998	2001	2003	1998	2001	2003
Rotterdam	11.0	10.0	8.0	39.0	37.5	40.0	26.0	30.0	32.0	24.0	23.0	20.0
Antwerp	6.9	7.6	8.0	57.1	53.1	50.0	24.5	25.9	26.0	11.5	13.4	16.0
Le Havre	12.3	9.1	8.6	73.0	67.8	57.4	1.1	2.5	3.3	13.7	20.5	30.7
Zeebrugge	34.3	39.0	38.4	50.4	45.4	52.6	15.0	8.6	4.5	0.4	7.0	4.5
Dunkirk	9.0	13.5	20.5	90.0	82.5	76.7	1.0	4.0	2.7	0.0	0.0	0.0
Hamburg	19.1	17.9	17.2	45.1	43.6	41.8	0.1	0.9	1.0	35.7	37.6	40.1
Bremerhaven	16.0	16.2	15.0	31.4	27.9	33.0	0.9	0.9	1.0	51.7	55.0	51.0

Source: Ocean Shipping Consultants

In contrast to rail and barge, the adaptation of road services to high-volume flows is somewhat less straightforward and does not bring any advantages of scale. Rather, it increases constraints in terms of timetables and procedures to avoid congestion on terminal access roads. Road still does better over shorter distances, which could not be ignored in large ports, whose role is becoming more important as major international distribution centres.

In the context of European distribution, modal split figures of ports can be somewhat misleading. A large portion of the container flows by road are destined for DCs in the immediate hinterland of a port[9]. The containers arriving in the DCs are stripped and, after some value-adding manipulations and regrouping the goods are send to the final destination often in a conventional truck (non-containerised). As such, the penetration level of road haulage in the hinterland transport of many ports is much higher than suggested by a port's container modal split. Given the development in European distribution structures, it is likely that road haulage will remain a dominant mode, not withstanding the increasing importance of rail and barge in particular on the high-volume trunk lines.

The reconfiguration in the hinterland also has an impact on the location of DCs. For instance, With many goods now transported by road from Rotterdam and Antwerp all over Europe, many distribution centres and value added operations facilities have been located in the Benelux. This would decrease however as road transport is increasingly replaced by rail transport. Corridor development towards the east (e.g. the Betuwelijn from Rotterdam to Germany) will improve the efficient and fast shipping of goods from the western ports to the central European mainland (and thus will improve the competitive position). It might however also facilitate the movement of logistics activities and DC locations from the Benelux towards Germany. Since rail transport is a very rigid form of transport (only suitable for transport from fixed location A to fixed location B), this could imply less value added activities in the Benelux.

1.2.8 Increased focus on containers in port investments

The elasticity of container transport with regard to economic activity is generally in the order of 1.5 to 2. In addition to this general factor for world trade, there are also some specifically

[9] For instance, about 95% per cent of the container flows by road to and from the port of Antwerp are realised within a limited radius of 300 km around the port. Nearly 50% of traffic stays within the 50 km range of the port area.

European factors, which will reinforce trends: growth in intra-European traffic, growth in feedering, increase in the size of the area that can be serviced by the port. Containerization seems to have become a 'must' for ports, as the provision of container facilities is considered to be one of the prerequisites for success in the newly logistics-restructured environment. Strong growth in the container business fosters the almost excessive focus on containers.

In the present port competition model, shipping lines and shippers push ports into making significant investments in new container terminal capacity. The creation of container terminal capacity creates the necessary conditions to meet growing demand. Still, ports act in a somewhat subordinate role as footloose shipping lines and shippers use their market power on ports: 'This is somewhat analogous to a lottery, where only those who purchase tickets have a chance of winning [..]. Even the largest ports have become pawns rather than the dominant players in the world-wide transportation game' (Slack, 1993).

In many cases the capacity of a port authority to respond to the challenges is determined by the extent to which it can secure financial support from its local community or national government. In the past, most European governments have predominantly funded the majority of large infrastructure works in European container ports. These governments now curb their financial participation in terminal development projects as they face declining available funds. The gradual withdrawal of governments in the financing of container terminal infrastructure might confront even the largest and most prosperous ports in Europe with severe financial pressures to keep their competitive edge in an industry too often guided by the belief that the best workable strategy to defeat competitors is building new highly efficient terminals.

1.2.9 Seaports and the community

The external spill-over effects of ports are expanding from the local port system towards a much larger international economic system. As such, port benefits are likely to "leak" to users in inland locations. But unfortunately at the same time, negative externalities remain spatially concentrated in the local system. This situation potentially brings about major socio-economic conflicts related to port development.

A large part of the community takes the port and maritime industry for granted and is ignorant of how the industry is organized and operated and to what extent it contributes to the global trade and local economies. More attention is given to the fact that these industries generate negative effects, such as road congestion in and around ports, the use of scarce land, pollution (oil spills) and unsafety. Environmental and safety considerations are very prominent in community groups' strategy. The economic value of a port development project now tends to be taken as given, so the argument concentrates on the environmental criteria (for example, dredging and dredge disposal, loss of wetlands, emissions into the air, water pollution, congestion, loss of open space, light and noise externalities, potential conflicts with commercial fishing and recreational uses of area waters, etc.). Ports and port companies must demonstrate a high level of environmental performance in order to ensure community support. However, environmental aspects also play an increasing role in attracting trading partners and potential investors. A port with a strong environmental record and a high level of community support is likely to be favoured.

EXECUTIVE SUMMARY

The European port industry is a dynamic one. Its dynamic character emanates from the people involved who are constantly looking for efficient ways to underline ports' role as motors of economic prosperity and as leading examples of sustainable development. The European port system evolves continuously in an attempt to face the challenges in ever changing economic and logistics systems.

The current issues port managers are facing are multiple and complex. The global market place, with powerful and relatively footloose players, extensive business networks and complex logistics systems creates a high degree of uncertainty in the European port industry and leaves European port managers puzzled with the question how to respond effectively to market dynamics. The focus of port competition is gradually changing, so are the roles of the various stakeholders involved.

This report gives a bird's eye view on the economic and logistics market developments affecting European seaports. It not only identifies key market developments in trade and logistics. It also analyses how the economic and logistics trends affect European ports.

Trade and shifts in economic power centres

1. World trade shows a steady increase. Significant modifications have taken place in international trading flows. The triad regions (Asia, Europe and North America) remain by far the most important trading blocks. Mexico, China and East Asian Economies have increased their relative importance considerably. The USA remains the most important trading partner of the EU. China has overtaken Japan to become the most important Asian trading partner. The China effect is felt in most European economic sectors, in particular in the port and maritime industry. Significant trade imbalances (based on values) continue to exist with most leading trading partners.
2. GDP growth rates in the core of the EU are expected to reach between 1 and 2.5% in the coming years. Economic development in Central and Eastern Europe is expected to grow significantly in the future. The enlargement of the EU might imply a move of global plants to the European Union and a move from manufacturing activities from Western Europe towards the low-cost regions in Eastern Europe. This tendency will generate larger bi-directional East-West flow within the European Union of raw materials and consumer products. Rail and shortsea shipping are expected to play a key role in accommodating these flows. In the medium term the traditional 'blue banana' will approach the shape of a boomerang. Northern ports, in particular Hamburg, are likely to benefit the most from EU enlargement, whereas new development opportunities might arise for secondary port systems in the Adriatic and the Baltic Sea.
3. A number of land-based and maritime transport corridors will become more important in the future (e.g. the Eurasian land-bridge system, some east-west and north-south corridors in Europe and the upgraded Panama Canal). The development of European corridors is enhanced by the EU's policy as regards the creation of TEN-T and

initiatives of rail operators, megacarriers and other market players to extend their European transport networks.

Trends in logistics

4. Logistics models evolve continuously as a result of globalisation and expansion into new markets, mass customisation in response to product and market segmentation, lean manufacturing practices and associated shifts in costs. International supply chains have become complex and the pressure on the logistics industry is increasing. Modern IT systems have become an important asset for the survival of logistics companies.

5. Increasing customer demands drive the 3PL service industry (Third Party Logistics) forward. At the same time they opened the market to innovative forms of non-asset based logistics service provision, i.e. 4PL (Fourth Party Logistics).

6. Globalisation and outsourcing open new windows of opportunities for shipping lines, forwarders, terminal operators and other transport operators to provide new value-added services in an integrated package, through a vertical integration along the supply chain. The level of functional integration of land distribution is increasing rapidly. On top of this, a large industry consolidation through mergers and acquisitions is reshaping the European logistics service provider industry and the maritime industry. Consolidation and vertical integration strategies have created a logistics market consisting of a wide variety of service providers ranging from megacarriers to local niche operators.

7. Over the last 15 years, many companies consolidated their distribution operations into one central European Distribution Centre (EDC) covering all European Union countries. Flanders, northern France and the Netherlands remain the top locations for EDCs, but more and more regions are vying for a position as attractive location for RDCs and potentially EDCs.

8. Growth of investment in EDCs in North West Europe is expected to slow down. Supply chains across Europe are being redesigned to respond to varying customer and product service level requirements. At present, the tiered structure consisting of one EDC in combination with some smaller local warehouses, 'merge in transit' concepts or 'cross docking' facilities offers the best results for many companies.

9. The EU enlargement might further promote a two-tiered European distribution structure consisting of an EDC together with regional distribution centres in Northern Europe, UK/Ireland, Southern Europe, Eastern Europe and Italy/Greece. Favourite countries in Eastern Europe for locating such an RDC include Germany, the Czech Republic and Hungary.

10. Value added logistics activities (VAL) and postponed manufacturing operations in EDCs and RDCs are booming. Many seaports and sites along hinterland corridors are favourable locations for accommodating VAL as they combine a central location (i.e. proximity to the consumers market) with an intermodal gateway function.

11. Logistics zones in the hinterland are increasingly competing with seaports for what the location of European distribution facilities and VAL are concerned. Shortage of industrial premises, high land prices, congestion problems, the inland location of the

European markets and severe environmental restrictions are some of the well-known arguments for companies not to locate in a seaport.

12. European rail logistics are highly complex. In recent years following rail liberalisation, initiatives have emerged that should lead to real pan-European rail services on a one-stop shop basis. Hub-based networks have complemented the existing blend of direct shuttles, inter-port shuttles and block trains. Smaller container ports tend to seek connection to the extensive hinterland networks of the large ports by installing shuttle services either to rail platforms in the big container ports or to rail hubs in the hinterland.

13. Barge container transport in Europe has its origins in transport between Antwerp, Rotterdam and the Rhine basin, and in the last decade it has also developed greatly along the north-south axis between the Benelux and northern France. A lot of these new barge terminals are located close to the load centre ports. The next step is to establish a network of liner services connecting the various terminals outside the Rhine basin. Also other rivers are now seeing the development of container services by barge (cf. the Marseille-Lyon axis, the Seine and the Elbe river).

14. The essence of shipping lines' existence is gradually shifting from pure shipping operations to integrated logistics solutions. Through various forms of integration along the supply chain, shipping lines are trying to generate revenue, to streamline sea, port and land operations and to create customer value. For the time being, container terminal operators are mainly focused on increasing the scale of operations. Global terminal operators clearly have shifted their mindset from a local port level to a port network level, albeit that the terminal network effects still have to be exploited to the full. There even exist evidence of increasing logistics integration with inland terminals, hinterland transportation and broader logistics services. Bases of competitiveness are likely to escalate in the port and maritime industries as companies seek to make different market moves, for example by entering new markets or building strongholds in existing markets.

The impact on European ports

15. *Logistics chains are the relevant focus in European port competition*. The vertical integration strategies of the market players have blurred the traditional division of tasks within the logistics chain and as such created an environment in which European ports are increasingly competing within supply chains.

16. *European seaports are increasingly confronted with powerful port users*. European seaports increasingly have to deal with large port clients who possess a strong bargaining power vis-à-vis terminal operations and inland transport operations. The purchasing power of the large intermodal carriers, reinforced by strategic alliances between them, is used to play off one port or group of ports against another. The loyalty of a port client cannot be taken for granted. In this competitive environment, the ultimate success of a port is being more and more determined by the ability of the port community to fully exploit synergies with other transport nodes and other players within the logistics networks of which they are part.

17. *European seaports are natural habitats for logistics services.* Seaports are key constituents of many supply chains and their pre-eminent role in international

distribution is unlikely to be challenged in the foreseeable future. The gateway position of major seaports offers opportunities for the development of value-added logistics (VAL). The chances for EDCs in the traditional processing industries for a location in seaports may be good, because of the existence of large industrial clusters in seaports. Next, seaports may be attractive alternative locations for the relocation of EDCs – especially EDCs focussing on sea-sea operations.

18. *European ports become turntables in large logistics poles.* Corridor development enhances the location of logistics sites in seaports and inland ports and along the axes between seaports and inland ports. The interaction between seaports and inland locations leads to the development of a large logistics pool consisting of several logistics zones. Seaports are the central nodes driving the dynamics in such a large logistics pool. But at the same time seaports rely heavily on inland ports to preserve their attractiveness. The creation of large logistics poles poses new challenges in the relations between seaports and inland ports. Informal programs of co-ordination between port authorities and inland ports are now slowly developing. Ports are not involved as yet in a direct cooperation effort, in which profits and risks are shared.

19. *Towards a new port hierarchy in the European port system.* New liner service networks and larger ships force previously non-competing ports into head-on-head competition. First, seaports located far way from each other are now to some extent competing. Secondly, the position of the large ports is to some extent threatened by medium-sized ports and new hub terminals. New terminal facilities might give shipping lines and alliances more opportunities to use their bargaining power to play off one port against another. On the maritime side, the concentration of ports of call led to the development of maritime haul services for ports, i.e. feedering. The Baltic and Atlantic ports have been linked for some time now to the major European ports by sea routes. In some cases, feeders are facing competition from inland modes. There are inland and maritime transport alternatives from/to the northern range ports, particularly between Germany, Italy, Spain and the main English ports. Many small ports have proven to be rather successful in following a niche market strategy. They have understood that a dedicated supply chain approach to specific commodity flows can bind cargo to a port.

20. *Structural changes in the hinterland service areas.* It is expected that the hinterland reach of European ports for bulk commodities such as oil and iron ore is not going to shift dramatically in the years to come. More changes are expected to take place in the routing of container flows. A large part of the throughput of European ports remains locally generated. Nonetheless, most European container ports are witnessing a dramatic increase in the relative importance of long-distance transit flows and transhipment traffic in total port traffic. The growing role of intermediacy contributes to shrinking captive hinterlands. Instead, inter-port competition has intensified, even among more distant seaports. The modal shift results in most European ports look promising, though they still remain below the theoretical capabilities of inland navigation and in particular of rail. Given the development in European distribution structures, it is likely that road haulage will remain a dominant mode, not withstanding the increasing importance of rail and barge in particular on the high-volume trunk lines.

21. *Increased focus on containers in port investments.* Containerization seems to have become a 'must' for ports, as the provision of container facilities is considered to be one of the prerequisites for success in the newly logistics-restructured environment.

Many European container ports make significant investments without any degree of assurance that traffic will increase and shipping lines will retain their loyalty.

22. *Seaports and the community*. A large part of the community takes the port and maritime industry for granted and is ignorant of how the industry is organized and operated and to what extent it contributes to the global trade and local economies. Environmental and safety considerations are very prominent in community groups' strategy. Ports and port companies must demonstrate a high level of environmental performance in order to ensure community support. However, environmental aspects also play an increasing role in attracting trading partners and potential investors. A port with a strong environmental record and a high level of community support is likely to be favoured.

LIST OF REFERENCES AND FURTHER READINGS

Ashar, A (2002), "Revolution now", Containerisation International, January

Bade, Douglas J., Mueller, James K. (1999), New for the millennium: 4PL, Transportation & Distribution, 40(2), 78-80

Brewer, A.M. (ed.) (2001), Handbook of supply chain management, Amsterdam, Pergamon

Brooks, M. (2000), Sea change in liner shipping: regulation and managerial decision-making in a global industry. Pergamon

Buck Consultants International (1996), Seaports and their hinterland, Nijmegen

Buck Consultants (1999), Bepaling van de ruimtevraag, samenvatting, studie in opdracht van Project Mainportontwikkeling Rotterdam (sector distributie), Nijmegen

Cariou, P. (2001) Vertical integration within the logistic chain: does regulation play rational ? The case for dedicated container terminals, Transporti Europei, 7:37-41

Christopher, M. (1992), Logistics and supply chain management: Strategies for reducing costs and improving services. Pitman Publishing, London

Cullinane, K., Khanna, M. and Song, D.-W. (1999), How big is beautiful: economies of scale and the optimal size of containership, Liner shipping: what's next ?, Proceedings of the 1999 IAME conference, Halifax, 108-140

Cushman & Wakefield, Healey & Baker (2003), European distribution report, London

De Monie, G. (1997), The global economy, very large containerships and the funding of mega-hubs, Port Finance Conference, London

Drewry Shipping Consultants (2001), Post-Panamax Containerships – The Next Generation. London

Drewry Shipping Consultants (2003), Annual Review of Global Container Terminal Operators. London

Eurinpro & Roland Berger (2003), Mastering the challenges of the supply chain: trends and vision for European logistics

European Commission (2001), The economic impact of enlargement, EC, DG EcFin, Office for Official Publications of the European Communities

Eurostat (2002), Economic portrait of the European Union in 2002, European Commission

Eurostat (2004), Intra- and extra-EU trade by sea, Statistics in focus, theme 6/7, 4/2004

Fremont, A. and Soppe, M. (2003), The service strategies of liner shipping companies, Research seminar: maritime transport, globalisation, regional integration and territorial development, Le Havre

Gilman, S. (1999), The size economies and network efficiency of large containerships, International Journal of Maritime Economics, 1:1

Hastings, P. (1997), Lines seek new savings on inland costs, Cargo Today, 3:1:5-9

Healey & Baker (2001), European Distribution Report, London, Healey & Baker

Heaver, T. (2002), The evolving roles of shipping lines in international logistics, International Journal of Maritime Economics, 4:210-230

IBM Business Consulting Services (2003), Opportunities and challenges for logistics service providers in Europe, Brussels

KPMG Transportation & Distribution (2000), Outsourcing logistics – status, issues and trends in partnerships

Kuipers, B. (1999), Liège, Tongeren, Genk or the Maasvlakte: what's the difference? Spatial behaviour of Europan Distribution Centres In: R.H.J. Rodenburg & A.L. Kruse (eds), Vervoerslogistieke werkdagen 1999. Delft: Connekt.

MDS Intermodal (1998), The European Container Freight Market: containers inland. Chester

Notteboom, T. (2000), De invloed van ruimtelijke en logistieke ontwikkelingen in het voorland-achterlandcontinuüm op de positie en functie van zeehavens, RUCA, Ph.D. thesis

Notteboom, T., Winkelmans, W (2001), Structural changes in logistics: how do port authorities face the challenge ?, Maritime Policy and Management, 28:71-89

Notteboom, T. (2002), Consolidation and contestability in the European container handling industry, Maritime Policy and Management, 29:257-269

Notteboom, T., Rodrigue, J.-P. (2004), Inland Freight distribution and the sub-harborization of port terminals, ICLSP2004, International Conference on Logistics Strategy for Ports, Dalian (China), 22-26 September 2004

Slack, B., Comtois, C. and Sletmo, G. (1996), Shipping lines as agents of change in the port industry, Maritime Policy and Management, 23:289-300

Sleuwaegen, L., Van Dierdonck, R., Vandenbroere, I., Minne, V., Dereuwe, G. (2002), Europese distributiecentra en value added activities in vlaanderen: economische betekenis en concurrentiepositie, studie in opdracht van de Vlaamse Gemeenschap

UNCTAD (2002), Review of Maritime Transport, Geneva

Yap, W.Y., Lam, J.S.L. and Notteboom, T. (2003), “Developments in container port competition in East-Asia”, Proceedings of IAME 2003 Conference, International Association of Maritime Economists, Busan (South Korea), 715-735

Table of contents of Work Package 2-3-4 (FR-WP2, FR-WP3 and FR-WP4)

2 FACTUAL REPORT – WORK PACKAGE 2 (FR-WP2)

The framework governing port management

Final report
March, 2005

Report prepared by
European Sea Ports Organisation (ESPO)

2 FR-WP2: THE FRAMEWORK GOVERNING PORT MANAGEMENT

2.1 BELGIUM

2.1.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.1.1.1 Type of ports

There are four seaports in Belgium: Ostend, Antwerp, Ghent and Zeebrugge. The ports of Ostend, Ghent and Antwerp have the status of autonomous municipal companies (i.e. special legal entity founded by law, for which publication of annual accounts is compulsory). The port of Zeebrugge is a limited company.

2.1.1.2 Overall legislative framework and dynamics/future changes in the port sector

As from January 1989 the Flemish Region is responsible for the policy on seaports: this includes public works, waterways, pilotage and beaconing services to and from the ports as well as the salvage and towage services at sea.

The 1999 "Port Decree" (Havendecreet) forms the basis of Flanders' port policy in which, by means of the development of an overall vision, the totality of the maritime supply side in Flanders is covered in a comprehensive way. The financial regime of the Decree fully enters into force in 2004.

The port decree provides regulations and conditions which should lead to:

- the acquisition of more autonomy by each port with regard to management and operation;
- the acquisition a of legal form by each port;
- uniform working conditions for all ports;
- a clear and transparent relation between the Flemish ports on the one hand and between the ports and the Flemish government on the other hand.

With the new port decree a set of rules is put into use which allows the Flemish Region to support the public function of the ports and which, at the same time, is compatible with European regulations regarding the financing of seaport projects.

One of the premises of the port decree is that all port authorities must assume a legal form (i.e. the status of autonomous ports) in a way compatible with business economics in order to anticipate international competition. This allows the realisation of a number of equal working conditions with regard to accounts, financial management and risks. The port authorities of Antwerp (1997), Ostend (1997) and Ghent (2000) have already availed themselves of this opportunity. The port of Zeebrugge has had legal form (as limited company) ever since its establishment in 1895. The decree also foresees the general principle of cost-effectiveness.

The port decree fixes a number of rules to objectify and to regulate in a clear and transparent way the relations between the Flemish government and the port authorities.

With the decree, the Flemish Government clarifies its role, which is not to determine individual port strategy but to stimulate, to co-ordinate, to enable and to facilitate.

On the other hand the decree also stipulates that the port authorities will be given greater responsibility with regard to the organisation of a commercial infrastructure.

2.1.2 The decision-making procedure. Process applying to investment decisions.

The ports of Antwerp, Ghent, Ostend and Zeebrugge are autonomous port authorities. Their Board of Directors is deciding on new investments.

2.2 BULGARIA

2.2.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

The Bulgarian port sector comprises 5 ports of national importance - the Ports of Varna, Bourgas, Russe, Lom and Vidin - and 24 ports of regional importance. Bulgarian ports have a total handling capacity of more than 50 million tons.

On 10 March 2004, the new "Law on sea space, inland waterways and ports" ("Law on SSIWP") was passed by the Bulgarian Parliament. It provides the common legislative framework for port management and governance. This Law established the National Company "Ports", which functions as port administration, port authority and trade company.

The Law created conditions for a transfer from the traditional toolport system to a landlord system. The National Company "Ports" manages State property and concedes it to private business for operation under different conditions (concession, joint-venture, contract). The new law provides market access to port services and concessions of the Bulgarian ports and port services.

2.2.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Bulgarian sea and inland ports are united in an incorporated public liability company - National Company "Ports" - with 100% government shareholding. In accordance with the "Law on SSIWP" the National Company "Ports" functions as port administration, port authority and commercial company.

The head of the National Company "Ports" is the Minister of Transport and Communications. The National Company "Ports" manages the State property, organizes work in ports, establishes and develops ports, carries on registration of ports and port operators, etc. The

headquarter of the National Company "Ports" is in Sofia. It has four regional departments: Port Varna, Port Bourgas, Port Russe and Port Lom.

2.2.3 The decision-making procedure. Process applying to investment decisions.

The decision-making bodies are the Minister of Transport and Communications, the Board of Directors and the General Director of the National Company "Ports".

The Minister appoints and dismisses the Board of Directors, the General Director, and approves the annual programme of the National Company "Ports". On the basis of the national programme prepared by the National Company "Ports", the Minister approves a long term programme which defines the establishment, maintenance, development and management of the ports, including the conceding of concessions for provision of port services.

The main competences of the Board of Directors are the appointment and dismissal of the Chairman, Vice-Chairman, Deputy General Director and Directors of the regional departments and the approval of the annual programme and report of the National Company "Ports".

The General Director presents the Company, manages the overall activity of the Company and concludes concession contracts for port services and activities.

The National Company "Ports" can decide on investments in new ports, expansion and modernization of existing ports and terminals. Article 112 – 112l of the "Law on SSIWP" determines the procedure for these decisions.

2.3 CYPRUS

2.3.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Cyprus Ports Authority has under its jurisdiction all ports and terminals in Cyprus. The three main commercial ports of Cyprus, which serve the country's general and dry bulk cargoes as well as some liquid cargo, are those of Limassol, Larnaka and Vassiliko. The terminals at Larnaka, Moni and Vassiliko are used for importation of petroleum products. Vassiliko port is also used for industrial purposes such as the export of cement. Also there are a number of small ports (Old Limassol, Paphos, Latchi) which are currently used as fishing and pleasure boat shelters.

2.3.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Cyprus Ports Authority is a semi-governmental autonomous organisation established by law in 1973 for the administration and exploitation of the ports in Cyprus. It is responsible for the development, maintenance and operation of the ports of Cyprus.

The main functions of Cyprus Ports Authority besides its regulatory role include provision of port infrastructure, equipment and services for the accommodation of ships, cargoes and passengers, excluding loading and unloading of vessels. Payments for the services offered by the Authority are included in its tariffs, whereas those for loading/unloading of vessels are fixed by private agreements between the parties concerned.

2.3.3 The decision-making procedure. Process applying to investment decisions.

Cyprus Ports Authority is governed by a Board of Management appointed by the Council of Ministers. Budgets, tariffs and port operating regulations of the Authority are approved by both the Government and the House of Representatives.

The relation between the State, which set up Cyprus Ports Authority, and the Authority is specifically defined in the 1973 law. The Authority is an autonomous semi-governmental organisation, but the Minister of Communications and Works of the Republic of Cyprus may, after consultation with Cyprus Ports Authority, give to the Authority, under certain conditions, directions of a general nature, relating to the exercise of Cyprus Ports Authority's functions regarding matters appearing to the Minister to affect the public interest.

Cyprus Ports Authority can invest in new projects through its annual budget, provided that the required funds are approved by the Council of Ministers and the House of Representatives.

2.4 DENMARK

2.4.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.4.1.1 Type of ports

Denmark has 6 principal types of ports:

- public municipally governed ports;
- independent public municipally governed ports;
- limited companies owned wholly or partly by a local authority;
- state ports;
- privately owned ports;
- the Port of Copenhagen.

Public Danish seaports represent a dense port system with differentiated ports providing a wide array of services to the transport sector. There are 80 municipal ports. There is an array of private ports including industrial and special purpose ports. The public ports organisation and management differs from port to port.

Today about 18 ports have an annual maritime traffic volume of more than 1 million tons of cargo.

2.4.1.2 Overall legislative framework

- Public municipally governed ports
  Municipally governed ports are set up by Act of Parliament and are managed by a local council. The port is responsible for the construction and operation of harbour infrastructure and has only limited commercial activities. The port is part of the city and its activities.

- Independent public municipally governed ports
  Independent municipally governed ports are set up by Act of Parliament as economic independent and self-owned public bodies, directly responsible to the City Council with a Harbour Board entrusted with the immediate administration of the port. Municipal ports however act as independent businesses separate from the City Council. The management of infrastructure belongs to the port whilst cargo handling is managed by private enterprises. The port is operated so that its income at least covers its expenses. The Harbour Board has independent control of capital and operating resources solely for the purpose of serving the interests of the port. Therefore the harbour resources shall be separated in the financial statements from the resources of the local authority. Independent municipal ports form the largest group of ports in Denmark.

- Limited company owned wholly or partly by a local authority
  Copenhagen-Malmö Port AB is a Swedish registered limited liability company. Port of Copenhagen and Port of Malmö equally own Copenhagen Malmö Port AB. The CMP board is evenly composed of four members elected by the Port of Malmö, four members elected by the Port of Copenhagen and four employee board members.

- The Port of Copenhagen
  August 17, 2004 the Danish Supreme Court ruled that the Port of Copenhagen in fact belongs to the State, instead of being autonomous as the Port argued. The government announced to start a process of installing a new supervisory board.

- State ports
  State owned ports are under control and supervision of the Ministry of Transport. Only Ellsinore and Thorsminde remain as state owned ports. The rest of the state owned ports have been sold to the local municipalities as a consequence of the adoption of the new Harbour Act from 1 January 2000. These ports are all organised as independent municipally governed ports but can choose to be organised as limited companies in the future.

- Privately owned ports
  A privately organised port is a commercial enterprise that is not limited from operating other business by the Harbours Act.

- Fishing ports
  Furthermore, there is a great variety of fishing ports. As a new development they are also organised under the Harbour Act. Before 2000 the most important fishing ports were state owned ports but they have been sold to the local municipalities and they are organised as municipal ports or independent municipal ports. There is

an important concentration in the fishing ports as the 5 most important have 66% of the total value of the fish.

Many of the ports are commercial ports and the most important ones also have traffic port handling cargoes or passengers. To a minor extent fishing ports can obtain some financial support to investments in infrastructure from EU funds but only to investments related to fishing activities. There is no financial support from other sources.

2.4.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

See above for some partial information.

2.4.3 The decision-making procedure. Process applying to investment decisions.

Most decisions concerning harbour infrastructure investment (docks, quays, jetties etc.) are made by the port authority. The port authority also pays for them, although some specialised terminals are the responsibility of the private sector.

2.5 ESTONIA

2.5.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.5.1.1 Type of ports

According to the Ports Act a port is "a complex of buildings and constructions together with its adjacent water area which is located in a delimited area and intended for shipping and commercial activities, ship repair, pleasure craft or other marine activities."

A merchant shipping port is "a port where transhipment, storage and processing of goods, supply and servicing of ships, embarkation and disembarkation of passengers and receipt of fish from fishing vessels are carried out, or which allows for berthing and landing of boats, launches and yachts of hobby seafarers and fishermen and other related activities."

"Merchant shipping ports where port services are mainly provided to hobby seafarers visiting the ports are classified according to the extent and quality of services provided therein. The classification of ports specified in this subsection and the general and minimum requirements for services provided in such ports are established by the Minister of Economic Affairs and Communications."

Military ports are closed for merchant shipping and related activities. Military ports are determined by the Government of the Republic. The Government of the Republic may grant permission for the use of a military port for merchant shipping activities by approving the corresponding conditions therefore.

2.5.1.2 Overall legislative framework

Ports are operated (no matter whether ports are privately, municipality or State owned) as public limited companies based on corporate law, the Estonian Commercial Code and other relevant legal acts of the Republic of Estonia.

The Estonian Ports Act regulates the obligations of port authorities in the fulfilment of safety requirements and procedures relating to State supervision in ports.

The Estonian Maritime Administration, a governmental unit under the Ministry of Economic Affairs and Communications, aims to ensure safe navigation in Estonian territorial and inland waters. It controls marine traffic safety, offers lighthouse and hydrographical services and issues diplomas and service records. It also offers vessel traffic services, including pilotage and icebreaker service.

2.5.1.3 Dynamics/future changes in the port sector.

The number of marinas or small ports where port services are mainly provided to hobby seafarers is increasing year by year.

2.5.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

According to the Ports Act a port authority is an entity which possesses a port and organises the activities of the port as a whole.

The port authority is required to ensure:

- maintenance of hydrotechnical structures in the port area;
- installation and maintenance of navigation marks in the port area and, outside the port area, of those marks which provide services exclusively to the port;
- declared depths in the water area and entrance of the port according to the fair sheet;
- supervision over the importation of dangerous goods into the port, and warehousing, storage and transhipment thereof in the port;
- cleanliness and order of the port area, and compliance with fire and safety requirements in the port territory.

The port authority administers the reconstruction of the entrance and water area of the port, monitors the correctness of the declared information and is liable for the correctness of the declared information.

It administers the receipt of bilge water, sewage, refuse and other pollutants from ships. The Minister of Economic Affairs and Communications establishes the corresponding procedure in consultation with the Minister of the Environment.

Furthermore, the port authority organises operations for the elimination of pollution in the port area and informs the Ministry of the Environment of the situation and harmonises its activities with the fire and rescue service agency of its location.

2.5.3 The decision-making procedure. Process applying to investment decisions.

The principles of running a company are stated in the Commercial Code. There are three bodies involved in the decision-making process: the general meeting of shareholders, the supervisory board and the management board.

The general meeting of shareholders is the highest administrative body of a public limited company. A general meeting is competent to:

- amend the articles of the association;
- increase and reduce share capital;
- issue convertible bonds;
- elect and remove members of the supervisory board;
- elect an auditor;
- designate a special audit;
- approve the annual report and distribute profit;
- decide on dissolution, merger, division or transformation of the public limited company;
- decide on assertion of a claim against a member of the management board or supervisory board, or a shareholder, on conclusion and terms and conditions of a transaction with a member of the supervisory board, and on the appointment of a representative of the public limited company in such claim or transaction;
- decide on other matters placed in the competence of the general meeting by law.

The supervisory board plans the activities of the public limited company, organises the management of the public limited company and supervises the activities of the management board. The supervisory board notifies the general meeting of the results of a review. The supervisory board gives orders to the management board for organisation of the management of the public limited company. The consent of the supervisory board is required for conclusion of transactions which are beyond the scope of everyday economic activities and, above all, for conclusion of transactions which bring about:

- the acquisition or termination of holdings in other companies;
- the acquisition or transfer of an enterprise, or the termination of its activities;
- the transfer or encumbrance of immovable or registered movables;
- the foundation or closure of foreign branches;
- the making of investments exceeding a prescribed sum of expenditure for the current financial year;
- the assumption of loans or debt obligations exceeding a prescribed sum for the current financial year; or
- the granting of loans or the guarantee of debt obligations if this is beyond the scope of everyday economic activities.

The management board is an administrative body of the public limited company which represents and manages the public limited company. The management board adheres to the lawful orders of the supervisory board. Transactions which are beyond the scope of everyday economic activities may only be concluded by the management board with the consent of the supervisory board. The members of the management board are elected and removed by the supervisory board.

2.6 FINLAND

2.6.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Finland has more than forty noteworthy ports. From an institutional point of view, Finland has both public and private ports. Almost all public ports are municipal.

All the municipal ports are owned by cities. The port organisation varies. The main ports are municipal establishments. In some cities the ports are municipal companies, in others they are a part of the normal municipal administration.

It is also possible for the city to run the port as a private company. In Finland two cities, Hamina and Kotka, have turned their ports into private companies under the law of limited companies. These companies are 100 % owned by the municipality, but they are covered by the same legislation as other private companies.

Finland also has private ports. Private ports are owned by industries. Their task is to handle the traffic produced by the industry concerned. The organisation in private ports depends on the needs of the enterprise concerned.

According to a law of 1995, the category of "public-private ports" has been established. There is one public-private port in Finland.

2.6.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

The port is at the same time the port authority and the port administration (in Finland the word 'port authority' is not used, only 'port'). The port (which may have different legal status) is in charge of the port and its activities. Even when the port is organised as a private company, it has the responsibilities and duties of the port authority: the port in Finland is in charge of running the port and its activities. Stevedoring is done by independent companies, there might be a private tug company, which may have or may not have an agreement with the port, there might be private warehouses in the port area or the port may have its own warehouses, which it leases out.

2.6.3 The decision-making procedure. Process applying to investment decisions.

The port has full autonomy in the decision making related to port activities. The same applies for both administrative and business decision making.

Decision making inside the port organisation varies. In case a port is a private company, the decision making is the same as in any other limited company. The board of directors is in charge of decision making. In practise the managing director, i.e. the port director, is in charge of the daily decision making.

In case the port is a municipal company, decision making is close to that of a limited company. There is a port board elected by the municipal council and a port director.

In case the port is part of the municipal organisation, there is usually a special port board; though sometimes the port is under another municipal board, for example the technical board. Usually the port has a port director, but sometimes, in the smallest ports, the duties of the port director are taken care of by someone else of the municipal organisation, for example the technical director of the municipality.

2.7 FRANCE

2.7.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.7.1.1 Types of ports and overall legislative framework

- Seven autonomous seaports are under State control.

Six main metropolitan seaports (Marseille, Le Havre, Dunkerque, Rouen, Nantes-St-Nazaire, Bordeaux) plus one overseas (Guadeloupe) were granted autonomous management in accordance with the provisions of Book I, Title I of the Seaports code.

Accordingly these ports are organized as State public undertakings with both administrative and commercial competences, enjoying specific legal status and financial independence. Their employees have mainly private labour legal status. Each autonomous seaport is administered by a board of 26 members, assisted by a Chief Executive Officer appointed by the Council of Ministers, on proposal by the Minister responsible for seaports, and chosen among high ranking civil servants.

Being public undertakings, autonomous seaports are subject to economic and financial control of the State.

Autonomous ports are authorised, under certain conditions, to develop economic partnerships by taking shares in private (or public) companies or groups of companies (i.e. private terminal operators, port community data processing companies, inland transport undertakings …).

Autonomous seaports account for 76% of the total national tonnage.

- Twenty-one other seaports remain under State control until 2007

Singled out of reach of the 1983 decentralisation, 21 other seaports remain for the time being under national control:
a) 17 metropolitan ports:
Calais, Boulogne-sur-Mer, Dieppe, Caen-Ouistreham, Cherbourg, Saint-Malo, Brest, Le Fret, Roscanvel, Concarneau, Lorient, La Rochelle (La Pallice et Chef de Baie), Bayonne, Port-la-Nouvelle, Sète, Toulon, Nice.
b) 4 overseas ports:

Fort-de-France (Martinique), Degrad-des-Cannes and Larivot (Guyane), Saint-Pierre-et-Miquelon (Saint-Pierre et Miquelon), Port-Réunion (Réunion).

Except Le Fret and Roscanvel, all are commercially active seaports. Some also include a sizeable fishing port section.

These ports are organised according to provisions set out in Book I, Title II of the Seaports code.

These seaports are named "ports of national interest".

Typically, management of these "ports d'intérêt national" is split between:

- local services of the Ministry of Transport, which are directly responsible for infrastructure building and maintenance, for port police, safety and security, for allowing operations of independent nautical services, and for monitoring commercial and investment accounts of the delegated port commercial operator,
- local Chamber of Commerce and Industry (CCI), acting as a public commercial operator, chosen by the State, caring directly for (or subcontracting partly) all facilities, superstructures and land based public equipment, required by port users, mostly by shipping lines and cargo handlers.

They account for 22% of the total national tonnage.

According to Law n° 2004-809 of 13 August 2004 on liberties and local responsibilities, all these ports, with the only possible exception of present overseas ports of national interest (which may remain under State supervision, if national government so decides before August 2005), will be handed over, by 1st January 2007 at the latest, either to Regions, who will have first choice on commercial seaports, or to Departments, who will have first choice on fishing seaports, or to an entity associating regional and local governing authorities.

- Fifty commercially active seaports are already under local control

Since 1983, under Law N° 83-663, of 22 July 1983 on the redistribution of competences between Communes, Departments, Regions and State, all other (generally smaller) ports are already under the responsibility of locally governing authorities ("Départements" for commercial and fishing ports, "Communes" for ports dedicated only to leisure boats).

Law n° 2002-92 of 22 January 2002, on Corsica, added Ajaccio and Bastia ports to their list, and put these two commercial ports under regional control (Collectivité territoriale Corse) instead of that of the two Corsican Départments.

About 50 of these "decentralised" seaports are commercially active and they account for 2% of the total national tonnage.

- Current commercial role of Chambers of Commerce and Industry

Commonly, although there is no such legal obligation, premises and equipment in non autonomous seaports are commercially run by local "Chambres de Commerce et d'Industrie" enjoying a long term convention of concession (up to 50 years) from the State or the Département. This practice is related to the fact that each Chamber is a public administrative body created under State supervision, legally responsible for providing various structured services to its members, for representing them collectively on the public scene, also having the legal possibility to provide equipments and management in ports, airports, commercial and industrial land developments, and to receive delegation for carrying out public services.

2.7.1.2 Dynamics/future changes in the port sector

A renewed framework for the management of French ports could emerge from the implementation of Law n° 2004-809 of 13 August 2004, on liberties and local responsibilities, whose article 30 contains guidelines and agenda for transferring seaports to Régions or Départements.

All concessions and leases in those ports will remain valid under the new governing body, meaning in particular that their various durations previously contracted with the State will be kept whatever their length. In a few ports concession to local CCI will terminate by 31 December 2007. Otherwise termination dates of concessions to CCIs are spread from 2008 to 2044.

It may be expected that general national rules will be legally issued (including transposed relevant EU provisions), concerning possible delegations of port authority functions or port services provision by local governing bodies. However it must be stressed that these bodies will ultimately have a fairly free choice of the way to manage their newly acquired seaports, as well as the ones they already detain.

Innovative management schemes may therefore be proposed by governing bodies (as well as by CCIs as their current operators), in due time, to replace centuries old split management schemes inherited from central State.

The case of autonomous seaports is quite different. Tendency is that they legally and progressively evolve toward (even more) company like structures and management schemes (e.g. loosening presently tight central control; increasing the recovery of costs from users). This will however be engineered in a very progressive and continuous way. They are not expected to lose their special legal public status, originally funded by Law N° 65-491 of 29 June 1965.

Transfers of responsibility from central government may also be considered as an answer to higher levels of public financing in seaports investments, obtained from regional and local governments, compensating for national budget scarcity.

2.7.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

All main continental French ports (except Calais) are managed under the legal status of "Port autonome". This is the stable French management model which can be compared with that of other large European ports.

According to legal provisions consolidated in the "Seaports Code", Book I, Title I, an autonomous seaport is directly in charge of:

- development, improvement and maintenance of port infrastructures;
- general management, police and upkeep of port docks and premises;
- general management, police, safety and security of movements of ships and goods;
- management and industrial-commercial development of large public land assets.

They also provide cranes and their crew to cargo handlers in non dedicated terminals

2.7.3 The decision-making procedure. Process applying to investment decisions.

- Investments

In "ports autonomes" investments are proposed by the State-appointed Director. Only investments decided by the board may be financed and carried out by the autonomous port.

However this local decision-making process is submitted to strict pre-decision and post-decision monitoring by national authorities: twice a year, for each port under national control, a central body (with representatives of both Ministry of Transport and Ministry of Finance) reviews the actual implementation of approved annual investment programmes, authorizes possible changes and approves next year's programme plus previsions for two more years. Approval and review include detailed financing and fund raising for all equipment.

The new "Agence des participations de l'Etat" (Agency for State shareholders) created under the responsibility of the Ministry of Finance may change the contractual relations between the "port autonome" and the State.

- Port revenues (see also 4.7.1.2)

The board of administrators also decides on the level of port dues collected on ships, passengers and cargo.

Although dues are not taxes but revenue for the port budget, they are collected by Customs as if they were duties, and then repaid to the port.

An annual forecast of balanced revenues and expenses must be approved by the central State administration, before the beginning of each year.

- Management of port operations by Chambers of Commerce and Industry (CCI)

For its port activity, a Chamber of Commerce has specific employees hired under private contracts (instead of public ones for other CCI employees), keeps separate accounting, and is submitted to specific controls and approvals (tariffs, investments) by the governing body.

However, the elected decision making assembly and bureau of CCI are common to all its activities, including those of the port concession.

2.8 GERMANY

2.8.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.8.1.1 Type of ports

The German ports can be categorised as follows:

- ports that belong to a Land and a municipality (city states e.g. Bremen and Hamburg);
- ports that belong to a municipality (e.g. Kiel, Flensburg, Wolgast);
- ports that belong to a Land and partially to a municipality (e.g. Wilhemshaven);
- ports that belong to a limited company (e.g. Wismar, Rostock, Sassnitz/Mukran);
- ports that belong to a private company (e.g. Nordenham; various seaports in Lower Saxony like Emden, Cuxhaven)

2.8.1.2 Overall legislative framework

Most German seaports are not legally neither economically independent entities. Their land and water surfaces mainly belong to the territorial authorities whose jurisdiction extends far beyond the harbour area. There are no port authorities to cover all the public functions relating to the port. Instead, these functions are covered by various departments of the territorial authorities as part of their general administration. For instance, in Hamburg port-related matters are the responsibility of five different ministries.

2.8.1.3 Dynamics/future changes in the port sector

- The Ports of Bremen recently went trough some changes.

The company Bremenports GmbH & Co. KG (Ltd., Cie.) was founded on 19 November 2001. It is a 100 % "subsidiary" of the Free Hanseatic City of Bremen (City and Federal State of Germany). On 1 January 2002, Bremenports GmbH & Co. KG started operating in the Ports of Bremen and Bremerhaven.

The company was essentially created from the former Hansestadt Bremisches Hafenamt, or "Hanseatic City of Bremen Port Office". This was acting as a management company on behalf of the Free Hanseatic City of Bremen in the fields of building, constructing, maintenance of the infrastructure and promotion of the Ports of Bremen and Bremerhaven, including the numerous service offers, such as port telematics, but without the functions of harbour master and shipping office.

The legal form - a private limited partnership - enables Bremenports to operate on markets beyond the state of Bremen's boundaries, provides greater flexibility regarding the planned expansion of business operations, as well as a convincing

framework for business operations. Another factor is that, being managed by a private-sector company, the Ports of Bremen can also position themselves better within the broad inter-port co-operation network in north Germany, and in the construction and operation of the new deepwater port in Wilhelmshaven, in which several north German Federal States are involved.

- Lower Saxony

Lower Saxony's government decided in September 2004 to privatize the State's seaports. Following this decision Niedersachsen Ports GmbH & Co. KG (NPorts) was founded in November in the legal form of a limited partnership, whereas the State is the only partner and holds the total of the shares of the Limited Company, which as a legal person acts as the managing partner within the partnership. NPorts' task is to operate all seaports along Lower Saxony's coast line that were previously run by the State itself through its seaport administration. NPorts became operational on 1 January 2005. It took over the complete personnel that was employed by the former port administration and shall receive the land and the water for all ports. The goal is that by the end of 2005 the entire "hardware and software" of Lower Saxony's ports will be transferred from the State to NPorts.

By handing over the assets and the operation of the ports to a private body the role of the State will change from directly being involved into the port's day-to-day operation to a more supervisory, monitoring and steering function. The State expects that running the ports as a private business will lead to more flexibility in decision making and will enable the ports to faster react on market requirements. The State believes that running a port in a private structure will lead to better economic results then merely administering the ports by a part of the public administration. A private structure focussing on economic performance will ultimately result in fewer subsidies for the ports.

- Hamburg

Hamburg is planning to merge the port-related tasks of the State Ministry of Economic Affairs and of the Ministry of Finance and assign them to a port authority as a separate legal entity outside the City States administration as off 1 October 2005. These tasks cover both the commercial function of the land-lease and the public service of planning, building and maintenance of the public infrastructure including the control of the port traffic. The project is up to final approval by the Hamburg State Government and the Hamburg State Parliament.

2.8.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

As the port does not exist as an independent administrative entity, the various duties of port administration are usually the concern of the corresponding agencies of the legislature and the executive authorities (finance, transport, public works, etc.), which are responsible for the whole area of the territorial authority in question and not only for the port. The political leadership of each territorial authority coordinates the duties.

In municipal ports, including Hamburg, the public duties are carried out by the various departments of the general administration. In the ports belonging to the "Länder", the

responsibility is transferred to a local agency of the "Land" administration (port office) or – as in Bremen and Bremerhaven and Lower Saxony – to a privatised organisation (Bremenports GmbH & Co. KG) The nautical responsibilities are handled by the harbour masters office (port authority), the so called "Hansestadt Bremisches Hafenamt" (public authority). After the transfer of the ports to the newly founded NPorts in Lower Saxony the nautical administrative functions remained with the public administration in the form of the Ministry of Economics, Labour and Transport, but are expected to also being handed over to NPorts during this year. There will be a direct reporting line in this area from NPorts to the Ministry. The public authorities possess no special committees for port affairs; their activity is subject solely to general parliamentary supervision. Where port committees have been formed, for instance in the Chambers of Commerce and Industry, they have an advisory capacity. In the ports belonging to limited and private companies, tariffs for infrastructure are based on civil law. These companies are obliged to draw-up and publish accounts in accordance with German company law.

In the "Land" of Mecklenburg-Vorpommern, according to Port Regulations, the port authorities powers lay with the Lord Mayor in the incorporated cities and the Mayor in other local authority areas and in the heads of the Regulatory Authorities. The harbourmasters are responsible to the Lord Mayor (Rostock) and the Mayors of the respective local authorities.

In the ports located in East-Germany (Mecklenburg-Vorpommern), development of port infrastructure and superstructure are mainly the responsibility of limited companies. Shareholders are predominantly the municipalities. The seaport companies in Wismar, Rostock and Sassnitz/Mukran have got the "Land" of Mecklenburg-Vorpommern as an additional shareholder. Only in the seaport of Rostock the responsibilities for infrastructure (limited company owned by municipality and "Land") and superstructure (private companies) are divided.

In the ports located in former West-Germany, cargo handling activities are carried out by private enterprises in which the territorial authorities often have a share or even full control (e.g. HHLA in Hamburg and BLG Logistics in Bremen). Their tariffs are fixed on the basis of the market price and without interference of the territorial authority. That applies also to the tariffs for cargo handling activities in the ports located in Mecklenburg-Vorpommern.

2.8.3 The decision-making procedure. Process applying to investment decisions.

In Schleswig-Holstein and Niedersachsen there is no governmental administration for individual ports. The port owners (Land, local authorities and private owners) and operators act on their own responsibility depending on market observation and the business environment like economical, transport and structural policy factors.

In Mecklenburg-Vorpommern limited companies - responsible for infrastructure and superstructure - are making all kinds of decision at own risk, based on decision of their boards.

2.9 GREECE

2.9.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Some very important steps have been realized during the last years concerning the institutional and organisation system of Greek ports. The Greek State established the General Secretariat of Ports and Harbour Policy at the Ministry of Mercantile Marine, the Committee of Planning and Growth of Ports, the Hellenic Ports Association and transformed the port authorities in limited companies.

Law n° 2932/2001 put forward the creation of the General Secretariat of Ports and Harbour Policy in the Ministry of Mercantile Marine. The General Secretariat has the responsibility for the overall planning of the national harbour policy, ensuring growth of Greek ports, development of modern infrastructure conform the current and future needs of shipping, and international competition in the port services market.

The Committee of Planning and Growth of Ports ensures the general planning and follow-up of programmes and work. The Committee approves, revises and realises the development projects and master plans of the ports.

The Hellenic Ports Association is called to carry out the co-ordination of the twelve main Greek ports. These ports are members and shareholders of the Association. The responsibilities of the Hellenic Ports Association are the follow-up of the application of legislation, of market developments and of statistical data; and the general co-ordination between the Greek ports.

The most important change was the transformation of the 12 main Greek ports into limited companies. The reform is in the benefit of the quality of services and the competitiveness of prices; Greek ports act as commercial enterprises, operating in a free market. At the same time, the transformation establishes a more flexible frame for the ports' management, given the degree of autonomy that allows the port authorities to take immediate decisions. In 1999 the port authorities of Piraeus and Thessaloniki were transformed into limited companies (law n° 2688/99); the port authorities of Alexandroupolis, Volos, Elefsis, Igoumenitsa, Heraklion, Kavala, Corfu, Lavrion, Patras and Rafina followed in 2001 (law n° 2932/2001).

The management of the Hellenic Harbour Funds, which are established in ports all over Greece, has been transferred to the Local Municipality Sector. This allows improvements in the operation of the ports, use of local resources for development projects and better service for the residents and growth of the local tourism industry.

2.10 ICELAND

2.10.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

On 1 July 2003 new laws for the ports of Iceland where enacted. The purpose of the government was to make the ports of Iceland self-sufficient. From 1 July 2004 on, Iceland

ports are to establish their own tariffs. Before, the government fixed the tariffs for all ports of Iceland (not for services and leases), there was no difference made between the ports.

Until now only the Port of Reykjavík has been self-sufficient and did not receive grants from the government. All other ports more or less were built from taxpayers' money.

The historical and geographical background of the revision relates to the fact that Iceland is a rather big country with very few people. Ships were not strong enough until after the 2nd World War to sail long distances. Therefore many Icelanders lived in small villages and went to sea in the morning and returned in the evening. 300 000 people lived scattered all over the country and Iceland had and still has 80 ports, most of them being very small. With better ships and better roads many of these ports are not necessary anymore. The government believes that by the new laws competition is ensured and the ports of Iceland will be fewer but better and more prosperous and competitive.

2.10.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

The responsibility of the port authority is to ensure that if they want to have a port they have to be able to show profit enough to do so without assistance. If a port does not show profit for a three years period it becomes the responsibility of the community.

2.11 IRELAND

2.11.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

The principal commercial ports in Ireland are State owned companies established under the Harbours Acts 1996 and 2000. Each port company has a Chairman and a Board of Directors appointed by the Minister for the Marine. The Board represents the commercial sector, labour interests and local government. There are no proposals to change this regime at present.

2.11.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

The directors of each company decide on the commercial policy for their company and it is the responsibility of the port management to implement that policy.

2.11.3 The decision-making procedure. Process applying to investment decisions.

The port management prepares budgets and investment proposals for their company and these are considered by the Board of Directors who is free to amend, reject or approve the proposals. Where approved it is the responsibility of the management to implement that policy.

In the case of investment proposals, an approval of the Government is needed for any borrowing requirement to fund the investment proposal.

2.12 ITALY

2.12.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.12.1.1 Type of ports

The seaports are defined by Italian law as public domain, which is State owned and inalienable, and devoted to navigation. The State as "owner" takes care, in general, of the administration. As regards the major ports the State takes care of their tasks through dedicated non economic public bodies – the port authorities. Therefore only ports administered by the port authorities will be examined.

2.12.1.2 Overall legislative framework

In 1994 the port sector organisation was modified by law n° 84/94 and following modifications. The ports public nature was not changed.

2.12.1.3 Dynamics/future changes in the port sector

The Italian Parliament has started to examine some proposals modifying law 84/94 which is the ruling law for the port sector. Nowadays substantial modifications to the main duties and the juridical status of the port authorities or to the organisation of technical nautical services do not seem foreseeable.

2.12.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

The institution of port authorities, which are submitted -on some issues- to the control of the Ministry of Infrastructures and Transport, were installed in 24 ports with autonomous budgets and finance. These are: Ancona, Augusta, Bari, Brindisi, Cagliari, Catania, Civitavecchia, Genova, Gioia Tauro, La Spezia, Livorno, Marina di Carrara, Messina, Napoli, Olbia, Palermo, Piombino, Ravenna, Salerno, Savona, Taranto, Trapani, Trieste and Venezia.

Port authorities have public legal status. They are given the administrative autonomy, as well as budgetary and financial autonomy, in the limits foreseen by Law n° 84/94. Their principal assignments (see art. 6, law 84/94) are the following:

- policing, programming, coordination, control and promotion of the commercial and industrial activities that are carried out in a port;
- maintenance of the common parts (open to all users);
- arrangement of the plans for disposition and use of the port (programming and port planning);
- administration of port areas and quays. This means that the port authority has got the power to assign in "concession" parts of the port territory, equipped or not, to private

undertakings carrying out commercial and industrial activities against payment of a "concession fee (canone)". The "concession" of the maritime public domain, in general, is ruled by the Navigation Code (article 36 and following) and by its implementation rules. The Law 84/94 has introduced some specific provisions regarding lease of port terminals to terminal operators. The concessions generally have a more than one year duration.

- granting authorizations to private undertakings to carry out their port activities.

Port authorities do not perform any direct management of the economic activities (cargo loading and unloading, services supply to ships, etc.), which have to be entrusted to private parties. More precisely, port authorities cannot carry out port operations and their connected activities, not directly neither as shareholder.

Under the terms of Article 62 of the Navigation Code, arrival, departure, movement, mooring and berthing of ships are ruled by the harbour master, since they concern safety of navigation. The berthing assignment to commercial ships belongs to port authorities in liaison with the maritime authority relevant to the vessel's safety aspect.

Relations between port authorities and their personnel are ruled by National Collective Labour Contracts, on the basis of general criteria established by a decree of the Minister of Infrastructures and Transport. Assoporti – the representative association of the port authorities – stipulates such national contracts (both normative and economic part) with the representative national trade unions of the personnel.
For some limited matters a local integrated agreement between the port authorities and their employees' trade unions is admitted.

2.12.3 The decision-making procedure. Process applying to investment decisions.

After either consultation with the Port Committee[1], or a resolution of the same body, the President of a port authority grants authorizations to undertakings to carry out port operations and connected complementary services and concessions on port areas and quays or on other public domain assets.

As regards infrastructural investments, the major port works are included in the Port Regulatory Plan[2] (PRP) and in the Operational Plan. The latter is updated once a year by the port authority. On the proposals included in the Port Authorities' Operational Plans the Minister of the Transport yearly determines the major works to be carried out that are financed by the State.

[1] Port Committee: Collegiate body formed by representatives of a number of Ministries, Regions, Provinces, Communes, Chamber of Commerce, operators and port workers.
[2] Port Regulatory Plan: a planning tool of the territory prepared by the port authority. The Plan is agreed upon by the municipality and it is approved by the Region.

2.13 LATVIA

2.13.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

The ports in Latvia are operating as landlord ports according to the "Law on Ports", adopted in 1994 as an umbrella law for the port sector. This model of port management provides that the port authority, acting as a non-profit entity, only manages the infrastructure and looks after the policing of port operations. The actual provision of port services is the responsibility of the private sector that rents port sites from the port authority.

2.13.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

The main functions of the port authority are maintenance of infrastructure, provision of safety of navigation, collection of port dues and charges, determining of port regulation, control and prevention of pollution, issuance of licenses to companies operating within the port (including Free zone licences), monitoring of compliance of business activities to legislation.

2.13.3 The decision-making procedure. Process applying to investment decisions.

The head decision-making institution of the port is the Board, composing of four representatives of the respective municipalities and by one representative from the Ministries of Transport, Finance, Environment and Economics. Subordinate to the Board is the executive body of the port authority directed by the Chief Executive Officer.

The State policy regarding the development and the operation of all ports in Latvia is co-ordinated by the Latvian Port Council, which is headed by the Prime Minister and which comprises of senior officials of the municipalities and professionals operating in the port sector.

2.14 LITHUANIA

2.14.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Klaipeda State Seaport is a landlord port operating under the special Law on Klaipeda State Seaport of the Republic of Lithuania. The Ministry of Transport and Communications has approved Regulations on Port Operations and Port Shipping Regulations, which are binding to all port users. No material changes are foreseen.

2.14.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Klaipeda State Seaport Authority (KSSA) is a State enterprise in charge of overall port management. The main functions of the port authority are:

- coordinate the protection of the port territory effected by port users; ensure safe navigation in the port;
- ensure Harbour Master's activities;
- maintain and handle port reserved territories in accordance with the procedure set by the Government of the Republic of Lithuania;
- use and manage in an efficient way the State owned property entrusted to the port authority;
- lease port land;
- collect port dues;
- organise rescue operations of ships and humans in the port basin;
- draw up port strategy projects, master plans of the port and port reserved territories; organise their implementation and scientific research works, and advertise the port;
- study projects on reconstruction of port-based structures and construction of new objects; have such projects approved by other institutions; set and approve mandatory terms of reference;
- implement preventive measures intended for protection of the port against pollution, and organise elimination of the consequences of pollution;
- construct, use and develop port infrastructure;
- maintain design depth in the port basin and at the berths and piers;
- organise and carry out port environment protection;
- upon coordination with municipal institutions, carry out preparatory infrastructure development works in the port reserve territories;
- ensure maintenance in non-leased parts of the port land (territory);
- make arrangements for social and utility services for seamen.

2.14.3 The decision-making procedure. Process applying to investment decisions.

The main port development measures are described in the Long Term Development Strategy of Lithuanian Economy. More detailed measures are approved by the programme of the Government. The KSSA Strategic Activity Plan covers a period of three years and has been approved by the Minister of Transport and Communications.

KSSA has been founded by the Ministry of Transport and Communications. The Minister of Transport and Communications appoints and dismisses the manager and the chief accountant of the port authority; the said Minister also adopts, amends and supplements the Articles of Association of the port authority; approves the annual income and expenditure estimates and the port authority's annual report on port operations.

Pursuant to a resolution of the Government, a Port Development Board was formed which deals with the port strategy and the coordination of relations between the port, Klaipeda Municipal Authority and State institutions. The Port Development Board composes of representatives of the Ministry of Transport and Communications, the Ministry of Finance and other ministries concerned, Klaipeda County Governor's Administration, Klaipeda Municipal Authority, scientific institutions, the port authority, port users and their associations.

A Port Board is responsible for drafting the port development documents (programmes). This Board consists of representatives of the Ministry of Transport and Communications, Klaipeda

County Governor's Administration, Klaipeda Municipal Authority, the port authority, port users and their associations, and institutions. The Ministry of Transport and Communications has approved the Regulations of the Port Board.

2.15 MALTA

2.15.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.15.1.1 Type of ports

In Malta there are two main ports engaged in international trade: Valletta, a multipurpose port (passengers/goods/ship-repair) and Marsaxlokk, a container transhipment hub port.

2.15.1.2 Overall legislative framework

There are two main legislative acts: the Malta Maritime Authority Act (1991) that establishes the Ports Directorate of the Authority as the port authority for all ports and the Malta Freeport Act (1989) that establishes Malta Freeport Corporation as the Authority on freeports.

2.15.1.3 Dynamics/future changes in the port sector

The present Malta Maritime Authority Act is subject to review pending on-going discussions on how to further liberalise services.

2.15.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Malta Freeport Corporation is responsible for the development and management of the freeport zones at Marsaxlokk and for the licensing of terminal operators thereat.

Malta Maritime Authority's Ports Directorate is responsible for the development/management of all ports (except the freeport facility), the regulation of service providers in all ports, including statutory conditions of work and authorisations and the promotion of ports. The Ports Directorate includes the Harbour Master Office and is responsible for the safe navigation in ports and territorial waters, dredging, the drawing up of navigational charts and the regulation of technical/nautical services.

Malta Maritime Authority is also required to advise the Ministry responsible for shipping and ports on matters relating to maritime transport.

2.15.3 The decision-making procedure. Process applying to investment decisions.

Malta Freeport Corporation is the decision-maker in respect of the infrastructure development and the management of the free zones. On matters of national interest relating to Freeport

zones it is required to recommend to the respective Ministry and request approval e.g. the privatisation of the port facilities.

The decision making process in Malta Maritime Authority is vested in its Board of Members, and in case of ports is also delegated to the Executive Director (Ports). He acts as the head of the port authority and advises to the Board on any required legislative amendments for onward submission to the Ministry. He oversees the maintenance of service contracts, leases and concessions. The Executive Director (Ports) chairs a number of statutory committees relating to the organisation of service providers in ports. The various heads of units within the Ports Directorate are delegated the respective day to day duties.

As regards investments in port infrastructure or projects relating to the public domain namely navigation, dredging, VTS, EDI, the Executive Director (Ports) develops a brief note on the relevant project for the approval of the Board. In respect of privatisation issues the Authority makes its recommendations to the Ministry concerned for its approval.

On matters of national interest the Minister may consult the Authority and issue directions that have to be executed by the same Authority.

2.16 THE NETHERLANDS

2.16.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Most seaports in the Netherlands are administered by port authorities, these are either municipal entities, a combination of municipal and provincial entities ("Havenschappen") or corporative bodies.

The Rotterdam municipal port management was recently given the status of a legally independent entity. The 100% shareholder is the Rotterdam municipality.

The municipal port of Amsterdam is administered and operated by a separate municipal enterprise called "Havenbedrijf". The administration and operation of the other municipal ports are integrated in the municipal administration.

The ports of Delfzijl/Eemshaven and Moerdijk are administered and operated by a statutory body called "Havenschap" (Harbour Board). In the "Havenschap" several authorities (municipal and provincial) are represented. The former "Havenschappen" Vlissingen and Terneuzen have merged into the entity "Zeeland Seaports".

There are several private ports in the Netherlands. The two most important ones are located in Velsen/IJmuiden: the port of the Hoogovens iron and steelworks and the port of Zeehaven IJmuiden N.V. The majority of the shares of Zeehaven IJmuiden N.V. is in the hands of private companies. The municipality of Velsen/IJmuiden and the province of North Holland have got a minority of the shares in this limited company.

Port authorities are member of the Dutch National Ports' Council (NPC), which is an advisory board for the Minister of Transport on port matters. The NPC does not only consist of port

authorities, but represents members of the private port sector as well as relevant ministries. The NPC is not a national seaports association.

A variety of national legislation on port related issues exists; on safety, security, customs, pilots, social, environment, etc. An overall port law however does not exist.

The port sector in The Netherlands is very dynamic. This is an on-going process. The most important change was the corporatisation of the Port of Rotterdam

2.16.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Port authorities in the Netherlands are responsible for the management of the port. This means lease of the land, attract business to the port, earn port dues, consider safety, manage vessel traffic, etc.

2.16.3 The decision-making procedure. Process applying to investment decisions.

National law is decided by the national parliament. Local law and Port bye-laws are issued by the local (municipal/provincial) council.

There is a national overall port policy (planning). This forms part of the national transport plan or sometimes of a specific national port plan (e.g. for the next decade).

Day to day decisions on (smaller) investments are taken by the local authorities/the port management. Very large investments (like the second Maasvlake or Betuwe rail connection) are decided by both national and local government. These procedures are very sophisticated and take a very long time (years to decades). They include economic impact studies, environmental assessments, financial agreements, EU-acceptance, etc.

2.17 NORWAY

2.17.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.17.1.1 Type of ports

The port structure in Norway is based on municipal port districts, within which one can find both public and private port sections and quays.

2.17.1.2 Overall legislative framework

The administration of Norwegian ports and coastal waters is governed by the Port and Seaways Act of 1984. Each municipality is in charge of its port district under the Port and Seaways Act. The funding of port activities is based on the principle of self-financing. The Act prescribes that port funds have to be kept separate from the

municipal economy and charges the ports collect should be used for the benefit of the port only.

2.17.1.3 Dynamics/future changes in the port sector

Recently, several changes in the public administration have been implemented in Norway. By the end of 2003, a municipal port authority had to be organised either as an autonomous municipal enterprise or as an inter-municipal liable enterprise. The Norwegian Port sector welcomes this opportunity for the public port sector to operate on a more business-like approach than previously.

These new changes, together with changes in the transport policy, made it desirable to revise the present Port and Seaways Act. A revision committee, appointed by the Government, delivered in March 2002 a report with recommendations. The report is now under consideration in the Ministry of Fisheries and Coastal Affairs. A proposal on the revision of the Act will be put forward in Parliament in 2005.

2.17.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

In the public ports of Norway the port authority and the port administration form one unit which is responsible for the management of the port concerned. The management of the ports is mainly based on the landlord model as the ports' operational tasks are carried out by private companies. The port authority is responsible for safety, security, environmental management, control and supervision of the port area and the landlord functions. The port authority is also responsible for the fairways, the waterway access to the port, including traffic control.

2.17.3 The decision-making procedure. Process applying to investment decisions.

Most of the ports are organised as municipal enterprises. In some cases, ports are inter-municipal enterprises and several municipalities cooperate. This is done according to the Local Government Act. However, ports are special in the municipal society since they are also governed by another national act, the Port and Seaway Act. This act describes the duties of port and municipal authorities in the field of port management. Thus this legislation is important for the management of the port and for planning procedures.

The daily management of the port is carried out by a port director (executive officer). He/She reports to the governing board of the port. The board is appointed by the municipal council in accordance with rules settled by the Port and Seaway Act. The ten most important ports, the National Ports, have each got own specific regulations.

The port has got a certain degree of autonomy; the municipal council will normally sanction the budget proposal of the port but within these frames the port can operate relatively autonomous. The economy of the port is, according to the Port and Seaway Act completely independent form the municipal economy. The economy of the port is based on the principles of self financing. With regard to decision-making the port thus will act much as a limited company. Plans of investment and other activities are sanctioned by the board within the frames set by the municipality and they are executed by the port director.

This scheme applies also to investment decisions. The situation will vary a lot from port to port. However, one can say that decisions on investments are based on the needs of the port, defined from market analyses or from direct proposals or demands from customers. The final decision on the investment plans must follow the procedures described above.

2.18 POLAND

2.18.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.18.1.1 Type of ports

There are 13 ports operating in Poland. These are: Gdansk, Gdynia, Darlowo, Elblag, Hel, Kolobrzeg, Leba, Police, Puck, Stepnica, Szczecin/Swinoujscie, Trzebiez and Wladyslawowo.

Commercial traffic is reported for ports such as: Gdansk, Gdynia, Elblag, Kolobrzeg, Police, Stepnica, Szczecin/Swinoujscie and occasionally Wladyslawowo. Other ports comprise fishing and yacht harbours.

Among the aforementioned, only Gdansk, Gdynia and Szczecin/Swinoujscie play a pivotal role in terms of the national economy. These ports developed strategies that aim to improve their offer, first and foremost they relate to the expansion of the capacity to handle container ships, ro-ro vessels, as well as ferries and passenger traffic.

Local port strategies usually provide for the upgrading of the tourism-related capacity.

2.18.1.2 Overall legislative framework

The Act on Seaports and Harbours of 1996 (as amended) regulates the functioning of the governing bodies of the port. The Act on Sea Space in the Republic of Poland and Maritime Administration of 1991 (as amended) deal with the State maritime administration.

2.18.1.3 Dynamics/future changes in the port sector

The Act on Sea Ports and Harbours of 1996 forms the basis of Polish port policy. The Act stresses the public function of ports and puts forward a number of rules on clear and transparent relations between the Polish government and the port authorities. On 30 July 2004, the Act of November 23, 2002 amending the Act on Sea Ports and Harbours, was published in the Journal of Laws (no 169/2004, it. 1766). This amendment stipulates the rules and regulations on port charges levied by the port managing entities.

2.18.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Ports holding a basic position in terms of maritime commerce are governed by port authorities in a form of joint stock companies with a minimum share owned by the State Treasury of 51% and shares owned by competent local authorities according to the location of ports.

Currently, there are three port authorities: Port of Gdansk Authority SA, Port of Gdynia Authority SA and Authority of Szczecin/Swinoujscie Seaports SA.

Other ports remain under the responsibility of the governing communes or Maritime Offices. Acting on behalf of Maritime Offices in ports are Harbour Master's or Harbour Boatswain's Offices. An exception to that rule is the Port of "Police" that is owned by the Chemicals Manufacturing Plant.

Authorities of ports playing a basic role in the maritime commerce act as "landlords": managing port infrastructure, ensuring its maintenance and development, as well as collecting port charges for the use of facilities. Additionally, they lease port grounds and other port facilities to tenants and provide supplementary services related to use the port infrastructure. Finally, they are held responsible for vessel-generated waste reception.

Port operating services (cargo handling, towage, etc.) are rendered by private businesses. Maritime Offices supervise the safety of navigation, carry out inspections of vessels, examine qualifications of crews, administer exams, and award sailing certificates and licenses. Furthermore, they are in charge of the condition of navigation markings, providing coastal and sea rescue services, pilotage and the protection of fisheries. At present, there are Maritime Offices in Gdynia, Slupsk and Szczecin. Each of the offices is responsible for a part of the Polish coast.

Maritime Offices levy charges for carrying out inspections and issuing navigation safety certificates pursuant to the Act of 20 April 2004, amending the Act on maritime safety and amending a number of other Acts.

2.18.3 The decision-making procedure. Process applying to investment decisions.

Decision-making procedures in ports depend on the port management and supervision system as described above.
All business activities, including investment projects, must be in accordance with local area development plans, on which local authorities decide.

The land underneath the water area of the port is the property of the State Treasury and can not be subject to privatization (sale). Other land within the administrative range of the port area is owned by the State Treasury, by the local authority, by private owners or remains in perpetual usufruct of the port authority. Port authorities hold the pre-emption rights of land for sale within the administrative range of the port area.

The Minister of State Treasury, in agreement with the minister competent in the maritime economy, approves transfer of ownership rights, perpetual usufruct or rent for perpetual usufruct of real estate owned by State Treasury or a local self-government authority.

Locating businesses related to the lease or various forms of making the port infrastructure and other port facilities available for use, requires entering a contract with the port authority.

Port authorities determine the terms of lease contracts. Long-term contracts involving the land owned by the State Treasury or local authorities (exceeding 10 years) require an approval of the Minister of State Treasury, who consults the Minister competent in the port inspection (currently the Minister of Infrastructure).

The port authority autonomously develops the investment policy, is responsible for strategies and development plans and decides on the appointment of business partners.

The Act of 29 January 2004 on the Public Procurement Law promotes that selection of business partners for investment projects or other significant purchases is done following an open tender procedure.

2.19 PORTUGAL

2.19.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Since 1997 port authorities evolved more into landlord ports following a political decision contained in the 1997 White Paper for Ports and Maritime Transport. The main reason was to leave commercial activities to the private sector, reinforcing the role of the port authority in coordination of activities, safety and environment, law enforcement, promotion of the port, maritime and land access. In particular it was considered that cargo handling/stevedoring are activities which must be performed entirely by private operators. Privatisation of towage and mooring services was also considered. The status of port authorities changed from public institutes to private companies with the State as only shareholder (e.g. Port of Leixões).

Changes to the port system were effected in December 1998. Ports in Portugal are State owned and only the State is responsible for their management, although operational services are done by private companies on the basis of concession contracts, following public tenders.

Ports in the Autonomous Regions of the Azores and Madeira come under the jurisdiction of the respective regional governments.

Portuguese ports are administered by port authorities.

The five main ports of Aveiro, Leixões, Lisbon, Setúbal and Sines are presently limited companies, the only shareholder being the State. Their regulatory organic statutes were approved in the following legal acts:

- APA-Administration of the Port of Aveiro, S.A.: Decree-law n.º 339/98 of 3 November 1998
- APDL-Administration of the Ports of Douro and Leixões, S.A.: Decree-law n.º 335/98 of 3 November 1998
- APL-Administration of the Port of Lisbon, S.A.: Decree-law n.º 336/98 of 3 November 1998

- APSS-Administration of the Ports of Setúbal and Sesimbra, S.A.: Decree-law n.º 338/98 of 3 November 1998
- APS-Administration of the Port of Sines, S.A.: Decree-law no. 337/98 of 3 November 1998.

The remaining commercial ports are grouped under three public institutions (Instituto Portuário do Norte, Instituto Portuário do Centro e Instituto Portuário do Sul). These public institutions have legal personality, administrative, financial and patrimonial autonomy and are subject to governmental control through the Ministry for Social Equipment. These ports are administered by government-appointed management boards and enjoy a high degree of independence. In recent years self-financing and bank loans have provided their sources of funding. Their regulatory organic statutes were approved in the following legal acts:

- IPS-Instituto Portuário do Sul: Decree-law n.º 332/98 of 3 November 1998
- IPN-Instituto Portuário do Norte: Decree-law n.º 333/98 of 3 November 1998
- IPC-Instituto Portuário do Centro: Decree-law n.º 334/98 of 3 November 1998

Changes in 2001:

- Decree-law nº 75/2001 of 27 February 2001, new towage regulation, establishes rules for towage services.

Changes in 2002:

- Decree-law no. 46/2002, 2 March 2002, establishes that port authorities are fully responsible for safety in the port areas.
- Decree-law no. 48/2002, 2 March 2002, new pilotage regulation, establishes rules for Pilotage Exemption Certificates (PEC) and completes the integration of pilotage services in the port authority structure.
- Decree-law no. 257/2002, 22 November 2002, creates the Port and Maritime Transports Institute (Instituto Portuário e dos Transportes Marítimos – IPTM), formed of the former IMP, the ports previously under jurisdiction of public institutions IPC, IPN and IPS and the body regulating Douro river navigation (IND). This new public body supervises, regulates and inspects ports and the maritime transport sector; and administers the ports under its jurisdiction (being all ports except Leixões, Aveiro, Lisbon, Setúbal and Sines).

Following the start of the new government of Portugal, in July of 2004, the responsibility of the Port and Maritime Transports Institute was transferred to the Ministry of National Defence and Sea Affairs. The main ports, managed by Port Administrations, remain under the responsibility of the Ministry of Public Works, Transport and Communications.

The previous government launched a study on the organisational model of the Port Administrations. That study suggested the creation of a Holding of Portuguese Ports. If and when such a suggestion is followed, the Holding will coordinate the management of the Port Administrations, with exception of those in Azores and Madeira Autonomous Regions.

2.19.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Port authorities are responsible for the economic, financial and patrimonial management of the ports under their jurisdiction, the management of their employees and the running of the ports and their complementary, subsidiary or ancillary activities.

As part of the above tasks, port authorities are responsible for:

- attribution of private use and definition of the respective public interest for the purposes of concession, with regard to goods of the public domain, as well as the undertaking of all acts concerning the execution, modification and annulling of licences or concessions;
- issue licences for port activities and the concession of port public services. The authorities may undertake all acts necessary for execution, modification and annulling of licences or concessions, conform the terms of the applicable legislation;
- expropriation of land for public use, and implantation of the administrative thoroughfares necessary for expansion and development of the port, under the legal terms;
- setting the charge fees for the use of the ports, the services provided and for the occupation of zones set aside for commercial or industrial activities;
- protection of facilities and staff;
- public use of the services inherent to the port activity and their inspection;
- responsibility with regard to maritime and port safety in their area of jurisdiction, defining safety conditions for the running of the port, in all aspects, taking particular care to appropriately ensure the commercial operation of the port.

2.19.3 The decision-making procedure. Process applying to investment decisions.

Port authorities have administrative, financial and patrimonial autonomy, and are run on criteria of economic and financial efficiency and flexible management with the clear goal to achieve positive results. As such, profits obtained must cover all operating costs and all investment expenses.

Port authorities are responsible for drawing up annual and multi-annual investment plans for maritime and land installations and equipment. The plans need the approval of parliament. As the State is the single shareholder of the five port authorities, it has the capacity to determine the investment outlined at national level.

The Port and Maritime Transport Institute (IPTM – Instituto Portuário e dos Transportes Marítimos) is a public institute with administrative and financial autonomy and has its own assets. The IPTM is subject to the legal regulations applicable to public institutes. Its financial and patrimonial regime is guided by the principle of its own statutes: revenue generated must cover at least 2/3 of total expenses, excluding expenses co-funded by the EU.

In administrating the ports, the IPTM will:

- draw up plans for the port layout and expansion of port areas;
- construct, acquire, maintain and inspect maritime and land works and the seafaring and land equipment of the ports, as well as conserving its depths and accesses.

The plan of activities and the annual budget of the IPTM are subject to approval from the Ministers of Finance and Public Works, Transport and Housing.

2.20 SLOVENIA

2.20.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

The legislative framework for Slovenian ports is set by articles 32, 33 and 34 of the Maritime Code, with the definitions for the international maritime port with regard to its physical composition, scope and the property structure of port infrastructures.

Obligations and rights for the concessionaire in taking care of port infrastructure (primary and secondary) and waste collection from ships are set by the Government Decree. Annual, mid- and long-term plans for activities are presented by the concessionaire and approved by the Government and supervised by the Slovenian Maritime Directorate and other related State institutions.

For the Port of Koper, being the only international cargo port in the Republic of Slovenia, primary port infrastructure (such as piers, gates, adjacent land, etc.) belongs to the State and secondary port infrastructure (such as roads, rails, fences, power, telecommunications, water and waste waters installations, etc.) represents the 51% capital value for the States share in the company Luka Koper and the recognition of the Luka Koper concession rights in the port of Koper.

The Maritime Code stipulates that port infrastructure comprises built-up shorelines, breakwaters, pier accesses, mooring devices, access routes, railway tracks, entrances, fences, sewage and water systems, electrical installations, lighting and other facilities whose purpose is to ensure safe navigation and safe mooring as well as the undisturbed performance of port activities and telecommunication installations.

Port infrastructure is owned by the Republic of Slovenia, the local community and private persons. The Republic of Slovenia, acting via the local community, decides on concessions or awards the management and development of port infrastructure to the port administrator. Access routes, railway tracks, entrances, fences, sewage and water systems, electrical installations, lighting and telecommunication installations in the cargo port of Koper represent an investment of the Republic of Slovenia in the share capital of Luka Koper.

It is Luka Koper's obligation to maintain the basic function of these facilities as part of the port infrastructure. Port infrastructure is used for the purposes for which it serves and cannot be part of the bankruptcy estate.

The commercial public service for marine activities in the cargo port of Koper performs the following services:

- regular maintenance of port infrastructure intended for public transport;
- regular collection of waste from ships;
- regular maintenance of facilities ensuring safe navigation and the safety of sea-ways.

The commercial public service for marine activities is provided in the following forms:

- by granting of concessions to private persons;
- in a public company;
- in a general facility.

At the end of 2002, the Slovene Government passed the Decree on the Awarding of Concessions or the Management, Development and Regular Maintenance of Port Infrastructure in the Port of Koper. The Decree specifies that, in terms of purpose and ownership, port infrastructure will be defined in more detail in the concession agreement. Before signing the concession agreement, the grantor and the concessionary will sign an agreement regulating their mutual relations or the period following the ownership transformation of the publicly owned company Luka Koper and a special agreement regulating land usage rights, construction rights, and other issues related to the property in the cargo port of Koper which is owned by the Republic of Slovenia.

The Decree therefore requires that, before concluding a concession agreement, the parties enter into two other agreements regulating, on the one hand, the question of ownership or lease of state-owned land and, on the other hand, the question of shorelines constructed by Luka Koper after 1st January 1993 and which are in its ownership.

Based on agreements with the Ministry of Transport and the Ministry of Finance of the Republic of Slovenia, Luka Koper prepared in 2003, in cooperation with external advisors, drafts of all three cited agreements together with relevant annexes.

No agreement has so far been reached with the Republic of Slovenia. The Company's contractual relationship with the Republic of Slovenia thus remains regulated by a lease agreement for operational facilities and land owned by the Republic of Slovenia in the Port of Koper, which was concluded in 2000.

In expectation of reaching a permanent/long-term settlement of relations with the State, Luka Koper has established a port infrastructure service, thus adapting its internal organisation to the foreseen changes. In compliance with the agreement in force, the Company paid rent of SIT 151,016,320 in 2002 and SIT 184,932,700 in 2003 (SIT 20 per ton of handled goods, excluding petroleum). In accordance with the provisions of the lease agreement for operational port facilities and land owned by the Republic of Slovenia in the Port of Koper, the Company is entitled to invest in the leased property. In 2003, the Company invested SIT 146,065 thousand for the maintenance of operational shores and land owned by the Republic of Slovenia. An additional SIT 983,407,000 was allocated for the maintenance and management of port infrastructure in accordance with the Maritime Code and the Decree on the Awarding of Concessions for the Management, Development and Regular Maintenance of Port Infrastructure in the Cargo Port of Koper.

In 2003, the Company realised revenues from collected ship charges for SIT 1,035,565 thousand.

2.20.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

The Slovenian Maritime Directorate was established on 1 January 1995 as a maritime administration which is a part of the Ministry of Transport.

The Slovenian Maritime Directorate carries out a wide range of tasks encompassing all aspects of maritime activity and covers provisions about the safety of navigation, development of port infrastructure, search and rescue operation, pollution prevention,

seaways, ports and harbours, ships survey, issuing of certificates and documents required to be carried on board ships, port state control, registration of ships and pleasure boats, issuing of seafarers certificate. The main tasks are the economic development of port infrastructure and safety at sea, inland waters and lakes.

The Republic of Slovenia gives the concession to the company Luka Koper for management, regular maintenance and development of the port infrastructure that has to be in accordance with the National Programme for the Maritime Development. The Slovene Maritime Directorate supervises the implementation of the concession. Luka Koper has to report on the implementation of the concession twice a year.

2.20.3 The decision-making procedure. Process applying to investment decisions.

The concessionaire (Luka Koper) has to suggest and accept a 5-year programme for the development of port infrastructure that is in accordance with the National Programme for Maritime Development. The programme can be changed or complemented annually and must be approved by the Government of the Republic of Slovenia.

Luka Koper is managed in accordance with the Commercial Companies Act, the fundamental legal act regulating this field in the Republic of Slovenia, and in accordance with the Articles of Association of Luka Koper.

The Company has a proper system for the management of the business group, allowing realizing development orientations, business policy and goals. All activities of the business group are included in the system. The principles of management of the business group are embodied in the Quality Manual. The Management Board of the Company regularly reviews the effectiveness of the management system on the basis of periodical reports presented at meetings of the Quality Assurance Council. It compares the planned and achieved goals and determines the necessary measures for improving the system, processes and services. The review of the system includes business plan objectives, strategy implementation, human resources development, partnerships and sources, and improvement of processes.

2.21 SPAIN

2.21.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

The Spanish Constitution (Article 149.1.20) determines that ports of general interest belong exclusively to the State, while autonomous regional communities may control ports of refuge, sports, leisure and others of a non-commercial nature.

Ports of General Interest meet one or more of the following conditions:

- ports that carry out international commercial maritime activities;
- ports whose hinterland significantly influences more than one autonomous region;
- ports which serve industries or establishments of strategic importance to the national economy;

- ports whose annual throughputs and the characteristics of their maritime trade activities classify them as essential contributors to the general economic activity of the State;
- ports whose special technical or geographical conditions constitute essential elements in the safety of maritime traffic, especially for island regions.

The state-owned Port System in Spain consists of 47 Ports of General Interest, managed by 27 Port Authorities, with the Spanish State Ports Agency "Puertos del Estado" responsible for coordination and efficiency control. Puertos del Estado depends on the Spanish Ministry of Public Works and Transport and is charged with the execution of the Government's port policy.

Even though the ownership of the ports of general interest belongs to the General Administration of the State, the autonomous regional communities appoint the President of the port authority and a significant percentage of members of the Board of Directors of the port authority.

The legislation provides the Spanish port system with the necessary instruments to improve its competitive position in an open, global market, setting up extended self-management faculties for the Port Authorities, which must be run on commercial business criteria.

Within this framework, the Ports of General Interest are intended to respond to the landlord model (see 3.20.4). The particular or exclusive use of public property is allowed under authorization or concession regimes (public sector contracting regime) whereas the port services, which are provided by private operators, depend on the private contracting regime. Furthermore, the function of ports goes beyond their traditional role as mere points for cargo loading and unloading and passenger transfer, to become commercial platforms where a whole range of activities generating added value for the cargo are provided, fully integrated into logistic and intermodal transport chains.

2.21.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

Spanish Port Authorities have their own legal personality and property which are separated from those of the State, and they have full capacity and freedom to act and aim towards the fulfilment of their goals, operating within the legal bounds set for private enterprise, including for the acquisition of property and the making of contracts, except when exercising functions within the public domain as set by law.

The functions of the Port Authorities are the following:

- Approval of port authority annual budget projects and its managing programme, financing and investments.
- Arranging for, administering and controlling port services, maritime signalling/lighthouses, and all operations and activities requiring their approval or concession.
- Co-ordinating the performance of the various Government bodies and agencies in which they are shareholders, involved in port activities, except when such functions are expressly attributed to other Authorities.
- Organising the use of the port's service area, planning and programming its development in accordance with approved instruments for zoning and urban planning.

- Writing up and formulating special plans for zoning within the service area to carry out general urban planning, or for the direct works on infrastructure and measures of protection that may be needed.
- Projecting and building works needed within the framework of approved programmes and plans.
- Should it be the case, defining the goals for a 4 years period, in accordance with the Law.
- Technical approval of the investment projects included in the approved programmes, as well as of the costs associated with said investments, and the contracting of their execution.
- Controlling within the port area both the enforcement of regulations on dangerous cargo, safety, and health as well as security and fire fighting systems, notwithstanding the competences of other Administration bodies.
- Approval of the tariffs for various services provided directly, within the limits set by the Ministry of Public Works and Transport, as well as the procedures to be applied and their collection.
- Making concessions and authorisations, subcontracting port services within the service area, and developing and updating the census and registers on the usage of the Port Public Domain. Subscribing contracts for the provision of port services in the port area, in accordance with the general criteria defined by Puertos del Estado.
- Collecting the rates and public fees for the given concessions and authorisations.
- Promoting the training of its personnel and developing studies and research on matters related to port activities and environmental protection.
- Inspecting the good working order of lighthouses in ports run by the Autonomous Regions, which are responsible for their operation and upkeep; notifying them of the problems found for correction.
- Defining the port authority personnel needs, personnel contracting, and making their budgets to comply their goals.
- Managing its commercial and international policy, notwithstanding the competences attributed to the Ministry of Finances and the Ministry of Foreign Affairs.
- Authorising their shareholding in companies in accordance with the conditions established in the Law of Puertos del Estado y de la Marina Mercante.
- Proposing strategies and criteria related to the conditions for providing loading and unloading services for the State societies that operate in their scope, notwithstanding the competences of Puertos del Estado, the General Administration of the State and the Autonomous Regions.

The following role is attributed to Puertos del Estado:

- Implementation of the port policy of the Government and the coordination and control of the efficiency of the Spanish ports of general interest.
- Coordination with bodies of the General Administration which establish different kind of controls in the port area and also with the transport modes in a national wide scale.
- Training, research and technological development in the field of economy, management, logistics and port engineering and other related to the port activity.
- Planning, coordination and control of the lighthouse and aid to navigation services.

2.21.3 The decision-making procedure. Process applying to investment decisions.

The Spanish port system is economically self-sufficient and the expenses and investments in infrastructures are financed by ports themselves, from the revenues of the Port Authorities (see 4.19).

The decision-making procedure in Spanish ports is based on a model which gives the Port Authorities a high level of autonomy in managing its own ports. The Port Authorities have direct competence over port development, their main aim being the constant improvement of port competitiveness in a context of free and fair competition between ports.

Puertos del Estado is responsible for the co-ordination and control of the efficiency of the port system, taking part in the decision-making procedure with direct competence, under the supervision of the Ministry of Public Works and Transport, in the execution of the government's port policy, co-ordination with other bodies from the Ministry of Public Works and Transport, training and promotion of research and development, and planning, co-ordination and control of the Spanish maritime signalling system.

Specifically, in terms of investments, there is an operating procedure for decision-making which is carried out annually on the following basis:

- Each port authority draws up a 5-year Investment Plan, in which details are given on the necessary actions, their global amount and their scheduling.

- The port authorities send the proposed Investment Plan to a Puertos del Estado Investment Committee, which carries out specific monitoring together with each port authority. In the proposals, the most relevant investment projects are submitted to a cost-benefit analysis in accordance with the investment profitability assessment manual, drawn up by Puertos del Estado.

- The Investment Plan is agreed between the port authority and the Puertos del Estado Investment Committee, and may even require a specific meeting. If there is a discrepancy which cannot be resolved at Committee level, a report will be issued regarding the matter.

- The Investment Plan and the reports which may exist are integrated into the Business Plan, the document in which an agreement is finally reached on port development (aims and budgets) and made official through the Minutes, between Puertos del Estado and each port authority.

- The Investment Plan is incorporated into the budget, accounting, taxes and assets system of the port system, in accordance with current legislation.

2.22 SWEDEN

2.22.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

Most Swedish ports are nowadays operated as integrated companies with both port administration and cargo handling tasks. This is the result of a merger between the old port authority and terminal operations. Originally, nearly all public ports in Sweden were owned by the local authorities and run as administrations, whereas cargo handling activities were run as companies, often privately operated.

In some cases the initiative for the mergers was taken by local industries, but mostly by local politicians in the municipalities. The belief was that the creation of integrated port companies would result in a stronger market position through increasing efficiency and reducing costs. The idea was that it is better to work together for the same goal than separately in two different organisations. In addition the stevedoring companies often had economic problems which needed to be solved and there were few interested private investors. Central government was not involved in the process. Trade unions took active part in the decision process and were mostly positive about the change. As far as financial implications were concerned, often the municipality transferred infrastructure to the new integrated port companies on preferential terms.

The integrated port companies are subject to the Swedish Companies Act and are operated on customary commercial criteria. They are municipally owned limited companies. The members of the boards are most often politically appointed, but in some ports the board members represent private companies.

The creation of the integrated port companies is an expression of an endeavour to gain a stronger position in the market through increasing efficiency and reducing costs. Another way of creating greater efficiency with increased competitive strength is regional co-operation between in some cases stevedoring companies and in other cases port companies.

Several ports have joined forces under common administration in the Stockholm region and also in the Lake Vänern area. The latest examples are Mälarhamnar AB and Copenhagen Malmö Port AB (CMP). Mälarhamnar is a merger of the port companies in Köping and Västerås, which together constitute Mälarhamnar AB. CMP is owned by the Port of Malmö (50%) and the Port of Copenhagen (50%). It is a full service port company which rents the infrastructure from its mother companies. The Port of Malmö has become an investment company and one of two mother companies to the new established commercial port operator company CMP. The best example of merging stevedoring companies is Bottenvikens Stuveri AB, which is active in four ports in the north of Sweden. There are also examples of more loose forms of co-operation such as the West Sweden Sea Ports in which the ports of Göteborg, Varberg and Uddevalla have concentrated on different types of cargo and co-operate in for example marketing.

A total of some 30 of the members of the association Ports of Sweden have merged to form larger units. It is thus a consequence of the mergers that the number of port companies slowly decreases, whereas the number of port installations remains more or less the same. Concentration of the cargo flow to a small number of larger ports is the trend and today the 10 largest accounts for approximately 80 percent of the total cargo flow.

Most integrated port companies are wholly owned (but sometimes partly owned) by the municipality, which usually also owns the infrastructure and concludes agreements on market conditions with the port company concerning rights of use. The duration of these agreements is usually about 5-20 years. There are however companies that own and manage the infrastructure, warehouses, cranes, etc., themselves. Some ten ports are organisationally divided into a port administration and a (generally privately owned) stevedoring company that is responsible for cargo handling and rents warehouses etc. from the port administration.

Within some public ports, privately owned industrial terminals are established. They are organisationally entirely separate from the port company and primarily in-house handling is undertaken. These terminals and co-existing service providers in certain ports complement but also compete with operations run by the public port.
As to the future, the trend of creating larger port units will probably continue. The initiatives will come from individual ports trying to meet customers' needs of better and more cost effective services.

2.22.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

There is no national policy or master plan for ports in Sweden. The role of ports in the transport chain has however been one of the main subjects of the Swedish Cargo Transport Delegation. It consists of all main stakeholders in the transport system and was appointed by the state to study different possibilities to enhance the conditions for cargo transport through Sweden In the final report published in July 2004 the importance of Swedish strategic ports/hubs is discussed. It is too early to foresee the results of the proposals given by the delegation.

See above 2.21.1 for information on the responsibilities of port authority and port administration.

2.22.3 The decision-making procedure. Process applying to investment decisions.

For more information on investment decisions please see 4.19.2.

2.23 UNITED KINGDOM

2.23.1 Type of ports, overall legislative framework and dynamics/future changes in the port sector.

2.23.1.1 Type of ports

The UK economy is the fourth largest in the world and its ports play a vital role by handling over 95% of UK import and export tonnage. There are approximately 1000 ports and terminal facilities in the UK. Of these, over 650 have statutory powers and about 120 are commercially active. Much of the trade is concentrated in the largest ports and in 2002, the top fifteen ports handled 79% of all UK traffic. Others offer

facilities for leisure, tourism and fishermen and in Scotland there are numerous "marine works" which offer facilities to inter-island ferries.

The industry comprises a mixture of private, trust and municipal ports which compete with each other and operate as stand-alone, self-financing commercial enterprises.

2.23.1.1.1 Company Owned or Privatised Ports

This sector accounts for just under two thirds of UK port tonnage. Of the 20 largest ports, 14 are in this group. These ports are free to seek commercial funding for investment, on commercial terms, borrowing on their assets or by issuing shares. As with any company, they are obliged to account to shareholders for their failures as well as their successes. As they are subject to the full freedoms and disciplines of the commercial marketplace, they are expected to generate dividends and to increase shareholder value over time. They also have wide discretion over how to invest retained profits.

The British Transport Docks Board was a publicly owned nationalised industry (like British Railways) and subject to the normal constraints on investment and borrowing which applied to all publicly owned industries. It was privatised in 1981 and is now known as Associated British Ports. The group owns and operates 21 ports around the UK, including Hull, Immingham and Southampton.

Some ports such as Manchester (Peel Holdings) and Felixstowe (Hutchison UK) have always been privately owned. The 1991 Ports Act paved the way for further privatisation and seven former trust ports became private between 1992 and 1997. These were Clydeport, Dundee, Forth, Ipswich, Medway, Teesport and Tilbury. A number of these have changed hands since they were privatised. Bristol, which was previously owned by the local authority, was sold to private interests in 1990.

2.23.1.1.2 Trust Ports

Prior to the trust port privatisations, the trust port sector was considerably larger, and the company owned sector proportionately smaller. Trust ports now account for one quarter of the industry by tonnage. They are independent statutory bodies, governed by a board of Trustees charged with promoting the well being of the port to meet the needs of the users and stakeholders. Any surpluses are ploughed back into improving facilities.

Only 20 trust ports have an annual turnover above £1million and eight others have an annual turnover of more than £500k. Several now register negligible income, derived in some instances from activities such as tourism and car parking.

A number of trust ports are important in specific markets. Dover handled 57 per cent of international sea borne passenger traffic in 2002 and captured 41% per cent of international road goods vehicles carried by ferry. Some important trust ports such as the Port of London and the Harwich Haven Authority only provide conservancy and pilotage, with cargo handling undertaken by independent operators.

2.23.1.1.3 Municipal Ports

A few commercially significant ports are municipally owned. Sullom Voe and Flotta provide specialised oil facilities and are amongst the largest in the UK in terms of tonnage handled. Portsmouth, Ramsgate, Sunderland, Weymouth and Workington are the most significant of the rest. Local authorities manage over two hundred minor facilities in the Scottish Highlands and Islands. These and many other facilities operated by local authorities benefit their local communities.

In addition to the above categories, the British Waterways Board, the only remaining nationalised sector of the ports industry, owns 4 ports and operates two of them.

Harbour authorities have powers and responsibilities conferred by Parliament and an obligation to account for their use. Only a small minority of harbours do not have them.

2.23.1.2 Overall Legislative Framework

In the early 1980s the UK decided to the abolition of the National Ports Council, labour deregulation, privatisation and increased competition. UK ports are not state funded or managed and retain strategic independence from government. Government policy is to regulate the sector where appropriate and to remain separate from commercial and managerial decision.

Historically, the UK Government used to take a more interventionist role in relation to the ports industry. The National Ports Council, established in 1964, attempted to co-ordinate investment and their approval was required before major projects could go ahead to avoid the risk of unnecessary investment. In practice, the NPC was seldom able to prevent a port investment project from going ahead. It was abolished in 1980 and there have been no regrets at its passing. During this period ports were eligible to apply for loans from the Government under the Harbours Act. These loans carried interest at commercial rates and were repayable over a fixed period. Such loans are no longer available and if ports need to borrow they have to raise funds in financial markets.

Prior to the repeal of the Dock Labour Scheme in 1989 certain ports, notably London and Liverpool, suffered chronic financial problems because of the need to employ more dock workers than they required. On various occasions the Government was forced to make one off payments to these ports to meet the cost of voluntary severance for unwanted dock workers.

The UK government's non-interventionist approached was confirmed in the government's 2000 ports policy paper called "Modern Ports". This was the first ports policy paper for 30 years and a number of initiatives, such as a project appraisal framework for ports, environmental best practice and improved statistics, arose from this work.

The government's policy is mainly there to facilitate and to help the ports industry "to help itself", focusing especially on guidance. The paper states that the government will "support sustainable port projects for which there is a clear need, with each looked at in detail on its merits". (This "support" relates to the planning approval process, not

financial support). The government states it will take full account of the need for good access to ports in developing policies and programmes for the various forms of transport, and encourage the use of ports by coastal and short sea shipping services.

The main legislative Acts include the Harbours Act 1964, the Pilotage Act 1987 and the Ports Act 1991. The increasing environmental responsibilities of harbour authorities and their role in coastal management extend the range of legislation affecting statutory harbour authorities. Harbours were founded under individual Acts of Parliament which often embodied the provisions of the 1847 Harbours, Docks and Piers Clauses Act. Under these Acts, ports have developed sets of bye-laws to provide their own legislative framework. Some ports also have General Powers of Direction to regulate shipping movements and provide safe navigation within harbour waters. In some cases, these are used in place of bye-laws and are generally viewed as a more flexible alternative. Therefore, laws relating to any particular harbour authority are contained in their local Acts and orders, as well as in general law.

2.23.2 Responsibilities of the port authority, port administration or entity in charge of overall port management.

As harbour authorities were formed under special Acts of Parliament, this can by implication impose a duty on the entity to establish and maintain the service in question. The main responsibilities and functions of harbour authorities can be described as follows:

- to provide and maintain harbour facilities;
- to ensure safe navigation within harbour waters by providing lighting and buoys, removing wrecks and maintaining approach channels of sufficient depth through dredging;
- to regulate vessel movements and berthing in the harbour;
- licensing construction works within the harbour;
- the provision of a pilotage service and other harbour operations such as cargo handling.

Private ports are responsible to their shareholders, trust ports to a range of stakeholders and municipal ports to their local communities via their local council. One of the “Modern Ports” initiatives was to Review the structure, governance and accountability of the trust port sector and this work is now complete. A similar review of municipal ports started in early 2004 and should be completed in 2005.

2.23.3 The decision-making procedure. Process applying to investment decisions.

As previously outlined, the government takes a “hands-off” approach to port management and investment decisions in the UK. Decisions on investment are made by individual harbour authorities and are approved by their board based on the commercial viability of the proposal.

New developments normally require a Harbour Revision Order (HRO). The harbour authority applies to the Secretary of State for the Order. Objections are then invited, and if they are not withdrawn a Public Inquiry is held. The Inspector who conducts the Inquiry then submits a report to the Secretary of State in the light of which the Secretary of State decides whether or not to make the Order. Applications for a HRO have to be supported by an

environmental impact assessment and a special assessment if a Natura 2000 site is involved. Environmental issues usually feature prominently at Public Inquiry.

3 FACTUAL REPORT – WORK PACKAGE 3 (FR-WP3)

The organisation of port services

Final report
March, 2005

Report prepared by
European Sea Ports Organisation (ESPO)

3 FR-WP3: THE ORGANISATION OF PORT SERVICES

3.1 BELGIUM

3.1.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.1.1.1 Cargo handling

All services related to the goods are provided, without exception, by the private sector. Firms fix their own charges and receive all moneys due.

With regard to dock labour, the Port Labour Act of 8 June 1972 states: "No person shall have port work carried out in the port area by employees other than recognised port workers".

A Royal Decree requires a joint committee to be formed, known as the "joint committee for the port", which is competent in respect of employees who mainly carry out manual work and of their employers vis-à-vis: all employees and all employers that carry out port work in the port area as a principal or auxiliary activity - i.e. all handling of goods delivered or removed by seagoing vessels or inland navigation, rail or road and auxiliary services connected with such goods, irrespective of whether such activities are carried out in the docks, on navigable waterways, on quays, or at installations set-up for the import, export and transit of goods and of the handling of goods delivered or removed by seagoing vessels or inland navigation on the quays of industrial organisations.

Port workers are not permanently allocated to individual port employers. They may be employed on a daily basis by any port employer.

In addition to the general and compulsory unemployment insurance, laid down in national laws concerning social security, funds called "Compensatiefonds voor Bestaanszekerheid" have to be set-up for port workers.

Docker training is available at Antwerp, Gent and Bruges-Zeebrugge, financed through the port employers associations and private firms.

3.1.1.2 Technical-nautical services

Pilotage is the responsibility of the Flemish region (autonomous department depending from Flemish Ministry of Public Works), except in the docks where it is carried out by the private sector. In Ghent, pilotage in the docks is carried out by the canalpilot of the Flemish region.

Towage within the port is the responsibility of the private sector in Ghent and Ostend. In Antwerp it is the responsibility of the municipality within the docks and of the private sector on the river Scheldt. In Bruges-Zeebrugge it is the responsibility of the port authority (although it is carried out by a private company).

Ocean towage is the responsibility of the private sector in Antwerp, Ghent, Ostend and in Bruges-Zeebrugge.

Mooring is carried out by the private sector.

Bunkering and docking is available in each port and is carried out by the private sector.

3.1.1.3 Passenger services

The management of passenger terminals is entrusted to private concessionaires or, in some very limited cases, they are carried out by port authorities in a remainder way.

Walkways are the responsibility of the private sector.
Schengen regulations are taken care of by the State in cooperation with the port and the private sector.

3.1.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Traffic control and environmental inspections are the mixed responsibilities of the local and regional level. The Vessel Traffic System is used.

Veterinary controls, as well as customs clearing are the responsibility of the Belgian government.

3.1.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Ancillary port services are ruled by Regulation 28/12/2000. These activities are controlled by the port authority (authorisation system).

Bunkering is available in each port and is carried out by the private sector.

3.1.4 "Self-handling".

Self-handling is not allowed. See 3.1.1.1 for further information on the organisation of dock labour.

3.1.5 Access to the market for potential service providers.

New service providers gain access to the market if they successfully go through a public tender procedure and/or through negotiations.

3.1.6 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Prior authorisation for port services is not necessary. A selection procedure is not applied for all types of port services, only for some. Appeal procedures do exist, the court in charge is the Council of State ('Raad van State').

3.1.7 The normal durations of contracts, concessions, authorisations etc.

The normal durations of contracts, concessions, authorisations etc. is 25-33 years. Modifications of normal duration (e.g. prolongation or early withdrawal) are generally possible. There are no maximum durations foreseen by law.

3.1.8 Limitation of the number of service providers.

There exist no limitations.

3.2 BULGARIA

3.2.1 The organisation of the cargo handling, technical-nautical and passenger services.

In accordance with the Law on sea space, inland waterways and ports the organisation of cargo handling is performed by port operators. The port operator receives permission to perform port services. Nowadays, port operators in the national ports are joint stock companies with 100 % government shareholding. In some regional ports cargo handling is performed by private port operators or by port (or part of a port) owners.

All technical-nautical services are provided by port operators – private companies.

3.2.2 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

The National Company "Ports" also performs as port authority. For the above-mentioned ancillary services in ports with national importance, the National Company "Ports" concludes contracts with relevant juridical bodies.

In ports with regional importance, these activities are performed by the owner or a body/operator following agreement with the owner.

National regulation n° 15, which is in accordance with EU Directive 59/2000, determines the provision of waste reception facilities.

The National Company "Ports" controls the implementation of the ancillary port services through the four regional departments: Port Varna, Port Bourgas, Port Russe and Port Lom.

3.2.3 Ports Authorities providing port services.

In accordance with the Law on sea space, inland waterways and ports, the National Company "Ports" can perform port services in the period between the termination of the contract with the port operator and the conclusion of a new contract with a new operator.

The National Company "Ports" has direct control over cargo handling services.

In case it is decided in the future to create a port authority as a public-private body, all services will be under the direct control of the new port authority.

3.2.4 Access to the market for potential service providers.

In ports with national importance access to the market for potential service providers is subject to the conclusion of contracts on the provision of port services, or the granting of a concession.

One or more terminals can be given a concession per port. The granting of a concession can be made subject to the establishment of a new terminal or the maintenance, expansion and rehabilitation of an existing terminal (see Article 117-117(f) of the Law on sea space, inland waterways and ports).

3.2.5 Port Services: prior authorisation/ selection procedure/ appeal procedures.

A prior authorisation is necessary for all types of port services. To provide any type of port services the provider has to pass a selection procedure. Appeal procedures exist.

3.2.6 The normal durations of contracts, concessions, authorisations etc.

The regulations that establish the normal durations of contracts, concessions and authorisations are under review.

3.2.7 Limitation of the number of service providers.

The minimal number of service providers is two. The decision on the number of service providers/port operators that are allowed in a port is based on objective criteria. Limitations due to a lack of space or capacity are decided in accordance with the Export Commission, which is appointed by the Minister of Transport and Communications.

3.3 CYPRUS

3.3.1 The organisation of the cargo handling, technical-nautical and passenger services.

Cyprus Ports Authority, according to current legislation, is not entitled to offer services for the loading and unloading of ships and therefore stevedoring is carried out by the private sector. Furthermore, the handling of cargo in the stacking areas is carried out by work force licensed by the Authority.

In Cyprus, the Port Work Force is regulated by the Port Workers Law, Cap. 184, amended. According to the legislation it is not allowed to employ port workers who are not registered and not allocated by the Government Labour Office. The remuneration of the port workers is fixed by collective agreements between the Employer (Cyprus Shipping Association) and the Port Workers Unions.

Handling of imports, after their discharge from the ship, is carried out by the porters, licensed by the Authority and called Licensed Porters. The Licensed Porters, who have their own equipment, are also involved in the movement of goods to/from storage areas and the stacking of cargo within the port areas. Their remuneration is fixed by the Authority. There is no legal prohibition for domestic or for foreign undertakings to access the Cyprus market of loading, unloading, transhipment, storage and general movement of goods or materials of any kind within the port. The Cyprus legislation in force does not grant any exclusive rights to the above associations.

Cyprus Ports Authority is responsible for technical – nautical services. Pilotage, tug-boats, pilot boats and mooring gangs are provided by the Cyprus Ports Authority. VTS is controlled by the Cyprus Ports Authority. Navigation aids are provided by the Cyprus Ports Authority.

Passenger services from ship to terminal and from terminal to ship are also provided by the Cyprus Ports Authority.

3.3.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Cyprus Ports Authority is generally responsible for traffic control, environmental inspections, safety and security in port areas.

3.3.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

In general, water services are supplied by the Cyprus Ports Authority. Bunkering is provided by private undertakings. Confirm the requirements of the new port waste reception facilities regulations, ports provide the facilities and then contract disposal companies to remove the waste and deliver it to a licensed factory for further dispatching.

3.3.4 Ports Authorities providing port services.

The main functions of the Cyprus Ports Authority at the ports, besides its regulatory role, include accommodating of ships, cargoes and passengers, excluding the loading and unloading of vessels.

3.3.5 "Self-handling".

All services related to the goods are provided, without exception, by the private sector. See 3.3.1 for further information on the organisation of dock labour.

3.3.6 Access to the market for potential service providers.

Subject to the regulatory role of the Cyprus Ports Authority both domestic and foreign undertakings have access to the Cypriot market of loading, unloading, transhipment, storage and general movement of goods or materials of any kind within the port. Besides the Cyprus Ports Authority, the following provide services in the ports: shipping agents, licensed porters, stevedoring contractors, ship-chandlers, forwarding and clearing agents, baggage porters, repairers of vessels, suppliers of fuel and water to vessels.

3.3.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Prior authorisation is always necessary. Selection procedures are not the case for all types of port services. Appeal procedures do exist; the national courts are competent.

3.3.8 The normal durations of contracts, concessions, authorisations etc.

The normal duration of contracts is one year with an option of renewal for another year. Maximum durations do not exist.

3.3.9 Limitation of the number of service providers.

There is no limitation of the number of providers.

3.4 DENMARK

3.4.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.4.1.1 Cargo handling

All cargo handling services are provided, without exception, by the private sector. In Copenhagen the port authority owns the Copenhagen Free Port and the stevedoring activities are leased to Copenhagen Malmö Port (CMP), a company jointly owned by Copenhagen Port and Malmö Port. CMP takes care of all the stevedoring within the

Free Port area. Stevedoring outside the Free Port area is for the use of the private sector.

As far as dock labour is concerned, the rules below apply to all Danish ports except CMP and a few ports, where the dockers are permanently employed.

There are written agreements concerning the working conditions of dockers in Danish ports, and these are drawn up jointly between the dockers' and the port employers' organisations. According to these joint agreements the dockers must meet at a certain hour, fixed by the local agreement, when hiring takes place, and take on the work offered. There is a "pool" of dockers in each port.

Thus a docker is a casual worker, but although the agreement does not contain any clauses about the dockers' priority to the work, the docker is normally given such a priority, when he has qualifications.

The employer can transfer a docker to another job, when the first one is finished, without having to hire him again. In general the docker is paid by the piece, and because of this, the agreement contains rules about the number of men per gang. When hired the docker is guaranteed a minimum pay on weekdays.

Dockers are members of the Special Workers Unemployment Fund. They therefore have the right to receive a daily allowance on the days they do not obtain work. It is, however, a condition that they seek work at the hours when hiring takes place, and that they are controlled by the Employment agencies. The allowance expenses are in general covered by the public authorities.

Just like other workers and employees, the dockers receive a daily allowance according to the law when they suffer from loss of income by incapacity for work due to illness or injuries. During the first 2 weeks the expenses are covered by the employers, later on by the public authorities.

3.4.1.2 Technical-nautical services

Maritime pilotage is the responsibility of the State. Exceptions are the Port of Aarhus, where the port authority is responsible inside the port, and the Port of Rønne, where the port is responsible for maritime pilotage from the portwaters to the port. The vessel pays the pilotage costs.

Maritime tugboat services and towage are the responsibility of the private sector except within the Port of Aarhus, where the port authority also ensures the service.

3.4.1.3 Passenger services

Services are provided by the private sector. In Copenhagen Free Port the services are carried out by the CMP staff. Often passenger services (ferry traffic) are carried out by the ferry company staff.

3.4.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Municipally owned ports and private ports in competition with municipally owned ports have the duty to receive ships to the extent that this is possible given the harbour space available.

The port authority is overall responsible for safety, security and environment in the port. The single port operator is responsible for safety, security and environment in terminal facilities, which they lease.

Harbour superstructure and equipment are almost entirely the responsibility of the private sector, apart from fixed cranes, which are in most cases owned and operated by the port authorities. Most mobile cargo handling equipment is owned and operated by the private sector. The operator fixes the tariffs and receives the revenues.

3.4.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Most services for ships are provided by the private sector, as are all services concerning goods.

Bunkering is provided by the private sector. The port authority provides water supply and waste reception facilities. As to waste handling there is mandatory delivery of all waste. The no-special fee system covers ship generated waste collected from the departure of the latest port. A special fee is paid for the cargo residues.

3.4.4 "Self-handling".

The single port operator decides for self-handling. He can employ his own staff or decide, that ship staff carries out the handling. This goes for all services. Self-handling is mostly carried out for bulk services and ferry services.

See 3.4.1.1 for further information on the organisation of dock labour.

3.4.5 Access to the market for potential service providers.

Port service providers have free access to the market, only restricted for lack of space.

3.4.6 Port Services: prior authorisation/ selection procedure/ appeal procedures.

No prior authorisations are necessary for any types of port services in the ports (with exemption of pilotage). There are no selection procedures. In case of limitations due to lack of space, a tender procedure is most common, especially for ferry terminals.

3.4.7 The normal durations of contracts, concessions, authorisations etc.

Normal durations of (lease) contracts vary from approximately 5 to 20 years. The very few concessions vary from approximately 5 to 40 years. Concessions are mainly Copenhagen Freeport (40 years) and ferry terminal concessions (few years). The law does not foresee maximum durations, but 40 years is rare.

3.4.8 Limitation of the number of service providers.

Only lack of space and state monopoly (pilotage and ferry services to islands) can limit the number of service providers.

3.5 ESTONIA

3.5.1 The organisation of the cargo handling, technical-nautical and passenger services.

The Port of Tallinn operates as a landlord type of port; it is not providing any cargo handling itself. It administers the infrastructure of the harbours (land, quays, etc.), looks after its development, receives vessels, sends them to the roads and ensures safe navigation in the port waters. Port superstructure, or in other words everything that enables to pass cargo through the port gate, remains in the realm of operators. The port leases territories to terminal operators through building titles, this way it incites the operators to invest into superstructure and technology.

Carriage of passengers is a licensed field of business activity. Public Transport Act provides bases for the organisation of public transport also in waterways.

3.5.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Obligations of port authorities include ensuring safe vessel traffic and order in the port. According to the Ports Act, a harbour master has the duty to ensure conditions for the safe manoeuvring and berthing of ships in a port, roadstead or dock, for the loading of ships and other necessary activities.

Ensuring of fire precaution on the port area and the objects located there is provided in "General Requirements of Fire Precaution", approved by the Minister of Internal Affairs of the Republic of Estonia and the general fire precaution instructions of the port. Companies operating in the port shall ensure the fulfilment of the fire precaution requirements on the port territory at their use and/or at other objects. The port owner inspects the fulfilment of the fire precaution requirements on the port territory; the requirements introduced by the port owner for ensuring fire safety are compulsory.

Handling of dangerous cargo in the port is performed in accordance with the International Maritime Dangerous Goods Code, MSC/Circ. 675 "Recommendations on the Safe Transport of Dangerous Cargoes and Related Activities in Port Areas", and regulation no.4 of the

Minister of Transport and Communication of the Republic of Estonia dated January 26, 1998 "Rules on Receiving, Handling, Storage, and Issuing of Dangerous Cargo in the Port".

State supervision over the receipt, processing and storage of dangerous goods in ports and release thereof from ports is carried out by the Maritime Administration. Requirements for the receipt, processing and storage of dangerous goods in ports and release thereof are established by the Minister of Transport and Communications in concordance with the Minister of the Environment.

Estonian environmental law is complex, dynamic and variable. Outline provisions of Estonian environmental law are included in the Estonian Constitution, Estonian Nature Conversation Act, Sustainable Development Act, Pollution Prevention and Control Act, Environmental Supervision Act, Environmental Impact Assessment and Environmental Auditing Act and Pollution Charge Act.

Security requirements of ports are based on the International Ship and Port Facility Security Code.

3.5.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Provisions are ordered via an agent in advance. Terms are subject to negotiation with a shipping agency.

Reception of vessel waste (bilge water, sewage, garbage and pollutants in wastewater and waste generated in the use of the vessel) is performed in accordance with the Waste Act and regulation no. 19 of the Minister of Economic Affairs and Communications, "Procedure of reception of bilge water, sewage, garbage and other pollutants from the vessel" dated December 12, 2002.

Information on the type and quantity of vessel waste is provided to the port owner at least 24 hours prior to arrival in the port, if the port of call is known,

- immediately at the learning of the port of call, if this information is available less than 24 hours prior to arrival at the port of call;
- at departure from the previous port of call at the latest, if the voyage lasts less than 24 hours.

At the arrival of the vessel a notice to the port of call is provided to the port owner. Bilge water in the engine room and oily mixtures can be delivered to companies having the corresponding handling license of dangerous waste and having a contractual relationship with the port owner 24 hours a day.

Garbage (solid municipal waste) can be delivered to companies having a waste permit, who can if necessary also organise the reception of sorted waste. Dangerous waste can be delivered to companies receiving dangerous waste. Ballast water cannot be delivered in the port. The agent organises the delivery of vessel waste. Additional information concerning the reception of waste can be obtained from the Harbour Master's office.

Port rules provide the technological, operational, navigational and environmental requirements for the provision of port services and the rates of port dues and fees for the receipt of bilge water, sewage, refuse and other pollutants. Requirements set out in port rules are mandatory for all persons operating or staying in a port.

3.5.4 Ports Authorities providing port services.

Most of the ports in Estonia are operated as landlord ports with no cargo handling or passenger shipping operations of its own. It is very unlikely that this will change.

According to the Ports Act a port authority is required to ensure:
1) the maintenance of hydro technical structures in the port area;
2) the installation and maintenance of navigation marks in the port area and, outside the port area, of those marks which provide services exclusively to the port;
3) the declared depths in the water area and entrance of the port according to the fair sheet;
4) supervision over the importation of dangerous goods into the port, and warehousing, storage and transhipment thereof in the port;
5) the cleanliness and order of the port area, and compliance with fire and safety requirements in the port territory.

A port authority administers the reconstruction of the entrance and water area of the port, monitors the correctness of the declared information and is liable for the correctness of the declared information.

A port authority administers the receipt of bilge water, sewage, refuse and other pollutants from ships. The Minister of Transport and Communications establishes the corresponding procedure in consultation with the Minister of Environment. A port authority organises operations for the elimination of pollution in the port area and informs the Ministry of Environment on the situation and harmonise its activities with the fire and rescue service agency of its location."

The Port of Tallinn maintains and develops the infrastructure of the port and leasing territories to terminal operators through building titles and through this gives the operators an incentive to invest in the superstructure and technology. Providers of passenger services and cargo operations possess long-term contracts with the Port of Tallinn, usually they are granted building titles for 36-99 years and stating the guide-lines for rights and duties of both parties. Any new-building or reconstruction work on port territory can be accomplished only with the permission of the port owner and after receiving corresponding licences and permissions from public authorities.

The only control mechanisms over the activities of service providers are those that are stipulated in legislation, port rules or in bilateral agreements with the service providers. The port rules are valid on port area that belongs to the Port of Tallinn.

3.5.5 "Self-handling".

The possibility of "self-handling" depends on the contracts with the port owner and the scope and size of the port. "Self-handling" is more common practice in small harbours and marinas, not in merchant shipping ports.

3.5.6 Access to the market for potential service providers.

Access to the market depends on the field of activities of the potential service provider. Operators of land lots in ports are mostly chosen following a public tender. In general, everything depends on whether parties reach mutually fruitful agreement.

For example in the Port of Tallinn: if a potential service provider is ready to share the risk with the port. The Port of Tallinn creates preconditions for superstructure, ensures the necessary depths, safe navigation of vessels and infrastructure tailored to the needs of the specific project. The port grants the potential service provider the building title of the land for 36-99 years. Or the potential service provider can purchase private land in the proximity of Muuga or Paldiski South Harbour and together with the Port of Tallinn he will find the best possible solution to get access to the harbour.

3.5.7 Port Services: prior authorisation/ selection procedure / appeal procedures.

Clients can choose the service provider as it is common on a free market. The decision will be based on the exact needs, timeline and resources the client possesses. Some of the ports communities' services can be provided by companies possessing the corresponding licence, e.g. waste handling. The criteria a company has to meet besides the bureaucratic procedures are stipulated in legislation. A specific permit is necessary in case of port construction works. According to the Water Act, for the special use of water (e.g. a water body is dredged or soil is disposed of on the bottom of the water body), a user has to have a permit with a specified term.

3.5.8 The normal durations of contracts, concessions, authorisations etc.

Land lease contracts are granted to port operators for 36-99 years. Contracts can always be modified. Other contracts usually have shorter terms or are not limited at all; they can include clauses of prolongation or early withdrawal.

3.5.9 Limitation of the number of service providers.

In case any limits exist at all, the market sets these.

3.6 FINLAND

3.6.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.1.1. Cargo handling

All services provided to the ship are carried out entirely by the private sector. In one port the port company owns a stevedoring company. In two ports, there is licensing for

freeport services and in twelve free-zone areas, in all of which the port authority is part owner (share holder).

The port owns usually the shore cranes; they are run by the personnel of the port. The port charges for the use of the cranes according to a price list.

All dock workers are employed by private companies. Since 1972 the Finnish ports work in two shifts; since a few years a couple of ports work in three shifts.

3.6.1.1 Technical-nautical services

Pilotage is the responsibility of the State. Some port authorities used to have port pilots who worked inside the port area. Towage is the responsibility of the municipal port authorities, but most Finnish ports have given it to the private sector (towing companies). Mooring and unmooring are the responsibility of the port authority.

3.6.1.2 Passenger services

In some ports the shipping lines run their own passenger terminals, in some ports the passenger terminal services are provided by the port.

3.6.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

The policing duties are carried out by the normal police organisation. There is no special port police in Finland.

There are a myriad of different authorities active and in charge in a port area. Environmental control is the duty of the environmental authorities. Customs and emigration take care of their respective duties. Vessel traffic and port state control is in the hands of the Finnish Maritime Administration. Health and safety of port workers are the responsibility of health and safety authorities. Railways are the responsibility of the railway authorities.

There are special authorities in charge of the transport of dangerous goods, of technical standards of the cranes etc.

3.6.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Water supply is provided by the port. Waste reception facilities are offered by the port, which usually buys these services from either municipal or private waste disposal companies. Bunkering is offered by oil companies.

3.6.4 Ports Authorities providing port services.

Some ancillary services are offered by the port, though the ship is free to buy the services, for example the waste disposal services, from any other company it prefers. The port does not interfere in the choice of stevedoring company.

3.6.5 “Self-handling”.

There is no legal restriction to self-handling. Self-handling is common for the cargo of coal. Some shipping lines have their own passenger terminals, which may be considered self-handling according the port service directive vocabulary. In practise the labour unions of the dockers can be hostile against self-handling and they can de facto exclude the self-handling.

3.6.6 Access to the market for potential service providers.

Access is free and no authorisation either by the port authority or the State is needed.

3.6.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Authorisations are not needed.
When a stevedoring company is active in a port it does not need a concession or an authorisation and as far as known there are no such authorisations or concessions in Finnish ports. Usually the stevedoring companies have leased land or buildings, such as warehouses, from the port.

3.6.8 The normal durations of contracts, concessions, authorisations etc.

The port often offers land, office and warehouse space for rent to the stevedoring companies and other service providers. The maximum duration for lease of land is 100 years. In practice the length of lease contracts varies.

For other contracts there is no specific legal stipulation concerning port related contracts. Normal legislation prevails.

3.6.9 Limitation of the number of service providers.

There is no legal or administrative limitation on the number of port service providers. In most ports there used to be several stevedoring companies, but the development has been towards a system of one stevedoring company per port. Some stevedoring companies are operating in several ports. In Finnish ports, often the stevedoring company is owned by the main shipper customer of the port; this is mainly forest industry or steel industry. One major stevedoring company is owned by a leading Finnish shipping line.

One towing company is almost having a monopoly offering towing services in most Finnish ports without real competition.

3.7 FRANCE

3.7.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.7.1.1 Cargo handling

In French ports, cargo handling is carried out by companies which, whatever their legal status, are private in character. They carry out cargo handling operations on board the ship and from ship to shore and vice versa. They also carry out handling in port depots and warehouses.

They are operating with their own personnel (dockers) and ground handling equipment, but they also frequently rent cranes and the crew from the port authority, which is in that case acting as the subcontractor. Joint ventures of port authorities and private operators ("Convention d'exploitation de terminal") may be set up for some specific terminals in order to foster private investment in cranes and a more integrated management of dockers and crane personnel.

Cargo handling companies are responsible for the service they provide and for their operation and financing.

In some isolated cases the port authority or the port operator may be directly involved (e.g.: ro-ro operations manned by the Chamber of Commerce in Cherbourg).

3.7.1.2 Technical-nautical services

- Pilotage

Pilotage is assistance given to ship captains by locally certified pilots acting as State appointed agents. Pilotage is mandatory for ships over a certain size moving in or out of a seaport. Threshold sizes of ships and area of obligatory pilotage are locally determined by decree of the Prefect (State representative). General rules on pilotage operation and on possible exemptions are fixed at national level.

Pilots for each port are grouped together into a private organisation called a "pilot station". Pilots are under the administrative jurisdiction of the Ministry responsible for seaports. They are appointed on the basis of a competitive examination set up by this Ministry. The administrative organisation of the pilot stations is fixed for each station by a ministerial decree. Tariffs are fixed by a decree of the Prefect, following consultation with the "Assemblée commerciale", which represents the various interests involved (shipowners, shippers, port and maritime authorities).

- Towage

Towage is carried out by private undertakings that have an agreement delivered by the port authority. Exceptionally, the port authority or the port operator (Chamber of Commerce in non-autonomous ports) can provide the towage service. Rates for towage are fixed by a Committee for port towage (Commission de remorquage portuaire) that represents the various interests involved (shipowners, shippers, port and maritime authorities), without preventing commercial agreements between towage and shipowners. Only in case of disagreement within the Committee these rates are fixed by a decree of the Prefect

- Mooring

Operations are carried out by private undertakings with an agreement delivered by the port authority. Exceptionally the port authority can provide a mooring service. There are no official rates for mooring, although a tariff is published by the undertakings.

3.7.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Municipal or national police forces also exert their duties in seaports. Officers of Police de l'Air et des Frontières (Border control), and occasionally of Police judiciaire (Criminal investigations) intervene on port premises.

Meanwhile specific police obligations are also legally instituted by the Seaports Code, covering the use of public domain and nautical areas, navigation within port waters, use of public equipment, safety provisions (e.g. dangerous goods) or environmental protection (e.g. pollution of dock water, monitoring of ship waste). These important specific police duties fall under the responsibility of the State appointed port manager, assisted by the Harbour master and other port police officers (State civil servants). These duties have recently been reinforced to include overall control of safety and security obligations deriving from international conventions (e.g. SOLAS - ISPS) or EU legislation (Erika packages, Regulation on security).

In some ports additional private forces have been put in place by the port authority, or by an association of users, for preventing theft and illegal intrusions.

3.7.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Additional mobile or fixed equipments for fire fighting are provided by port authorities and terminal operators, especially where handling of dangerous goods is concerned.

Effective fire fighting on port premises and rescuing operations are under the command of the fire department chief (whose means are in charge of Département), operating under the mayor's theoretical responsibility, and, in case of an extended danger, under Prefect (State representative) direct supervision.

Water supply is usually left to the company in charge of the adjacent urban area.

Bunkering and waste reception facilities are usually secured by private providers.

Most "ports autonomes" and some CCI in non autonomous ports have set up a local power network for supplying electricity to occupants of port premises.

3.7.4 Ports Authorities providing port services.

An unwritten rule is that port authorities do not provide services that could be handled on a commercially viable and non discriminatory basis by a competent operator, whether private or public.

However, the duty of the port authority is to make sure all necessary services are on hand for allowing normal port users to operate. Historically this has been the case for cranes and crew on public quays with only occasional use.

In the current context of new dedicated terminal developments in larger ports, an integrated approach under the command of terminal operators is privileged.

3.7.5 "Self-handling".

Pilot exemptions certificates (Licences de "Capitaine pilote") may be issued by ports individually to commanders of known ships with frequent calls. This is the case of regular ro-ro lines, such as Channel ferries.

The right to self-handle cargo is only limited in sizeable seaports where a dockers work force has been set up. All autonomous ports and ports of national interest are concerned. In these ports, loading and unloading of ships at public facilities, or such operations on seagoing cargo in non private port areas, are to be executed by dockers employed by cargo handling operators according to a 1993 "convention collective" ruling employment in that specific industrial branch. (See Book V, Title 1 of the Seaports Code).

Exemptions of docker employment are regulatory provided to loading and unloading of supplies and board equipment on ships, to self loading and unloading of inland waterways vessels, to handling of cargo by its owner on port premises.

Crane driving in operations between ship and quay may also be provided by port employees, instead of dockers permanent employees of the cargo handling company in charge.

Customary exemption is also granted to loading and unloading motor vehicles and trucks on ro-ro ships by their accompanying drivers.

Local arrangements with cargo handlers and labour unions may also be concluded on a case by case basis, allowing for limited self loading and unloading of ships (e.g. military equipment and supplies handled by local troops).

3.7.6 Access to the market for potential service providers.

Providers of nautical services are allowed to enter the market if they have the capacity to answer all current potential demands by port users. This is a capacity threshold constraint for towage operators (particularly in ports where some calling ships may require three tugboats at once).

Cargo handling services have free access to the market of each port, as no authorisations are necessary for buying or renting available space for such use within port limits.

Granting exclusive rights of use of quays and their rear space are negotiated on a first come first served basis as long as infrastructure and space remain available for creating dedicated terminals. In case of scarcity, port authorities organise normal tendering procedures for selecting new operators of new dedicated terminals.

Taking over and refurbishing an existing local provider company also remain a most usual way of access to the market in French ports.

3.7.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Nautical services are authorized locally under State supervision (see section 3.7.1.2).

Selection procedures of new terminal operators by autonomous port management are currently similar to tendering for the provision of services of general interest (although cargo handling services are of a purely commercial nature with no public service obligations).

3.7.8 The normal durations of contracts, concessions, authorisations etc.

Any authorisation or agreement for operating in a port is usually given without time limit, but it remains valid only as long as conditions for granting it are met.

Leases of infrastructures or space to service providers in ports are of various lengths, compatible with normal investments paying off; they go up to fifty years.

3.7.9 Limitation of the number of service providers.

Apart from the specific case of pilotage (only one station per port with open number of pilots), no limitations of the number of service providers are imposed by port authorities.

3.8 GERMANY

3.8.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.8.1.1 Cargo handling

These services are a private sector matter. The main items are forwarding, transhipment, stevedoring, cargo inspection, storage, packaging, container stuffing and stripping, distribution to the terminals of consolidated export cargo and transport of other sea freight by lighters or lorries.

All workers in the German ports enjoy the same status under the labour and welfare laws as workers employed outside the ports. Even workers from companies whose main activity revolves around cargo handling[3] have no special status under the labour and welfare laws. Their benefits, e.g. in the event of unemployment, disability or retirement,

3 Cargo handling workers or dockers are wage earners employed in stevedoring operations, quay and other loading and unloading operations, re-victualling, warehousing, weighing, tallying, cleaning, port navigation and towing operations, mooring services.

are the same as for other employees. In case of dismissal, they enjoy the same protection, embodied in general labour law, i.e. they receive full wages from the company until a dismissal takes effect under these provisions.

A particular feature of the organisation of dock labour consists in the fact that the individual port undertakings have created and financed a Gesamthafenbetrieb (pool), which supplies additional dockers when required. These dockers are also covered by permanent working conditions and regular payment. Furthermore, the dock undertakings may engage temporary personnel from those notified as being out of work at the labour exchange (a service of the federal administration). As far as social and industrial conditions are concerned, it makes no difference whether these persons are employed in the docks or elsewhere.

Dockworker training is mainly organised by the private port companies for their employees. In Hamburg and Bremen port enterprises and unions have established a joint Dockworker Training School.

3.8.1.2 Technical-nautical services

Pilotage on sea access channels is the responsibility of pilot associations. These are public corporations and under the supervision of the Federal Government. Within the ports, pilotage is the responsibility of the appropriate territorial authority. In Hamburg and Bremen/Bremerhaven, the responsibility lays with a pilot association under the supervision of the local harbour master. In Mecklenburg-Vorpommern pilotage services are based on a contract with the Federal Government. According to this contract, ships are piloted from the sea pilot to the berth.

Towage and mooring are the responsibilities of the private sector.

3.8.1.3 Passenger services

The management of passenger terminals is performed by private enterprises. They rent port sites from the State to provide their services.

3.8.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

In Mecklenburg-Vorpommern, Niedersachsen and Schleswig-Holstein police forces are responsible for traffic control, the terminal operators for regulation of the handling of goods, the Ministry of Environment for environmental inspections, the water police and the port authority for safety. The Dedicate DA is additional responsible for security.

3.8.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

In Mecklenburg-Vorpommern, Niedersachsen and Schleswig-Holstein, the organisation of ancillary port services is done by the private sector, within the legal requirements.

3.8.4 Ports Authorities providing port services.

Port authorities do not in any way provide port services. In Germany there is a strict separation between official and market-orientated services.

3.8.5 "Self-handling".

In Schleswig-Holstein and Niedersachsen, self-handling depends on the form of the individual contract. In Mecklenburg-Vorpommern self-handling is not allowed. See 3.8.1.1 for more information on dock labour.

3.8.6 Access to the market for potential service providers.

In Schleswig-Holstein and Niedersachsen access is granted through tendering or after negotiations, in Mecklenburg-Vorpommern market access is non-discriminatory.

3.8.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

In Schleswig-Holstein and Niedersachsen this depends on the individual contract, in Mecklenburg-Vorpommern a prior authorisation is not necessary.

3.8.8 The normal durations of contracts, concessions, authorisations etc.

In Schleswig-Holstein and Niedersachsen durations depend on the individual contract, in Mecklenburg-Vorpommern contracts for leasing of land have maximum durations of 30 years (Civil Code).

3.8.9 Limitation of the number of service providers.

The number of service providers is currently not limited in German ports.

3.9 ICELAND

3.9.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.9.1.1 Cargo handling

All cargo handling services are provided by the private sector.

Dock labour: agreements concerning pay and working condition are negotiated between employers associations and trade unions. Dockers are for the most part permanently employed. They are employed by terminal operators and stevedores.

3.9.1.2 Technical-nautical services

Pilotage, towage and mooring are the responsibility of the port authority.

3.9.1.3 Passenger services

Passenger services are provided by the private sector.

3.9.2 Ports Authorities providing port services.

The ports in Iceland are mainly landlord ports that render services like pilotage, mooring, towage; cargo handling services are provided by the private sector.

3.10 IRELAND

3.10.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.10.1.1 Cargo handling

Cargo handling is carried out generally by independent stevedoring companies who employ the dock labour. Cranes may be supplied by the stevedore or by the port company. Where supplied by the port company they will generally be operated by port company operatives.

3.10.1.2 Technical-nautical services

Pilotage is supplied by the port companies who are the licensing authority for pilots. Pilots may be self-employed licensees or employees of the port company.

3.10.1.3 Passenger services

Passenger services are provided by commercial independent ferry companies.

3.10.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

With few exceptions, ports do not employ harbour police. Ports have however taken all the steps necessary to meet the requirements of the ISPS Code. Ports have a general policy of being environmentally friendly but it is the local government who has the responsibility for the environment.

3.10.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

The local government provides water supply and waste reception facilities and charges for their use. Bunkering is provided by the commercial private sector.

3.10.4 Ports Authorities providing port services.

Ports are limited port service providers and it is for each individual port to decide the level of their involvement, if any, in this area. Their involvement may embrace dock labour, cranes, harbour police, towage, etc. There is no clear overall picture of involvement on the part of ports.

3.10.5 "Self-handling".

With some exceptions, self-handling does not take place. This is mainly because of restrictive dock labour/trade union agreements. Port users, importers and exporters generally want the freedom to self-handle.

3.10.6 Access to the market for potential service providers.

In general there is no obstacle to potential service providers gaining access to the market. Individual ports may have licensing or other requirements which would have to be met by new entrants. They should enter into dialogue with the relevant port company and/or trade union representing labour interests.

3.10.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

This is a matter for each individual port company but the company must comply with any relevant national and/or EU legislation. The practise will vary from port to port and it is not possible to generalise.

3.10.8 The normal durations of contracts, concessions, authorisations etc.

See above 3.10.7.

3.10.9 Limitation of the number of service providers.

See above 3.10.7.

3.11 ITALY

3.11.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.11.1.1 Cargo handling

According to the articles 16 and 18 of the Law 84/94, the port operations and connected complementary services to these operations carried out in the port area, are performed by suitable undertakings by oneself or on behalf of third parties (undertakings for port operations or services and terminal operators). By port

operations is meant: loading, unloading, transhipment, cargo handling in wide sense, deposit.

On the arrival of the ship the port authority may grant an authorization to the vessel, or to the shipowner or to the charterer, to carry out port operations (self-handling) when technical and organizational requirements are met. Decisions made by the port authorities on these matters can be subjected to judicial review.

3.11.1.2 Technical-nautical services

- Pilotage

Pilotage is carried out by pilots' corporations[4] under the supervision of the harbourmaster (Article 88 of the Navigation Code). The pilotage service is ruled by the maritime authority in agreement with the port authority, and consulting de facto the interested trade associations. Until today the local rules of the pilotage service have been approved by the Ministry of Infrastructures and Transports. The relative tariffs are approved by the same ministry after a national inquiry that foresees the presence of the General Command of the Port Captaincies, the representatives of the port authorities, the persons providing the services and the port users.

The number of pilots of each port is determined by local needs. To practise the profession of pilot it is necessary to join a "Corporation" through a competitive examination in which a candidate's professional qualifications and experiences are considered.

Pilotage may be made mandatory in a port by D.P.R. (Administrative Deed) or by the maritime authority in case of particular needs. Usually in ports where this service is mandatory this is not foreseen for smaller ships. Simplified modes might also be foreseen (ex. pilotage via V.H.F) for certain kind of ships and/or certain port areas, and/or certain situations (e.g. only on departure). Reduced tariffs are foreseen for the pilotage via V.H.F. Self-handling is not possible.

- Towage

At the moment in all the Italian ports the towage service is de facto assigned exclusively to private enterprises through deeds of concession (Article 101 of the Navigation Code). The maritime authority establishes, upon consultation and in agreement with the port authority, the service's local rules (the number and the characteristics of the tows; it authorizes them to operate, etc.) and it determines the corresponding amount (tariffs). The Ministry of Infrastructures and Transports has until now approved the local rules of the service.

- Mooring

In general the mooring/unmooring service to ships is ruled by the Regulations of the Maritime Navigation Code and it is carried out in each port by a "mooring-team"[5] which has de facto the exclusive right for that port.

---

[4] "Corporations" are particular juridical subjects similar to cooperatives.
[5] The "Mooring-Team" is a Cooperative.

Linemen are skilled workers, taking into account that they also develop safety-related assignments. The number of linemen of each port is determined on local needs. To practise the profession of lineman it is necessary to join a "Mooring-Team" through a competitive examination in which a candidate's professional qualifications and experiences are considered.

This service can be made mandatory in a port by the maritime authority. The self-handling of the mooring/unmooring activities can be carried out with their own personnel and equipments by smaller ships (usually ships having less than 500 D.W.T.). The mooring-teams are subject to the control, vigilance and discipline of the maritime authority in agreement with the port authority.

The criteria and mechanisms of charging for the aforesaid service (likewise pilotage and towing) are established by the Ministry of Infrastructures and Transports according to a national inquiry which is performed by the General Command of the Port Captaincies, the representatives of the port authorities, the persons providing the services and the port users. After that, the tariffs for every individual port are established by action of the maritime authority in strict observance of the above mentioned criteria.

Besides their commercial tasks, the technical-nautical services (pilotage, towing and mooring) carry out assignments related to navigation safety in the port.

With the exception of what has been stated above regarding the possibility for certain types of ships to be exempted from the mandatory use of technical-nautical services, the self-handling of these services is not possible.

Decisions made by competent authorities on technical-nautical services can be subjected to judicial review.

3.11.1.3 Services provided for passengers

Passenger transport inside the port boundaries, managing passenger terminals, etc. are entrusted through a public tender and for a limited period of time to private concessionaires. In very limited cases only, they are carried out by port authorities (old Corporate Bodies) in an expiring way (coming to an end). Tariffs are due to benefit from these services. Such tariffs are usually public.

3.11.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

In the Italian ports, fire fighting services fall under the responsibility of the fire department which depends directly on the Ministry of Internal Affairs. However, fire-fighting operations in ports fall under the supervision of the harbour master. Instead, private firemen especially authorized by the competent authority carry out an integrative fire prevention service.

The harbour master is competent for both the control and ruling of the navigation of ships in the port. In some ports a VTS system is available or it will be shortly installed.

Safety controls on port operations belong to the port authority's responsibilities and for some aspects to the Aziende Sanitarie Locali (Local Sanitary Offices) duties.

Environmental controls mainly belong to the duties of the Ministry of the Environment.

3.11.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

The port authorities are competent for maintenance of soundings, public lighting, cleaning of port areas, roads and harbour waters maintenance - common parts -; the costs of the relevant interventions are partially refunded by the Ministry of Infrastructures and Transports on the basis of a convention and expert reports presented by the port authorities.

The other port services – e.g. waste collection from ships or from concessionaires, water supply, electricity and telephone connections to ships, passenger transport inside the port boundaries, etc. – are entrusted through a public tender and for a limited period of time to private concessionaires. In very limited cases only, they are carried out by port authorities (old Corporate Bodies) in an expiring way (coming to an end). Tariffs are due to benefit from these services. Such tariffs are usually public.

Nowadays the management of the railway services to/from ports is generally carried out by the Italian railways, which provides for shunting and moving train wagons on the basis of request by the port operators. In some ports there are special undertakings that carry out the manoeuvre service of railway wagons inside the port area, on the basis of a possible convention with the Italian railways.

The industrial activities connected to the fitting out, or repair of ships (dry docking, slipway services, unballasting, degassing, scaling and cleaning and painting activities, etc.) are carried out by private enterprises via operating permits. Activities of commercial or professional nature (ships agents, custom forwarders, ship chandlers, insurance surveyors, etc.) are also carried out by private companies. Shipping agents and customs forwarders must be registered on special rolls.

All the undertakings carrying out port services (see sections 3.11.1, 3.11.2 and this paragraph) are subject to the relevant provisions on tax treatment, social security, etc. They do not benefit by any particular financing and/or facilitation/reduction by port authorities.

Decisions made by competent authorities on these ancillary services can be subjected to judicial review.

3.11.4 Ports Authorities providing port services.

See above 2.12.2.
Port authorities do not perform any direct management of the economic activities (cargo loading and unloading, services supply to ships, etc.), which have to be entrusted to privates. More precisely, port authorities cannot carry out port operations and their connected activities, not directly neither as stockholder. With some exceptions as stated at paragraph 3.11.3, port authorities do not manage either ancillary services mentioned, or technical-nautical services due to their particular applicable provisions (see 3.11.1.2).

3.11.5 "Self-handling".

As stated in 3.11.1.1, at the arrival of the ship the port authority may grant an authorisation to the vessel, or to the shipowner or to the charterer, to carry out cargo handling (self-handling), in case technical and organisational requirements are met. Decisions made by the port authorities on these matters can be subjected to judicial review.

As far as technical-nautical services are concerned, see 3.11.1.2.

3.11.6 Access to the market for potential service providers.

For cargo-handling services the port authority sets out the maximum number of authorisations that can be granted taking into consideration the port and the traffic needs. Maximum competition is to be ensured, as stated by law.

For the other services mentioned at par. 3.11.1.3 and 3.11.3, the port authority may set a maximum number of authorisations.

As far as technical-nautical services are concerned, reference is made to 3.11.1.2.

3.11.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

As already mentioned under 3.11.6, to carry out port operations and connected complementary services a prior authorisation granted by the port authority is needed.

The port authority sets out the maximum number of authorisations that can be granted for providing cargo handling services, taking into consideration the port and the traffic needs. Maximum competition is to be ensured.

A request for authorisation can also be submitted by non-Italian undertakings. The undertakings, that must meet specific requirements, are registered in special registers held by the port authority. Moreover, they have to pay an annual rent (canone). These undertakings are private enterprises operating competitively. They have to produce an operative programme and they should inform the port authority about the tariffs applied to the port users. The usual duration of the authorisation is one year but it can be longer depending on the operative programme submitted by the undertaking. The authorisation can be extended. In any case every year the port authority has to check the compliance with the operative programme of the undertaking.

In case of terminal operators holding a concession on a part of the port area (terminals) and in possession of suitable requirements established by law, the concessions of areas and quays are granted following proper forms of publicity, with specific deeds of the port authorities.

At the arrival of the ship the port authority may grant an authorisation to the vessel, or to the shipowner or to the charterer, to carry out port operations (self-handling) when technical and organisational requirements are met.

For the other services mentioned in par. 3.11.1.3 and 3.11.3, the port authority may set a maximum number of authorisations. These services are in certain cases entrusted in concession through a public tender. For technical-nautical services, reference is made to 3.11.1.2.

Decisions made by the port authorities on these matters can be subject to judicial review.

3.11.8 The normal durations of contracts, concessions, authorisations etc.

The usual duration of the authorisation granted to carry out the service of cargo handling is one year but it can be longer depending on the operative programme submitted by the undertaking. The authorisation can be extended. In any case every year the port authority has to check compliance with the conditions included in the operative programme of the undertaking.

As regards concessions of port areas, quays or other different services there are no maximum durations provided by law. In general, it can be stated that the concession duration takes into consideration the operational plan of the concessionaire, the needed investments, etc.

As far as pilotage and mooring services are concerned, the duration is not an issue due to their particular regime (see 3.11.1.2).

3.11.9 Limitation of the number of service providers.

See above 3.11.7.

3.12 LATVIA

3.12.1 The organisation of the cargo handling, technical-nautical and passenger services.

Cargo handling and passenger services are performed by private enterprises, which rent port sites from the port authority. According to the "Law on Ports", the exclusive rights for pilotage, lease of port land, environmental protection, dredging and general security services are granted only to the port authority. The maintenance of the port hydro-technical constructions, waterways, floating navigation equipment and devices and port acquatorium are also and exclusively the responsibility of the port authority.

Private companies operate mooring and towage services at the port. They also have to provide security services within their operating territory.

3.12.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

According to the "Law on Ports" the port authority ensures safety of navigation within its territory, monitors compliance of business activities in the port with the legislation, controls

and prevents pollution, organises acceptance of ship waste and polluted water and prepares a management plan for ports in respect of ship generated waste.

Safety of navigation and fundamental principles of port security are determined by the Port Regulations. The port authority within its competences monitors compliance with these Port Regulations.

The port authority determines systems for passes and safeguarding within the port.

3.12.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Water supply and bunkering is a matter of private business. The port authority is organising acceptance of ship waste and polluted water according to the ship waste treatment management plan; the treatment itself is performed by private enterprises.

3.12.4 Ports Authorities providing port services.

The port authority establishes the upper limits of tariffs for the following port services: execution of mooring operations, use of tugboats and other harbour craft, removal of garbage and polluted water, fire fighting, fresh water supply. In this respect no changes are expected.

3.12.5 "Self-handling".

For safety reasons "self-handling" is not allowed in the ports of Latvia. No changes are expected.

3.12.6 Access to the market for potential service providers.

In order to start a business in the Republic of Latvia, a company must be registered in the State Enterprise Register of the Republic of Latvia. Afterwards it must obtain a Tax Payer Certificate, issued by the State Revenue Service. Only then a company can submit documents for entrepreneurship and land lease to the Freeport of Riga Authority.

3.12.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

A prior authorisation is necessary for all types of port services. Award of authorisation is based on the following criteria: activities and development prospects of the undertaking (company) conform to the development programme of the port, a stable financial position and experience, good reputation of the undertaking, etc.

A public tender is mandatory for the State or municipality commission for certain port services (dredging, hydro-technical construction etc.). All ports in Latvia have got an internally developed procedure (order) for the selection of port service providers. The selection is based on the following criteria: technical competence, financial situation, equipment and other material conditions, experience, personnel and management skills, reputation etc. The final decision is taken by the Port Board.

No special appeal procedure exists; normal appeal procedures apply.

3.12.8 The normal durations of contracts, concessions, authorisations etc.

The "Law on Ports" provides the terms of lease agreements for the land of the port (for all kinds of services), as well as the terms of the easement rights established for other legal or natural persons through the port authority. They can not exceed 30 years, except in case the amount of planned port investments, invested within the planned term, exceeds 50 million lats (approximately 75 million Euros). The agreement or easement must previously been approved by the Latvian Port Council.

Modifications on duration of contracts, authorisations etc. are possible; usually on the basis of re-negotiations.

3.12.9 Limitation of the number of service providers.

The number of service providers is not limited in Latvia, except the number of service providers for pilotage, which is regulated by the State.

3.13 LITHUANIA

3.13.1 The organisation of the cargo handling, technical-nautical and passenger services.

Port-based enterprises, offices and organisations conduct their operations independently and in conformity with the laws governing their operations. The said enterprises, offices and organisations are obliged to follow the requirements of the Law on Klaipeda State Seaport and the Regulations on Port Operations.

Under the Maritime Safety Law, companies rendering services related to maritime safety must be certified pursuant to the procedure established by the Minister of Transport and Communications. The following services related to maritime safety are identified:

- manufacture, repair, survey and testing of rescue, fire prevention, ship's rigging, pressure, temperature, electricity, signalling, automatic and other devices and apparatus and issuance of appropriate certificates;
- manufacture, repair, survey and testing of navigation, radio navigation and optic devices and issuance of appropriate certificates;
- proof-reading of charts and other shipping documents;
- provision of services of communication with ships;
- provision of pilot services;
- provision of services of ship's towage, rescue and underwater technical works;
- measurement of depth of port water areas and public waterways;
- loading of marine cargoes;
- mooring of ships;
- ship design and construction works;

- recruitment of seafarers on board ships.

Under the Law of Merchant Shipping, ship agency services shall be provided only by companies certified pursuant to the procedure established by the Minister of Transport and Communications.

KSSA provides pilotage services. No changes are foreseen in the near future.

Private operators take care of the cargo handling.

Pilotage is provided by the Klaipeda State Seaport Authority. Towage and mooring is taken care off by private companies.

Passenger services are carried out by private operators.

3.13.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Traffic control is organised by the Vessel Traffic Service under the Harbour Master of Klaipeda State Seaport (within KSSA). Safety of the handling of goods is regulated by the Ministry of Transport and Communications. Environmental inspections are carried out by the Klaipeda Regional Environmental Protection Department.

Port security is coordinated by KSSA and executed by port land users. KSSA is a competent authority responsible for port facility security. The Lithuanian Maritime Safety Administration is a focal point for maritime security. These organisations together with the Ministry of Transport and Communications are national authorities responsible for maritime security.

3.13.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Water supply is provided by port land users (port operators). Bunkering is provided by licensed companies. Waste reception is organised by KSSA (subcontracted to private companies).

3.13.4 Ports Authorities providing port services.

KSSA provides pilotage services. In this regard there are no changes foreseen in the near future.

KSSA concludes land lease contracts with private operators that provide cargo handling and passenger services. In those contracts, there are obligations to operators regarding minimum turnover, organisation of safety and security measures. Therefore, KSSA has some control over service providers.

3.13.5 "Self-handling".

Self-handling is allowed. Ship masters are granted a Pilotage Exemption Certificate pursuant to the Port Shipping Regulations.

3.13.6 Access to the market for potential service providers.

Potential service providers have to obtain necessary authorisations (certificates, licenses if applicable). Port land is leased following a tender procedure.

3.13.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Prior authorisation is needed for services listed in 3.13.1. Criteria are experience, professional qualification, financial status, etc.

There is no selection procedure for port services. However, port land is leased following a tender procedure. Appeal procedures do exist.

3.13.8 The normal durations of contracts, concessions, authorisations etc.

A port land lease contract shall be awarded for a maximum period of 50 years (provision of the Law on Klaipeda State Seaport).

Modifications are generally possible.

3.13.9 Limitation of the number of service providers.

The limitation is the result of a factual situation. The number of providers of cargo handling and passenger services is limited due to the limited port territory with access to the waterfront. Most of such territory was leased to already existing enterprises after establishment of KSSA, and those enterprises were later privatised.

KSSA is the only provider of pilotage services.

3.14 MALTA

3.14.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.14.1.1 Cargo handling

The container terminal facility at Marsaxlokk is managed by the Malta Freeport Terminals Ltd (MFT) under a licence from the Malta Freeport Corporation. The MFT acts as a terminal operator; it employs its direct staff for the operation of gantries, RTGs and heavy equipment and sub-contracts for other related services port workers (stevedores) from the national pool.

The oil terminals at the free zones are operated by Oiltanking Ltd. In Marsaxlokk there are three other oil terminals operated by the national power generation plant and two private entities.

At the port of Valletta the Ship Agent is responsible for the handling of cargoes between the ship's hold and the quay or vice versa. The handling of cargo within the port's warehouse is carried out by The Cargo Handling Co. Ltd. Groupage cargo will all be handled at an inland freight station. Tallying is normally carried out jointly by the Ship Agent's and The Cargo Handling Co.'s tally clerks.

The delivery and receipt of cargo to and from road transport is done by The Cargo Handling Co. Ltd. All forwarding services are provided by the private sector.

All terminal operators, ship agents and importer/shippers involved in cargo operations and The Cargo Handling Co. Ltd. in all Maltese ports have to employ workers out of a pool of registered port workers for all cargo handling operations, except in the case of handling liquid bulk. The Malta Maritime Authority is responsible for the registration of port workers and their allocation to port work.

The port workers are governed by:

- the Port Workers Ordinance, 1962
- the Port Workers Regulations, 1993

There is no formalised training, so new workers have to be trained on the job. It is only recently that training to present registered port workers was introduced.

3.14.1.2 Technical-nautical services

Pilotage and mooring services are provided on a 24 hour basis, 7 days a week. Pilotage is provided by licensed marine pilots of the recently set up Malta Marine Pilots Cooperative Society. Mooring services are provided by the Mooring corps that will also be forming a cooperative. Both entities have a service contract with the authority.

Towage within the ports of Valletta and Marsaxlokk is provided on a 24 hour basis, 7 days a week, by Tug Malta Company Ltd, which has the Government and private as shareholders. Deep sea towage may be performed by any other company. At present there are 3 privately owned towage companies on the Island.

3.14.1.3 Services provided for passengers

Valletta is an important cruise and ferry passenger port. Up to 2002 passenger operations were managed by the Ports Directorate. This activity is now the responsibility of an international consortium following the grant of a concession; the consortium is responsible for the construction of a cruise terminal, the upgrading of the ferry terminal and the general rehabilitation of the waterfront into a tourist, leisure and business complex. The objectives include the establishment of Valletta as a cruise hub port.

3.14.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Policing within port areas is carried out by the port authority or by terminal operators under the oversight of the Authority Security unit. Prosecution is carried out by the Department of Police. Inspections relating to hazardous cargoes, Marpol and environmental matters are carried out by the Authority Inspectors unit.

3.14.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Water supply, bunkering and waste collection services are supplied by private entities so authorised by the authority within a liberalised environment.

3.14.4 Ports Authorities providing port services.

The Ports Directorate has over the passed years assumed a more regulatory role as pertinent to that of a port authority where provision of port services is carried out by authorised private service providers. Pilots, mooring men and the towage company have a service agreement with the authority since they enjoy exclusivity. Other service providers like terminal operators have to be authorised by the authority.

3.14.5 "Self-handling".

Self-handling is only permitted up to an extent. In the case of pilotage there is not yet a "pilotage exemption certificate" regime. However, in case of local cabotage and where due to inclement weather the services of a pilot is not available but subject to safety considerations, ships are exempt from pilotage. Efforts are being made to introduce the Pilotage Exemption Certificate.

An importer or shipper of certain commodities like bulk cargoes may choose to not use the services of a terminal operator and may organise his own port operation including the use of heavy equipment.

3.14.6 Access to the market for potential service providers.

Pilotage is not open to competition. Same with moorage and towage, but the situation is being reviewed. Port workers as described above have exclusivity. This regime is also being reviewed in the sense that if a port user does not require this service he shall not be forced to use them. As regards terminal operators, this is subject to the ports' capacity. Given the relative restricted market in Maltese ports a limitation of service providers under strict regulatory regime may still in certain cases be considered cost-effective. Service providers have to be authorised by the authority or in case of terminal operators shall have a lease, concession or management agreement.

3.14.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Prior authorisations are required either in accordance with legislation governing the particular service or in accordance with the issue of a call for tenders in case of terminal operators.

In case of pilots, moorage, port workers, foremen of port workers and bunker operators criteria regarding qualifications are established in legislation. Other service providers may have access to the market subject to relative legislation not necessary the port statute. Terminal operators' selection criteria are subject to selection criteria and requirements described in call for tenders.

Any prospective service provider that is refused an authorisation may take the authority to Court, the Industrial Tribunal or to the Ombudsman.

3.14.8 The normal durations of contracts, concessions, authorisations etc.

Service contracts entered between the authority and a service provider are of a definitive nature. In case of terminal operators, the duration is subject to the level of investment and amortisation of investments, or for a definite limited period. Management contracts are of a definite short duration. Normal durations are always subject to amendments agreed to by both parties and could be determined by either party or altogether withdrawn if service provider is in breach of contract conditions.

The maximum duration according to the Maltese statue is 99 years; but this is never the case.

3.14.9 Limitation of the number of service providers.

Certain port services are limited due to port capacities or cost-effectiveness or constraints in the availability of service providers like pilots. Constrains are of a factual situation.

3.15 THE NETHERLANDS

3.15.1 The organisation of the cargo handling, technical-nautical and passenger services.

All services provided for goods are the responsibility of the private sector.

The employment conditions for dockers in the Dutch ports are laid down in collective agreements concluded between the port employers' organisations or individual companies and the transport trade unions. The majority of dockworkers are employed by stevedoring companies. A number of dockworkers are employed by a port employment agency in both Amsterdam and Rotterdam.

Both the dockworkers employed by the stevedoring companies and those employed by the port employment agency have a regular employment contract of indefinite duration, on the basis of fixed monthly wages and fixed annual payments (holiday allowance, spring and Christmas

benefits, etc.). Dockworkers from the port employment agencies are assigned to the stevedoring companies as the daily workload requires.

The employment conditions for those employees involved in the unloading and loading of vessels in facilities that are a part of an industrial site are laid down in the collective agreements concluded between the industrial companies concerned or the organisations of industrial companies and the trade unions for the industry.

Education and training of dockworkers in the Netherlands is carried out, under the responsibility of the "Landelijk Orgaan Beroepsopleidingen Transport en Logistiek" (the national body for professional education and training in transport and logistics), by a number of educational institutions, notably in Amsterdam and Rotterdam.

Pilotage is carried out by a national pilot's organisation (private organisation, controlled by the national government). Mooring and tugging are provided by private companies.

Passenger services are organised by private companies.

3.15.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Traffic control is done by the port authority and the national government ('Rijkswaterstaat'/Ministry of Transport). Other regulation and inspections are the responsibility of national authorities or national inspection agencies.

3.15.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Ancillary port services are provided by private companies.

3.15.4 Ports Authorities providing port services.

In principle port authorities in The Netherlands are no service providers in the port. All of the port services are provided by private companies.

3.15.5 "Self-handling".

In principle there is no self-handling. Still the trend is that in specific sectors, like ro-ro sector and feedering/short sea, there is some handling, e.g. parts of the lashing and securing activities, done by the crew of the ship. But this is no common practice in the port. Normally these activities are done by shore based personnel (stevedoring/lashing/securing/roll on and roll off of trailers/etc.).

Although there is a pressure towards handling by shore based personnel of these activities, it is not likely to change very soon. Only regulation by the port bye laws might be issued. No national law on self-handling is expected.

3.15.6 Access to the market for potential service providers.

Potential service providers discuss a contract with the responsible port authority (leasing of land) or other authority (permits).

3.15.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

The need of a prior authorisation depends on the kind of activity. To start an activity in the port area one needs an environmental permit. In many cases also a building permit is obliged. The activity must be in accordance with national/regional/local spatial planning.

There are no selection criteria. Appeal procedures do exist and national courts are competent.

3.15.8 The normal durations of contracts, concessions, authorisations etc.

Normal duration of contracts is 25 years with an option of another 25. But this is also subject to local port policy and negotiations between the parties involved.

There does not exist maximum durations (or it is 99 years).

3.15.9 Limitation of the number of service providers.

In principal there are no limitations, they can arise because of scarcity of land/port policy (for cargo handling and passenger services) or safety and security reasons (for technical-nautical services).

3.16 NORWAY

3.16.1 The organisation of the cargo handling, technical-nautical and passenger services.

Technical-nautical services are carried out by the port authority while cargo handling and passenger services mainly are taken care of by private operators. In some cases the port owns the installation, but the operation is taken care of by the shipping agents, forwarders, terminal operators etc.

The waterway access to the port: outside the port area the Coastal Directorate is responsible for the lighthouses, marks etc. Within the port area the port authorities are responsible for the seaway/fairway. Lights and marks are normally taken care of by the port authorities themselves.

The Coastal Directorate has the overall responsibility for pilotage on the coast and entrance to the ports. However, a very few ports do port pilotage, which is executed by the port itself.

Only a few ports operate tugs. The main rule is that this is provided by private operators who are free to establish their business as they wish. In some of the bigger private industrial

terminals the tug service is bought based on tender contracts with some year duration. The relevant limitations in private competition or private offers will be because of practical reasons, mainly due to the small market.

3.16.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

The Norwegian Pollution Control Authority is the responsible authority in environmental issues, but some tasks and services are delegated to other authorities, including the port authority.

Ship safety and security is a Port State Control matter and thus is not the responsibility of the port authority. Safety and security in the port and the port area (included sea-area) is the responsibility of the port. These tasks are taken care of in accordance with international conventions and national legislation (e.g. regulation concerning workers health and safety and the ISPS-Code).

3.16.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

The organisation of ancillary port services varies a lot from port to port. Waste reception is organised according to EU-directive 2000/59; the port is responsible for offering the services in question, but in practice in most cases the services are carried out by private operators or by municipal waste services. Water supply and electricity are in some cases taken care of by the port and in some cases directly by the private providers. Bunkering is provided by the petroleum companies.

3.16.4 Ports Authorities providing port services.

See above 3.17.1, 3.17.2, 3.17.3. The port authorities are normally only engaged in crane renting and renting of some equipment, ground and buildings, parking places etc.

3.16.5 “Self-handling”.

There is no full overview of the situation. Cargo handling is normally taken care of by the stevedoring companies or the terminal operators. However in some ports there will be “self-handling” by the ships crew.

3.16.6 Access to the market for potential service providers.

Access to establish services in a port is open; however it can in fact be limited due to practical obstacles such as geographical conditions, area limitations and environmental considerations.

3.16.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

See above 3.16.6.

3.16.8 The normal durations of contracts, concessions, authorisations etc.

The duration of contracts for rent of area and buildings and technical equipment will vary. There exists no regulation.

3.16.9 Limitation of the number of service providers.

There is no limitation of the number of service providers; the access to establish services in a port is open. There can only be limitation due to practical circumstances.

This applies as well (or mainly) to technical-nautical services. The port area is defined by the municipal authorities for each port and this applies for the land area and for the sea area as well.

3.17 POLAND

3.17.1 The organisation of the cargo handling, technical-nautical and passenger services.

Port operating services (such as cargo handling or servicing the passenger traffic) are supplied based on the market conditions and according to civil and legal contracts.

Terms and conditions for using pilotage and towage services result from the regulations of Maritime Offices, however, rendering such services is the business of private companies (occasionally with port authorities as shareholders).

3.17.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

In charge of carrying out inspections in the port area are: the Maritime Offices (pilotage and towage), Border Guards (inspecting the passenger border traffic), Customs Authorities, Port Guards (inspecting the land passenger traffic and land public transport), Regional Environmental Protection Inspectorates, Veterinary Control Inspectorates, Sanitary Control Inspectorates, and quarantine and epidemiological stations.

3.17.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Water supply and supply of other media to vessels in Polish ports are secured by the port authorities (acting as agents between suppliers and vessels). Bunkering is provided by private companies on the grounds of civil and legal contracts. Vessel-generated waste reception is effected by port authorities without further charges above the agreed limits.

3.17.4 Ports Authorities providing port services.

Port authorities do not provide direct operation services, although they own shares in a number of cargo handling and towing companies. The law provides for selling these shares and, at the same time, takes account of the fact that this is a market-determined process thus the implementation of this postulate depends on the demand and rational terms of such deal. In practical terms, therefore, a precise date of completing the process cannot be defined. Port authorities announce open tender for purchase of shares in companies. The last example of the privatization is the sale of the 100 % share in Baltic Container Terminal that belonged to the Port of Gdynia Authority Co. to the private company International Container Terminal Services Inc.

3.17.5 "Self-handling".

Self-handling is not formally banned in Polish ports. Allowing ships to self-handle cargo depends on civil and legal contracts between the vessel and the operator. Port authorities refrain from intervening in these contracts. Similarly, port authorities do not object to the provision of other cargo handling services on land by port clients, leaving the matter subject to agreement between the tenant of the land and port facilities on the one hand and the client on the other. Free competition in terms of the port operation is increasing.

3.17.6 Access to the market for potential service providers.

In principle, port authorities do not own the operating infrastructure. The infrastructure is made available to users on the basis of long-term contracts (usually lease contracts). Consequently, they cannot offer such infrastructure to other operators. The availability procedure, therefore, requires agreements between the current user and the subject applying for such access.

The approval of the port authority is necessary only in case one intends to sub-lease the port facilities. Observing the safety regulations while rendering services and complying with the rules and regulations is subject to inspection.

Availability of the unutilized facilities or facilities that will be provided as a result of the investment implementation depends on civil and legal contracts between port authorities and potential service provider.

3.17.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

To render pilotage and towing a permit is necessary. The Maritime Offices issues the permits; terms and conditions are stipulated in the Act of April 20, 2004 on "amending the Act on maritime safety and amending a number of other Acts".

3.17.8 Limitation of the number of service providers.

Port services are not formally limited. The limited number of service providers results from the currently binding long-term contracts.

3.18 PORTUGAL

3.18.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.18.1.1 Cargo handling

The cargo handling services are provided by private entities under the terms of the port operation regime approved by Decree-Law no. 298/93 of 28 August.

Freight handling at all Portuguese ports is carried out by licensed stevedoring firms acting as private firms (irrespective of their status as public or private company). These look after the loading and unloading of goods and all freight movement on the quayside, using the port equipment belonging to the port authorities and their own equipment and labour force, along with the port's common pool of dockers, now merged with the staff of the duly licensed dock workers' undertakings.

Pursuant to the present legal arrangements governing port operations as laid down in Decree-Law no. 298/93 of 28 August 1993, the port operator (stevedore) undertakes the running of freight movement operations from the technical aspect and determines the human resources (team or gang) to be provided for the port operation.

Although in exceptional cases the port operation may be carried out by the port authority, it is normally undertaken by private firms, which may be one of the following:

- stevedores operating under licence at public wharves;
- port operation public service concession-holders, administering wharves or terminals under concession;
- concession-holders administering private terminals for their own profit.

The right to use port infrastructure and equipment is conceded to stevedoring firms on the basis of competition and such concessions must comply with the legal arrangements for the award of the public service for freight movement at port wharves and terminals, as laid down in Decree-Law No 324/94 of 30 December 1994.

In the wake of the reform of the legislation governing harbour works, Port Worker Undertakings (ETP/PWU) were set up in place of the former Port Worker Co-ordinating Centres (CCTP/PWCC), which supplied the labour force, including each port's common pool of workers, i.e. those not on the private payroll of stevedoring firms who could be requisitioned to perform certain services. The ETPs are private firms administered on the principle of free competition, which means that they exist only where the market so requires or allows.

The licensing of ETPs falls under the jurisdiction of the Port and Maritime Transports Institute (IPTM – Instituto Portuário e dos Transportes Maritimos) and is approved in case the statutory technical, business and financial requirements laid down are fulfilled.

Stevedores have on their private payroll docker gangs drawn from the common pool whose credentials are duly vouched for by the Port and Maritime Transports Institute and who are tied to the respective firms by individual work contracts.

Freight movement activities at ports may be carried out only by port workers whose credentials are duly vouched for, that is to say by those in possession of an employment book. All are subject to the general labour laws. The issue of port worker employment books is the responsibility of the Port and Maritime Transports Institute.

The legal arrangements governing port operations provide for certain cases in which stevedoring firms and port workers do not need to be engaged, in particular where the following forms of cargo are involved: bulk fuels and petroleum products, military cargo and cargo required for assistance and rescue operations, bulk liquid cargo moved at special terminals, chemical cargo subject to special movement rules and insurance procedures and ship's supplies.

At every port, port workers are covered by a collective contract of employment and both any updating of wages and working conditions are negotiated between the trade unions, the stevedoring firms and the port worker undertakings.

As previously stated, port authority and port council workers belong to the public sector. The port authorities have an increased responsibility in the negotiations of wages and contractual conditions of their workers. Vocational training for dockers is the responsibility of stevedoring companies with co-operation of dockers' unions. The port authorities and port councils make independent or joint arrangements for vocational training.

3.18.1.2 Technical-nautical services

Pilotage is provided directly by the port authorities. Towage is carried out directly by the port authority in only one port; whereas in the rest of the ports it is provided by private entities, duly authorised by the respective port authorities. The mooring service is rendered in certain ports by the port authorities, while in others this service is taken care of by duly authorised private entities.

3.18.1.3 Passenger services

The passenger terminals are run directly by the port authorities.

3.18.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Decree-Law no. 46/2002 of 2 March grants the port authorities powers with regard to maritime and port safety in their areas of jurisdiction.

The port authorities are responsible for:

- definition of the safety conditions for the running of the port, in all aspects, taking special care of appropriately ensuring its commercial operation;

- definition of aids to navigation, preceded by a technical statement of the national maritime authority, to be submitted by the local entities of the General Maritime Authority Board, as well as the installation, maintenance and operation of the navigational aids;
- preparation and emission of navigational warnings whenever it becomes necessary to inform the public of limitation of safety conditions or unsafe conditions;
- drawing up special regulations about the access, entrance, stationing and departure of ships from the port, with regard to maritime and port safety, pursuant to the stipulation in regulation no. 1, line b) of the International Regulations for Preventing Collision at Sea — 1972, approved by Decree-Law no. 55/78, of 27 June, and in accordance with the respective port regulations;
- maritime and port safety certification of ships, when applicable, notwithstanding the powers of the Port and Maritime Transport Institute;
- promoting interaction between telecommunications centres and the port safety area, safety plans, contingency and emergency plans, namely through the port traffic control centre, when it exists, as well as guaranteeing inter-communicability with the entity responsible for the National Maritime Search and Rescue System;
- establishment of navigation conditions in waters under their jurisdiction, especially ensuring the maintenance of depths in the navigable routes, in the access channels and manoeuvring areas next to the quays and terminals, as well as the anchoring areas;
- definition of the use of resources and the conditions governing the rendering of ship manoeuvring assistance services;
- establishment of anchorage areas or their limits and definition of their use;
- establishment of conditions for ship's berthing and unberthing, in regard of safety requirements and trade interests;
- enforcement of administrative and judicial dispositions;
- establishment of regulations for handling, storage and transport of dangerous goods and supervision of compliance with current rules on this matter;
- pollution prevention and combat;
- participation in actions concerned with the conservation and protection of underwater assets and establishment of intervention actions with the relevant entities;
- organisation of measures to remove hulls, wrecks and other submersed objects in their area of jurisdiction.

The decree provides that, notwithstanding any action taken by the police authorities under the terms of the law, the port authorities request intervention from the general or specialised police authorities to guarantee and verify compliance with the law and the regulations issued by the relevant authorities and applied in their area of jurisdiction regarding safety of equipment, installations and the items housed therein.

Decree-Law no. 44/2002 of 2 March attributes to the port captain in his capacity as local maritime authority, powers with regard to inspection, policing and safety of navigation, of persons and of goods in the respective area of jurisdiction.

3.18.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Supply to ships and waste collection services are undertaken in some ports by the port authorities and in others by private companies duly authorised by the port authorities.

3.18.4 Ports Authorities providing port services.

Passenger terminals are run directly by the port authorities; the services are either provided by the port authorities themselves or by private entities authorised by the port authorities.

Control and regulation of operations undertaken in the port areas are the responsibility of the public authorities, i.e. the port authority and the maritime authority.

The provision of other services such as supplies to ships and collection of waste is carried out by private companies authorised by the port authorities. The port authorities do not have any control over the management, through direct or indirect company holdings, of the services provided by the private companies.

3.18.5 "Self-handling".

As provided in Decree-Law no. 298/93 of 28 August, the handling of cargo in port areas is undertaken solely by private companies. There are no plans to introduce "self-handling".

Decree-Law no. 48/2002 of 2 March, which regulates the pilotage service, puts forward the exemptions to the compulsory nature of using pilotage services for ships whose captain is bearing a pilotage exemption certificate (PEC).

Decree-Law no. 75/2001 of 27 February provides that the conditions and regulations governing the provision of the towage service, as well as all situations in which towage is compulsory, are to be established by the port authorities, taking into account the characteristics of the port, the mooring location, the kind of embarkation and the manoeuvres to be carried out.

3.18.6 Access to the market for potential service providers.

The service providers are authorised to provide port services after obtaining a licence or concluding a concession contract.

3.18.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Handling of cargo, pilotage, towage and mooring can only be provided by entities duly authorised under the terms of the legislation in force. Authorisations are given to private entities by license or concession contract, as established by the respective port authority.

A service license can be requested by the applicant service provider.

The concessions are awarded by an administrative contract. This is preceded by a public tender, which can be a negotiation procedure with publication of the announcement or a tender limited by prior qualification.

3.18.8 The normal durations of contracts, concessions, authorisations etc.

The durations of the concession contracts for cargo handling signed and in force in Portugal vary between 20 and 30 years. As established in Decree-Law no. 324/94 of 30 December the concession term is fixed according to investment in equipment or port works, it can be no longer than 30 years. The decree provides the causes of rescission of the contract.

The towage service, when provided by private companies, is authorised by a license or concession. The licenses are valid for one year and can be renewed for an equal period of time. The duration of a concession can be no longer than 10 years, and is fixed in accordance with the investment made. The law provides the possibility of revoking the licenses and rescinding the concession contracts.

3.18.9 Limitation of the number of service providers.

Due to the physical dimensions of some ports, there is a limit on the number of cargo handling, towage and mooring service providers.

The pilotage service, despite being provided solely by the port authorities, can be provided by private companies, as outlined in Decree-Law no. 75/2001 of 27 March.

3.19 SLOVENIA

3.19.1 The organisation of the cargo handling, technical-nautical and passenger services.

Besides the performance of some functions by the port authority, the port of Luka Koper provides for the management, operational management, performance and marketing of basic (handling and storage) and additional services eleven specialized terminals which are marketing-planned and technologically autonomous company units. These terminals are:

- General Cargo Terminal
- Container and Ro-Ro Terminal
- Car Terminal
- Fruit Terminal
- Timber Terminal
- Livestock Terminal
- Silo for Grains
- Alumina Terminal
- Terminal for Coal and Iron Ore
- Dry Bulk Cargo Terminal
- Liquid Cargo Terminal

They are included into profit centres.

Technical services, which are organised in the framework of the port's administration, provide for uniform arrangement and performance of different supportive and development activities in the company.

Luka Koper is the holding company of the group. Services offered by affiliated companies linked to the group, encompass the entire offer of the port's services.

The company's organisation is conceived in a manner to ensure the quality and efficient performance of port's activities and to meet customers' requirements.

3.19.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Safety of sea navigation is under jurisdiction of the Slovenian Maritime Directorate.

In the Port of Koper, the company Luka Koper performs also the security operations within its own specialised department that ensures physical and technical protection of the people, property and fire protection. The security service is organised according the national regulations (private security law of the Republic of Slovenia), and it has a national license for the security service.

Work safety and health is regulated conform the Work Safety and Health Law of the Republic of Slovenia.

Concerning environmental regulations: the different organisational units (Terminals/Profit centres and affiliate companies) have to meet the requirements of national Environmental Protection Law (ZVO-1); this is supervised by the responsible body of Luka Koper and has to be in accordance with EU directive 59/2000.

3.19.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

Fresh water supply (via portal potable water system) to the ships, delivery of stores to and from the ships and additional assistance to the ships (including salvage) is performed by affiliated companies.

Fuel and lubricant supply on the anchorage point are performed by agents. The fuelling has to be approved by the Slovenian Maritime Directorate.

Collecting, removal, recycling and destruction of waste is performed by affiliated companies. Collecting of dangerous waste is organised by licensed companies.

3.19.4 Ports Authorities providing port services.

See above 3.19.1.

3.19.5 “Self-handling”.

“Self-handling” is not allowed. All the unloading and loading operations, as well as other port services are performed by Luka Koper.

3.19.6 Access to the market for potential service providers.

The market is open to agents, forwarders and logistic operators. All the port manipulation and handling services (as a core business for the company Luka Koper) are in hands of Luka Koper and its subcontractors.

3.19.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

A prior authorisation is necessary only for hazardous and extraordinary cargo handling. Provision of other port services is included in the basic activities of the company Luka Koper within its organisation or subcontractors that are free on the market.

All procedures/appeals/orders for port services are made via the portal information system. An appeal procedure exists.

3.19.8 The normal durations of contracts, concessions, authorisations etc.

Normal duration of concessions is 35 years. For other contracts the duration is different, usually with the possibility of modification.

3.19.9 Limitation of the number of service providers.

There are a limited number of service providers: Luka Koper is the only terminal operator. The limitation is a consequence of an official measure. Many subcontractors are competing freely on the market.

3.20 SPAIN

3.20.1 The organisation of the cargo handling, technical-nautical and passenger services.

The cargo handling, technical-nautical and passenger port services are provided by the port authority under an indirect management system, according to a landlord model in which the port authority not only provides land and infrastructure, but it also co-ordinates the interests of the agents providing the service, which may in some cases be conflicting. The port authority also invigorates and promotes the provision of services with a high quality/price relationship, in the general aim of improving port competitiveness.

Generally, freedom of access for economic agents is recognized so that they can provide their services under an indirect management system, with an additional role for the port authority as regulator of these services, ensuring that they are provided in conditions of safety, continuity and regularity, coverage, quality and prices in accordance with the estimated operating costs of these services.

The provision of these services requires authorisation granted by the port authority under criteria that are transparent, non-discriminatory, objective, appropriate and proportionate, as laid down in the regulatory specifications for each port service.

3.20.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

The port authorities directly provide services related to traffic control, regulation of cargo handling services, environmental inspections and plans and codes related to safety, with the support and monitoring of Puertos del Estado and the co-ordination and control from the bodies which are competent in the area.

3.20.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

The auxiliary services related to solid and liquid waste reception are generally obligatory or, where appropriate, subject to a rate per vessel, and they are provided under an indirect management system, through the corresponding permits. The agents providing this service should have authorisation both from the port authority and from the competent body on environmental matters.

3.20.4 Ports Authorities providing port services.

The provision of port services tends towards the landlord model, by which the port authority provides the land and the infrastructure and provides the services under an indirect management system. However, the role of the port authority goes further than merely being a passive controlling body and it is an entity which regulates the conditions for port access and operation and promotes the development of the port, encouraging the integration of port agents with conflicting interests in the general aim of improving the port's competitiveness. This model is applicable to all the port services mentioned.

3.20.5 "Self-handling".

At present, there is no self-handling of cargo handling services in Spanish ports, in general. However, it is allowed with own employees on board and with own materials, or with employees of the maritime stations and terminals operator working for private use, with the exception of the pilotage service, for which exemptions are only allowed in certain cases.

Requests for "self-handling" can be made at any time and are authorised by the port authority subject to a firm report from the Maritime Administration regarding maritime safety.

3.20.6 Access to the market for potential service providers.

In general terms, holders of an authorisation may be individuals or companies, from Spain, the EU or other countries with which there is a reciprocal agreement (except in cases where this is not necessary by agreement between the EU and the World Trade Organisation), with proven professional and economic capacity and up-to-date with the tax, employment and

social security obligations required by law, also complying with the conditions laid down in the regulatory specifications.

The authorisation procedure consists of an open competition system, except for limitations regarding number (see 3.20.9).

3.20.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

Any port service, both those mentioned above and any other carried out in the public domain of the port, requires prior authorisation and is subject to the regulatory specifications that are issued from both Puertos del Estado and the port authorities.

As has been stated, the authorisation procedure is that of an open competition and an application can be made at any time. Only if there is a limit on the number of agents a tender procedure is established (see point 3.20.9).

There is a procedure for invitation to tender corresponding to tenders when the number of service provider agents is limited and this is then published in the "Official State Bulletin" (BOE).

3.20.8 The normal durations of contracts, concessions, authorisations etc.

Spanish legislation on ports is subject to a review procedure which may affect this and other points.

Notwithstanding any future modifications which may apply, current legislation lays down the following maximum periods for provision of port services:

- pilotage: 10 years;
- mooring and unmooring: 8 years;
- tug: 13 years;
- cargo handling services: varies between 8 years (without investment), 10-15 years (with investment in equipment and mobile equipment) and 30-35 years (with investment in fixed installations or infrastructure);
- waste reception services: varies between 8 years (without investment) and 12 years (with investment).

3.20.9 Limitation of the number of service providers.

According to the current legislation, the number of port services is not usually limited, although, in practice, market conditions do tend to limit it in some cases to an oligopoly or natural monopoly. It can be officially limited for objective reasons due to limited space, the capacity of the installations, safety or environmental regulations. In the specific case of pilotage, this is limited to a sole service provider in each port area that has its own independent conditions regarding its maritime accessibility.

3.21 SWEDEN

3.21.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.21.1.1 Cargo handling

The majority of Swedish ports (around 70%) are nowadays operated as integrated companies with both port administration and cargo handling tasks. The dock workers are employed by the port company and the Ports of Sweden-association signs a collective agreement for the dockers with the trade unions.

The rest of the ports have a separate port authority and private stevedoring companies (normally only one). The port authority is part of the municipal administration. In these ports the services provided for the goods are divided between the port authority and the private stevedoring company. The division varies between the ports. Like in the integrated ports, the working conditions for dockers follow the agreement made between the Port of Sweden-association and the trade unions.

3.21.1.2 Technical –nautical services

The National Maritime Administration has the exclusive rights to provide pilotage in Swedish ports. Towage is usually provided by a separate private company or by the port company itself. The same applies for mooring.

3.21.1.3 Passenger services

The management of and the responsibility for services for passengers varies in Swedish ports. It is common that the ferry crew takes care of the gangway, whereas the goods often are handled by the ferry line, the port company or another company.

3.21.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

The national maritime administration has the overall responsibility for controlling the traffic by VTS system. In some ports, activities related to controlling the traffic are carried out by people employed by the port organisation.

The overall safety in the port is the responsibility of the port organisation; though the captain of the vessel has also a responsibility, as well as the national maritime administration for guiding the vessel to and inside the port through VTS system.

Security is the responsibility of both port companies and the national maritime administration.

3.21.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

These services are often provided by a private company; sometimes by the port organisation.

3.21.4 Ports Authorities providing port services.

See 3.21.1, 3.21.2, 3.21.3 and 3.21.1.1, 3.21.1.2, 3.21.1.3.

3.21.5 "Self-handling".

There is no formal hinder for "self-handling" in Swedish ports as long as the service provider signs a collective agreement with the union "Transportarbetarförbundet". In practice the port company managing the infrastructure will not allow "self-handling" that can endanger the overall efficiency of the port or the safety and security of port operations.

3.21.6 Access to the market for potential service providers.

Potential service providers gain access to the market through commercial negotiations with the port company managing the infrastructure.

3.21.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

There is no prior authorisation required. There is no selection procedure. Appeal procedures are sometimes possible, depending on the nature of the service but usually not for cargo handling.

3.21.8 The normal durations of contracts, concessions, authorisations etc.

Most integrated port companies are entirely owned (but sometimes partly owned) by the municipality, which usually also owns the infrastructure and concludes agreements on market conditions with the port company concerning rights of use. The duration of these agreements is usually about 5-20 years. There are however companies that own and manage the infrastructure, warehouses, cranes, etc., themselves. Some ten ports are organisationally divided into a port administration and a (generally privately owned) stevedoring company that is responsible for cargo handling and rents warehouses etc. from the port administration.

The duration of contracts, concessions etc. is not absolute, and prolongation is common. There are no maximum durations foreseen by law.

3.21.9 Limitation of the number of service providers.

The number of service providers is not limited in the sense of the port services directive but can be limited to lack of space or other factual reasons.

3.22 UNITED KINGDOM

3.22.1 The organisation of the cargo handling, technical-nautical and passenger services.

3.22.1.1 Cargo handling

Cargo handling services may be carried out by the port undertaking, port subsidiary companies or companies specialising in its provision. Regardless of who carries out cargo handling, such activities receive no government or other subsidy.

In July 1989 the UK government abolished the Dock Labour Scheme. Under the DLS a register of port employers and dock workers was kept and only those registered dock workers were allowed to carry out designated work. Following the abolition of the Dock Labour Scheme normal employment legislation applied with the employer and his employees, who are now free to establish their contractual employment relationship. These agreements are negotiated at individual, port or company level.

Earnings of port employees are subject to local negotiation.

Training is provided by the port employers at their own expense.

3.22.1.2 Technical-nautical services

The 1987 Pilotage Act placed responsibility for marine pilotage on to "Competent Harbour Authorities" (CHAs) who are usually the port authorities. Pilots may be either employees of the CHA or self employed, but the CHA sets the rules for pilotage and the charges. It also issues pilotage exemption certificates to suitably qualified regular users of a port. Prior to 1987 pilotage was administered by independent pilotage authorities: the 1987 changes were a welcome simplification that have generally helped to reduce the costs of pilotage without jeopardising safety.

Ocean towage services are provided by companies specialising in their provision and are not provided by port undertakings.

The responsibility for towage within the port area is fulfilled in most ports by private towage undertakings. In a few cases towage is provided by the port itself.

3.22.1.3 Passenger services

In contrast to cargo handling, passenger services are mainly provided by the carriers, although there are areas of port authority involvement which will vary from port to port.

3.22.2 Organisation of policing operations (traffic control, regulation of the handling of goods, environmental inspections, safety and security).

Where the port authority provides conservancy services it is generally responsible for traffic controls within the harbour area, whether on water or land. Some ports provide these services to other ports also, for example Harwich Haven provides VTS services for Felixstowe. Some

ports also subscribe to Community systems, such as CNS, to handle all vessel information electronically.

Handling goods is mainly regulated under Health and Safety legislation and is also affected by environmental requirements. Port Skills and Safety Ltd (PSSL) is the industry body which provides UK ports with advice, guidance and training on health and safety issues and both UKMPG and BPA work close with PSSL.

Transport Security (TRANSEC) is a division of the Department for Transport and is responsible for ensuring adequate security arrangements in UK ports. Government does not provide funding to the industry to meet these requirements and no contributions were received for increased security provisions under the recently introduced ISPS Code. Various security functions may be contracted out to third party companies, depending on individual port decisions.

Some UK ports have received ECOPORTS accreditation and continually monitor environmental quality in their ports. This is complemented by testing and monitoring by the relevant environment agencies.

3.22.3 Organisation of ancillary port services (water supply, bunkering and waste reception facilities).

In general, water services are supplied by the port authority. Bunkering is provided by private contractors. Under the requirements of the new Port Waste Reception Facilities Regulations, ports provide the facilities and then contract disposal companies to remove the waste. For certain types of waste, such as oil waste, the vessel makes arrangements direct with a contractor on a list approved by the port.

3.22.4 Ports Authorities providing port services.

Some ports do some cargo handling themselves and in some cases all, or nearly all, of it. Moreover, UK ports, particularly those which are privately owned, see their role not just as modal interchange points but as part of the integrated supply chain. For certain types of traffic ports are increasingly making agreements with cargo owners for a range of logistic services which may include warehousing, packaging and landward distribution as well as cargo handling. On pilotage, UK legislation provides that regular users of a port are entitled to apply for a Pilotage Exemption Certificate, and these are widely issued. Other types of service are sometimes carried out by the port authority or are contracted out. We do not anticipate the current situation changing dramatically in the near future.

3.22.5 “Self-handling”.

“Self handling” is largely confined to the ro-ro sector, but it can include the lashing of vehicles, although the practice varies from port to port.

Some ports do not permit “self-handling” of cargo, on the grounds that this would amount to “cherry picking” and would not be in the overall interest of the port. The need for expensive equipment and high investment generally militates against “self handling” of cargo, especially

for containers. The situation is different for ferry services where "self handling" tends to predominate.

3.22.6 Access to the market for potential service providers.

For cargo handling the most obvious approach for a would-be stevedore is to purchase or take a lease on a terminal. In the case of common user terminals the service provider would need to approach the owner of the terminal (who may or may not be the port authority). For pilotage please see above 3.22.4.

3.22.7 Port Services: prior authorisation/ selection procedure/ appeal procedures.

In the case of cargo handling, the practice varies. Some port authorities operate a licensing system but some do not. For towage a special authorisation would be needed for safety reasons. There is no standard regime for either selection or appeal procedures.

3.22.8 The normal durations of contracts, concessions, authorisations etc.

There is no standard duration, but concessions of 15 to 25 years are common. In individual cases the length will tend to reflect the scale of the investment involved. The largest investments can result in concession of more than 35 years. Many terminals are either owned outright or operated on long leases; this includes for example oil terminals and many of the wharves on the Thames and the Humber. Extensions are frequently negotiated, often in association with a proposal for new investment. Early terminations usually arise only when the operator runs into financial difficulties, in which case the port sometimes takes over the operation itself.

There is no specific legal framework governing these arrangements.

3.22.9 . Limitation of the number of service providers.

In certain ports and in certain terminals the number of cargo handlers is restricted to the maximum number which the traffic can sustain. In other cases the port, as a matter of policy, undertakes all handling of certain types of cargo.

For towage there are no restrictions on the number of providers, but in practice in many ports there is only enough business to support one operator.

For pilotage, UK law (1987 Pilotage Act) provides that Competent Harbour Authorities (CHAs) are responsible for provision of the service: they authorise the pilots, determine the rules and set the charges. Pilots may be either employee of the ports, self employed, or employed by a company which contracts for the provision of the service. CHAs also grant pilotage exemption certificates where appropriate.

4 FACTUAL REPORT – WORK PACKAGE 4 (FR-WP4)

Financing and charging

Final report
March, 2005

Report prepared by
European Sea Ports Organisation (ESPO)

4 FR-WP4: FINANCING AND CHARGING

4.1 BELGIUM

4.1.1 The applicable financing and charging systems.

4.1.1.1 Financing

Division of responsibilities:

BELGIUM (Flanders)	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % State	100 % State	State = Flemish Region
Coastal defence and exterior breakwaters	100 % State	100 % State	Idem
Hinterland connections: Land access (rail and road network)	100 % Federal State (railways) 100 % Flemish region (roads)	100 % Federal State (Belgian railways) 100 % Flemish region (roads)	
Hinterland connections (in port) Railways	50 % P.A.[6] 50 % Belgian railways	100 % Belgian railways	
Hinterland connections (in port) Roads	Depending on status of the road: city, region, State	Depending on status of the road : city, region, State	
Lights, buoys and navigational aids	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	State = Flemish Region
Quays, docks and jetties[7]	20 % State 80 % P.A.	100 % P.A.	Idem
Superstructure	100 % Private sector	100 % Private sector	

The basic principle in the Port Decree with regard to the financing of port infrastructure and maritime access is that the Flemish government is responsible for the safeguarding of maritime accessibility and for the construction and maintenance of

[6] P.A.= Port Authority

[7] System before the Port Decree of 1999 was 60 % Flemish Region and 40 % port authority. As from 2004 this is brought to 20 % Region – 80 % port authority.

basic infrastructure of the seaports (i.e. maritime access, locks, breakwaters and some of the quay walls when proof is given that the cost recovery principle is applied). The Decree further stipulates that the Flemish government can supply financial support to the harbour master's offices of the port authorities if such support explicitly involves services with regard to traffic co-ordination, safety and the safeguarding of the environment. The same system applies for sea locks and for technical-nautical matters. The financial regime of the Decree has fully entered into force in 2004.

There are no other public financial support measures (e.g. European, federal, province, municipality) for Flemish ports other than those provided by the Flemish government.

The Decree contains a financial regime which aims at reducing the role of the central (Flemish) government in new port projects which are to bring a commercial return, thus focusing the government's responsibility on those activities of local port authorities related to ensuring the maritime accessibility for all port users. In this way, port authorities would obtain a higher responsibility for commercially exploitable projects such as docks and quays.[8] This is reinforced through the obligation for a port authority to thoroughly motivate any request for government financing in a new investment project with socio-economic reasons. In case the expectations of the project are not fulfilled, penalties may be imposed on the port in question.

More detailed, the role of the Flemish government can be described as follows:

- Financing of maritime access and basic infrastructure outside the port area.

The Flemish region is responsible for the construction, maintenance - including the treatment of dredging material - and the exploitation of maritime access ways and basic infrastructure, but excluding so-called "port-internal" basic infrastructure.[9]

- Grants for maintenance and operation of sea locks.

The Flemish government is entitled to give financial support to port authorities for maintaining - including treatment of dredging material - and operating the sea locks located within the port area of a given port.

- Subsidies for new commercial projects.

The Flemish government is entitled to give subsidies to port authorities for investments in "port-internal" basic infrastructure (such as docks) and equipment infrastructure (such as quay walls)[10] including the replacement of technically and economically obsolete constructions. It can also decide to co-finance such investments. Demands for such subsidies must be motivated from a technical and socio-economic point of view.

---

[8] This regime was meant to anticipate European rules regarding port financing and State aid, as announced in the Commission's 1997 Green Paper on Sea Ports and Maritime Infrastructure.

[9] "Port-internal" basic infrastructure is defined as "docks, including water surfaces, dredging operations and the levelling of sites".

[10] Equipment infrastructure is defined as "mooring infrastructure for sea-going vessels and barges aiming at the transhipment of cargo or the transport of passengers, such as quay walls, jetties, roll-on/roll-off ramps as well as light infrastructure such as quay metalling, railroads of local importance, utilities of local importance, internal connecting roads within the port area."

The budgetary means of the Flemish Region are divided between the four Flemish seaports on the basis of a general framework. The regional participation is maximum 50 % for "port-internal" basic infrastructure and - as from 2004 - maximum 20 % for equipment infrastructure. The application and control procedures are regulated in great detail including notification with the European Commission when the intended subsidy and/or co-financing would possibly fall, wholly or partly, within the scope of EU state aid rules.[11]

- Co-financing for maintenance of berthing locations at the maritime access way.

The Flemish government is entitled to co-finance (50 %) the maintenance, including the treatment of dredging material, of parts of the maritime access way where berthing infrastructure for sea and inland vessels is located which is destined for handling of cargo or transport of persons.

- Subsidies for harbour master services.

The Flemish government is entitled to subsidise port authorities for keeping harbour master services which can be explicitly designated to traffic control, safety and environmental protection. Costs which can be recovered on a commercial basis, such as collection of oil waste and cleaning of oil spills, cannot benefit from such subsidies.[12]

- Financing of superstructure is not allowed.

The Port Decree explicitly forbids the Flemish Region to invest in superstructure. Superstructure is in this case defined as "warehouses and elevating equipment of all kinds and all port structures which cannot be categorised as maritime access ways, basic and equipment infrastructure and port-internal basic infrastructure."

- Other executive measures.

All above-mentioned regional interventions are, with the exception of the regional responsibility for maritime access ways and basic infrastructure, limited to the means foreseen in the Region's budget. The percentages of the above-mentioned subsidies and means of co-financing are fixed by the Flemish government. The regional financial support measures can furthermore be made subject to conditions to be included in specific agreements between the region and the port authority in question. The Flemish government has the possibility to withdraw or reclaim funds in case of violation of the rules of the Port Decree and its executive measures.

Flanders has a specific policy to promote short sea shipping but this has no financial benefits for ports.

---

[11] Decision of the European Commission of 20.10.2004: State aid no 520/2003 – Belgium – Financial support for infrastructure works in Flemish ports.

[12] This specific scheme was notified to the European Commission. In its decision of 16 October 2002, the Commission did not raise any objections since the harbourmasters' offices carry out public-authority tasks and do not receive direct instructions from the port authorities concerning the performance of these. As the subsidies do not fully offset the costs involved in the performance of public-authority tasks covered by the agreements, the Commission stated that there is no possibility of overcompensation.

Port investments by the Flemish Government in million EUR 1999-2003 (in prices 2003).

year	1999	2000	2001	2002	2003
Maritime access incl. deepening Westerscheldt	155,08	209,84	176,89	191,03	172,01
Deepening Westerscheldt	56,70	19,43	13,78	8,82	3,60
Antwerp	60,38	45,24	49,82	101,38	123,29
Ghent	11,83	17,88	11,73	15,57	23,13
Zeebrugge	25,74	23,66	49,26	13,57	13,81
Ostend	16,34	18,01	6,49	15,04	9,85
Total incl. maritime access	269,37	314,63	294,19	336,60	342,09
Total excl. maritime access	114,30	104,79	117,30	145,57	170,08

4.1.1.2 Charging

Port dues and charges, depending upon the kind of activity practised in each port, can in summary be divided as follows, for both the municipal ports and the port authority:

- Port dues on seagoing vessels, collected on the basis of their gross tonnage as defined by the 1969 International Convention on Tonnage Measurements and on the basis of the tonnage of goods loaded and/or unloaded. In Bruges-Zeebrugge and in Ostend there is a special due for passengers and vehicles embarking and disembarking. These port dues generally include the right for ships to berth in the port, to use the locks (if they exist), to stay in the port for up to one month, as well as to carry out commercial operations (unloading and loading).

- Port dues on inland navigation vessels are collected on the basis of their capacity in m3/tonnes. In Ghent, Antwerp and Ostend: waste collection (garbage and bilge water) from inland navigation is included in port dues. In Ghent and Ostend: inland navigation is obligated to pay for drinking water. In Antwerp the due includes the delivery of drinking water for inland navigation. In Zeebrugge: inland navigation has to pay for waste collection and delivery of drinking water.

- Dues and rentals for land let out for port use. Leases are long term ones, with a duration which can vary according to the level of the investment by the private operator. The rents reflect the market price. It can be varied annually, but any increase/decrease has to be the same for all lessees in the same position.

- Dues and rentals for services rendered or for the use of installations such as warehouses, dry docks, cranes and other equipment, towage services, etc.

- Dues and rentals for deliveries of such items as drinking water, electricity, etc.

The Flemish ports are 100 % autonomous, i.e. they are able to set their own budget, use the dues, charges and rents they collect.

Port dues, charges and rents collected are in principle applied on a tariff basis, but commercial rebates and negotiations with customers/tenants are applied in practice.

4.1.1.3 Specific financial questions

- Depreciation: Antwerp, Ghent, Ostend and Zeebrugge, all autonomous port authorities, have to meet the principles of Belgian accounting law.

- Overall rates of return: there are no legal provisions for the calculation of profitability for projected new port investments. In practice all investment projects must be justified by profitability calculations when they are submitted to the competent authorities. The Flemish Port Commission requires that a cost-benefit analysis is made before finance can be provided by the Region. A MER (Milieu effect Rapport) has to be submitted to the MINA-Raad (Milieu en Natuurraad). The board of directors of the port decides on the new investments in their port.

- Loans: in the port of Antwerp, Ghent, Ostend and Zeebrugge, being autonomous port authorities, it is the Board of Directors who decides on how to finance the activities (loans on market interest rates).

- Provision of facilities: there are two main groups of facilities and services the port must provide at less than cost:
  1) Operational items, the results of which (loss of income, non reimbursed expenses) should be charged by the port authority to another public service or government authority :
     - making land available at less than cost for the laying of pipelines (grounds were pipelines are located: small concession price);
     - making land available for railway lines and associated buildings;
     - fitting out municipal tugs for fire fighting;
     - berthing of Royal Naval, NATO and State-owned vessels;
     - making land available for trunk roads, tunnels and bridges, etc.

  2) Special social provisions that differ from the expenditure done by comparable private undertakings. As the port authorities are autonomous they can grant their personnel certain social provisions (comparable with ordinary limited companies).

- Taxation regime: Position of Port Administrations: Port administrations are subject to both national and local taxation, including VAT and rates.
  Position of Private Port Organisations: Private port organisations are subject to the same tax regime as those of private industry elsewhere in the country.

- Restraints: Port Administrations: the Port decree describes the functions of the port authority; the Board of Directors has also discretionary powers.
  Private Port Organisations: the various private port organisations are free to carry out a wide range of different activities and may invest in new projects. They are free to determine the salaries paid to their staff, although they must respect the carious collective agreements. They may fix their own charges, dues, etc., although they are sometimes subject to the approval of the local authority and always subject to the approval of the Minister of Economic Affairs. Private firms may not sub-let land which they occupy, without the approval of the port authority.

4.1.2 The degree of financial autonomy of the port authority.

Port authorities have got total financial autonomy.

4.1.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The Port Authority of Antwerp and some private undertakings are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

As regards transparency in general, the port authorities of the Flemish seaports publish an annual account. The port authorities are legally obliged to publish their accounts and these are freely accessible. The accounting system can distinguish between the results of the different activities carried out by the port authority. Analytical and cost accounting systems are used by all Flemish ports.

4.1.4 The largest port development project currently on-going in the country.

4.1.4.1 The Deurganck dock

- Location of the project and strategic motivation behind it

As a successful container port, Antwerp is at the top of the worldwide container traffic chain. Thanks to its competitive prices, excellent service and inland location, container traffic at the Port of Antwerp grew 10% yearly over the last few years. As a result, the existing container terminals now have reached their maximum capacity. In response to the exponential growth of its container traffic, Antwerp is building a new tidal container dock, the Deurganck dock, at the left bank of the river Scheldt.

- The development phases

The construction of the Deurganck dock is being carried out in three phases, the first one being construction of a terminal with an area of 80 ha. This phase is located on the west side of the dock, with a quay length of 1,250 m. The second phase concerns construction of a 42 ha terminal on the east side (1,350 m quay length) and 19 ha on the west side of the dock (400 m quay length). The third phase involves construction of 53 ha of terminals on the west side and 62 ha on the east side of the tidal dock, each with a quay length of around 1,100 m.

The first terminal of the Deurganck dock will be operational in 2005. When it's fully operational, the Deurganck dock will be able to handle over 5.5 million TEU.

- Well-point drainage & return drainage

Before the actual digging of the dock can start, the groundwater level has to be lowered to keep the building site dry (drainage). To prevent that the surrounding houses and factories are damaged from setting, the drained water will be pumped into the ground again at a few hundred of metres from the excavation (return drainage).

- Excavation

When the groundwater level has sufficiently lowered, the excavation of the construction area is started. This is done layer-by-layer. Special inclines and partitions prevent the sidewalls from sliding off.

- Laying the foundations

At the bottom, where the quay-wall will be built, sheet piles are installed to ensure stability and to prevent bank erosion. Afterwards, the excavation is further dug out till the foundation spring level. A floor of 7 centimetres thick is installed to provide for a clean & clear foundation surface.

- Placing of reinforcement and framework

The next step in the building process is the framing and reinforcing of the horizontal part of the quay-wall – which is constructed in the form of an "L".

- Casting of the concrete sole

Next up is the casting of the concrete sole. Special pumps bring the concrete mixture from the trucks to the framing. 215 cubic metres of concrete are needed to build one metre of the quay-wall. The maximum capacity of the concrete mixers that are used at the building site is 300 cubic metres of concrete per hour.

- Framing, reinforcing & casting the concrete sidewall

When the quay-wall sole has sufficiently hardened, the sidewall is formed and reinforced. At the west side the quay-wall is divided into pieces of 20 metres each. Then, each piece of the wall is placed, each time leaving 20 metres spacing in between the pieces. Afterwards, the remaining pieces are inserted between the other ones by lowering them in. At the east side a special reinforcement is applied. After the framing and reinforcement, the casting of the sidewall is started.

- Installing a draining system

A draining system is installed in the sidewalls. The draining system will provide for a stable groundwater level behind the quay-wall.

- Framing, reinforcing and casting of the concrete quay-wall top

The quay-wall top contains all necessary provisions, such as bollards, ladders, etc. The casting of the top is done similarly to the sole and the sidewall. The only difference is that, for the top 40 centimetres of the quay-wall, a special substance is added to the concrete mixture as protection against melt-salts. The quay-wall top is 7.5 metres high at the west side. At the east side, the top is 4.5 metres high.

- Filling up the groove behind the quay-wall

At the back of the quay-wall, the groove is filled up with sand. The sand is compressed with mills and bulldozers.

- Dredging and finishing the dock

When the quay-wall is finished, dredging can start. The soil & water mixture is pressed via pipelines from the dredgers to the quay and industrial zones that have to be raised. After dredging, the dock can be further finished.

The Deurganck dock will be 2.6 kilometres long and 450 metres wide. Next to its huge dimensions, the dock has some other unique characteristics; take, for instance, the wide and high, L-shaped quay-wall, the power pylons that are 190 metres high, and the waterproof screen that is particularly installed to prevent setting damage to the surrounding factories.

To make optimal use of the space available, very high productivity standards are imposed. The Deurganck dock will handle about 5.5 million TEU, which means that the current capacity will be doubled. To reach this goal, the terminal concessionaires will have to invest in high-tech equipment.

Around the Deurganck dock, a new ring road is built that will consist of two lanes in each direction. Later on, the ring road will be connected to the R2 highway around Antwerp. Four new railway bundles are built. This way, each concessionaire, that runs a container terminal at the Deurganck dock, can transport goods by train. A new sea lock will be constructed in the "Waaslandhaven", which will then have two sea locks. When finished, the new sea lock can be found between the "Waasland" canal and the end of the Deurganck dock.

- Financing

Investment in infrastructure consists of 35 up to 40 % of total investment (ca. 200 million Euro), the financing is done according to the law. The superstructure is 100 % financed 100 by the private sector.

4.1.4.2 Ghent: Kluizendok.

The Kluizendok project consists of the digging of a new dock. This new dock adds another 4.2 km of quays to the port of Ghent, opening up well located industrial sites. A total of 200 ha of waterfront and non-waterfront land are open for new investments. The port aims at industries that need the waterfront for importing and exporting their products. Also targeted will be companies specialized in value adding logistics and distribution activities. The Kluizendok is accessible to seagoing vessels with a draft of up to 12.25 m (in the future up to 17 m). The dock has excellent connections by inland waterways and railway. It is directly linked to the R4, the port's circular road that connects to the international highway system. The project nears completion.

4.2 BULGARIA

4.2.1 The applicable financing and charging systems.

The National Company "Ports" finances the activities for establishment, maintenance and development of the ports with national and regional importance. The Government participates in the financing of these activities according to the Law on State Aid.

The concessionary finances the establishment of a new or the maintenance, expansion, rehabilitation of existing terminal. In the concession contract, an investment programme is inscribed, which must be implemented. The physical and juridical bodies that have taken the initiative to invest in the establishment of a new or the expansion of an existing port, following the approval by the National Company "Ports" and the Ministry of Transport and Communication, finance the investment programme. The procedure of financing is determined in the articles 112c, 112d of the 'Law on SSIWP'.

At the moment the National Company "Ports" prepares a Regulation for prices and tariffs of port services, in accordance with the requirements of the 'Law on SSIWP'. The Regulation is in the project phase.

4.2.2 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The Republic of Bulgaria still hasn't signed the contract for integration with the EU and is not a full Member of the European Union.

4.2.3 The largest port development project currently on-going in the country.

The largest port infrastructure project goes on in the Port of Bourgas. The project is a key element of the Master Plan for the development of the Port for 2015. The main core of the Plan is a modern and highly diversified Port to be built, fully answering to the challenges of the new cargo trends.

The Master Plan envisages 4 new terminals to be built:

- Terminal 1: general and liquid cargo, together with a defending breakwater. The last is already under construction, as a part of Port of Bourgas Expansion Project or Terminal 2A. According to the Master Plan, Terminal 1 should have 4 berths with a total length of 750 m.
- Terminal 2: bulk commodities and metals. The terminal should have 6 berths with a total length of 1,580 m and draughts up to 15.50 m for capesize vessels with loa of 270 m and dwt of 120,000 t. The Terminal 2A, which is presently under construction, represents a main part of this Terminal 2.
- Terminal 3: ro-ro and ferries. The total length of berths is foreseen to be 380 m.
- Terminal 4: container terminal. The box facility should cover 2 berths with aggregate length of 450 m. The estimated annual capacity is 150,000 TEU.

The implementation of the Master Plan started with the launch of Port of Bourgas Expansion Project-building of the east defending breakwater and Terminal 2A, dedicated to bulk. The Project started thanks to the common efforts of the Bulgarian government and the management of the Port of Bourgas. A loan agreement has been signed with Japan Bank for International Cooperation for the financing of the construction of Terminal 2A. The loan (JPY 14,312,000,000) was given on very good conditions. The construction works have been launched in June 2001.

Terminal 2A is expected to be operational by mid 2005.

4.3 CYPRUS

4.3.1 The applicable financing and charging systems.

Payments for the services offered by the Authority are included in its tariffs, whereas those for loading/unloading of vessels are fixed by private agreements between the parties concerned.

Cyprus Ports Authority levies charges and dues on ships, cargo and passengers services through ports and terminals in Cyprus.

Payments of dues and charges to Cyprus Ports Authority are effected, in the case of ship dues, mostly through shipping agents, acting as representatives of shipping lines and in the case of cargo, charges by consignees or their clearing agents/forwarders.

Port users from the public sector pay charges either for services rendered by Cyprus Ports Authority or for the use of offices/storage space within the port areas.

Charges on ships are levied for the use of berths, pilotage services (which include the use of tugboats), mooring boats, navigation aids (entrance channels, lighthouses etc) and for waste collection, all provided by Cyprus Ports Authority. They are NRT related and they vary according to the vessel type, the trade served and, where appropriate, to the time spent in port.

Charges on cargo are levied for the use of cranes, wharves and storage space. They are related to the type of cargo, trade category, weight, measurement, or piece and, where appropriate, to the time spent in port.

Charges on passengers are levied for facilitating their movement through the port.

Storage space is rented to customers requesting such facilities.

Cyprus Ports Authority leases out premises for use as office accommodation, free shops, restaurants etc.

Licenses are also issued to third parties e.g. ship chandlers, containers repairers, etc.

4.3.2 The degree of financial autonomy of the port authority.

Cyprus Ports Authority is a self-financed organisation. However, the budgets and tariffs of the Authority are approved by both the Government and by the House of Representatives.

4.3.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Cyprus Ports Authority's accounts are audited annually by the Auditor-General of the Republic of Cyprus. These accounts are published in the Annual Report of the Authority.

4.4 DENMARK

4.4.1 The applicable financing and charging systems.

4.4.1.1 Financing

Division of responsibilities:

DENMARK	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	100 % P.A. for access channels from major navigation routes to the port.
Coastal defence and exterior breakwaters	Coastal defence: 100 % State Exterior breakwaters: 100% P.A.	Coastal defence: 100 % State Exterior breakwaters: 100% P.A.	
Land access (rail and road network)	100 % State outside port Inside port: road 100 % P.A.; rail 50/50	100 % State outside port Inside port: road 100 % P.A.; rail 50/50 or 100 % P.A.	
Lights, buoys and navigational aids	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	100 % P.A for access channels
Quays, docks and jetties	100 % P.A.	100 % P.A.	
Superstructure	100 % Private sector (buildings/mobile equipment) 100 % P.A. (cranes, warehouses)	100 % Private sector (buildings/mobile equipment) 100 % P.A. (cranes, warehouses)	

All transport links to and from Danish ports are publicly financed either by the State, regional or city authorities.

The port authority and the State Railways make decisions concerning railways jointly. Depending on the type of rail in the port, the port itself or the port and the railways in common pay the investment and the maintenance.

Outside the port the roads are financed by State, regional or local authorities. Roads and related works inside the port area are the responsibility of the port authority. In a ferry terminal the ferry company itself pays the costs related to passenger installations, gangways, etc. Pipelines are mainly private. The bodies making the investment decision usually carry out the operation and maintenance of these facilities.

Only a limited number of ferry services may receive State aid and may enjoy exclusive rights for a concession period (following a tender procedure). This is in order to maintain ferry services to islands.

The State of Denmark only offers moral support to short sea shipping. Denmark was among the first countries in EU establishing a short sea promotion centre and the State offered a minor amount to start up the activities. The government itself does not offer direct preferential treatment to support short sea shipping.

Financing of general infrastructure in the Danish ports (million Euro)

	2000	**2001**	**2002**	**2003**
Infrastructure, of which	72	45	25	29
-New infrastructure	60	34	16	19
-Maintenance	12	11	10	10

4.4.1.2 Charging

Public Danish seaports act on an independent commercial basis with the freedom to negotiate prices, dues and charges with their customers. The Ministry of Transport only supervises port dues and charges on ships and goods in cases where a port holds a dominating position.

Port dues and charges are usually collected by the port authorities. Private operators collect their own dues. There are no charges for lights.

The following charges are made in Danish ports:

- ship dues: normally fixed in relation to the net tonnage;
- cargo dues: normally fixed per ton on goods or containers classified in groups;
- passenger dues.

The main sources of revenue are:

- revenue from the above-mentioned charges;
- revenue from leasing out uncovered areas and warehouses, etc.;
- revenue from leasing out cranes and other mechanical equipment;
- income from interest.

Other cargo handling organisations are free, within the rules of Danish legislation, to carry out different activities and, within the limits of the leasing conditions in the port concerned, to invest in new projects. They may control their own charges within the rules of existing Danish legislation.

The Danish Fairway Department under the Ministry of Defence has the main responsibility for fairway infrastructure outside port areas. The infrastructure is financed via the State budget and there are no special shipping dues levied on traffic to cover these costs.

The only State dues that have to be paid are ice dues during the winter season, where both the port and the ship contribute.

Pilotage is under the responsibility of the State except in a few ports, where it is the port itself providing pilotage in the port area. The vessel pays the pilotage costs.

In addition to the dues the port is permitted to demand payment for the use of services that are not included in the regulations for the dues. Example of this type of services is payment for delivery of water, electricity, parking in the port area.

As to waste handling there is mandatory delivery of all waste. The no-special fee system covers ship generated waste collected from the departure of the latest port. A special fee is paid for the cargo residues.

4.4.2 The degree of financial autonomy of the port authority.

Public Danish seaports act on an independent commercial basis with the freedom to negotiate prices, dues and charges with their customers. The Ministry of Transport only supervises port dues and charges on ships and goods in cases where a port holds a dominant position.

4.4.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The independent municipal ports and the limited companies publish separate annual accounts according to the rules in the Danish Company Accounts Act. Where cargo handling is carried out by limited companies, their accounts have to be accessible for public inspection, according to the act, which regulates limited companies. The same is true for any organisation carrying out other port activities.

All ports are subject to an annual audit.

4.5 ESTONIA

4.5.1 The applicable financing and charging systems.

Division of responsibilities:

ESTONIA	Cost of investments	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	State; within port territory: port authority	State; within port territory: port authority	
Coastal defence and exterior breakwaters	State; within port territory: port authority	State; within port territory: port authority	
Land access (road)	Road owner (state/municipality/ private)	Road owner (state/municipality/ private)	
Land access (railway)	Railway owner	Railway owner	
Lights, buoys and navigational aids	State; within port territory: port authority	State; within port territory: port authority	
Quays, docks and jetties	port authority	port authority	
Superstructure	Service provider	Service provider	

Every port has a set of port rules. Port rules include the rates of port dues and fees for the receipt of bilge water, sewage, waste and other pollutants.

Compulsory port dues and charges for vessels include:

- tonnage dues;
- quay charges;
- mooring charges;
- pilotage dues;
- lighthouse dues;
- ice dues;
- passenger fees.

In Tallinn, tonnage dues, quay charges, mooring charges, passenger fees and pilotage dues in case of pilotage within the port and performed by the port pilot, are levied by the Port of Tallinn. Lighthouse dues and ice dues are levied by the Maritime Board, pilotage dues are levied by AS Eesti Loots (Estonian Pilot Ltd).

Rental fees for port operators and tenants are set by contracts and depend on placement of the land-lot, size of the land-lot, cargo flows generated for the port, etc.

4.5.2 The degree of financial autonomy of the port authority.

Ports are 100% financially autonomous. Investments are made either by own resources or using debt capital.

4.5.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

This Directive defines "undertaking required to maintain separate accounts" as "any undertaking that enjoys a special or exclusive right or that is entrusted with the operation of a service of general economic interest and receives State aid". No Estonian port has any type of exclusive rights nor receives State aid and that will not be changed.

4.5.4 The largest port development project currently on-going in the country.

Most probably the largest development projects are run by the Port of Tallinn.

During the next 5 years the Port of Tallinn plans to invest approximately EEK 5.3 billion (EUR 339 mln) into the construction and improvement of infrastructure, with EEK 1.2 billion (EUR 77 mln) planned to invest already in 2004. This ambitious investment plan would offer the best quality and modern technology to port operators and cargo owners, in order to increase the cargo volume and ensure the competitive advantage and constant increase of market share of the Port of Tallinn in the increasingly competitive market. The Port of Tallinn is expecting to use more debt capital to finance new investments. Five year's goal is to achieve a 600 equity/debt ratio thus ensuring greater return on equity and lowering the total cost of invested capital.

Larger long-term projects in Muuga Harbour include the construction of coal and metal terminals, east part breakwater construction, construction of berths no. 14 and 15 and investments related to the industrial park.

The existing container terminal has the handling capacity of 120 000 TEU. To enlarge the annual handling capacity to 250 000 TEU, an additional quay of 200 meters of length is required. The second phase of the container terminal includes the construction of two new quays and a basin between the quays. The extension of the terminal will be ready by the end of 2004.

Coal Terminal's planned handling capacity is 5 million tons of coal per year. Coal Terminal with the size of 50 hectare will be ready in 2005. The total cost of construction is EEK 726.5 mln (EUR 46.4 mln). The investment in the superstructure (made by the operator of coal terminal) is of the same size.

The port development plan foresaw starting Muuga Harbour extension from the side of Cape Tahkumäe and the new terminals were planned to start operating different bulk and general cargoes. But there were no specific plans. Then Kuzbassrazrezugol proposed cooperation. In the fall of 2002, the port and the operator of the future coal terminal concluded a deal and in the beginning of 2005 the terminal with the yearly throughput of 5 million tons will become operational.

In order to improve the nautical safety and manoeuvrability of vessels in the port, two breakwaters with a total length of approximately 3.5 km are needed. As the total length is ca 3.5 km, breakwaters will be built in several stages. The breakwaters should be ready by 2008. Co-financing from Cohesion Fund will be applied.

Port strategy foresees the development of Muuga Industrial Park in order to balance large quantities of transit cargo handled in Muuga Harbour through developing a port surrounding industrial region for factories and Value-Added Logistics companies. Through the development of a logistics and industrial park the Port of Tallinn is making the port territory and hinterland attractive for industrial investors. The territory of more than 60 hectares will be prepared according to the needs of investors and lessees. The first phase of the Industrial Park will be prepared in 2004.

4.6 FINLAND

4.6.1 The applicable financing and charging systems.

4.6.1.1 Financing

Division of responsibilities:

FINLAND	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. in port	
Coastal defence and breakwaters	100 % State outside port 100 % P.A. in port	100 % State outside port 100 % P.A. in port	
Land access (rail and road network)	100 % State or municipality outside port 100 % P.A. in port	100 % State or municipality outside port 100 % P.A. in port	
Lights, buoys and navigational aids	100 % State outside port 100 % P.A. in port	100 % State outside port 100 % P.A. in port	
Quays, docks and jetties	100 % P.A.	100 % P.A.	
Superstructure	100 % private sector fixed cranes P.A.	100 % private sector fixed cranes P.A.	

Decisions concerning all items of maritime and port infrastructure in Finnish ports are made by the ports themselves and paid for entirely by the ports themselves. The State is responsible for all sea channels outside the port area, passage ways and their

buoyage in Finnish waters, as well as for icebreaking. The State collects fairway dues (covering as well light housing and icebreaking costs) and pilotage fees.

Public ports are owned by the cities. Their duty is to invest in quays, land areas, warehouses, fast cranes (with rail), tugboats, permanent pavements, lights, water areas and fairways, etc. inside the port area. Cranes are usually owned and operated by the port authority.

The private sector invests in warehouses, machinery, other handling facilities, dock workers, mobile moving cranes, etc.

The State of Finland invests in fairways, railroads, highways, traffic areas, etc.

Other than the above-mentioned investments by the State, there are no other public financial support measures for Finnish seaports at no level whatsoever.

There is no financial support for short sea shipping. The ministry of Transport and Communication gives a small financial support for the Finnish Short Sea Promotion Centre.

As there has not been any public aid for Finnish ports, not even in history, there is no influence of historic aid.

4.6.1.2 Charging

The Finnish Maritime Administration is responsible for fairway services. Pilotage outside the port areas is the responsibility of the Finnish State Pilotage Enterprise. The Maritime Administration and the Finnish State Pilotage Enterprise are self-financed. Most ports are municipally owned and administered by a port authority. Stevedoring and terminal operators are privately owned joint stock companies and are free to set their own prices and make special agreements with customers.

Fairway dues and sea pilot dues are non-negotiable and reviewed at irregular intervals.

Public dues and charges are normally valid for one calendar year (correction ca. 1-2 % inflation influence) and are reviewed on a yearly basis.

Port dues consist of four obligatory dues: port dues on vessels, port dues on cargo, passenger and waste disposal dues.

One main due is the fairway due levied by the Finnish Maritime Administration, which covers light housing and icebreaking costs as well. Discounts (on application) from fairway dues are offered for cruise vessels, vessels calling the ship repair yard and vessels carrying cargo in transit.

Municipalities have the authority to decide on their tariff policies. Decisions are made by the Port Board, especially in larger port cities. In the smaller ones, decisions are mainly made by the municipal Council.

Ports are fully independent in their charging since the mid 1990s. Ports rent for example cranes to the stevedoring companies. Usually the port has published a price list for this purpose. If the port has leased land or buildings, normal land-lease contracts apply which are based on commercial pricing.

Port dues, charges and rents are in principle collected on a tariff basis. However, commercial rebates do apply based on annual volume or similar principles. There are no environmental or safety-based rebates in Finnish ports.

4.6.1.3 Specific financial questions

- New investments: In principle, profit calculations are always made on a commercial basis so that the port can function as a sound business. The intention is that individual investments should cover themselves in the long term. However, such methods cannot be applied to the establishment of such items as safety facilities and some special services for shipping, e.g. fire fighting appliances, lifesaving equipment, compass adjusters, etc.

- Loans: When raising loans, the Finnish ports have to pay the ordinary market rate of interest.

- Provision of facilities: Port authorities are obliged by law to provide certain facilities or service arrangements for safety, security and of an environmental or social character, such as life-saving appliances, oil spillage control and dockers' canteens. The Finnish port authorities do not benefit from any facilities or services at less than cost.

- Taxation: Finnish port authorities do not pay any national profit tax. Those ports that have been formed as private companies (Kotka and Hamina) pay tax on profit. Substantial sums of real estate tax (on rented areas, buildings etc.) are paid locally. Reclaimed areas, which are not currently in use and areas which are open for public traffic are not subject to local tax.

The Freeport companies pay national profit tax, but no estate tax. Other cargo handling organisations and private companies within the port pay taxes in the same way as any other Finnish industrial undertaking.

4.6.2 The degree of financial autonomy of the port authority.

In case the municipal port is a private company (even owned by a city), it is totally independent regarding decision making. It makes its own decisions on investment, pricing, taking of loans, etc. Only in case the port company has to raise its share capital, it needs the decision of the owner, which is the city.

In case the municipal port is a municipal company, the degree of independence varies. Sometimes the municipal company has the same kind of autonomy as a private company; sometimes the city set limits for investments on an annual base and an authorisation by the city is needed for taking new loans.

When the municipal port is a private limited company, the profit can be delivered to the owner as dividend and the owner (the city) has no responsibility for the losses.

In case the port is a municipal company there might be special stipulations about what is done with the profits of the port. In case the port is part of the municipal administration the profits and losses of the port are the profits and losses of the city.

4.6.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The ports that are private companies and the ports that are municipal companies have their separate accounts including both income statement and balance sheet.

In case the port is part of the municipal administration, the port makes its own accounts, but in legal sense they are part of the accounts of the municipality.

All Finnish ports publish separate annual accounts, perhaps except some of the smallest ports. Where cargo-handling is carried out by limited companies, their annual accounts have to be published. The same is true for any organisation carrying out other port activities.

4.6.4 The largest port development project currently on-going in the country.

The largest port development project in Finland is the new Vuosaari harbour in Helsinki. The decision making process has taken over 15 years and is not fully over yet. The new harbour project was decided by the port of Helsinki, while the State decides on the rail, road and fairway connections.

The costs of the Vuosaari harbour are 470 million EUR, out of which the cost of construction of the port is 260 million EUR and the cost of rail, road and fairway is 207 million EUR. The port of Helsinki pays the cost of construction of the port 260 million EUR totally and the port pays as well half of the cost of rail, road and fairway, i.e. 104 million EUR.

There is no money from the Government of Finland for the investment in the new harbour. The government only pays half of the cost of building new rail, road and fairway connections to the new harbour, i.e. 104 million EUR. Normally the government pays 100 % of the costs of rail, road and fairway connection.

4.7 FRANCE

4.7.1 The applicable financing and charging systems.

4.7.1.1 Financing

Infrastructure financing in autonomous ports as well as in ports of national interest are a legal responsibility of the State.

In autonomous ports, Law N° 65-491 of 29 June 1965 prescribes (with force of a regulation only) that the French State is in charge of (as a matter of fact, up to):

- 100% of costs for maintaining access channels, their depth, and dikes for protection from the sea;
- 80% of costs for creating or extending these channels and dikes;
- 80% of costs for dock deepening, and extension of sheltered waters;
- 60% of costs for creating or extending other infrastructure.

National budget scarcity however has induced regional and local authorities to join the central State in providing a proper level of funding to autonomous port developments.

In ports of national interest, infrastructure building and maintenance remain a direct responsibility of the French State. However, each Chamber of Commerce, while operating only superstructures and land based equipment, contributes to the national budget to cover costs of infrastructure building and maintenance in their port. Their voluntary contribution is covered partly by port revenues (users' part) and partly by regional and local authorities through subsidies paid to the Chamber.

4.7.1.2 Charging

- Dues

In all French ports, dues levied on cargo transit or on ship calls in ports are collected by the Customs Authorities, a service of the Ministry of Finance and Economic Affairs.

Book II of the seaports code (Law N° 67-1175 of 28 November 1967 and Law N° 83-663 of 22 July 1983), provides for the following port dues to be levied on trading vessels:

- Due on the ship, at a rate which varies depending on the port, imposed at each call on entering and on leaving the port. This due is based on the taxable volume of the ship in cubic meters or fraction of a cubic meter, calculated on its physical characteristics. The due is credited to the local authorities or public bodies that finance port investments.
- Berthing charge, based on the volume of the ship and the length of its stay, beyond a given period of grace. It is credited to the local authorities or public bodies that finance port investments.
- Due on the cargo, applied either by weight or per unit of cargo, loaded, unloaded or transhipped. This due fixed at a rate which varies according to the port, is also credited to the local authorities or public bodies that finance port investments.
- Due on passengers, disembarked, embarked or transhipped, varying according to the origin or destination of the passengers.
- Due for ship waste and cargo residues collection.
- French registration and navigation due paid annually by the owners of leisure crafts under French flag: this due is collected by Customs authorities for the Treasury (i.e. the State), no part is returned to the ports.

The level of port dues is fixed in autonomous ports by the board, and, in non autonomous ports, by the decision-making body collecting port dues.

Proposals for altering the level of port dues and charges are subject to, on the one hand, a public enquiry and on the other, consultation with Customs and Maritime Affairs services, as well as with the "permanent committee of enquiry" in autonomous ports and with the "port council" in non autonomous ports.

Proposed levels of dues are considered to be approved if the Government Commissioner in autonomous ports, the representative of the State or of the locally governing authority in non autonomous ports, has not objected within a period of 15 days and if, where he objects, such objection has not been confirmed within one month by the Minister responsible for ports, for autonomous ports and ports of national interest.

- Other revenue for use of facilities and equipment

Tariffs for the use of specific port facilities or equipments are fixed by the organism that provides the service (e.g. waste reception).

Tariffs are subject to preliminary publicity, enquiry and consultation according to the autonomous or non-autonomous nature of the port. They are considered to be approved if the Government Commissioner or the board in autonomous ports, the representative of the State or of the local authority in the non autonomous ports has not objected within a period of 8 days to one month depending on the nature of the port and if, where he objects, such objection has not been confirmed within one month by the Minister responsible for ports, for autonomous ports and ports of national interest.

- Rents

Rents paid by users to autonomous port authorities for land they lease (State-owned property or port's own property) are decided by the board.

In non-autonomous ports concessionaires freely fix rents for land leased to users, if it was first conceded to them. Rents for non-conceded public land are fixed and collected by corresponding administrative services.

4.7.2 The degree of financial autonomy of the port authority.

See above 4.7.1.

4.7.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

All autonomous ports prepare annually an operating account and a balance sheet with annex. These are sent for control and record to the central administration. In application of Article 164 of Law N° 58-1374 of 30 December 1958, the accounts, balance sheet and borrowing of autonomous port authorities are available at national level after the end of each financial year, together with those of all State controlled public commercial and industrial undertakings.

Since analytical accounting is involved, autonomous ports have no particular difficulty to comply with the 2000/52 Transparency Directive requirement of separating the accounts of port services they sell, from their other revenues and expenses as a port authority.

In non-autonomous ports, expenditures on infrastructure are the responsibility of the governing authority (State or Local Authority) and are included in their own budget. The concession holder prepares and publishes separately the accounts relating to his activities as port operator, in a similar form as any undertaking.

There is no obligation for cargo handling companies or other port businesses to publish their annual accounts, other than that of any commercial company which is requested to send its annual accounts to the commercial court. Within a given company there is no obligation to keep separate accounts for its cargo handling activities or for each of its agencies operating in different ports.

4.7.4 The largest port development project currently on-going in the country.

4.7.4.1 « Port 2000 » terminals by Port autonome du Havre

- The strategic motivation behind the project

The Port 2000 development project underway consists of the construction of harbour facilities on a new site designed to support and handle the largest containerships under the most favourable conditions, in order to absorb traffic growth and to improve competitiveness in such a way that major container shipping lines remain regular customers of the port of Le Havre. It was thus necessary to develop a port facility dedicated only to container trade with a long quayside and large back-up areas for storage. The project is also designed to improve transfers between shipping and the various modes of mass hinterland transport represented by trains, feeder vessels and river barges. Port 2000 will provide the following:

- safe and secure nautical access,
- the ability to load multiple railcars or complete trains in the immediate proximity to the quays,
- dedicated river terminal directly linked to Port 2000,
- easy container transfers between the ocean-going vessels and feeders, as well as with other modes of inland transport.

This involves a great construction work with infrastructures including outer breakwaters to protect the port from swells and currents and a surrounding protection breakwater inside the port which delimits the future back-up areas. A new access channel will connect Port 2000 with the present channel of the Port of Le Havre. The entrance fairway of the future port will be made up of 2 reinforced concrete caissons on which the breakwaters will end. The maritime access ways will be completed by dredging. The quay is constructed over a total length of 1,602 metres necessary to get 1,400 m of useful surface (that is 4 berths for the first phase).

This construction aims at improving the position of France in European logistics, and at the same time it will help safeguard and, if possible, increase the biological functions and rehabilitate the entire Seine river Estuary, according to ministerial decisions. The objective of the Port of Le Havre Authority, upon completion of the first six berths, is to increase global container traffic through the port to 3 million TEU by 2006. Le Havre handled around 2 million TEU in 2003.

- The location of the project

Situated on the extreme north-west tip of the Seine Estuary, the construction will ultimately comprise 12 quayside berths for a total length of over 4 kilometres, together with large back-up areas permitting both rapid vessel-handling times and optimised outputs.

- The decision-making process

The Port 2000 project of the Port of Le Havre was declared as early as September 1995 'a project of major national interest' by Jacques Chirac, the President of the French Republic. Then, the technical studies and meetings and exchanges of ideas with environmental associations were carried out and still continue today. A public debate was organised from November 1997 to March 1998, to comply with the French law. In December 1998, the Port of Le Havre Authority was authorised by the Minister of Public Works, Transport and Housing, to submit the Port 2000 project for administrative and statutory proceedings. The French prime Minister confirmed this decision on December 15th, 1998, before the CIADT (Interdepartmental Committee of National Planning and Development). The administrative procedures were then carried out and public enquiries addressed until May 2000.

- The development phases

In the first phase, 4 berths with a total quay length of 1.4 km (0.87 mile) will be constructed with completion scheduled in the course of the first half of 2005. Each berth will be 350m (approx. 1,100 feet) in length. Two additional berths are already financed. They will be built thereafter, depending on the terminal operators' needs. Six additional berths will be built later on, according to traffic requirements. The berths will be accessible at any tide without the need for vessels to pass through locks. They will be able to accommodate the world's largest containerships. The first berths will permit ships with draughts to 14.50 m (approx. 48 feet) to dock at any tide and will offer 500-metre (1,640 feet) wide back-up area. It will be possible to deepen the westernmost berths to a level that allows for the reception of ships with draughts to 17m (approx. 55 feet).

- Financing of the first phase

Funding for the first 6 berths of Port 2000 and the inland connections will be provided by several partners, as superstructures are fully borne by terminal operators. Total funding for the first six berths of Port 2000 will amount to EUR 693 million, distributed into EUR 647.27 million for port works and EUR 45.73 million for environmental measures. These costs are funded by the European Union, the French State, RFF-SNCF, regional, local and PAH funds. For information, the TEN contributes for EUR 4.71 million, the FEDER for EUR 42.12 million. Within this scope, the European Investment Bank (EIB) lent EUR 140 million to the Port Autonome du Havre to support implementation of the first phase of Port 2000 in late 2001.

- The environmental measures

The environmental measures include a significant programme of measures and work, aiming at safeguarding and even developing the environmental and biological functions of the river Seine estuary as part of its restoration. It is implemented with the assistance of the Scientific and Technical Committee of the Global Management Plan for the Seine Estuary. The measures take into account the immediate proximity of the

protected natural zones (nature reserve and SPZ ‘Special Protection Zone for birds'), the conclusions of the public debate, the dialogue with the ‘Maison de l’Estuaire’ (Managing Body of the seine estuary) and the recommendations of the above-mentioned ‘Expert Committee’.
The first mitigation measures implemented, after the environmental studies on the effects of Port 2000, are as follows:

- Creation of a bird resting area (completed in early 2002) and subsequent studies and observations to see how it functions and an additional work to get optimal management of the water levels in the area,
- Restoration of the mudflats by the creation of new ones on both sides of the Normandy Bridge,
- Creation of a preserved area and the management of protected species (with the transfer of protected species to environmental zones),
- Study of halieutic resources (fish and shrimp populations to assess the effects of Port 2000 on the estuary ecosystem and the activities of the fishing industry),
- Creation of an artificial islet south of the Ratier breakwater, to accommodate different species of birds.

- The terminal operation

The Port of Le Havre Authority plans to confer operating authority for the Port 2000 container terminals to individual private operators under terminal operating agreements. After information was circulated by international press in late 2001, the Port of Le Havre Authority received notification of interest from 10 French and international operators for the operation of the first six quay berths. In all cases, the discussions rely heavily on close partnerships with major ocean carriers. Memorandums of intent have already been signed by the PAH with MSC-TN, CMA-CGM- GMP and Maersk Sealand-Perrigault.

The Port of Le Havre Authority will provide the terminal operators with dredged quays, travelling rails for quayside operating gantry cranes, and cleared sites to be developed by individual operators. It will also provide the inward and outward general gates of Port 2000 as well as the infrastructures of the rail and river terminals.

Terminal operators will be in charge of the following:

- loading and unloading of container vessels,
- management and development of the container yard with road and rail connections either per terminal, or according to a general plan,
- terminal equipment, including gantry cranes, stacking equipment, a computer system for management of the terminal and liaison with port partners, the design of back-up areas and, in general, the installation of all equipment necessary for terminal operation,
- marketing and promotion of the terminal to lines and shippers. In this context, they will notably be in possession of undertakings from shipping companies and shippers regarding their future utilisation of the terminal.

In addition to the above requirements, potential terminal operators in Port 2000 have to provide the Port of Le Havre Authority with information and contracts concerning guarantees of traffic and the ability to invest. The analysis relies especially on the new trades handled in Port 2000.

- Conclusion

Port 2000 is expected to generate jobs directly linked to the increase in traffic as well as jobs indirectly linked, notably in logistics, distribution and new technology fields. Port 2000 already attracts companies and new investors specialised in particular in transport and logistics, such as for example in PLPN (the Normandy Bridge Logistics Park), in the Le Hode Park, etc… Port-related trade now account for 30 % of the jobs in the Le Havre area. The traffic share of containers in port trade is regularly rising, as is also the trend in the other main European ports. Accounting for 20 % of the tonnage and 40 % of the calls, containers are the main source of jobs in the port industry of Le Havre. Ship reception, stevedoring, storage/distribution and the transport of containerised cargo provide positions for 8,000 people of the 13,000 working in port trades and related logistics fields in the Le Havre region.

The port of Le Havre now handles more than 60 % of the containerised trade of French ports and is already a great commercial marketplace with acknowledged advantages. It will retain its place as the leading French port in the container trade and increase its role in the face of fierce competition with ports of northern Europe.

4.7.4.2 « Quai de Flandre » terminal extension by Port autonome de Dunkerque

- Project Description

Content of the extension of the "Quai de Flandre":

The "Quai de Flandre" is situated in the Western Port of Dunkirk and is being used for the container operations of the port. The extension of the quay consists of 600 m of new quay added to the existing 700 m. Furthermore, the dredged depth of the new quay will be 17.50 m, offering a 410 m berth accessible by every existing container vessel under all tide conditions.

In addition, 180 000 m² of container storage area are planned and will be built in phases as required by the development of the container traffic.

- Context of the "Quai de Flandre" operation

Why was the "Quai de Flandre" extended?

Port Autonome de Dunkerque, although still a modest container seaport with 200 000 TEU, is experiencing rising container traffic, and invests a lot to increase its market share in this high value-added business. Indeed, PAD management believes that the natural and human assets that the Port is blessed with, make it potential for the port to become part of the top 100 container ports worldwide, and has set itself a goal of reaching 600 000 TEU every year. In order to reach that goal, PAD is relying on attracting major lines, especially Europe-Asia lines, to its facilities with excellent infrastructure and efficient services.

What are the natural assets of PAD?

Situated in the North of France just one hour sailing away from the Channel navigation route, Dunkerque is easily accessible through an open-sea (no lock) outer harbour and offers an exceptional sheltered deep-water basin.

- Technical and Financial Implementation

Schedule of the "Quai de Flandre" project:

Authorisation of the project was given in 2001 after an environmental survey and a local inquiry was conducted. The project was approved on September 3rd, 2001, by the French Ministry of Ports.

Works on the quay started during the fall of 2001 and consisted of a quay-building operation conducted by BESIX and contractors, and a dredging operation conducted by SDI Intl and contractors. The quay was delivered on June 15th, 2004, in time for the arrival of the first 14.50m container vessel on June 18th, 2004.

Cost of the operation:

The cost of the "Quai de Flandre" extension itself was 45 M€, 40% paid for by PAD, 30% paid for by the French State, 30% paid for by the Région of Nord-Pas-de-Calais.

In addition, 9 M€ worth of storage area are planned (the 180 000 m² mentioned here above). The expenditure will be shared between PAD (50%) and the Région (50%).

4.8 GERMANY

4.8.1 The applicable financing and charging systems.

4.8.1.1 Financing

Division of responsibilities:

GERMANY	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	State = Federal Government P.A. = relevant territorial authority[13]
Coastal defence and exterior breakwaters	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	Idem
Land access (rail and road network)	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	Idem
Lights, buoys and navigational aids	100 % State outside port 100 % P.A. inside port	100 % State outside port 100 % P.A. inside port	Idem
Quays, docks and jetties	100 % P.A.	100 % P.A.	P.A. = relevant territorial Authority
Superstructure	100 % Private sector	100 % Private sector	

The federal government has as its own tasks the building and maintenance of the waterway access and the national hinterland connections via rail, road and inland waterway. Starting from 2005, the Federal Government will give direct grants for important infrastructure investments in ports.

Hamburg: The infrastructure investments of the port of Hamburg and the expenditure for the maintenance of the infrastructure are financed out of the budget of the State of Hamburg. These rise to about 88 million EUR per year for general port infrastructure measures.

Bremen: The infrastructure investments of the Port of Bremen (and Bremerhaven) and the expenditure for the maintenance of the infrastructure are financed out of the budget of the State of Bremen. These rise to about 57.7 million EUR in 2003 for general port infrastructure measures.

[13] In the ports of Bremen (and Bremerhaven) and in Mecklenburg-Vorpommern: relevant limited company.

Niedersachsen: The budget for all 15 ports which belong to the State of Niedersachsen was about 61 million EUR in 2003 including personnel costs, etc. It was financed out of the budget of the State of Niedersachsen.

Schleswig-Holstein: The budget for all six small ports which belong to the Land Schleswig-Holstein was about 8.3 million EUR in 2003 including personnel costs. It was financed out of the budget of the Land Schleswig-Holstein. The ports belonging to the Land represent, as measured by revenue passengers/cargo handling, only a share of 1.5 and 3 per cent of all Schleswig-Holstein ports. There is no information about the budget for the other ports that belong to a municipality or a private company.

Maritime access, outside the port itself is normally the responsibility of the Federal Government. No direct charge is made for their use.

In general, it can be said that the territorial authorities are responsible for port infrastructure. This also applies to inland transport infrastructure within the port. Economic charges, such as the gross tonnage charge in respect of water-related infrastructure and ordinary rents as well as rents on leased building rights in respect of land, are imposed for the use of the infrastructure. The private sector is responsible for the port superstructure.

With the exception of pilotage, most services to shipping are also in the hands of the private sector. The relevant fees are usually agreed between the contracting parties. Pilotage on maritime access channels is provided by pilot associations subject to the supervision of the Federal Administration.

Pilotage within harbours is the responsibility of the appropriate territorial authority with the exception of Hamburg and Bremen/Bremerhaven where harbour pilotage is the responsibility of a pilot association under the supervision of the Land government. All pilot charges are economic and fixed by Federal Government regulation or the appropriate territorial authority.

Generally speaking, the Federal Government is responsible for links between the harbour area and the supra-regional transport infrastructure. The port administrations are responsible for rail links to the federal network; other territorial authorities are responsible for roads which are not federal highways within the meaning of the Federal Trunk Road Act.

There is a special federal funding programme to promote intermodal transport, which is also applicable in ports. Those terminals are built by private undertakings. In Hamburg, some terminals got public funding out of this programme. In the Baltic a special funding programme from 2000, financed by the EU (EFRE), exists. In Schleswig-Holstein some municipal ports got public funding out of this programme.

4.8.1.2 Charging

Generally, the territorial authority concerned charges seagoing vessels port dues for the use of port facilities. The dues are fixed by regulations from the relevant authority. The criteria used in calculating such dues are:

- gross tonnage – in the case of passenger ships sometimes additionally the number of passengers embarking or disembarking;
- geographical area covered on voyage;
- type of freight.

These port dues include:
- a charge generally based on gross tonnage;
- demurrage.

And in all ports, except Bremen and Hamburg:
- wharfage; the weight of goods loaded and unloaded is the basis for calculating the charge.

Where no gross tonnage charge is required under the regulations, or where a ship's turnaround time exceeds the number of lay days covered by such a fee, demurrage is generally charged according to the number of lay days and:
- the gross tonnage of seagoing vessels;
- the carrying capacity of inland waterway vessels, or;
- the area of water taken up by floats and floating equipment.

In addition there are the following port-related dues:
- harbour pilotage fee;
- anchorage for the use of public anchoring facilities;
- fees for making special use of areas of land or water dedicated to public traffic;
- fee for the use of public storage areas on land;
- bridge and lock tolls.

Rents and leases:
In the port of Hamburg land lease contracts are usually concluded over a period of 30 years. The undertakings rent the sites and the quay walls from the city. The level of the rents is fixed – every five years – according to the quality of the site (e.g. water interface, water depth, rail connection) respectively the quality of the quay walls. Negotiations or discounts are not possible.

In addition to the Hamburg regulations in Bremen (and Bremerhaven) the piece of land is mostly made available by the port owner on a hereditary tenancy basis.

In Schleswig-Holstein, Mecklenburg-Vorpommern and Niedersachsen investments into port superstructure are usually carried out by the private sector. The piece of land, e.g. for buildings, is usually made available by the port owner on a hereditary tenancy basis. The ports in Schleswig-Holstein themselves could also be owner of parts of the superstructure like passenger terminals or handling equipment. Terminal offices are leased out to carriers, forwarders, agents, authorities, etc., according to market prices, whilst rent for cranes is per tariff. The port owner also provides IT infrastructure, e.g. to the port authority against payment. The port raises charges for the use of the harbour by ships (Harbour Tariff) and for the use of facilities administrated by the port owner (Quay Tariff). In Schleswig-Holstein tariff rebates are granted, e.g. for ships sailing on regular liner routes, depending on the number of calls. In Schleswig-Holstein and Niedersachsen rebates can be granted for environmental or safety

purposes on waste disposal dues to vessels which have suitable technical equipment for separation and/or prevention of waste.

4.8.1.3 Specific financial questions

- Depreciation:

Apart from minor exceptions, the territorial authorities, in accordance with current budget law, do not depreciate their investments. The companies handle depreciation according to the general provisions of tax law.

In the Ports of Bremen (and Bremerhaven) depreciation is constituted through the accountancy used by the port management company Bremenports.

- Rates of return:

There are no general provisions or guidelines for conducting profitability studies. Cost benefit studies are conducted in the case of new investments in Hamburg, Bremen and Niedersachsen in line with an obligation imposed by the budget law.

- Loans:

The territorial authorities cover all their borrowing requirements on the capital market according to the conditions currently obtainable. Generally, there are no special loans for the purposes of ports. Instead, the loans raised accrue to the overall budget and are available for covering all investments (i.e. not only for ports).

There is no difference between the conditions for loans applying to companies within ports or outside them. The conditions currently applying on the capital market are relevant.

- Provision of facilities:

Companies and territorial authorities are neither obliged nor likely to perform services at less than cost. The exemption of federal and "Land" vessels and of fishing vessels from port dues is an exception.

- Taxation:

With a few exceptions (e.g. turnover tax), the territorial authorities responsible for port administrations are not subject to taxation. On the contrary, they too raise taxes as provided for under the Constitution and the complementary tax laws, e.g. tax, income tax, corporation tax and vehicle tax.

- State financing of "Seehafenlasten":

As ports are important factors for the German economy, according to a new agreement, the Länder Bremen, Hamburg, Mecklenburg-Vorpommern, Niedersachsen and Schleswig-Holstein will receive annually a total amount of 38.346.000 EUR financial support, from the Federal Government for the year 2005 to 2019, to be used for important investments in ports, especially for the improvement of the economic infrastructure of seaports, for the construction and development of port installations, traffic roads and public traffic areas. The distribution of the annual amount is determined as follows:
Bremen: 10.737.000 EUR
Hamburg: 20.963.000 EUR

Mecklenburg-Vorpommern: 2.556.000 EUR
Niedersachsen: 2.045.000 EUR
Schleswig-Holstein: 2.045.000 EUR

4.8.2 The degree of financial autonomy of the port authority.

In Hamburg there is, up to today, no financial autonomy for the port administration. As it is part of the City State's administration, the revenue from port leasing and port dues becomes part of the general State budget, which is then responsible for the infrastructure investments.

In the Ports of Bremen (and Bremerhaven), the management company Bremenports GmbH & Co. KG is responsible for the management of the port infrastructure including maintenance, new building, engineering and repair, landlord function and harbour dues on behalf of the City of Bremen.

Port dues are fixed by a regulation of the Hamburg government. Accordingly, they are not negotiable. But under certain conditions, the regulation allows rebates to cruise liners and cargo vessels. In this case the same regime applies to Bremen (and Bremerhaven).

The same regime applies to Schleswig-Holstein. It also applied to Lower Saxony before the State owned ports were privatised. After the privatisation NPorts receives the revenues from land leases and port charges as income and acts, like any private enterprise, financially autonomously on the basis of the respective commercial accounting rules.

4.8.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

As the port does not exist as an economically and/or legally independent entity, no separate accounts can be drawn-up for the ports. The costs and revenues relating to the ports are included in local authority budgets together with the income and expenditure relating to other public activities. Even in the case of the port of Nordenham, which belongs to a company that, because of its legal status, is obliged to draw-up and publish accounts, port-related activities are not separated from the company's other activities in the balance sheet. In the case of all companies, the publication of accounts depends on their legal status. If these companies are public companies, for example the port-companies in Mecklenburg-Vorpommern, they are obliged to draw-up and publish accounts in accordance with German company law. It may therefore be noted that no legal provisions exist for treating these companies differently from companies in other economic sectors.

In the Ports of Bremen (and Bremerhaven) the transparency is given through the accountancy used by the port management company Bremenports.

4.9 IRELAND

4.9.1 The applicable financing and charging systems.

4.9.1.1 Financing

Ports are required to be self financing on revenue account while at the same time generating their capital requirements. There is no State aid for ports.

Division of responsibilities:

IRELAND	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % P.A.	100 % P.A.	
Coastal defence and exterior breakwaters	100 % P.A.	100 % P.A.	
Land access (rail and road network)	100 % P.A.	100 % P.A.	
Lights, buoys and navigational aids	100% Commissioners of Irish Lights outside port[14] 100 % P.A. inside port	100% Commissioners of Irish Lights outside port 100 % P.A. inside port	Costs recovered from light dues levied on ships using Irish ports
Quays, docks and jetties	100 % P.A.	100 % P.A.	
Superstructure	100 % P.A.	100 % P.A.	

- Maritime access

Decisions concerning maritime access to Irish ports are made by the ports themselves. Prior to 1989 the cost of capital dredging works (with certain isolated exceptions) was paid for by the ports themselves. Since 1989 ports have received financial assistance for approved projects from EU Structural Funds (i.e. European Regional Development Fund (ERDF), Cohesion Fund, European Investment Bank (EIB)).

- Infrastructure

Decisions concerning all items of harbour infrastructure are made by the ports themselves.

- Superstructure

Decisions concerning most items of superstructure in Irish Ports are made by the port authorities themselves and paid for entirely by them. Bonded warehouses elsewhere than Dublin are, however, paid for, operated and maintained by the private sector, as are such specialised building equipment, with the exception of cranes in some ports, is supplied by the private sector.

- Inland transport within the port area

[14] A statutory organisation responsible for all navigational aids around the coast of Ireland other than those for which the port authorities are responsible.

The land transport infrastructure and costs, in the case of railways, are entirely the responsibility of the port authorities as are the roads, in the port area. However, private rail sidings are the responsibility of the companies concerned. Bridges are the responsibility of the local authority. There are no road tunnels. There is only one canal, which is the responsibility of another public body, but which is not used for commercial traffic. Ferries are owned and operated either by the local authority or the private sector. Common user pipelines are jointly financed by the port authority and the private sector, other pipelines are financed solely by the private sector.

4.9.1.2 Charging

Port companies generate their income by levying Tonnage Rates on gross tonnage of ships using their port; by Goods Rates on all goods entering or leaving the port and by charging for all other services provided. They also generate income through land and property lettings.

Port dues and charges are fixed by each port authority, subject to the consent of the Minister for the Marine, and levied and collected direct by each authority.

Tonnages dues are based in general on gross tonnages of vessels. Certain classes of vessels (mainly non-commercial, naval and pleasure craft) are usually exempt from tonnage dues.

Goods dues are levied on goods shipped, unshipped or transhipped within the port.

- Revenues

The main sources of revenue are the tonnage and goods dues referred to. In Dublin revenue is derived from warehouses operated by the port authority and in practically all the ports income is derived from rent of land leased to port users. Most port authorities have income from dividends on stocks, shares or other investments, purchased from surplus revenue.

Revenue is derived from port services supplied by the port authority, e.g.; cranes, tugs, wagon haulage etc.

Other minor sources of revenue include penalty charges for goods allowed to remain beyond the permitted period in transit sheds, tolls on rail wagons passing over the port rail systems; licence fees for certain activities by port users; hire of plant, barges etc.

- Depreciation

The Irish port authorities have no legal obligation to make specific provision for depreciation. Some of them do make such provision and, when they do they fix their own rates.

There is no general practice as regards re-evaluation or writing down of assets but port authorities have discretion to re-value or write down assets against revenue or reserves where this is justified by physical or commercial consideration. Usually assets are written off only upon their sale or withdrawal from use for scrapping.

- Rates of return

There are no specific requirements as to rate of return on projected port investments or on the port authorities' assets as a whole. Port authorities are free to make their own decisions in this area.

- Loans

The main sources of money borrowed by harbour authorities over the years have been:

- Redeemable stocks

Taking Dublin as an example, three redeemable stocks issued by the port authority many years ago bear interest at 3%, 4% and 5% respectively, reflecting general interest rates at date of stock issue.

- Mortgage loans

Similarly, in the case of five mortgage loans, which were negotiated between 1950 and 1961 for terms ranging from 20 to 40 years and repayable by fixed instalments of principal and interest, the interest rates are from 3,5% to 5%.

- Loans from Local Loans Fund

The Local Loans Fund Act, 1935, provided for the setting up of a fund from central government funds to provide long term loans to local authorities and other bodies, for public purposes. Loans of up to 35 year term may be granted in approved cases and at a rate somewhat below current bank rate. However, because of the number of applications for loans, which are met from an annual allocation, it may take several years from date of application to granting of such loan.

- Bank overdraft (short term and term loan)

- Provision of facilities

There is no statutory or other obligation to provide particular facilities or services on a non-remunerative basis. However, some services are maintained as part of the general port service although losses are regularly incurred e.g. graving docks. In addition, the Harbours Act, 1946, obliges all harbour authorities to provide and maintain accommodation for Customs Officers and such measuring and weighing equipment as they may require. No facilities or services are provided to the port authorities at less than cost; The Act provides also that state and certain non-commercial vessels may use the port without payment of dues.

- Taxation

National taxation (central government)

Under the Finance Act 1967, port authorities in the republic off Ireland have been exempted from tax on revenue derived from the provision of such facilities and accommodation for vessels, goods and passengers as are ordinarily provided by the authorities controlling harbours, situated within the State, in those harbours. As a result port authorities do not pay income tax on any income other than income from investment, against which has been set off the interest which authorities pay on their stocks, loans and overdrafts.

For VAT purposes the activities of the port authorities are zero rated with the exception of certain services performed in the warehousing of goods (mainly connected with carriage and freight charges in and out of the warehouses).

Local Authority taxation (Rates)
Generally, port authorities in Ireland have 100% remission of local authority rates on their own property. Where property is leased by the port authority to the private sector the lessee is liable for the payment of rates to the local authority. In Dublin a remission of 79% of the rate for the time being applies to premises actually occupied by the Port Authority itself. Generally, quays, wharves, piers, etc., are exempt from rates.

Position of private port organisations
Cargo-handling organisations are generally subject to the same taxation and rating liability as private industry.

- Restraints

Port Administrations
- On activities and investment

Port authorities may be authorised by the statues that set them up, to carry out tasks other than port operation in the strictest sense e.g. the port of Dublin provides a range of warehousing services including general shipping and forwarding and customs clearance work together with road haulage locally.

The port authorities are free to invest in new projects within the scope of their functions although in certain circumstances the Minister for the Marine' consent may be required. For example, reclamation works to provide new port facilities require the approval of the Minister under the Foreshore Act, 1933, where such works infringe on state foreshore; furthermore the Minister must make a Harbour Works Order before any reclamation takes place.

- On salaries, wages and conditions of service

The port authorities are free to negotiate salaries and wages for the majority of their employees but in practice they have regard to the National Wage Agreements and Government norms. These Agreements provide for index adjustments in salaries and wages. Terms and conditions of service are similarly negotiable. An application for increased port charges consequent on increases in wages or salaries over the norms would be unlikely to receive the consent of the Minister.

- On charges, dues, etc.

Increases in port dues and warehousing charges are effected by Harbour Rates Orders made by the Minister for the Marine; service charges are also subject to his consent (cranage, towage, etc.).

- On rentals

Port authorities are not subject to any controls on rents to be fixed for new leases of land to port users but leases for over 10 years are subject to the consent of the Minister for the Marine and the Minister has, from time to time, expressed views on the level of rent proposed for such leases, on the basis that rent for port leases should reflect current market rents.

The rents payable for lease renewal are subject to general national legislation on this matter.

Private Port Organisations

- On activities and investment

The other organisations engaged in port activities are invariably commercial concerns whose powers to engage in different activities and to invest in new projects are governed by the term of their Memorandum and Articles of Association. Road haulage over distances of more than 24 km from major centres can only be carried out under special Government licence. Liberalisation of the licensing system is envisaged.

- On salaries, wages and conditions of service

Other organisations are free to negotiate salaries, wages, terms and conditions of service subject to the limits imposed or recommended by National Wage Agreement and to the general statues relating to conditions of employment.

- On rentals

Private organisations my sub-let port land subject to the approval of the port authority.

4.9.2 The degree of financial autonomy of the port authority.

Ports in general have total financial autonomy. They must however seek Government approval to borrow money.

4.9.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Port companies must comply with the requirements of the Companies Acts and the Auditing requirements as laid down by the International Accounting bodies. Corporate Governance requirements as laid down for all state owned companies must also be complied with.

4.9.4 The largest port development project currently on-going in the country.

Each port company prepares its own corporate plan designed to meet its commercial and other objectives. Because ports are in competition for trade these plans are commercially sensitive and are not generally available.

4.10 ITALY

4.10.1 The applicable financing and charging systems.

4.10.1.1 Financing

Division of responsibilities:

ITALY	Cost of investments	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	In general the State	Varies, but mainly the State	
Coastal defence and exterior breakwaters	In general the State	Varies, but mainly the State	See below
Land access (road)	State/Regions/ Provinces/Communes	State/Regions/ Provinces/Communes	Outside the port area
Land access (railway)	Italian Railway Network (R.F.I. – Rete Ferroviaria Italiana)	Italian Railway Network (R.F.I. – Rete Ferroviaria Italiana)	Outside the port area. Rail transport within the port area can be carried out by specialized undertakings
Lights, buoys and navigational aids	State	State	
Quays, docks and jetties	Mainly the State; sometimes P.A. in different proportions	Partly the State; partly the P.A.	See below
Superstructure	Private operators/ undertakings	Private operators/ undertakings	See below

Port authorities do not benefit by any public funding for their management.

- Infrastructure

The infrastructures that can be financed and realized in a port must be foreseen in the port-planning scheme, this tool is in harmony with the territorial general planning.

Construction of maritime channels, breakwaters, wet-basins, basins and equipped quays and dredging are considered as being major infrastructural works.

In general, such works are financed by the State (according to the Law 84/94); furthermore construction and maintenance of lighthouses, lights, buoys, other navigational aids and VTS equipment are also the responsibility of the State.

Port authorities may decide on infrastructure themselves, but in practice this does not happen because of their scarce revenues. They take care of the realisation of the major infrastructure works financed by the State.

The daily and extra-ordinary maintenance of the common parts in the port area, including of the soundings, is entrusted to the port authorities. Port authorities receive resources of the Ministry of Infrastructure and Transport; however this covers only part of the costs. Quite often costs are anticipated by port authorities.

Construction and maintenance are done following a public tender procedure.

The concession contract can stipulate that the concessionaires have to take care of the maintenance of the infrastructures given in concession.

- Superstructure

The terminal operators or the port operations undertakings, which employ their own personnel, are responsible for the warehouses, the (semi-)movable assets (self-moving, trailers, etc.). However, most of the existing warehouses in the port have been built in the past by the State or by the public corporate body and entrusted in concession to private undertakings for the operational management. The port authorities, who succeeded the port corporate bodies, have sold, rented or given in concession fixed (quay-) facilities (cranes) to the port enterprises or to the terminal operators.

Railway works inside the port area are usually decided by the port authorities. In the past these works were mainly executed by the State Railways and the Civil Engineering offices of the Ministry of Infrastructures and Transports at their own expenses. This is currently changing.

The maintenance of railway installations of general interest will be ensured by the port authority.

Port authorities provide the maintenance of the roads inside the port area. According to the respective areas of competence (R.F.I., State, Province, Communes) the interested Administrations provide the infrastructural links to the railway and road network outside the port area.

Oil pipelines linking the port to inland refineries are built and managed by private companies.

4.10.1.2 Charging

- Port dues:

In all Italian ports, port taxes are established by the State and collected by the Customs Authorities (local offices of the Ministry of Finance). The taxes applied in Italian ports are substantially as follows:

- Anchorage tax: determined on the basis of the net tonnage of the ship;
- State tax on cargo;
- Port tax on loaded and unloaded cargo.

The first two taxes are collected by customs and budgeted in the State accounts. As regards the Port tax, it is also collected by the customs but afterwards 50% is devolved to the port authorities.

- Revenues:

The main sources of revenue of the port authorities consist of:

- Revenue deriving from the "concession fee" paid by the terminal operators for the use of port areas/quays assigned to them and from the "concession fee" for concessions re-leased to other operators (industrial and commercial);
- Revenue deriving from the proceeds (fees) for the re-lease of authorisations to enterprises;
- Revenue deriving from the 50 % of the port tax on (un)loaded cargo in the respective ports.

These ordinary revenues aim to cover the port authority's costs of the organisational structure and to perform its assignments.

No public financing is provided to the operational activities carried out by the private sector.

4.10.1.3 Specific financial questions

- Depreciation:

Based on tax regulations in force, the property (movable or immovable) may be depreciated when assets are intended to be used directly by the port authority for the exercise of its activities and when the property has been purchased with the authority's funds. The relative payment is registered in the balance sheet. Such depreciation is calculated on the basis of the purchase price of the asset, according to the rules set out by tax regulations.

The annual depreciation rates are entered into the profit and loss accounts and form part of the statement of assets and liabilities, but are not included among the elements of the management account, which reflects only the financial movements relating to each period.

- Rate of return on capital invested:

There are no requirements relating to estimates of the rate of return on new investments.

- Loan transactions:

Port authorities can contract loans or have recourse to other financial operations in the manner and under conditions established by their governing bodies with the possible approval of the Ministry of Infrastructures and Transports. Port authorities use their earnings to pay off loans.

- Special services:

Port authorities are required to allocate areas, premises and offices in public domain to the State public administrations, without a charge.

- Tax treatment:

Port authorities (as they do not run commercial activities) do not have to pay the corporate income tax. However, they have to obey stamp-duty, registration fee and IRAP (Regional Tax on Productive Activities), according to national rules. As regards VAT, port authorities are considered final users, as public bodies.

Companies and firms operating in ports are subject to normal taxes/duties laid down at national and local level.

- Tariffs:

Port operation tariffs (loading, unloading, etc.) are established by the interested undertakings and they are notified to the port authority and communicated to the users.

- Rents (concession fees):

Conform port reform law (n.84/94), port authorities determine the concession fees for concessionaires.

4.10.2 The degree of financial autonomy of the port authority.

See above.

4.10.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

As regards transparency in general:
The balance sheets of Italian port authorities are drawn up according to a standard model foreseen by specific regulations. The assets administration and the financial management of the port authority are regulated by a "Regulations of Accounting" approved by the Ministry of Infrastructures and Transports in agreement with the Ministry of the Treasury.

If the budget of the port authority shows a deficit, the Minister of Infrastructures and Transports orders the revocation of the President and the dissolution of the Port Committee. He also designates a Commissioner who has to adopt a Recovering Plan.

4.11 LATVIA

4.11.1 The applicable financing and charging systems.

Port dues compose by far the main part of port authority's incomes. Revenues from port dues are determined by the tariffs, ship sizes (GT) and ship movements. The incomes from land and berth lease constitute a constant 15% of total revenues.

4.11.2 The degree of financial autonomy of the port authority.

According to the by-laws of the Riga Freeport Authority the financial resources of the Freeport Authority have to comply with the principles of non-profit organisations: the

financial resources at the disposal of the Freeport Authority may be consumed only for management of the Freeport and development of its infrastructure, for performance of the functions specified by the Law on Ports, the Freeport of Riga Law and the by-laws. An excess of income over expenditures is transferred to a reserve fund that is taken into the next business year, it is not subject to the enterprise income tax and it is used conform the objectives approved by the Board.

4.11.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

There is no requirement to maintain separate accounts of port service activities from accounts of other activities.

4.11.4 The largest port development project currently on-going in the country.

- Location of the project: Freeport of Riga

- Strategic motivation behind the project:

This project is a part of a Freeport of Riga development strategy of moving port business away from the city centre thus eliminating environmental pollution and facilitating development of entrepreneurship.

The city of Riga will get a modern new urban area close to the city centre – business and entertainment centre.

- The decision making process:

On 11 May 2002 the Board of Freeport decided on a resolution on the signing of an agreement on land lease at the Freeport of Riga territory. The agreement itself was signed on 16 October 2002.

The lessee will develop technical projects on the land leased. The technical projects are to be coordinated with the Riga City Council, State Inspection for Heritage Protection and other institutions involved in the city development.

- The development phases:

Cargo operations will be moved gradually from the city centre.

- The total investment amount:

Planned investment is approximately USD 1 billion. The financing of this investment is partially private, partially public.

4.12 LITHUANIA

4.12.1 The applicable financing and charging systems.

Division of responsibilities:

LITHUANIA	Cost of investments	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	KSSA[15]	KSSA	
Coastal defence and exterior breakwaters	KSSA	KSSA	
Land access (road)	KSSA(partially financing), Municipality	Municipality	
Land access (roads in port area)	Operators	Operators	
Land access (railway)	Lithuanian Railways	Lithuanian Railways	
Land access (railway in port area)	Lithuanian Railways, KSSA	Lithuanian Railways, operators	Operators – under land lease contracts
Lights, buoys and navigational aids	Maritime Safety Administration	Maritime Safety Administration	Including all lighthouses
Lights, buoys and navigational aids (in port area)	KSSA	KSSA	
Quays, docks and jetties	KSSA	KSSA, operators	Operators – under land lease contracts
Superstructure	Operators	Operators	

Port funds consist of:

- port dues;
- port land rent;
- State budget allotments;
- depreciation deductions;
- revenue gained from services rendered by the port authority;
- other legally gained revenue.

Port dues and port land rent constitute unrealisable and non-taxable revenue.

At the recommendation of the port authority, the Minister of Transport and Communications approves the terms and conditions of a tender for lease of land in the port, the form of the

[15] Klaipeda State Seaport Authority

lease contract, the procedure for calculation and the amounts of the rent. The procedure for calculation and the amounts of the rent shall be approved for a period of not less than 5 years; it shall include a clause providing that the amount of the rent may be increased or reduced in accordance with the scope of stevedoring and other operations (when the scope of stevedoring or other operations related to the functional designations of the port is increasing, the amount of the port land rent shall be reduced, and vice versa).

The Government of the Republic of Lithuania establishes the types of port dues, the principles of application of the dues, and the part thereof to be deducted for maintenance of the Lithuanian Maritime Safety Administration. The Minister of Transport and Communications approves these rules.

4.12.2 The degree of financial autonomy of the port authority.

Financial autonomy of the port authority is ensured by the Law on Klaipeda State Seaport, which provides that income from port dues and land rent constitute port funds. However, charging is regulated by State institutions as described above. The Minister of Transport and Communications approves the annual income and expenditure estimates, KSSA must obey it and may ask for amendments if necessary.

4.12.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

All undertakings in Klaipeda Port maintain separate accounts as companies. KSSA maintains separate accounts as it is a State Enterprise.

4.12.4 The largest port development project currently on-going in the country.

- Location of the project: Klaipeda Port

- Strategic motivation behind the project:

The project's main objective is to strengthen the long term competitiveness of the Port of Klaipeda in the Baltic Region. The project's second objective is to improve environmental conditions by providing necessary disposal facilities and continuous monitoring of environmental conditions at the port.

- The decision-making process:

The Government had expressed interest in a project to improve the channel entrance in the Port of Klaipeda in 1994. The project was prepared by the Lithuanian Ministry of Transport (MOT), the Klaipeda State Seaport Authority (KSSA), and supported by a Policy and Human Resource Development (PHRD) grant from the Government of Japan and Grants from the Government of The Netherlands. Project components were identified on the basis of investment priorities, and feasibility studies prepared by KSSA with the assistance of consultants and the World Bank.

- Development phases 2000-2006 (described in the attachment)

- Planned investment: 56 million USD

- Financing of this investment:

IBRD loan of 35, 36 million USD (State guarantee to the IBRD loan), KSSA own funds.

World Bank Klaipeda Port Project

Detailed review of the Physical Components of the Project as of August 2003

1. Works

1.1 Rehabilitation and Extension of Breakwaters ($23.08 million). The works were completed in January 2003. On October 2, 2003 the Engineer delivered the Defect Liability Certificate to the Employer upon completion of the defect liability period.

1.2 Dredging of the Channel Entrance ($20.84 million). All contracted dredging works (base contract and amendments) were completed in August 2002. The contract for dredging works between quays 10 and 115 is signed on September 24, 2003. Expected completion date is September 7, 2005.

1.3 Confined Disposal Facility ($6.19 million). The tender procedure is to be launched by April 2005 and the completion of works is expected by March 2006.

1.4 Removal of Shipwrecks ($2.5 million). The contract is signed on March 23, 2004. Expected completion date is September 30, 2005.

2. Goods

2.1 Wave/Current Monitoring System ($0.80 million). Contract for the Procurement of the Systems is signed on April 01, 2004 It is expected that delivery of the equipment and related training will be completed by September 30, 2004.

3. Technical Assistance

3.1 Project Technical Supervision ($1.13 million). The consulting firm BCEOM supervised breakwater and dredging works, it also provided additional assistance for environmental monitoring. For the dredging works between quays no. 10 and 115 and removal of the sunken shipwrecks supervision consultant is BLG Consult, Germany. KSSA finances the consultant from its own funds.

3.2 Training of Port Pilots ($0.23 million). All three phases of Pilot Training services were arranged and successfully performed by November 13, 2002.

3.3 Financial Audit ($0.15 million). Financial audit of the project and of KSSA is performed by KPMG Lietuva. The Addendum for Financial Audit of the World Bank Loan and KSSA Financial Statements for the 2003 and 2004 years was signed on December 15, 2003 with the same auditors company. KPMG Lietuva performs KSSA 2004 year audit.

3.4 Design of the Confined Disposal Facility ($0.9 million). This component includes three contracts for consulting services: (i) Feasibility Study (FS), (ii) Environmental Impact Assessment (EIA) and (iii) services for detailed design, tender documents and supervision of works. The contract for Feasibility Study & Detailed Territory Planning has been signed with Ecorem, Belgium. Contract for EIA has been signed with Ecolas, Belgium. KSSA/PIU expect the detailed plan for the Southern part of the port, including the CDF area, to be approved by June 30, 2004. Upon approval of this plan it must become clear whether a separate detailed planning procedure particularly for the CDF is required.

4.13 MALTA

4.13.1 The applicable financing and charging systems.

In cases where the service enjoys exclusivity, charges are regulated or have to be approved by Malta Maritime Authority. If the service is open to the market the service provider decides on the charges he raises.

4.13.2 The degree of financial autonomy of the port authority.

Both Malta Freeport Corporation and Malta Maritime Authority are self-financing. Central Government does not invest in port infrastructure/superstructure or the provision of services that pertains to the public domain in ports activities. However, the financial estimates of Malta Maritime Authority have to be approved by Government.

4.13.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Separation of accounts is not yet the case. Entities that enjoy a public service obligation must keep separate accounts.

4.13.4 The largest port development project currently on-going in the country.

In the port of Valetta a consortium was granted the concession for cruise and ferry operations.

- Strategic motivation behind the project:
  - i) consolidate the position of Valletta as a Mediterranean major destination cruise port,
  - ii) establish Valletta as a cruise hub port,
  - iii) encourage ferry links between Malta and neighbouring countries, including the promotion of short sea shipping,
  - iv) rehabilitate the waterfront. The concession was awarded after a call for tenders. The project is in its second year and should be completed by 2005. The project is financed entirely by the Consortium.

The Authority would be embarking on the upgrading of port facilities at Valletta while the Malta Freeport Terminals would also be further expanding its transhipment facilities. No funding from Government is envisaged.

4.14 THE NETHERLANDS

4.14.1 The applicable financing and charging systems.

Income:

- Leasing of port area

- Port dues
- Others, like subsidies

Expenses:
- Investment in port infrastructure
- Depreciations / interest costs
- Cost of personnel, goods and services

The major Dutch ports have separated accounts (or they are a separate entity, e.g. Port of Rotterdam, or their account is separated from the municipal account).

4.14.2 The degree of financial autonomy of the port authority.

This depends on the port. Every port has it own mandate from the governing body. At the end of the process the political body (regional of municipal council) is responsible.

The Port of Rotterdam is independent from the local government (the shareholder). The management of the Port of Rotterdam leases out a plot of maximum 5 hectares. It is also able to settle an agreement up to 3 million Euro.

4.14.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Dutch ports are public companies (companies where the public authority has got a dominant influence due to ownership, financial participation). Operating the port can be considered as an exclusive right, though the Dutch ports are not receiving any public funding for this.

Dutch ports are obliged to perform certain nautical and safety services and in response receive public funding for it. These services can be defined as services of general economic interest for which public funding is provided. By consequence the Dutch ports can be qualified as undertakings that are obliged to maintain separate accounts in conformity with the Transparency Directive.

4.14.4 The largest port development project currently on-going in the country.

The 2nd Maasvlakte – extension of the Port of Rotterdam

- Location of the project:

At the western side of the existing Maasvlakte, Port of Rotterdam; on new land taken from the sea.

- The strategic motivation behind the project:

Shortage of port related area in the Port of Rotterdam; especially container terminals, distribution and chemical implantation.

- The decision-making process:

The decision-making process is nearly finished.

- The development phases:

All legal phases are finished.
Financial agreement with the national government is nearly finalised.

Start of the tendering and pre-conditional phase:	2004
Start of the building:	2006
First customer:	2010/11

- The planned investment (amount of money):

2.3 billion euro

- The financing of this investment:

All financing is done by the Port of Rotterdam. The national government subsidies the outer dike, to protect from the sea; this constitutes a public utility.

- Public funding:

The total amount of subsidies consists of approximately 700 million euro; the subsidies are conform European regulations.

4.15 NORWAY

4.15.1 The applicable financing and charging systems.

4.15.1.1 Financing

The main principle is that the ports have to be self financed thanks to an autonomous economy.

Financing of port activities is done mainly by charges and considerations. Considerable construction works are financed by loans and contributions from the funds of the port.

Normally ports finance their activities without public grants. However, in some cases there can be governmental grants. These are given as part of grants for initiatives that promote industrial development in rural areas. However, in some cases a fishing port is integrated in a commercial port in such a way that it will be difficult to differ the financing of the various parts of the port. For example the construction of a breakwater for fishing vessels will also benefit other vessels.

For some of the smaller ports the port can not cover its costs out of its commercial revenue. In this case the municipal authority can consider that the port is fundamental for the well being and development of the community and will cover the deficit.

4.15.1.2 Charging

Regulations on charging give directives on how to calculate charges and what costs should be covered. The basic principle is that the client should pay for the costs he imposes on the port, both direct and indirect costs. The regulations put forward the types of charges or dues.

Type of dues:

- call dues: Call dues are paid for the use of the fairway/access to the port and the installations there;
- quay dues: Quay dues are paid for the use of berths and mooring;
- traffic dues: Traffic dues can be charged for goods from outside the EES area. They are little used and are expected to disappear with the expected reform;
- commodity dues: Commodity dues are paid for the use of the quay areas and structure there and is connected to the handling of cargo to/from the ships.

In addition to the dues, the port is permitted to demand payment for the use of services that are not included, for example payment for delivery of water, electricity, parking in the port area, etc.

If the port has invested in passenger's comfort it can charge the costs; the same applies to expenses on icebreaking.

Port charges:
The following figures are from the statistics of the Norwegian Ports Federation. The Federation has 53 ports as member and only a few and smaller ports are not included.

Total charges 2001 (NOK Million)

Dues	Considerations	Total
371,670	536,993	916,085

The governments Fiscal Budget 2003 and National Budget 2003 shows the following figures related to port financing:
Initiatives that promote industrial regional development:
- In the budget of The Ministry of Local Government and Regional Development there is a frame estimate for different activities regarding industrial related infrastructure, where about NOK 20 million is allocated to support port infrastructure.

- In the budget of The Ministry of Fisheries grants are allowed for about NOK 200 million to different infrastructure of fishing ports. This includes dredging, building of breakwater, quays, etc. There also is a grant of NOK 27 million to support local municipal development of fishing ports.

4.15.2 The degree of financial autonomy of the port authority.

See above. The ports funds have to be used for port purposes only.

4.15.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The ports, as independent municipal enterprises and in accordance with the Port and Seaway Act, do keep separate accounts to which the public has open access. This is also in accordance with Norwegian legislation on Transparency. Norwegian companies and legally independent units have to send copy of their accounts to a national register, which is accessible for the public.

4.15.4 The largest port development project currently on-going in the country.

4.15.4.1 The Snøhvit project

- Europe's first export facility for liquefied natural gas (LNG)
- Production and landing of natural gas from the Snøhvit, Albatross and Askeladd fields in the Barents Sea
- Receiving and processing plant on Melkøya island outside Hammerfest in northern Norway LNG shipments by special carrier to markets in Europe and the USA

Recoverable reserves:
- 190 billion cubic metres of natural gas
- 113 million barrels of condensate (light oil), corresponding to 17.9 million cubic metres
- 5.1 million tonnes of natural gas liquids (NGL)

Water depths: 250-345 metres

Development solution: Remotely-operated sub-sea installations and pipeline transport to land.

Pipeline: 143-kilometre line with multiphase flow

Land plant: Melkøya, just outside the shipping channel into Hammerfest

Annual exports:
- 5.67 billion standard cubic metres (scm) of LNG, corresponding to 4.1 million tonnes
- 3.1-5.7 million barrels of condensate, corresponding to 500-900 000 scm
- 150-250 000 tonnes of liquefied petroleum gases (LPG)

Annual shipments: About 70 cargoes of LNG

Project schedule: Construction started in the first half of 2002, with contractual gas deliveries scheduled to commence on 1 October 2006

Investment: Between NOK 49.3 and 51.3 billion (current money) for field development, pipeline and land plant Costs associated with LNG ship construction come in addition

Jobs: 350-400 new jobs in Hammerfest, including 160 at the gas liquefaction plant

Norwegian deliveries:
- NOK 10 billion in the development phase, 2002-2006
- NOK 1.1 billion for industry in the north Norwegian counties of Nordland, Troms and Finnmark up to 1 September 2003, including NOK 830 million for Finnmark (the estimate for north Norwegian deliveries when the project started was NOK 600 million)

- NOK 240 million per year in regional/local deliveries during the production phase

Production period: 2005-2035

4.16 POLAND

4.16.1 The applicable financing and charging systems.

Division of responsibilities:

POLAND	Cost of investments	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100% State outside port 100% P.A. inside port	100% State outside port 100% P.A. inside port	
Coastal defence and exterior breakwaters	100% State	100% State	
Land access (road)	100% State/Province/ Municipality outside port 100% P.A. inside port	100% State/Province/ Municipality outside port 100% P.A. inside port	
Land access (railway)	100% State/Region outside port 100% P.A. inside port	100% State/Region outside port 100% P.A. inside port	
Lights, buoys and navigational aids	100% State	100% State	
Quays, docks and jetties	100% P.A.	100% P.A.	
Superstructure	Private Sector P.A.	Private Sector P.A.	

Port authorities finance the construction, modernization and maintenance of port regions and infrastructure situated in the area under their management (article 10 of the Act on Seaports and Harbours). Funds come out of the State budget. However, donations of budget funds to the development or modernization of port infrastructure did not take place in recent years. Neither is it envisaged for the near future.
In Polish ports, no development projects caused a breach of the financial transparency principles.

Article 9 of the Act on Seaports and Harbours defines the sources of income of the managing body of the port as:

- charges due for the utilization, rent, lease, or usufruct of land, facilities, equipment and installations, or other similar contracts;
- port charges;
- income from services rendered by the managing body;
- other income.

Additionally, the Act stipulates a range of possible expenditures of port authorities: "Income from the business activity conducted by the managing body of the port can be appropriated for:

- construction, extension, maintenance and modernization of port infrastructure;
- implementation of other tasks resulting from the business activity of the managing body;
- covering of expenditure for maintenance."

4.16.2 The degree of financial autonomy of the port authority.

Port authorities act as commercial companies. Daily business and commercial decisions are made in an independent way.

There is a certain statutory limitation to their autonomy as the rates of port charges are subject to a decision by the Minister competent in the maritime economy.

4.16.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Polish ports are public companies where the public authority (Ministry of Treasury) has at least 51% of shares. The port authorities and private service providers do not receive any State funding. They are obliged to apply national accounting legislation; their accounts have to be accessible for public inspection. The accounts, balance sheets of port authorities, are available at national level at the end of each financial year.

4.16.4 The largest port development project currently on-going in the country.

4.16.4.1 Port of Gdansk

The major investment project to be developed in Polish ports is the construction of a new container terminal in the Port of Gdansk.

Port of Gdansk is located in the north point of the TEN-T rail/road corridor no VI: Gdansk – Vienna, with good access to the Adriatic and Mediterranean area. The availability of area for development, the excellent geographical location as well as the seen and expected fast development of the container traffic within the Baltic area, are the reasons behind the decision of the Port of Gdansk Authority to develop modern container facilities.

January 2004 the Port of Gdansk Authority SA signed a lease contract with the British consortium Deepwater Container Terminal Gdansk SA to design, build and operate a new container terminal in the Northern Port of the Port of Gdansk. The investment of 175 million USD is financed entirely by DCT Gdansk SA. No public funding is involved.

The first phase of the project consists of the construction of a 30 ha pier, with two berths, of which one equipped with a ro-ro ramp for vessels with a length up to 330 meters. The project provides to handle vessels with a draft of up to 12 meters, possibly

up to 15 meters. The estimated throughput capacity after completion of the phase I of the project amounts to 500 thou. TEU p.a.

The outlooks are foreseen to have a cargo handling capacity up to 1 million TEU annually, with the possibility of further expansion.

4.16.4.2 Gdynia project: III Stage of Kwiatkowski Flyover

- Location of the project:

The III stage of road leads from Morska Street to the Tri-City By-Pass. The road links the port and the city with the beginning part of A-1 Motorway (included into VI Corridor of TINA Network) that is the basis for fast cargo transport in north-south direction through Poland. The Flyover leads generally from Baltic Container Terminal and Ferry Terminal in the Western Port.

- Strategic motivation behind the project:

The investment will allow an efficient land access between Port Gdynia and Tri-city By-Pass, as well as connection to the national and international road network. It will also improve city access to the transport link that is very crowded by port traffic.

- Development phases:

- construction of double lane road of 3,5 km length through the forest area;
- construction of joining entryways to Tri-City By-Pass;
- construction of acoustic shields, animal tunnels;
- ground works.

- Selection criteria for the investment project:

Kwiatkowski Flyover is a basic access road to the main industrial area of the city, port and shipyards. Important cargo flow in the Port of Gdynia, particularly container, ferry and ro-ro traffic, needs efficient access to the port from the hinterland. There is also a growing traffic intensity and the present stages do not allow fluent access to the port seen all heavy traffic has to pass the Western Gdynia residential areas. The investment is necessary to complete another strategic task, i.e. Logistics Centres in Western Port and Ferry Terminal in Eastern Port, which enables further development of cargo and passenger traffic in the VI TINA Corridor.

- Some figures:

- total cost of the investment: 255 275 260 PLN (ca. 55 million Euro);
- length of constructed/modernised access roads to the port: about 3,5 km;
- upgrading of service quality and competitiveness of the port: about 100 %;
- car exhaust emission: in general the emission depending on increase of car volumes (about 60 % in 2005-2020) is partly levelled by more fluent traffic (decrease of journey time as well as increase of average journey speed of 15 % and decrease of fuel consumption of 5-6 %);
- efficient and safe access through shorter journey time and lower costs of time, lower costs of drivers: about 10-15 %;
- increased safety of traffic in the long period of time (decrease of accident rate of about 10-15 %);
- increase of service quality for port operations.

The investment will enable further revitalisation of the port and better quality of services, this is important to attract more cargo, mainly containers and ferries. Port customers pay special attention to the accessibility of the new terminals from the land side for heavy road traffic. The investment will make it possible to develop ferry traffic and tourism, as well as cruise tourism, as is planned in the Pomeranian Region Development Strategy and National Development Plan.

- Responsibility for the project:

A co-ordinator with a team of representatives from the City Authorities and Regional Road Directorate (leading) are responsible for the project.

The City Hall has completed documentation for the construction works. It possesses the grounds for the project for 100 %.

It will take 2 months to obtain the building permissions.

- Financing:

70 % EU structural funds (million 40 EUR) and the rest by the City and funds (ca. million 15 EUR).

4.16.4.3 Szczecin project

Construction of the ports infrastructure for a container terminal at Ostrów Grabowski in the port of Szczecin.

- Location of the project:

The project is situated in the south-west part of Ostrów Grabowski and in the north-east part of Lasztownia within the city of Szczecin. The land remains under the management of the Szczecin and Swinoujscie Seaports Authority.

- Strategic motivation behind the project:

According to specialists' analysis the Baltic Sea region is one of the fastest growing regions of Europe. It is estimated that by 2010 Baltic trade will be increased with 3% per year. Baltic transport of unitized and containerized cargo will be increased 4, 2 % per year.

The share of container transhipment in the port of Szczecin is also growing. Therefore, to meet the requirement of the market, the port authority plans to build a new container terminal. In the nearest future, rapid development of transhipment and industrial infrastructure is expected to take place in Ostrów Grabowski. The Szczecin and Swinoujscie Seaports Authority has been preparing the development of the Grabowski Island and provided it with new transhipment technologies.

- Development phases:

So far a connection between the island and Lasztownia with a lock across the Dunczyca River has been built. Vast area of the island improved, storage facilities at Hryniewieckiego Street (55 thousand m2) were built to provide a second line of the future container base, and a modern implantation for treatment of waste water was implemented together with the main power supply station. Recently the development of 15 ha of land in the south and south-west part of the Grabowski Island has started. Works focus on land improvement to provide port infrastructure for a container

terminal. Additionally, the project includes a manoeuvring yard of 23.5 thousand square metre, road and rail access and utilities, including power, water and sewerage services. The second line of the container base will consist of already existing yards at Hryniewieckiego Street, which will become an integral part of the base linking it with a planned logistics centre. The land will be available for investment in 2006; start of negotiations is foreseen for the end of 2004; formal investment preparatory works should take place in 2005 (documentation, building permit).

- The planned investment:

Cost of the project is estimated at 70 mill. PLN.

- The financing of this investment:

The project (land-based infrastructure) will be financed in 75% from the European Regional Development Fund under the Sectoral Operational Programme for Transport in 2004 – 2006. Investors may still participate in the call for use of infrastructure provided by the Seaport Authority to develop a modern transhipment and storage terminal for unitised general cargo.

4.17 PORTUGAL

4.17.1 The applicable financing and charging systems.

4.17.1.1 Financing

Division of responsibilities:

PORTUGAL	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % State	100 % P.A.	Sometimes with assistance from the State in the form of investment grants
Coastal defence and exterior breakwaters	100 % P.A.	100 % P.A.	State can exceptionally help with capital investment
Land access (rail and road network)	100 % P.A.	100 % P.A.	
Lights, buoys and navigational aids	100 % P.A. (inside port)	100 % P.A. (inside port)	
Quays, docks and jetties	100 % P.A.	100 % P.A.	State may provide finance to assist capital investment
Superstructure	100 % P.A. or concessionaries	100 % P.A. or concessionaries	

All decisions on port access infrastructure are taken jointly by the port authorities and/or the competent Ministry. Exceptionally, State support is provided for initial

investment not covered by the port authority's budgets, in case applying for loans is not a viable proposition.

The port authorities are responsible for the cost of maintaining access channels, breakwaters, locks, etc.

The Navy is responsible for the installation and upkeep of lighthouses and marker buoys as well as for coastal navigation, outside the ports. The port authorities are responsible for the installation, maintenance and operation of navigation aids radar and VTS systems used at ports.

No specific laws or regulations exist for determining responsibility for investment in the building of special docks, jetties, quays or terminals. The State normally becomes involved when the port authorities are unable to finance such projects and provides funding. In some cases, special terminals for bulk, chemical products, etc., are built by private contracting firms.

Land-based work and equipment are completely financed by the port authorities or the concessionaries.

Internal communication routes: Although rail tracks within the port are built, maintained and operated by the port authorities, their use by third parties is in certain cases authorised. They are financed by the ports. In general, two tariffs apply to this type of service: one for the use of rail equipment, fixed per tonne or part tonne of freight, and one for the use of the rail network, which is fixed per user wagon.

The construction and maintenance of internal port road routes is also the responsibility of the port authorities and is financed in the same way as the rail system.

Smaller ports were very dependent on State aid until changes took place since 1998. For these ports the historical factor is much more important than for the main ports of Leixões, Lisbon, Setúbal and Sines, in spite of these last three ports being still paying back the loans incurred for an early retirement initiative taken in 1993.

The port authorities and private service providers do not receive any State funding for the provision of services of general public interest.

4.17.1.2 Charging

Taxes are collected directly at all ports by the port authorities.

Every port authority has its own tariff regulations.

The tariff structure is similar in all ports and regulated by Decree-law n° 273/2000, the main taxes on vessels and cargo are the following:

- port use taxes for vessels entering and anchoring in harbour waters, calculated on the basis of gross tonnage (GT) and duration of call. A distinction is made between tankers, container vessels, ro-ro vessels, passenger vessels and other vessels and certain reductions are made in special cases;

- harbour user tax (harbour tax) on all goods loaded, unloaded or transhipped, based on the weight or volume and nature of the goods. The tax is set at a fixed value per tonne or per unit and varies depending on the customs freight arrangements (imports, exports, coastal traffic and transhipments).

Taxes on vessels and goods over and above those resulting from the use of equipment (winches, cranes, stackers, tugs, barges and other), warehousing (covered and open) and the supply of utilities (water, electricity and telephone) represent the main source of revenue from port exploitation. Other revenue items include in particular those relating to the use of land and buildings and to the concession of port installations and services.

Concessionaires have tariffs fixed in their contracts and are obliged to some amount of commercial rebates.

Stevedoring firms (un)loading freight and freight movement on port aprons have their own tariff scale and operate in accordance with the rules of free competition and market transparency. It is their duty to promote the port's image and awareness of the costs of services and of the quality indices.

Rents and leases: If there is a concession, minimum values of rent are fixed in the public tender. In case of authorisations, rents are fixed annually by the port authority.

Rebates: Rebates are not given on a commercial basis and are not negotiable. Rebates are given on environmental and safety grounds and also on the basis of regularity and frequency or volume of traffic/amount of cargoes.

4.17.1.3 Specific financial questions

- Exemptions and tariff reductions:

The port authorities are authorised to apply exemptions or tax privileges according to the respective Tariffs Regulation.

The following exemptions are, therefore, applied in the case of the entry and berthing tax: Portuguese ships and foreign naval fleets, hospital ships, barges and tugs operating in the port, national local waterway traffic and fishing vessels and other cases specified in the tariff scale for each port.

Reductions in the entry and berthing tax are also applied in the case of vessels belonging to regular shipping lines, passenger ships, vessels used for scientific purposes, vessels which have put into harbour and others.

Certain exemptions and reductions, varying from port to port as laid down in the Tariffs Regulation are also applied in the case of the passenger traffic tax.

The same is true in some ports in the case of the harbour tax on goods.

Exemptions: passengers and passenger baggage, on-board expenses, goods intended for consumption by charitable institutions, etc.

Reductions: goods in transit, goods from or to national ports, tares, etc.

- Taxation:

Port authorities: Port Administrations are subject to payment of taxes in the same way all private sector firms are. The Port and Maritime Transports Institute (IPTM) as a public institute is, therefore, exempted from the payment of taxes.

Private port operators: Private stevedoring firms operating at ports are subject to payment of taxes in the same way as all private sector firms.

- Restrictions:

Port authorities: On current and investment activities: The port authorities have sole responsibility - and then only within their area of jurisdiction - for the economic exploitation of the port. They may not undertake certain activities allocated to other bodies, such as stevedoring firms, shipping agents, freight transportation, etc. Only in exceptional cases as laid down by law may the port operation be carried out by the port authority.

Wages and working conditions: Ports have no power to fix the level of wages and the employment conditions of their staff. Wages, along with the conditions of employment and any changes thereto, are fixed by the Government, with consultation of the trade unions.

Port authority workers have their own statute, known as the Statute for Port Authorities Employees (EPAP/SPAE), as laid down in Decree-Law no. 421/99 of 21 October 1999.

Private port operators: Firms wishing to undertake activities at the port request prior authorisation from the port authority before starting their activity and after having completed other required legal formalities. Similarly, any change or extension of activities is subject to the prior authorisation of the port authority.
These firms are obliged to pay the taxes laid down by law and any other taxes provided by the port.

4.17.2 The degree of financial autonomy of the port authority.

The port authorities have administrative, financial and patrimonial autonomy. They are responsible for the economic, financial and patrimonial management of the ports under their jurisdiction, the management of their employees and the running of the ports and their complementary, subsidiary or ancillary activities

Tariffs are fixed by the port authorities and submitted to the National Council for Ports and Maritime Transport, which can propose a veto.

4.17.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The port authorities and private service providers are obliged to apply the accounting regulations established by national legislation. This will make it possible to obtain accounting

information per service provided, namely the revenue and expenses. Port authorities operate a patrimonial accounting system identical to that of private firms and are required to use the Official Accounts Plan. They are also required to have an analytical accounts system serving business management objectives. Their accounts have to be submitted to the competent Ministry for approval and are subject to inspection and supervision by the Inspectorate-General for Finance and the appraisal of the Accounts Tribunal.

All ports submit management reports (revenue and expenditure balance sheets) for each financial year, limited companies to their general assembly, the others to the competent Ministry for approval. Public institutions reports are drawn up in accordance with the procedures and requirements of the Directorate-General for Public Accounts.

4.17.4 The largest port development project currently on-going in the country.

The largest investment in Portugal at this moment is at the port of Sines, where a deep-water container terminal is being constructed, named Terminal XXI.

- Strategic motivation behind the project:

The process to transform Sines Port into an international container transhipment post for the north/south and east/west routes began in 1997. The new terminal will serve the European market as well as the Iberian market.

- Phases and financing of the project:

The terminal is being built in phases by PSA Corporation of Singapore, the Terminal XXI concessionary company.
Phase IA of this project is concluded. The terminal currently has an annual capacity for 250 000 TEUs. When the total investment is completed, the terminal will have an annual capacity of 1.4 million TEUs.
In the first phase 39.5% of the investment was carried out by the port authority and 60.5% by PSA Corporation of Singapore, holder of the concession contract, out of a total of 80 million euros. Over the four phases planned to complete Terminal XXI, more than 228 million euros will be invested by 2015.

4.18 SLOVENIA

4.18.1 The applicable financing and charging systems.

The port charges port dues on vessels, calculated on the basis of tonnage handling.

4.18.2 The degree of financial autonomy of the port authority.

The Maritime Office is a State institution and it is organised as an office of the Ministry of Transport.

Luka Koper is the terminal operator and it is not financed by the State, it is an independent company with financial autonomy.

4.18.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

At the moment the separate financial lists are ensured.

At the end of 2002, the Slovene Government passed the Decree on the Awarding of Concessions or the Management, Development and Regular Maintenance of Port Infrastructure in the Port of Koper. The Decree specifies that, in terms of purpose and ownership, port infrastructure will be defined in more detail in the concession agreement. Before signing the concession agreement, the grantor and the concessionary will sign an agreement regulating their mutual relations or the period following the ownership transformation of the socially-owned company Luka Koper and a special agreement regulating land usage rights, construction rights and other issues related to the property in the cargo port of Koper which is owned by the Republic of Slovenia.

After signing this contract Luka Koper will ensure also the separate financial statements.

The EU regulations prescribe uniform rules for the preparation of financial statements for certain companies, and instruct corporate entities from EU States to draw their financial statements in accordance with the International Standards of Financial Reporting as from 2005. Parallel to this requirement, numerous other requirements and guidelines are being prepared in the field of financial accounting, reporting and auditing. A project team from the Slovene Audit Institute is responsible for the preparation and execution of activities related to the introduction of International Financial Reporting Standards.

Luka Koper does not receive any State Aid.

4.19 SPAIN

4.19.1 The applicable financing and charging systems.

The financing and charging criteria by which the Spanish port system is governed is that of financial self-sufficiency, by which the port authorities' expenses and investments are passed on to the port's clients, mainly ship-owners and shippers, through the application of a system of charges, which is currently being reviewed.

The table below shows the areas which are covered by the port authorities and which correspond to the Ministry of Public Works and Transport (land access to ports outside its Service Areas). Also, the system has received European Funds (FEDER, Cohesion funds and others), mainly for the relevant investment projects.

On the other hand, participation in investments by private businesses is increasing each year, so that there are specific areas, such as "quays, docks and jetties" and "superstructure" where their presence is highly significant.

Division of responsibilities:

SPAIN	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	P.A.	P.A.	*
Coastal defence and exterior breakwaters	P.A.	P.A.	*
Land access (rail and road network)	Ministry of Public Works and Transport	Ministry of Public Works and Transport	**
Lights, buoys and navigational aids	P.A.	P.A.	
Quays, docks and jetties	P.A.	P.A.	***
Superstructure	P.A.	P.A.	***

* When available European Funds are distributed by Puertos del Estado
** Land access outside port services area correspond to Ministry of Public Works and Transport
*** Also, private operators

4.19.2 The degree of financial autonomy of the port authority.

- System of Budgets and Control of the Port Authorities

Port authorities annually draw up draft projects in their Programme of Action for three years (PAP, "Programa de Actuación Plurianual") and of budgets for exploitation and capital, which are submitted to Puertos del Estado for prior approval and for consolidated integration in its own programmes and budgets.

In making up these projects, port authorities must confine themselves to the criteria and directives of the Government's budget policy and to the general management objectives set by Puertos del Estado, in accordance with the policy on transportation set by the Ministry of Public Works and Transport.

The system of control of the economic and financial activities of the port authorities is carried out by the General Intervention of the State Administration and by the Court of Auditors.

It is the responsibility of the port authority Council to make internal modifications to the budgets, should the need arise during the period, without raising the total amount of the budget.

However, any changes in figures on real or financial investments require the authorisation of the Ministry of Public Works and Transport for amounts not exceeding 5%, and the authorisation of the Government for amounts totalling over 5%. A previously-submitted written approval from Puertos del Estado is required as well.

- System of Budgets and Control of Puertos del Estado

Puertos del Estado draws up a three-year Programme of Action (PAP) in which those of the port authorities are integrated. This programme, along with an explanatory memorandum of its content and the primary modifications, is sent to the Minister of Public Works and Transport.

Also, Puertos del Estado draws up a four-year Business Plan setting the objectives they propose to reach in compliance with the directives determined by the Government through the Ministry of Public Works and Transport.

In relation to the predictions and objectives of the Business Plan and in the Programme of Action, Investment, and Finance, a yearly report is made regarding the objectives for that period, and, once approved by the Council, is taken to the Ministry of Public Works and Transportation for final drafting.

Puertos del Estado draws up the yearly budgets for exploitation and capital. The budget for capital is accompanied by a multi-annual account of the investment projects they finance. These budgets integrate those corresponding to the port authorities.

The Council is responsible for approving the internal modifications of the budgets, should the need arise during the period, without increasing their total amount of the budget. When the said modifications affect Puertos del Estado's objectives, these modifications, regarding to the budgets as well as to the objectives themselves, will be reported to the Ministry of Public Works and Transport.

Any change in figures on real or financial investments requires the authorisation of the Ministry of Public Works and Transport if the amount does not exceed 5% of the sum of them, and the authorisation of the Government if it does.

The system of control of the economic and financial activities of Puertos del Estado is to be carried out by the General Intervention of the State Administration and by the Court of Auditors.

4.19.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Each port authority has its own accounts independently from the accounts of the others and all the accounts are consolidated in Puertos del Estado. There is a specific control of the accounts of companies which have a participation in the port authority or Puertos del Estado.

There are no subsidies or State aids so there are no separated accounts because of this reason.

4.19.4 The largest port development project currently on-going in the country.

One of the most important port development projects is the extension of the port of Barcelona, which responds to the need to extend the surface and installations to meet the expected demand in the port in the future.

The port of Barcelona is highly significant in the Mediterranean, especially in container traffic, both import/export and, in recent years, containers in transit. The port is located in a geostrategic position with a hinterland which covers both the Iberian Peninsula and Southern Europe. Its strategy contains reinforcement of both its intermodal function and its logistical function, with the development in the latter case of a first level Logistics Activities Zone (ZAL), with a high level of consolidation.

The decision-making process is based on a Strategic Plan in which the port's medium and long-term objectives are stated, in accordance with the port's potential and physical and socio-economic environment. The Strategic Plan is materialized in a Master Plan in which the physical layout is designed. The Master Plan is used as a reference for making the Declaration of Environmental Impact, where a series of correcting measures are foreseen to be incorporated into the project. The action is materialized in an Investment Plan, made by the port authority and assessed by the Puertos del Estado Investment Committee, which is finally integrated into the Business Plan (see point 2.21.3). The projects for constructing each element of the works and its execution are then drawn up.

The project for extension of the port of Barcelona consists of the following elements:

Extension of the Eastern Breakwater by 1,968 m., creating a harbour entrance moved to the south of the current one, with a width of 400 m. and a minimum depth of 20 m.
Budget: 197,300,000 euros
Dates: 2001-2008
Subsidy: 73,093,000 euros (cohesion fund)
Current status: in progress

Southern Breakwater. Sections I and II, as a harbour wall, with a first section with a slope of 2,000 m. and a second vertical section of 1,700 m. to create the required expanse of sheltered water.
Budget: 194,400,000 euros
Dates: 2001-2007
Subsidy: 80,095,000 (cohesion fund)
Current status: in progress

Southern Breakwater. Section III., completion of the Southern Breakwater with 800 m. more of curved sea wall, followed by a straight section and a post perpendicular to the last section in the harbour entrance area.
Budget: 110,000,000 euros
Dates: 2004-2008
Subsidy: 37,777,000 euros (cohesion fund)
Current status: in progress

Corrective measures for coastline. Phases I, II and III. Rehabilitation of the beach to the south of the new southern quay, on the edge facing the River Llobregat, with a retaining breakwater (phase I) and then addition of sand in two stages (phases II and III).
Budget: 21,330,000 euros
Dates: 2001-2004
Subsidy: 11,305,000 euros (cohesion fund)
Current status: in progress

Prat Quay. Construction of 1,000 m. of mooring with a depth of 18 m. formed by reinforced concrete caissons, including sand fill of 60 has. of esplanade generated through hydraulic sand fill and preloading.
Budget: 60,405,000 euros
Dates: 2004-2008
Current status: planning stage

Prat Quay. Draining, roads, networks, rail access and access control, etc.
Budget: 64,400,000 euros
Dates: 2005-…
Current status: planning stage

In total, the public investment comes to 637,810,000 euros, of which 202,270,000 euros come from the cohesion fund and the rest from the port authority's own resources.

4.20 SWEDEN

4.20.1 The applicable financing and charging systems.

4.22.1.1. Financing

Division of responsibilities:

SWEDEN	Cost of investment	Cost of maintenance	Remarks
Maritime access	Normally Central Government outside port and P.O.[16] inside port	Normally Central Government outside port and P.O. inside port	Exceptions exist where also the P.O. co-finances investments outside port area and Central Government co-finances investments inside port area.
Coastal defence and exterior breakwaters	P.O.	P.O.	Exceptions exist where initial investments are paid by the City Council
Land access (rail and road network)	Normally Central Government outside port and P.O. inside port	Normally Central Government outside port and P.O. inside port	Variations possible: e.g. state/city can pay for rail and road in port
Lights, buoys and navigational aids	Normally Central Government outside port and P.O. inside port	Normally Central Government outside port and P.O. inside port	Exceptions exist where initial investments are made by the City Council. Radar & other electronic aids are sometimes paid by the Central Government.

[16] Port Organisation.

Quays, docks and jetties	P.O.	P.O.	Exceptions exist where initial investments are paid by the City Council
Superstructure	P.O. or private sector	P.O. or private sector	Exceptions exist where initial investments are paid by the City Council

As a rule there is no public money involved in the financing of general port infrastructure in Sweden, except for road and rail access to the port. The central Government is neither involved in decisions regarding port investments or the financing of them, since ports are and have always been the responsibility of the local city government.

The port takes the decision to invest and is responsible for finding the best possible financing. In most cases the municipality acts as a bank for the port as far as major infrastructure investments are concerned. The municipalities normally have to take up loans on the market for all different kinds of infrastructure investments, not only ports, and thus are able to get more favourable rates than a comparably small port could. If however, the port is able to find more favourable conditions directly on the open market it is free to do so. As a principle, market conditions apply for the financial relations between the owner of the infrastructure and the lessee.

The integrated port company publishes its own annual accounts. If external private companies operate in the port area, these companies publish their own accounts.
The port authority is part of the municipal administration but usually publishes its own accounts. All private companies within the port, including the stevedores, publish their own accounts. If a stevedoring company is active in more than one port, it is not always possible to see which activities are carried out in which port.

In most cases, depreciation is calculated on historic cost basis. Some ports have a provision for revaluation/writing down/writing off assets, but this is not general.

The overall rates of return vary. Port Companies pay a dividend to their owner according to the Swedish Company Act. As mentioned above the number of non integrated ports (i.e. port authorities) is becoming less. These ports are part of the municipal administration. Some of them pay an annual return to the municipality and some do not.

Taxation of Swedish ports varies. Port authorities which are public administrations do not pay company taxes. Port companies pay taxes according to the taxation principles in the Swedish Company Act.

The responsibility and financing of the maritime access is divided. The Swedish National Maritime Administration finances the access to and from the port area through fees collected from the users. Inside the port area the port company or the municipality is responsible. Sometimes however, the port company also finances part of the maritime access. A recent example is the enhancement of the entrance channels

to the Port of Göteborg, where the Port of Göteborg will pay nearly a third of the investment. The rest is paid by the Central Government through the National Maritime Administration.

Regarding investments in movable assets, these are normally financed by the port company and/or the stevedoring company itself.

Individual ports have managed to get small contributions from the TEN-T budget on their own initiative.

As regards the historical factor, municipalities often transferred infrastructure to the new integrated port companies on preferential terms. It is very difficult to define what influence this has on Swedish port activities today, but probably not very much.

4.20.1.1 Charging

- State dues

The state owned Swedish National Maritime Administration is responsible for fairway services outside the port area as well as for all pilotage. These services as well as costs for investments and maintenance of fairways are financed by charges on users. The charges cover costs for the fairway infrastructure but also other costs, e.g. icebreaking and parts of the costs for pilotage as well as the Administration's annual return on investment.

The charges can be divided in fairway dues and pilotage dues.

The fairway dues comprise a two-part fee. One portion is based on the size of the ship, computed on the basis of gross tonnage. The other portion is based on the volume/weight of cargo being transported by the ship.

The portion based on the gross tonnage is environmentally differentiated according to the ships' emissions of nitrogen oxides and sulphur. If the level of emitted nitrogen oxides is between 12 and 2 g/kWh the dues will be rebated. The ship will also be given an additional rebate per unit of the ship's gross tonnage if the sulphur content of the bunker fuel is lower than 0.5 percent of weight for passenger ships and 1.0 percent of weight for other ships. Dues for other degrees of cleansing will be rebated according to the production level. The fee per gross ton varies and is charged a maximum of 12 times per year for a cargo ship and 18 times per year for a passenger ferry or a railway ferry.

The fee based on the volume of cargo being loaded or unloaded is generally the same in all ports but can vary depending on the value of the goods.

The costs for icebreaking are covered by all ports indirectly through the fairway dues.

The pilotage dues are based on the size of the ship computed on the basis of the gross tonnage and on the distance piloted. The dues do not cover the whole costs for pilotage which is therefore subsidised through the fairway dues. Pilotage is compulsory with the possibility of being granted an exemption based on application in each case, or on a permanent permission connected with the captain ("self-handling").

- Port dues

Normally in the case of integrated port companies, the customer pays dues according to commercial agreements that cover the cost of the infrastructure as well as the services offered by the port company. Apart from cargo handling, these services may include storage and thereto attached services as well as clearance and forwarding which are expanding businesses. Ports are free to decide their own prices and to negotiate such agreements. Each port company has a stipulated tariff which is used in cases when a ship makes an occasional call. In the few "land lord" ports that still exists the port authority covers its costs by fees based on the ship and on the goods according to a stipulated tariff. In these ports the individual stevedoring company covers its costs by commercial agreements.

About 20 Swedish ports have introduced rebates in their dues, based on environmental measures regarding nitrogen oxides and sulphur reductions, according to the tripartite agreement.

4.20.2 The degree of financial autonomy of the port authority.

Swedish port companies are free to decide their dues, their charges, their rents, etc. themselves. According to the principles of the Swedish companies act, an annual dividend on capital is given to the owner, in most cases this is the municipality. Port authorities are part of the municipal administration but are most often own separate economic units with responsibility for their budgets etc.

4.20.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

The directive is not yet implemented in Sweden. Three port companies will be covered by its rules: the ports of Göteborg, Helsingborg and Stockholm.

4.20.4 The largest port development project currently on-going in the country.

A large port development project currently on-going is the deepening and straightening of the fairways of the port of Göteborg. The objective of the project is to increase the safe traffic capacity of the port access channel in compliance with international safety standards for navigation of fairways. The planned investment is 700 million SEK of which the national maritime administration pays 72% and the port of Göteborg 28%. The national maritime administration invests in safer fairways and the port invests in deepening the fairways in order to be able to accommodate bigger container ships in the future.

4.21 UNITED KINGDOM

4.21.1 The applicable financing and charging systems.

4.21.1.1 Financing

Division of responsibilities:

UNITED KINGDOM	Cost of investment	Cost of maintenance	Remarks
Maritime access (sea locks and channels)	100 % P.A.	100 % P.A.	
Coastal defence and exterior breakwaters	100 % P.A.	100 % P.A.	
Land access (rail and road network) connections within the port)	100 % P.A.	100 % P.A.	
Lights, buoys and navigational aids	Mostly Trinity House[17] Lighthouse Authority outside port 100 % P.A. inside port	Mostly Trinity House Lighthouse Authority outside port 100 % P.A. inside port	Funded by light dues
Quays, docks and jetties	100 % P.A.	100 % P.A.	
Superstructure	100 % P.A. P.A. or terminal operator	100 % P.A. P.A. or terminal operator	

The UK government's philosophy regarding public financing in ports can be summarised as follows: "We believe that port developments and port operations should not in general need public subsidy. Public money is not well spent distorting competition between ports – for example, where a port is seeking to win business to replace lost traffic and use surplus capacity. Subsidy tends to spread the problems caused by excess capacity. It can be damaging to otherwise healthy neighbouring ports." (Modern Ports, 2000).

- Infrastructure and Maritime Access

In the UK, it is not the policy of the government to control port (including maritime access) developments within the context of a framework of national ports planning;

[17] The lighthouse authorities are Trinity House (for England and Wales), the Northern Lighthouse Board (for Scotland) and the Commissioner of Irish Lights for Ireland.

instead, port undertakings formulate their port policies on the basis of their assessment of expected financial viability. The corollary of this is that costs of all port developments have to be met by the port undertakings themselves, ultimately from their revenue from port users. If tidal land is to be reclaimed outside the port limit, this usually has to be leased from the Crown Estate Commissioners (or exceptionally from the local authority). This is true also of access channels, buoys, radar, breakwaters and sea locks. Similarly, decisions concerning the financing of most docks, quays or jetties are made by the port undertaking or the terminal operator as the case may be. If a harbour authority wishes to extend operations beyond its existing area it must generally seek approval through a Harbour Revision or Empowerment Order.

There has been strong pressure on the government from the shipping industry in particular but largely supported by ports to abolish the system of light dues so that the cost of the lighthouse services can be met from public funds, as in the case of most other EU countries. The situation has been the subject of an intensive review and an Economic Study of the consequences of "user pays" for navigational. The conclusion of the report was that "user pays" did not significantly contribute to distortion of port traffic, or that if it did, there was no or little evidence to prove the case. Although the government has therefore closed the door on meeting costs out of public taxation, there are nevertheless some changes that can be met to the light dues collection system, particularly in respect of a subsidy from the UK to Irish lights. One of the consequences of "user pays" is that the port and shipping industries are regularly consulted on the funding of lights and can make recommendations on the level of fees and on the resources provided by the tender fleet. This has meant that the industry exerts strong pressure on the system and this has led to an overall reduction in the per tonnage rate for lights since the mid-1990s.

- Superstructure (including port equipment)

Decisions concerning the provision of most items of superstructure in UK ports are generally made by the ports themselves or their tenants. All costs are met entirely by the port/port users. This applies, for example, to the provision of transit sheds, warehouses, cranes and cargo handling equipment (with certain privately financed exceptions). The pattern as regards the provision of specialised facilities, e.g. tank storage, is more varied with private sector bodies other than the port undertakings being responsible for a considerable portion of the investment in most ports, and port undertakings for the rest.

- Inland transport within the Port

- Railways:

Land transport infrastructure decisions and costs, in the case of railways, (which are not found in all UK ports), are matters for negotiation between the train operating company, the Strategic Rail Authority (SRA) and the port undertaking. Investment within the port is then usually made by the port undertaking, with the train operating company or the port undertaking bearing the cost of operation. Improvements to the rail network outside the port are a matter for the SRA.

- Roads, tunnels and bridges:

In the case of roads, tunnels and bridges, it is normal for the regional authority or national government to be the Highway Authority responsible for external roads linked to the port. Ports may be expected to make a contribution to the external

development where this benefits access to/from the port or reduces congestion in the port. Within the port, the port authority itself is responsible for the provision and maintenance of roads.

- Canals and inland waterways:

In the case of canals and inland waterways, the decisions lie either with the port undertaking, or other authoritative bodies such as The British Waterways Board, (who are responsible for much of the UK's inland waterway system) or the local navigation authority.

- Pipelines:

These are almost entirely the responsibility of the private sector. Normally a charge is made for wayleaves but this is a matter for commercial negotiation.

- Freight Facilities Grant (FFG)

The FFG scheme, which has been in existence for a number of years, is designed to encourage the shift of traffic from road to rail or inland waterway. Grant is paid towards the cost of new facilities where there is a defined flow of road traffic, but where the shift would not be economic without some financial incentive. Grant is also available for non capital costs. The UK Government recently extended the scheme to encourage shifts from road to coastal shipping.

The extension of the Freight Facilities Grant scheme to coastal transport was welcomed by the UK ports' industry. The respective trade organisations[18] agreed, under certain conditions related to possible distortions of competition, that the scheme should not only assist capital investments but would also include operational aid.

The new aid scheme, extended to coastal and short sea shipping, will run for 10 years. The total aid for the first three years amounts to over 80 million EUR. Public grants will be awarded for up to 50 % of the total project cost for facilities that will be accessible on non-discriminatory terms for all existing and potential operators.

The extension of the Freight Facilities Grant was notified to the Commission. In its decision, the Commission did not raise any objections. The proposed measures were found to be compatible with competition rules and with the smooth functioning of the internal market. The proposed measures are in line with the objectives of the EU's common transport policy, which aims at fighting congestion and developing intermodality. The UK scheme was found to be in the Community's interest.

In the same decision, the Commission authorised a higher infrastructure aid for the benefit of the Port of Rosyth. The Aim of this project is to develop a service port with the capacity to move a significant amount of freight from Scotland to the Continent, saving the lorry mileage undertaken by the Scottish road hauliers currently travelling to other ports. Items to be handled support are handling freight facilities that will be open to any interested operator on a non-discriminatory basis.[19]

---

[18] British Ports Association, UK Association of Private Terminal Operators and the UK Major Ports Group.
[19] Decision Commission C(2001)4512fin, 20 December 2001, N 649/2001, Freight Facilities Grant (FFG).

- European Regional Development Fund and TEN funds

A few British port undertakings in certain areas (i.e. areas of intermediate or development area status) may be eligible to apply for assistance under the normal conditions of the European Regional Development Fund.

In its "Modern Ports" policy paper, the UK government repeats its opposition to "complex and inappropriate" interference in the ports' market. The same approach must be taken to public finance of port projects for both domestic and European sources of funding. The Department for Transport co-ordinates ERDF applications for ports infrastructure in England and Wales. This function is devolved in Scotland and Northern Ireland. Each case is considered on its merits.

The UK government believes that, in general, commercial ventures in buoyant markets need no public funding. It is important that new traffic anticipated in ERDF applications should not be relocated from other ports. Using public funds to move business in this way is unsound. Better proposals have included research into new traffic flows which promise to take more lorries off the roads. The Government and the devolved administrations will not support funding proposals if they are likely substantially to distort competition in the UK ports sector.

The same approach applies to the TEN funds. Government support for anything beyond initial studies for schemes will generally depend upon a quality-assured business case. Projects that pass this test should not need substantive public funding at the development stage. There may be special cases, however, for example where there are overriding social reasons for a project in peripheral maritime areas.

- Historic developments

The application of the 1981 Transport Act converted the British Transport Docks Board (BTDB) into a quoted Company, ABP Holdings Ltd, which owns Associated British Ports (ABP). ABP operate 21 ports, including Southampton and the ports on the Humber.

In July 1991, the Ports Act was passed, it enabled Trust ports to privatise if they so wished. This Act also allowed (from July 1993) the government compulsorily to privatise any Trust port whose financial turnover is was over £5 million (adjusted annually to take account of inflation).

Seven former trust ports were privatised between 1992 and 1997: Clydeport; Dundee; Forth; Ipswich; Sheerness; Medway; Teesport; and Tilbury. Only Ipswich was compulsorily privatised, in 1997.

The ports were fully privatised: it included both the management of the maritime access and port infrastructure, cargo handling and even the regulatory functions of the port authority including traffic management. An important reason for promoting this privatisation process was the need to make it easier to attract loan capital for financing port investment from private funds on a commercial basis. Participation of management and employees was part of the aim.

Under the privatisation programme, port sales were put out to tender and offers were required on the basis of both price and a strategic plan. In a number of cases, there

were management buy outs which were able to take advantage of a slight price preference; 50% of the proceeds of the sale were returned to the government. In a number of cases, the management buy out teams subsequently sold to other ports or companies as awareness grew of the value of the companies.

The most important change affecting the ports industry in recent years was the repeal of the National Dock Labour Scheme in 1989. The scheme, designed to protect dock workers from the effects of casual labour, guaranteed dockers a job for life. With the advent of containerisation and other modern cargo handling methods, there was considerable surplus labour in the docks and great inefficiency. Moreover since not all ports were in the scheme, the non-scheme ports enjoyed a huge commercial advantage, while the other ports, such as London and Liverpool experienced chronic financial problems. The repeal of the scheme (which was accompanied by generous severance payments to displaced dockers) transformed the industry.

It is difficult to disentangle the effects of privatisation from other economic and regulatory changes in the same period. Privatised companies have invested substantially, some diversifying into other fields such as property development and logistics; there has been some limited investment in port development overseas. Privatisation is still quite limited in terms of the number of UK ports, also making it difficult to judge precise effects. However, it is generally accepted that it was the repeal of the National Dock Labour Scheme in 1989, which created the biggest single change in the industry. This, combined with already established port independence, created the basic framework of the UK industry.

- Municipal ports

Municipal ports constitute the smallest sector within the UK. Some municipal ports will subsidise their commercial operations through a precept on the local council. Because municipal ports tend to serve local rather than regional or national markets, the distorting effect of such precepts is minimal.

The municipal sector is currently undergoing a review, partly to examine their financing but also to assess whether municipal structures are compatible with efficient ports capable of competing with trust and privatised ports. This is also against the background of changes to financing whereby Supplementary Credit Approvals (SCAs), which require ports to make applications for funding for emergency repair work, have been disbanded and now municipal ports will borrow on the open market but within limits set by local authorities. A further complicating factor is that municipal ports as a part of government have to undergo reviews of their effectiveness, the results of which are often misleading as the reviews are aimed at assessing local services rather than commercial operations. Potentially, municipal ports could convert to trust or privatised status although there are no current plans to do so in advance of the results of the review. The Port of Bristol is an example of a local authority contracting out port operations on a long lease to a private consortium. This is along the lines of the corporatisation of local authority airports and is a possibility for the future.

Under the new prudential finance system, local authorities have more responsibility for taking on new borrowing and meeting the additional financing costs. Locally set prudential indicators will be an important part of self-regulation, building on the

principles of "best value" and strategic asset management planning. The aim is to enable authorities to have a proper debate about the potential consequences of their proposed investment policies, and transparency and accountability will hopefully be enhanced.

The Department of Transport is carrying out a Review of Municipal Ports. This will:
- examine the role, status and constitution of municipal ports;
- undertake an overview of the sector, benchmarking it against other sectors;
- identify any constraints resulting from municipal ownership;
- assess the impact of Best Value, the prudential financing system and any other relevant characteristics of municipal ownership;
- examine opportunities for advice and guidance.

4.21.1.2 Charging

In general, ship, passenger and goods dues levied under the Harbours Act 1964 pay for the regulation of maritime traffic within port limits and the basic infrastructure of a port and some or all of its operation (for example dredging, lighting and buoying within a port area, provision of quays and jetties, port transit sheds and storage areas, also general land-side infrastructure of a port for example the port road system). Other charges, usually required to be reasonable, can be levied for such services as pilotage, cargo handling and warehousing and storage.

As a necessarily broad generalisation, the following are the principal dues/charges levied in the UK in relation to port and port related activities:

Commonly used name of charge	**Levying body/ body receiving revenues**	**Coverage**
1) Light Dues	Trinity House (in England and Wales), Commissioners of Northern Lights (Scotland), Commissioners of Irish Lights	Provision of navigational buoys and lights outside port undertaking areas
2) Pilotage	Competent Harbour Authority	Provision of pilotage services
3) Towage	Private or port undertakings	Provision of towage facilities
4) Conservancy	Conservancy authority (which may or not may be a port undertaking), usually a port authority.	Provision maintenance of and access channels, buoys and lights between open sea and docks. Regulation of maritime traffic (also 5 below)
5) Harbour dues	Harbour authority and/or the owner of the facility	Provision of in dock water area and quay face within port area. Regulation of maritime traffic (also 4 above)
6) Passenger Dues	Harbour authority and/or the owner of the facility	Provision and operation of facilities and labour for port passenger traffic

7) Goods Dues	Harbour authority and/or the owner of the facility	Provision of quay apron, short-term transit sheds, port roads and railways, fencing and all other general port infrastructure, also security and similar sundry services
8) Cranage	Harbour authority and/or owner of facility	Provision and operation of carnage
9) Warehousing	Harbour authority and/or owner of facility	Long-term warehousing
10) Stevedoring	Harbour authority or providing organisation	Cargo-handling

The levels of specific charges are determined by the bodies providing the facilities/services concerned, subject in certain cases to appeal to the Secretary of State for Transport.

Although the charges, dues and revenues listed in the table are distinguishable in principle, commercial practice has resulted in amalgamation of charges at some ports. The Government and the devolved administrations retain powers to set dues when port users appeal against them. This is because the public right to use a harbour depends upon payment of dues. In practice appeals are very rare.

4.21.1.3 Specific financial questions

- Depreciation:

While certain guide-lines do exist these are not mandatory and there is no universal obligation to provide for depreciation on any particular basis; however, British port authorities in common with other commercial undertakings provide for depreciation on a basis approved by their auditors. At present, depreciation is calculated in a variety of ways, e.g. on a replacement or an historic cost basis, and with variations both as to asset lives and as to the allocation of depreciation within such lives. Furthermore, there are variations of practice as to whether a particular type of asset shall be depreciated or not, e.g., as regards the treatment of dredged channel beds.

There is no standard practice as regards the revaluation or writing down of assets, but port undertakings have discretion to revalue or write down assets against revenue or reserves where this is justified by physical or commercial considerations.

- Rates of Return:

New investment: Since 1984 there has been no requirement for ports to seek government sanction for new investment regardless of size.

Overall rates of return: There are no standard requirements for port undertakings as regards rates of return on their total assets, however defined. Indeed, it would be very difficult to standardise a meaningful rate of return requirement on existing asset valuations.

- Provision of facilities:

With the exception of the obligation to provide facilities for HM Customs and Immigration officials, there is no general obligation on port undertakings to provide particular facilities or services on a non-remunerative basis, although some ports are obliged to provide for port health, quarantine, immigration, security measures, etc. UK port authorities neither receive any facilities or service at less than cost, nor receive any subsidies towards the provision of services.

- Position of Port Undertakings:

UK port undertakings are liable to national and local taxation where they arise in the same way as other commercial organisations. Substantial amounts of, for example, local taxes (rates) are paid. Where port undertakings are operated profitably, such profits are subject to corporation tax, and substantial tax payment may be involved. It should however be noted that Municipal ports - a type of undertaking not very common in the UK - are exempt from corporation tax. Activities of port authorities are subject to Value Added Tax (VAT). A proportion of the services provided by them are zero rated, although in general a port authority's purchases are subject to full rates. Local taxation is payable in the form of "rates" to Local Authorities. In UK, "rates" are a form of local real estate tax. Every property is assigned a “rateable value” which is the rent which could notionally be obtained if the property were rented out. The annual rates are expressed as a percentage of this figure. This arrangement is now being applied to ports, which puts them in the same situation as any other industrial undertaking.

- Position of non Port Undertakings:

Where cargo handling or other organisations are separate from port undertakings, they are in the same taxation position as other private organisations.

- Charges/Dues:

Ship, goods and passenger charges raised by UK ports are subject to Section 31 of the Harbour Act 1964, which gives port users a right to object to the charges. Such objections are considered by the Secretary of State for Transport, who may, after an inquiry if appropriate, decide to approve the charges or give such direction as would meet the objective, and his decision or direction is effective for a period not exceeding 12 months from the date on which it is given. Apart from the position described above, charges made by harbour authorities are generally required to be reasonable and thus port users may have recourse to the Courts if they consider any such charges are unreasonable. This seldom happens in practice, since most port users pay charges which are commercially negotiated.

- Rentals:

UK port authorities are as free as any other commercial undertaking as regards the fixing of rents; it should be noted that port authorities do not receive any assistance that would enable them to charge less than "commercial" rents.

4.21.2 The degree of financial autonomy of the port authority.

See above.

4.21.3 The undertakings in the ports of the country that are obliged to maintain separate accounts in conformity with the 2000/52 Transparency Directive.

Separate accounts are prepared and sent to the Secretary of State for Transport in respect of all port authorities under Section 42 of the Harbours Act 1964 and Statutory Harbour Undertakings (Accounts etc.) Regulations 1983.

All ports are obliged to provide reports and accounts to the Secretary of State, or Scottish Ministers. In "Modern Trust Ports – a guide to good governance", the government made proposals to modernise the management of Trust ports through amendments to existing legislation. In the interim, Trust ports will be expected to regard wider publication of reports, strategy document and accounts, as an essential step in achieving compliance with this guidance. All ports are expected to detail the steps taken to arrange publication and circulation within these documents.

The government intends to enforce the requirement on every harbour authority to submit properly constructed and audited reports and accounts every year.

The Port of London Authority is the only port undertaking in the UK which falls within the scope of the Directive 2000/52. A number of other ports have a turnover in excess of the threshold in the Directive, but the UK Government takes the view that they are not "public undertakings" for the purpose of the Directive.

4.21.4 The largest port development project currently on-going in the country.

Proposals have been made by P&O Ports and Shell to redevelop the former Shell Haven oil refinery on the Thames into a deep sea container port capable of handling 3.5 million TEUs per annum and a short-sea ro-ro facility to handle 450,000 trailers per annum. It is anticipated that the facility could generate an additional 50 million tonnes of annual throughput when it achieves full capacity in approximately fifteen years time - doubling trade in the Port of London. The 1500 acre Shellhaven site is situated at Stanford-Le-Hope in Essex and has 2.5 miles of waterfront served by five jetties. The project proposals went to public inquiry and a decision is pending.

It is widely recognised that the UK faces a shortfall in deepsea container port capacity in the short term and that this in turn will affect the competitive nature of the ports and shipping industry. There are also applications for expansion at Felixstowe, Bathside Bay (Harwich) and Tilbury. Scapa Flow and Hunterston in Scotland are also evaluating proposals to develop container hub ports at their deep-water facilities.

STATISTICAL ANNEX

Final report
March, 2005

Report prepared by
European Sea Ports Organisation (ESPO)

Freight - detailled annual seaborne transport for 3 top ports - Belgium (in tonnes)*

		2000	2001	2002	2003
BELGIUM	Total freight main ports	176,417,247	171,450,088	171,234,226	178,689,104
Antwerp	Liquid Bulk goods	33,251,785	33,671,376	30,403,597	33,755,330
	Dry Bulk goods	25,268,131	24,219,980	24,992,505	22,775,799
	Large Containers	32,983,986	35,778,502	39,088,932	49,995,229
	Ro Ro, Mobile Self-propelled units	476,610	396,694	381,448	154,076
	Other Ro Ro, Mobile units	1,382,167	1,560,695	1,554,336	2,064,906
	Other Cargo, not elsewhere specified	22,625,346	19,149,940	17,516,316	17,352,750
	Sum:	115,988,025	114,777,187	113,937,134	126,098,090
Zeebrugge	Liquid Bulk goods	4,478,578	3,229,678	4,014,473	3,789,499
	Dry Bulk goods	2,384,639	2,018,838	1,768,932	1,683,329
	Large Containers	5,531,111	3,337,376	3,603,446	3,756,129
	Ro Ro, Mobile Self-propelled units	1,286,591	1,415,009	1,535,968	1,723,373
	Other Ro Ro, Mobile units	18,081,617	17,973,574	17,826,136	13,425,513
	Other Cargo, not elsewhere specified	897,438	946,315	669,760	672,779
	Sum:	32,659,974	28,920,790	29,418,715	25,050,622
Ghent	Liquid Bulk goods	2,929,718	2,813,355	3,028,363	3,219,688
	Dry Bulk goods	16,217,553	15,125,608	16,294,031	14,387,767
	Large Containers	51,835	72,951	90,417	128,712
	Ro Ro, Mobile Self-propelled units	104,451	60,506	68,534	63,103
	Other Ro Ro, Mobile units	1,204,393	1,084,821	1,256,479	2,056,673
	Other Cargo, not elsewhere specified	4,209,191	4,695,526	2,818,455	2,713,051
	Sum:	24,717,141	23,852,767	23,556,279	22,568,994

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 2 top ports - Bulgaria (in tonnes)*

		2000	2001	2002	2003
BULGARIA	Total freight main ports	na	20,192,266	20,300,179	21,357,538
Burgas	Liquid Bulk goods	na	7,352,516	6,718,102	6,879,134
	Dry Bulk goods	na	3,025,173	3,212,039	3,346,139
	Large Containers	na	101,709	156,584	219,117
	Ro Ro, Mobile Self-propelled units	na	80,972	86,142	83,563
	Other Cargo, not elsewhere specified	na	1,920,424	1,731,117	2,642,231
	Sum:	na	12,480,794	11,903,984	13,170,184
Varna	Liquid Bulk goods	na	472,058	424,916	545,170
	Dry Bulk goods	na	5,649,371	6,508,933	5,920,783
	Large Containers	na	522,875	667,063	738,128
	Ro Ro, Mobile Self-propelled units	na	6,499	374	406,813
	Other Ro Ro, Mobile units	na	412,401	349,889	8,747
	Other Cargo, not elsewhere specified	na	648,268	445,020	567,713
	Sum:		7,711,472	8,396,195	8,187,354

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Cyprus (in tonnes)*

		2000**	2001**	2002	2003**
CYPRUS	Total freight main ports	7,280,685	7,023,699	7,219,641	7,306,356
Limassol	Liquid Bulk goods	95,125	111,680	170,299	152,886
	Dry Bulk goods	763,900	777,005	785,007	689,232
	Large Containers	1,730,277	1,536,430	1,432,435	1,626,593
	Ro Ro, Mobile Self-propelled units	72,728	94,884	88,774	92,657
	Other Ro Ro, Mobile units	33,807	41,654	48,805	47,112
	Other Cargo, not elsewhere specified	339,727	345,621	346,549	394,562
	Unknown	1,321	1,521	0	2,503
	Sum:	3,036,885	2,878,795	2,871,869	3,005,545
Larnaca oil terminal	Liquid Bulk goods	1,987,800	2,032,374	1,947,123	1,893,285
	Sum:	1,987,800	2,032,374	1,947,123	1,893,285
Vassiliko	Liquid Bulk goods	208,700	289,300	402,502	383,607
	Dry Bulk goods	876,000	770,000	1,003,673	1,061,241
	Other Cargo, not elsewhere specified	4,700	12,200	5,088	5,183
	Sum:	1,089,400	1,071,500	1,411,263	1,450,031

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004
*: tare weight is not included
**: Cyprus own data

Freight - detailled annual seaborne transport for 3 top ports - Germany (in tonnes)*

		2000	2001	2002	2003
GERMANY	Total freight main ports	236,027,558	239,452,143	238,897,562	249,753,494
Hamburg	Liquid Bulk goods	11,613,864	13,609,390	11,492,817	11,656,812
	Dry Bulk goods	24,834,094	25,779,237	26,330,487	27,911,168
	Large Containers	37,137,910	40,201,670	45,991,526	51,303,748
	Ro Ro, Mobile Self-propelled units	447,963	494,232	403,832	373,880
	Other Ro Ro, Mobile units	227,267	212,087	131,945	99,931
	Other Cargo, not elsewhere specified	2,688,568	2,651,148	2,372,923	2,216,883
	Sum:	76,949,666	82,947,764	86,723,530	93,562,422
Wilhelmshaven	Liquid Bulk goods	40,411,743	37,719,056	36,711,840	36,922,831
	Dry Bulk goods	2,466,603	2,676,747	1,669,933	2,141,066
	Large Containers	39,787	243,953	273,704	275,619
	Other Cargo, not elsewhere specified	483,761	210,518	142,193	87,931
	Sum:	43,401,894	40,850,274	38,797,670	39,427,447
Bremen/Bremerhaven	Liquid Bulk goods	2129862	1662018	1669213	2023161
	Dry Bulk goods	8079487	6856146	7695761	7880989
	Large Containers	22180979	23523490	24219654	25491327
	Ro Ro, Mobile Self-propelled units	1703019	1863279	2030650	1994353
	Other Ro Ro, Mobile units	12424	11752	9039	18649
	Other Cargo, not elsewhere specified	5117801	6148971	4827215	5083827
	Sum:	39223572	40065656	40451532	42492306

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Denmark (in tonnes)*

		2000	2001	2002	2003
DENMARK	Total freight main ports	78,819,834	77,895,683	79,603,973	86,482,692
Fredericia (Og Shell-Havnen)	Liquid Bulk goods	13,630,487	13,671,233	14,445,307	14,266,200
	Dry Bulk goods	1,837,164	1,389,670	1,437,614	1,485,466
	Large Containers	114,887	120,542	138,166	156,196
	Ro Ro, Mobile Self-propelled units	36,391	35,977	39,478	17,813
	Other Ro Ro, Mobile units	163,610	195,787	205,746	238,348
	Other Cargo, not elsewhere specified	389,057	349,836	318,493	349,243
	Sum:	16,171,596	15,763,045	16,584,804	16,513,266
Aarhus	Liquid Bulk goods	1,829,578	1,774,329	1,444,511	1,599,811
	Dry Bulk goods	2,874,640	2,984,839	2,700,917	2,663,808
	Large Containers	2,065,284	2,123,200	2,161,936	2,489,807
	Ro Ro, Mobile Self-propelled units	1,547,949	1,639,195	1,873,941	1,798,255
	Other Ro Ro, Mobile units	1,310,674	1,270,696	1,271,550	1,286,588
	Other Cargo, not elsewhere specified	219,075	188,010	168,400	144,347
	Sum:	9,847,200	9,980,269	9,621,255	9,982,616
Statoil-Havnen	Liquid Bulk goods	9,005,025	8,530,390	7,612,961	8,342,066
	Sum:	9,005,025	8,530,390	7,612,961	8,342,066

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Estonia (in tonnes)*

		2000	2001	2002	2003
ESTONIA	Total freight main ports	na	na	44,674,833	45,281,189
Tallinn	Liquid Bulk goods	na	na	23,791,075	23,460,014
	Dry Bulk goods	na	na	6,016,759	5,526,550
	Large Containers	na	na	917,212	1,011,759
	Ro Ro, Mobile Self-propelled units	na	na	4,313,228	5,166,518
	Other Cargo, not elsewhere specified	na	na	1,441,212	1,815,938
	Unknown	na	na	53	3,283
	Sum:	na	na	36,479,539	36,984,062
Vene-Balti	Liquid Bulk goods	na	na	3,247,328	2,318,520
	Dry Bulk goods	na	na	64,329	71,005
	Large Containers	na	na	4,260	
	Other Ro Ro, Mobile units	na	na	10,165	
	Other Cargo, not elsewhere specified	na	na	135,274	173,372
	Unknown	na	na	10,484	
	Sum:	na	na	3,471,840	2,562,897
Miiduraana	Liquid Bulk goods	na	na	759,854	1,930,971
	Dry Bulk goods	na	na	340,484	349,664
	Other Cargo, not elsewhere specified	na	na	114,323	34
	Sum:	na	na	1,214,661	2,280,669

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Spain (in tonnes)*

		2000	2001	2002	2003
SPAIN	Total freight main ports	234,899,226	315,119,321	325,999,807	343,813,661
Algeciras	Liquid Bulk goods	na	17,187,832	17,497,363	19,958,563
	Dry Bulk goods	na	2,561,263	2,811,628	2,736,842
	Large Containers	na	19,660,613	19,975,837	23,723,509
	Ro Ro, Mobile Self-propelled units	na	966,499	943,946	1,004,258
	Other Ro Ro, Mobile units	na	11	124	231
	Other Cargo, not elsewhere specified	na	757,874	1,013,534	840,570
	Sum:	na	41,134,092	42,242,432	48,263,973
Barcelona	Liquid Bulk goods	8,967,057	9,547,057	9,496,877	10,207,045
	Dry Bulk goods	3,216,643	3,859,742	3,289,293	3,704,580
	Large Containers	10,195,736	10,594,685	8,627,134	12,010,391
	Ro Ro, Mobile Self-propelled units	1,291,829	1,362,121	1,204,294	1,488,899
	Other Ro Ro, Mobile units	1,008,508	983,973	1,067,741	1,210,358
	Other Cargo, not elsewhere specified	1,106,396	978,998	1,356,167	1,311,851
	Sum:	25,786,169	27,326,576	25,041,506	29,933,124
Valencia	Liquid Bulk goods	1,740,575	1,742,908	1,624,565	1,719,335
	Dry Bulk goods	4,643,147	5,294,353	5,797,755	5,445,212
	Large Containers	11,545,281	13,167,323	16,138,159	18,230,386
	Ro Ro, Mobile Self-propelled units	0	0	0	0
	Other Ro Ro, Mobile units	0	0	0	0
	Other Cargo, not elsewhere specified	4,029,177	4,563,781	4,920,867	5,077,275
	Sum:	21,958,180	24,768,365	28,481,346	30,472,208

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Finland (in tonnes)*

		2000	2001	2002	2003
FINLAND	Total freight main ports	75,395,005	89,491,421	92,311,900	96,679,250
Helsinki	Liquid Bulk goods	313,130	811,687	761,532	566,362
	Dry Bulk goods	889,269	1,410,359	1,258,750	1,563,124
	Large Containers	3,563,335	4,070,912	4,210,196	4,375,648
	Ro Ro, Mobile Self-propelled units	1,409,187	1,357,197	1,410,074	1,478,800
	Other Ro Ro, Mobile units	2,968,603	3,007,629	3,109,302	3,041,440
	Other Cargo, not elsewhere specified	941,599	813,245	725,015	662,941
	Sum:	10,085,123	11,471,029	11,474,869	11,688,315
Kotka	Liquid Bulk goods	1,281,452	1,160,978	1,151,544	1,247,065
	Dry Bulk goods	1,522,617	2,706,987	2,509,214	2,185,315
	Large Containers	1,499,528	1,675,007	2,095,752	2,315,294
	Ro Ro, Mobile Self-propelled units	6,174	10,076	10,652	18,768
	Other Ro Ro, Mobile units	20,362	8,606	6,892	7,421
	Other Cargo, not elsewhere specified	2,556,616	2,519,419	2,703,086	2,610,646
	Sum:	6,886,749	8,081,073	8,477,140	8,384,509
Naantali	Liquid Bulk goods	2,655,430	3,875,751	3,949,764	3,605,833
	Dry Bulk goods	852,587	953,273	1,121,612	1,198,838
	Large Containers	37	14		
	Ro Ro, Mobile Self-propelled units	1,606,543	1,571,259	1,685,091	1,852,731
	Other Ro Ro, Mobile units	120,926	83,021	86,283	86,549
	Other Cargo, not elsewhere specified	219,613	465,632	391,636	413,193
	Sum:	5,455,136	6,948,950	7,234,386	7,157,144

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - France (in tonnes)*

		2000	2001	2002	2003
France	Total freight main ports	328,969,027	309,960,995	310,989,464	323,375,700
Marseille	Liquid Bulk goods	65,119,229	63,507,042	64,147,839	65,843,726
	Dry Bulk goods	15,498,224	14,892,187	13,556,428	14,796,661
	Large Containers	5,977,640	6,020,492	6,441,529	6,710,181
	Ro Ro, Mobile Self-propelled units	489,077	464,653	569,285	547,521
	Other Ro Ro, Mobile units	1,389,812	1,436,231	1,368,922	1,337,300
	Other Cargo, not elsewhere specified	2,804,670	3,197,813	3,159,806	3,182,113
	Sum:	91,278,652	89,518,418	89,243,809	92,417,502
Le Havre	Liquid Bulk goods	44,594,980	46,576,612	41,989,638	44,612,282
	Dry Bulk goods	5,761,672	4,347,352	5,607,909	4,852,010
	Large Containers	11,373,365	12,053,366	14,002,992	16,026,231
	Ro Ro, Mobile Self-propelled units	1,885,562	2,100,254	1,973,959	1,720,572
	Other Ro Ro, Mobile units	660	983	736	1,562
	Other Cargo, not elsewhere specified	267,091	277,199	179,143	168,919
	Sum:	63,883,330	65,355,766	63,754,377	67,381,576
Dunkerque	Liquid Bulk goods	14,810,562	13,360,222	13,090,255	13,209,047
	Dry Bulk goods	25,719,098	22,994,792	25,012,266	25,786,941
	Large Containers	1,120,535	1,161,254	1,309,719	1,296,496
	Ro Ro, Mobile Self-propelled units	111	5		
	Other Cargo, not elsewhere specified	2,667,270	4,392,939	4,888,814	5,475,172
	Sum:	44,317,576	41,909,212	44,301,054	45,767,656

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - United Kingdom (in tonnes)*

		2000	2001	2002	2003
GB UNITED KINGDOM	Total freight main ports	555,611,409	549,454,655	542,103,145	538,970,573
Grimsby & Immingham	Liquid Bulk goods	28,100,297	26,714,755	25,391,114	23,334,012
	Dry Bulk goods	13,686,695	15,916,310	16,993,849	17,780,779
	Large Containers	672,186	669,227	1,364,862	993,422
	Ro Ro, Mobile Self-propelled units	905,166	1,329,505	1,509,871	1,917,384
	Other Ro Ro, Mobile units	7,222,556	8,067,163	8,155,860	9,933,142
	Other Cargo, not elsewhere specified	1,913,734	2,133,749	2,307,449	1,972,297
	Sum:	52,500,634	54,830,709	55,723,005	55,931,036
Tees & Hartlepool	Liquid Bulk goods	36,115,314	34,524,904	35,853,778	36,580,374
	Dry Bulk goods	9,302,068	11,470,129	9,978,149	12,357,457
	Large Containers	389,871	886,406	1,107,474	1,125,079
	Ro Ro, Mobile Self-propelled units	377,021	280,033	308,538	305,105
	Other Ro Ro, Mobile units	4,374,304	2,503,895	2,278,523	2,298,001
	Other Cargo, not elsewhere specified	913,566	1,176,261	921,010	1,176,314
	Sum:	51,472,144	50,841,628	50,447,472	53,842,330
London	Liquid Bulk goods	18,325,107	19,103,246	18,764,064	19,707,353
	Dry Bulk goods	14,248,216	16,471,187	16,222,309	15,005,964
	Large Containers	5,314,717	6,462,187	7,315,506	7,624,861
	Ro Ro, Mobile Self-propelled units	1,002,903	986,526	1,004,943	978,965
	Other Ro Ro, Mobile units	5,350,297	4,316,812	4,615,741	4,480,278
	Other Cargo, not elsewhere specified	3,650,724	3,314,040	3,262,516	3,230,258
	Total freight	47,891,964	50,653,998	51,185,079	51,027,679

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Greece (in tonnes)*

		2000	2001	2002	2003**
GREECE	Total freight main ports	116,378,884	103,906,179	98,598,104	67,800,279
Piraeus	Liquid Bulk goods	475,382	388,918	278,000	162,400
	Dry Bulk goods	1,312,654	1,019,397	808,427	619,378
	Large Containers	10,018,429	11,302,955	13,562,576	7,642,759
	Ro Ro, Mobile Self-propelled units	3,062,025	2,693,242	2,645,944	1,380,895
	Other Ro Ro, Mobile units	1,469,763	1,334,055	1,600,054	773,314
	Other Cargo, not elsewhere specified	174,320	153,735	120,280	47,511
	Unknown				
	Sum:	16,512,573	16,892,302	19,015,281	10,626,257
Eleusis	Liquid Bulk goods	10,318,940	10,878,563	9,633,463	6,434,141
	Dry Bulk goods	3,312,530	2,228,671	1,534,427	1,048,377
	Large Containers	389	1,138	870	
	Ro Ro, Mobile Self-propelled units	1,193	1,128	2,730	1,063
	Other Ro Ro, Mobile units	5,472	360	114	270
	Other Cargo, not elsewhere specified	1,524,781	2,004,347	1,942,847	970,882
	Unknown				
	Sum:	15,163,305	15,114,207	13,114,451	8,454,733
Thessaloniki	Liquid Bulk goods	6,614,666	7,879,125	7,644,045	3,902,615
	Dry Bulk goods	2,132,258	2,140,878	2,384,536	1,198,990
	Large Containers	2,448,806	2,152,756	2,372,213	1,132,234
	Ro Ro, Mobile Self-propelled units	188,425	80,203	64,256	20,801
	Other Ro Ro, Mobile units	68,269	80,090	21,973	9,626
	Other Cargo, not elsewhere specified	1,858,686	1,569,981	1,224,236	673,613
	Unknown				
	Sum:	13,311,110	13,903,033	13,711,259	6,937,879

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

** Data for 2003: first two quarters only

Freight - detailled annual seaborne transport for 3 top ports - Ireland (in tonnes)*

		2000	2001	2002	2003
IRELAND	Total freight main ports	34,678,294	37,188,070	40,503,854	41,504,904
Dublin	Liquid Bulk goods	3,341,875	3,479,668	3,438,424	3,493,628
	Dry Bulk goods	1,588,532	1,856,918	1,351,000	1,720,752
	Large Containers	4,175,733	3,304,056	3,392,207	3,702,774
	Ro Ro, Mobile Self-propelled units	3,000,265	3,313,411	3,649,151	3,759,049
	Other Ro Ro, Mobile units	3,536,254	3,611,203	3,582,613	3,806,677
	Other Cargo, not elsewhere specified	249,282	216,442	143,273	199,122
	Sum:	15,891,941	15,781,698	15,556,668	16,682,002
Limerick	Liquid Bulk goods	1,609,261	2,081,235	1,791,707	1,583,049
	Dry Bulk goods	7,362,694	8,447,400	8,452,960	8,331,671
	Other Cargo, not elsewhere specified	82,085	179,500	173,287	187,440
	Sum:	9,054,040	10,708,135	10,417,954	10,102,160
Cork	Liquid Bulk goods	6,364,688	6,360,275	5,969,881	5,879,102
	Dry Bulk goods	1,556,027	1,639,527	1,765,060	1,707,105
	Large Containers	969,277	926,909	956,022	1,140,365
	Ro Ro, Mobile Self-propelled units	174,112	120,654	110,418	106,588
	Other Ro Ro, Mobile units	17,291	20,227	23,780	23,874
	Other Cargo, not elsewhere specified	650,918	378,814	216,881	318,870
	Sum:	9,732,313	9,446,406	9,042,042	9,175,904

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Italy (in tonnes)*

		2000	2001	2002	2003
ITALY	Total freight main ports	427,437,197	423,883,919	440,349,366	462,740,795
Genova	Liquid Bulk goods	18,044,724	18,727,321	19,452,541	20,456,330
	Dry Bulk goods	10,115,618	8,799,577	5,366,871	4,856,590
	Large Containers	11,101,161	10,921,498	10,989,582	11,982,921
	Ro Ro, Mobile Self-propelled units	1,790,231	1,673,152	755,293	1,204,764
	Other Ro Ro, Mobile units	1,533,473	1,851,217	3,650,855	5,288,014
	Other Cargo, not elsewhere specified	1,212,030	1,160,801	4,193,352	3,160,344
	Sum:	43,797,237	43,133,566	44,408,494	46,948,963
Trieste	Liquid Bulk goods	35,231,392	36,468,715	35,570,686	34,240,058
	Dry Bulk goods	3,189,970	3,351,650	3,183,631	2,543,218
	Large Containers	1,512,717	1,568,169	1,398,280	1,022,521
	Ro Ro, Mobile Self-propelled units	1,545,914	1,569,833	1,557,575	1,561,738
	Other Ro Ro, Mobile units	1,068,796	1,213,098	1,511,552	1,643,801
	Other Cargo, not elsewhere specified	1,465,728	540,535	494,852	554,244
	Sum:	44,014,517	44,712,000	43,716,576	41,565,580
Taranto	Liquid Bulk goods	6,659,427	7,207,140	5,259,361	5,772,836
	Dry Bulk goods	22,714,749	21,447,247	17,671,769	16,679,156
	Large Containers	93,484	1,225,734	3,285,165	4,892,737
	Ro Ro, Mobile Self-propelled units	2,201	34,332		15,490
	Other Ro Ro, Mobile units	1,070	2,324	1,127	1,840,726
	Other Cargo, not elsewhere specified	3,646,270	3,707,744	6,244,891	6,103,946
	Sum:	33,117,201	33,624,521	32,462,313	35,304,891

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for top port - Lithuania (in tonnes)*

		2000	2001	2002	2003
LITHUANIA	Total freight main ports		20,953,072	24,423,154	30,242,398
Klaipeda	Liquid Bulk goods	na	10,361,626	12,980,863	17,726,394
	Dry Bulk goods	na	2,390,603	4,426,550	4,872,644
	Large Containers	na	394,787	583,711	860,744
	Ro Ro, Mobile Self-propelled units	na	20,109	21,902	23,263
	Other Ro Ro, Mobile units	na	279,280	98,500	91,650
	Other Cargo, not elsewhere specified	na	3,201,545	2,287,987	2,359,185
	Unknown	na	4,305,122	4,023,641	4,308,518
	Sum:	na	20,953,072	24,423,154	30,242,398

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Latvia (in tonnes)*

		2000	2001	2002	2003
LATVIA	Total freight main ports	na	56,016,800	50,976,200	53,816,900
Ventspils	Liquid Bulk goods	na	29,496,400	20,538,800	18,441,400
	Dry Bulk goods	na	7,398,200	7,605,500	7,995,400
	Large Containers	na		800	30,700
	Ro Ro, Mobile Self-propelled units	na	37,800	44,000	237,200
	Other Cargo, not elsewhere specified	na	1,004,300	514,100	609,600
	Sum:	na	37,936,700	28,703,200	27,314,300
Riga	Liquid Bulk goods	na	3,649,400	5,357,300	5,044,500
	Dry Bulk goods	na	5,045,400	6,689,300	9,801,100
	Large Containers	na	972,500	1,128,300	1,243,400
	Ro Ro, Mobile Self-propelled units	na	67,400	291,900	585,300
	Other Ro Ro, Mobile units	na	111,500	67,900	95,900
	Other Cargo, not elsewhere specified	na	4,973,400	4,420,800	4,874,600
	Sum:	na	14,819,600	17,955,500	21,644,800
Liepaya	Liquid Bulk goods	na	587,200	887,600	1,077,400
	Dry Bulk goods	na	512,300	799,200	1,063,200
	Large Containers	na	26,000	33,200	33,500
	Ro Ro, Mobile Self-propelled units	na	379,100	491,900	659,900
	Other Ro Ro, Mobile units	na	158,300	163,000	141,200
	Other Cargo, not elsewhere specified	na	1,597,600	1,942,600	1,882,600
	Sum:	na	3,260,500	4,317,500	4,857,800

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Netherlands (in tonnes)*

		2000	2001	2002	2003
NETHERLANDS	Total freight main ports	403,231,114	404,037,452	411,613,076	408,777,866
Rotterdam	Liquid Bulk goods	145,254,841	146,839,714	152,035,492	149,436,112
	Dry Bulk goods	87,394,901	82,495,502	81,354,248	83,382,663
	Large Containers	51,335,966	48,662,884	51,838,311	55,498,095
	Ro Ro, Mobile Self-propelled units	7,724,485	9,107,347	9,304,519	9,409,282
	Other Ro Ro, Mobile units	2,623,297	1,100,152	966,017	1,274,154
	Other Cargo, not elsewhere specified	8,151,994	8,414,640	7,245,840	8,353,108
	Sum:	302,485,484	296,620,239	302,744,427	307,353,414
Amsterdam	Liquid Bulk goods	13,595,396	15,818,527	16,251,314	12,224,328
	Dry Bulk goods	25,321,632	29,141,507	29,096,102	25,298,175
	Large Containers	584,943	593,286	538,528	503,068
	Ro Ro, Mobile Self-propelled units	345,930	329,523	286,297	297,608
	Other Ro Ro, Mobile units	39,700	23,916	10,637	6,697
	Other Cargo, not elsewhere specified	2,156,456	2,165,758	2,277,103	2,427,558
	Sum:	42,044,057	48,072,517	48,459,981	40,757,434
Velsen/Ijmuiden	Liquid Bulk goods	82,261	85,167	87,855	243,615
	Dry Bulk goods	16,231,514	15,948,717	15,915,946	15,080,525
	Large Containers	48	20	4,318	0
	Ro Ro, Mobile Self-propelled units	60,410	136,342	173,953	190,554
	Other Ro Ro, Mobile units	11,584			
	Other Cargo, not elsewhere specified	2,878,722	2,740,753	3,242,926	2,751,534
	Sum:	19,264,539	18,910,999	19,424,998	18,266,228

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Norway (in tonnes)*

		2000	2001	2002	2003
NORWAY	Total freight main ports	na	na	170,647,571	164,087,300
Bergen	Liquid Bulk goods	na	na	80,917,865	71,768,982
	Dry Bulk goods	na	na	2,104,541	2,137,584
	Large Containers	na	na	104,261	150,553
	Ro Ro, Mobile Self-propelled units	na	na	94,550	87,608
	Other Ro Ro, Mobile units	na	na	782	9,190
	Other Cargo, not elsewhere specified	na	na	2,121,788	2,251,846
	Sum:	na	na	85,343,787	76,405,763
Narvik	Sum:	na	na	13,000,831	14,145,158
	Liquid Bulk goods	na	na	191	290
	Dry Bulk goods	na	na	12,922,597	14,074,300
	Large Containers	na	na	38,549	43,008
	Ro Ro, Mobile Self-propelled units	na	na	30	
	Other Ro Ro, Mobile units	na	na	2	41
	Other Cargo, not elsewhere specified	na	na	39,462	27,519
Karmsund	Sum:	na	na	12,869,346	13,505,094
	Liquid Bulk goods	na	na	8,477,142	9,174,176
	Dry Bulk goods	na	na	2,128,618	2,334,613
	Large Containers	na	na	52,439	55,185
	Ro Ro, Mobile Self-propelled units	na	na	1,269,716	1,113,464
	Other Ro Ro, Mobile units	na	na	13,966	20,568
	Other Cargo, not elsewhere specified	na	na	927,465	807,088

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Poland (in tonnes)*

		2000	2001	2002	2003
POLAND	Total freight main ports	na	45,983,000	47,916,900	50,712,000
Gdansk	Liquid Bulk goods	na	6,590,200	6,015,600	10,733,500
	Dry Bulk goods	na	8,504,100	9,206,000	8,112,800
	Large Containers	na	157,300	157,300	150,800
	Ro Ro, Mobile Self-propelled units	na	70,100	65,800	102,300
	Other Ro Ro, Mobile units	na	900	10,900	52,300
	Other Cargo, not elsewhere specified	na	1,647,900	1,710,400	2,170,800
	Sum:	na	16,970,500	17,166,000	21,322,500
Gdynia	Liquid Bulk goods	na	654,600	682,700	586,400
	Dry Bulk goods	na	3,456,000	3,711,800	3,238,500
	Large Containers	na	1,800,800	1,880,500	2,307,400
	Ro Ro, Mobile Self-propelled units	na	243,900	431,500	561,100
	Other Ro Ro, Mobile units	na	524,900	517,800	366,700
	Other Cargo, not elsewhere specified	na	1,668,000	2,049,900	2,673,000
	Sum:	na	8,348,200	9,274,200	9,733,100
Szczecin-Swinoujscie	Liquid Bulk goods	na	896,800	1,046,800	722,000
	Dry Bulk goods	na	13,431,800	11,901,800	10,749,000
	Large Containers	na	161,500	186,400	220,800
	Ro Ro, Mobile Self-propelled units	na	1,172,000	1,293,500	1,427,900
	Other Ro Ro, Mobile units	na	634,000	437,900	460,800
	Other Cargo, not elsewhere specified	na	2,490,100	4,537,500	3,761,700
	Sum:	na	18,786,200	19,403,900	17,342,200

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Portugal (in tonnes)*

		2000	2001	2002	2003
PORTUGAL.	Total freight main ports	54,862,278	54,806,250	54,371,118	55,305,754
Sins	Sum:	19,957,311	19,604,186	19,632,900	20,859,797
	Liquid Bulk goods	14,264,915	14,897,646	14,255,133	15,439,500
	Dry Bulk goods	5,686,567	4,680,404	5,350,861	5,396,242
	Large Containers				294
	Ro Ro, Mobile Self-propelled units		1,122		
	Other Ro Ro, Mobile units				551
	Other Cargo, not elsewhere specified	5,829	25,014	26,906	23,210
Leixoes	Liquid Bulk goods	7,841,659	7,354,488	6,831,395	7,471,315
	Dry Bulk goods	2,089,940	2,072,393	2,105,599	2,226,060
	Large Containers	2,149,361	2,250,971	2,298,826	2,526,739
	Ro Ro, Mobile Self-propelled units	30,096	26,863	16,365	8,464
	Other Ro Ro, Mobile units	5,430	73,549	1,991	959
	Other Cargo, not elsewhere specified	852,044	826,264	707,828	532,157
	Sum:	12,968,530	12,604,528	11,962,004	12,765,694
Lisboa	Liquid Bulk goods	1,743,457	1,708,248	1,627,225	1,452,351
	Dry Bulk goods	5,334,301	4,892,838	4,963,589	4,790,122
	Large Containers	3,141,603	3,493,495	3,898,724	4,541,171
	Ro Ro, Mobile Self-propelled units	39,950	23,774	11,224	12,400
	Other Ro Ro, Mobile units				164
	Other Cargo, not elsewhere specified	492,964	488,771	583,803	457,415
	Sum:	10,752,275	10,607,126	11,084,565	11,253,623

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 2 top ports - Romania (in tonnes)*

		2000	2001	2002	2003
ROMANIA	Total freight main ports	na	na	30,239,000	33,898,000
Constanta	Liquid Bulk goods	na	na	9,554,000	9,771,000
	Dry Bulk goods	na	na	13,345,000	16,219,000
	Large Containers	na	na	1,197,000	1,704,000
	Other Cargo, not elsewhere specified	na	na	4,382,000	4,469,000
	Sum:	na	na	28,478,000	32,163,000
Galati	Liquid Bulk goods	na	na	29,000	140,000
	Dry Bulk goods	na	na	112,000	123,000
	Other Cargo, not elsewhere specified	na	na	1,620,000	1,472,000
	Sum:	na	na	1,761,000	1,735,000

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for 3 top ports - Sweden (in tonnes)*

		2000	2001	2002	2003
SWEDEN	Total freight main ports	141,577,964	136,066,598	134,702,423	141,605,627
Goteborg	Liquid Bulk goods	19,909,704	19,901,455	18,377,170	17,793,830
	Dry Bulk goods	308,760	169,257	177,348	250,797
	Large Containers	5,622,243	5,735,939	6,231,558	5,249,219
	Ro Ro, Mobile Self-propelled units	2,987,563	2,995,927	3,248,677	3,296,452
	Other Ro Ro, Mobile units	4,234,463	4,091,225	4,197,986	5,710,319
	Other Cargo, not elsewhere specified	197,963	70,977	61,215	55,842
	Sum:	33,260,696	32,964,780	32,293,954	32,356,459
Brofjorden Scanraff	Liquid Bulk goods	19,302,488	17,789,903	15,961,237	19,439,521
	Dry Bulk goods			5,207	
	Sum:	19,302,488	17,789,903	15,966,444	19,439,521
Trelleborg	Liquid Bulk goods	64,179	73,067	64,342	79,447
	Dry Bulk goods	22,001	16,657	39,226	63,926
	Ro Ro, Mobile Self-propelled units	6,217,748	6,380,439	6,915,929	7,158,201
	Other Ro Ro, Mobile units	4,023,216	3,377,832	3,314,219	3,353,584
	Other Cargo, not elsewhere specified	7,052	541	1,912	338
	Sum:	10,334,196	9,848,536	10,335,628	10,655,496

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

Freight - detailled annual seaborne transport for top port - Slovenia (in tonnes)*

		2000	2001	2002	2003
SLOVENIA	Total freight main ports	na	9,109,880	9,245,910	10,720,483
Koper	Liquid Bulk goods	na	1,885,601	1,898,747	1,897,807
	Dry Bulk goods	na	5,111,734	5,004,644	6,288,909
	Large Containers	na	876,767	1,106,711	1,222,979
	Ro Ro, Mobile Self-propelled units	na	46,391	23,670	21,875
	Other Ro Ro, Mobile units	na	35,153	39,703	8,461
	Other Cargo, not elsewhere specified	na	1,154,234	1,172,435	1,280,452
	Sum:	na	9,109,880	9,245,910	10,720,483

Source: Eurostat, unit D4 - Energy and transport statistics Database, 11/2004

*: tare weight is not included

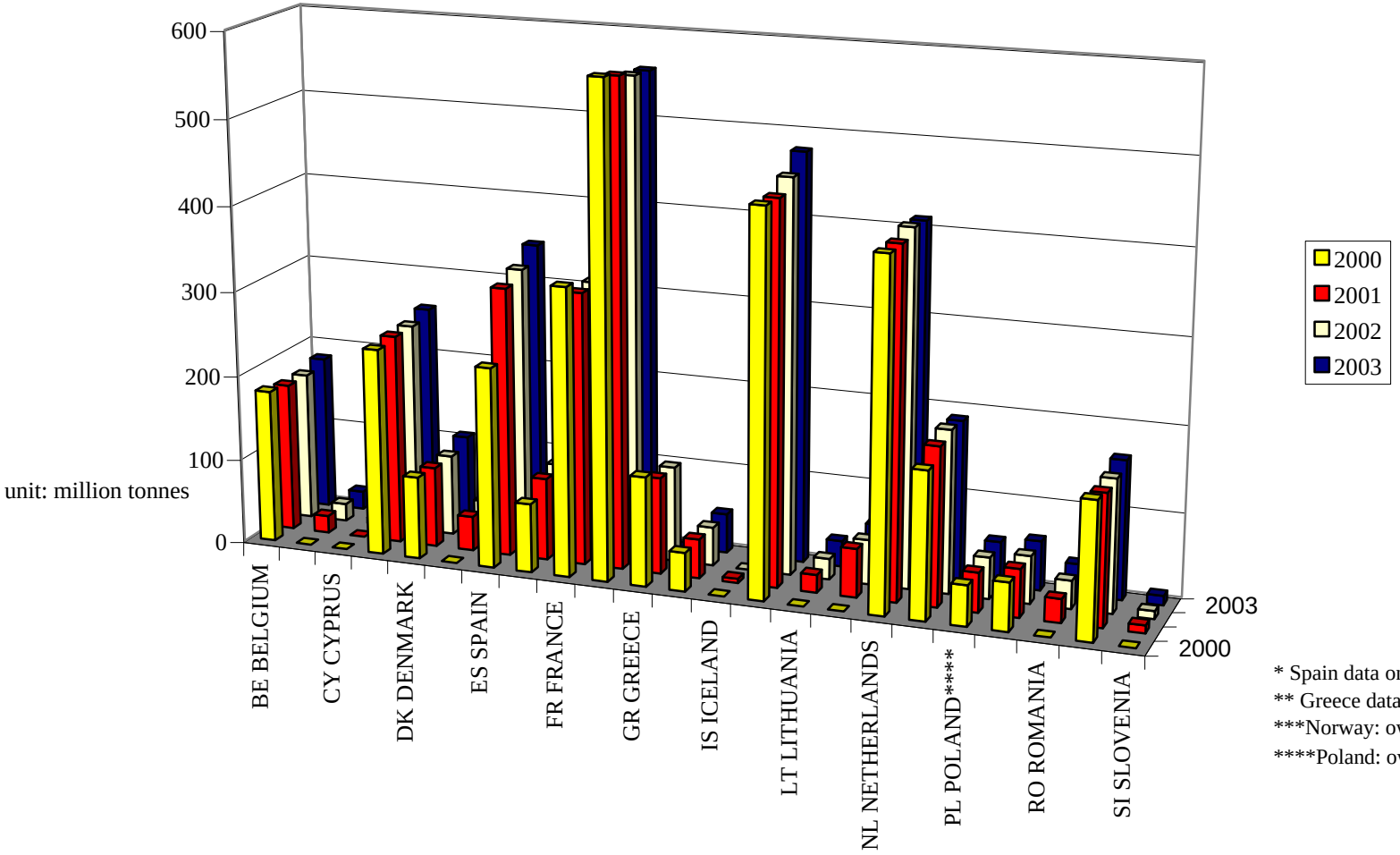
Number of ports in Europe in 2003

Country	Number of ports (Goods and passengers)	Ports> 1mio Tons traffic
BE BELGIUM	7	4
BG BULGARIA	2	2
CY CYPRUS	5	3
DE GERMANY	84	17
DK DENMARK	121	24
EE ESTONIA	5	5
ES SPAIN	27	26
FI FINLAND	52	22
FR FRANCE	68	21
GB UNITED KINGDOM	121	49
GR GREECE*	205	23
IE IRELAND	21	7
IT ITALY	123	42
LT LITHUANIA	1	1
LV LATVIA	4	3
NL NETHERLANDS	56	10
NO NORWAY	71	21
PL POLAND	13	5
PT PORTUGAL	11	6
RO ROMANIA	7	3
SE SWEDEN	109	29
SI SLOVENIA	3	1
TOTAL	1116	324

* Greek figures for 2002

Source: Eurostat, unit D4 - Energy and transport statistics database

Total cargo throughput of European ports (per country)



* Spain data only for the autonomous ports
** Greece data for first 2 quarters of 2003
***Norway: own figures for 2000 and 2001
****Poland: own figures for 2000

Source: Eurostat, unit D4 - Energy and transport statistics database

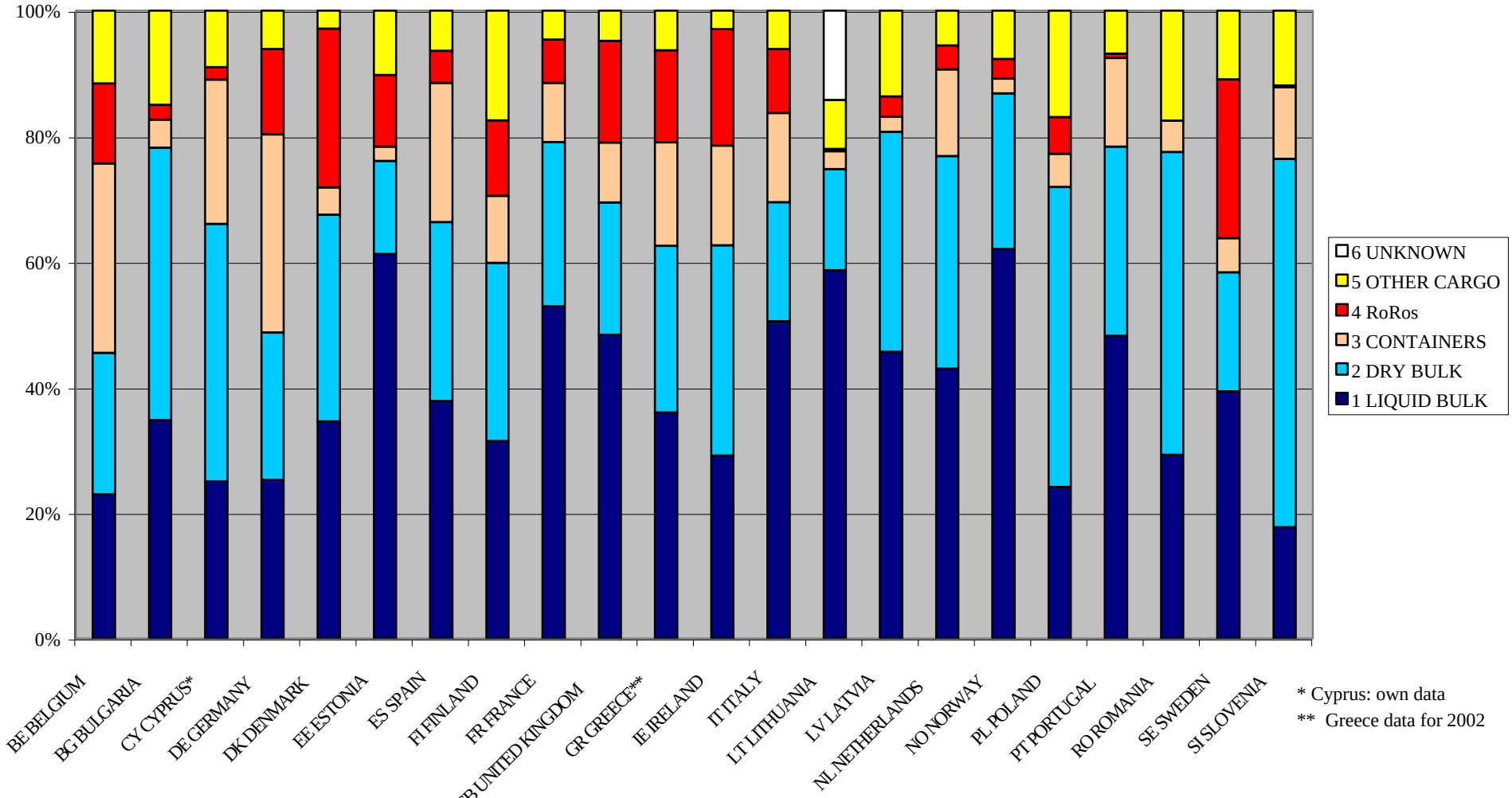
Seaborne transport: gross weight of goods handled in all ports (major and small) - in million tonnes

Year	2000		2001		2002		2003	
Direction	**1 INWARDS**	**2 OUTWARDS**	**1 INWARDS**	**2 OUTWARDS**	**1 INWARDS**	**2 OUTWARDS**	**1 INWARDS**	**2 OUTWARDS**
BE BELGIUM	110.9	68.4	107.0	67.2	104.6	69.2	103.9	77.2
BG BULGARIA	na	na	11.9	8.3	11.6	8.8	12.7	8.7
CY CYPRUS	na	na	na	na	5.6	1.6	5.7	1.8
DE GERMANY	152.2	90.3	156.5	89.6	153.9	92.4	159.2	95.6
DK DENMARK	52.9	43.7	51.7	42.3	50.4	43.9	56.9	47.0
EE ESTONIA	na	na	3.8	36.6	3.7	41.0	4.7	42.4
ES SPAIN*	171.6	63.3	229.4	85.7	241.0	85.0	249.6	94.1
FI FINLAND	41.1	39.6	50.7	45.4	51.5	47.6	57.4	47.1
FR FRANCE	243.9	92.6	231.8	86.4	232.8	86.2	237.3	92.9
GB UNITED KINGDOM	316.3	256.7	328.9	237.5	320.8	237.5	323.8	231.9
GR GREECE**	75.3	52.5	63.4	49.1	59.5	51.6	na	na
IE IRELAND	31.7	13.6	32.6	13.2	32.2	12.7	33.2	12.9
IS ICELAND	na	na	3.1	1.8	na	na	na	na
IT ITALY	315.2	131.5	318.4	126.4	322.8	135.1	334.8	142.2
LT LITHUANIA	na	na	3.5	17.5	3.8	20.6	4.1	26.1
LV LATVIA	na	na	2.5	54.3	3.3	48.7	3.8	50.9
NL NETHERLANDS	315.9	90.0	317.3	88.5	318.1	95.2	318.5	91.8
NO NORWAY***	59.0	112.4	63.5	121.2	65.4	124.6	62.8	124.0
PL POLAND****	15.8	31.5	14.7	31.5	14.9	33.2	15.2	35.8
PT PORTUGAL	43.8	12.6	43.8	12.4	42.8	12.8	42.8	14.7
RO ROMANIA	na	na	14.5	13.1	15.4	17.3	18.7	17.3
SE SWEDEN	86.8	72.5	82.9	69.9	84.1	70.5	88.6	72.9
SI SLOVENIA	na	na	6.7	2.5	6.7	2.6	7.7	3.1

*** Spain data only for the major ports**
**** Greece data for first 2 quarters of 2003**
*****Norway: own figures for 2000 and 2001**
******Poland: own figures for 2000**

Source: Eurostat, unit D4 - Energy and transport statistics database

Share of types of cargo handled (inward and outward) in main ports in 2003



* Cyprus: own data
** Greece data for 2002

Source: Eurostat, unit D4 - Energy and transport statistics database/CY own adaptation

Top 15 ports - on the basis of gross weight of goods handled (in 1000 tonnes)

	2001		2002		2003	
1	Rotterdam - NL	296,620	Rotterdam - NL	302,744	Rotterdam - NL	307,353
2	Antwerpen - BE	114,777	Antwerpen - BE	113,937	Antwerpen - BE	126,098
3	Marseille - FR	89,518	Marseille - FR	89,244	Hamburg - DE	93,562
4	Hamburg - DE	82,948	Hamburg - DE	86,724	Marseille - FR	92,418
5	Le Havre- FR	65,356	Bergen - NO*	71,741	Bergen - NO*	76,406
6	Grimsby & Immingham - GB	54,831	Le Havre- FR	63,754	Le Havre- FR	67,382
7	Tees & Hartlepool - GB	50,842	Grimsby & Immingham - GB	55,723	Grimsby & Immingham - GB	55,931
8	London - GB	50,654	London - GB	51,185	Tees & Hartlepool - GB	53,842
9	Amsterdam - NL	48,073	Tees & Hartlepool - GB	50,447	London - GB	51,028
10	Trieste - IT	44,712	Amsterdam - NL	48,460	Algeciras - ES	48,264
11	Genova - IT	43,134	Genova - IT	44,408	Genova - IT	46,949
12	Dunkerque - FR	41,909	Dunkerque - FR	44,301	Dunkerque - FR	45,768
13	Forth - GB	41,607	Trieste - IT	43,717	Bremen/Bremerhaven - DE	42,492
14	Algeciras - ES	41,134	Algeciras - ES	42,242	Trieste - IT	41,566
15	Wilhelmshaven - DE	40,850	Forth - GB	42,202	Amsterdam - NL	40,757

*: Norway reported for the 1st time in 2002

Source: Eurostat, unit D4 - Energy and transport statistics database

Container cargo in European ports (per country) in 2003

Country	Total TEU (Full and empty)
BE BELGIUM	5,793,790
BG BULGARIA	170,734
CY CYPRUS	255,000
DE GERMANY	9,554,043
DK DENMARK	521,934
EE ESTONIA	103,064
ES SPAIN	8,622,397
FI FINLAND	1,118,495
FR FRANCE	3,415,682
GB UNITED KINGDOM	7,391,557
GR GREECE**	960,240
IE IRELAND	869,523
IT ITALY	7,824,888
LV LATVIA	264,251
NL NETHERLANDS	7,224,244
NO NORWAY	511,155
PL POLAND	330,470
PT PORTUGAL	1,004,366
SE SWEDEN	1,034,665
SI SLOVENIA	194,447

***Greece data only for first 2 quarters of 2003**

Source: Eurostat, unit D4 - Energy and transport statistics database/BE, CY and SE: own adaptations

2003 - Top 20 container ports

Port 2003 Data	TEU
Rotterdam - NL	7,117,729
Hamburg - DE	6,126,274
Antwerpen - BE	5.445.436
Bremen/Bremerhaven - DE	3,190,675
Gioia Tauro - IT	3,094,002
Felixstowe - UK	2,481,569
Algeciras - ES	2,024,168
Le Havre - FR	2,014,611
Valencia - ES	2,012,312
Barcelona - ES	1,765,448
Piraeus - GR*	1,605,135
Genova - IT	1,590,915
Southampton - UK	1,375,008
Las Palmas, Gran Canaria - ES	966,084
London - UK	911,000
La Spezia - IT	835,728
Marseille - FR	835,242
Goteborg - SE	598,211
Liverpool - UK	564,927
Taranto - IT	564,285

*** Greece: own data for 2003, Eurostat data for first 2 quarters of 2003: 802,847**

Source: Eurostat, unit D4 - Energy and transport statistics database/BE, Piraeus, London: own adaptation

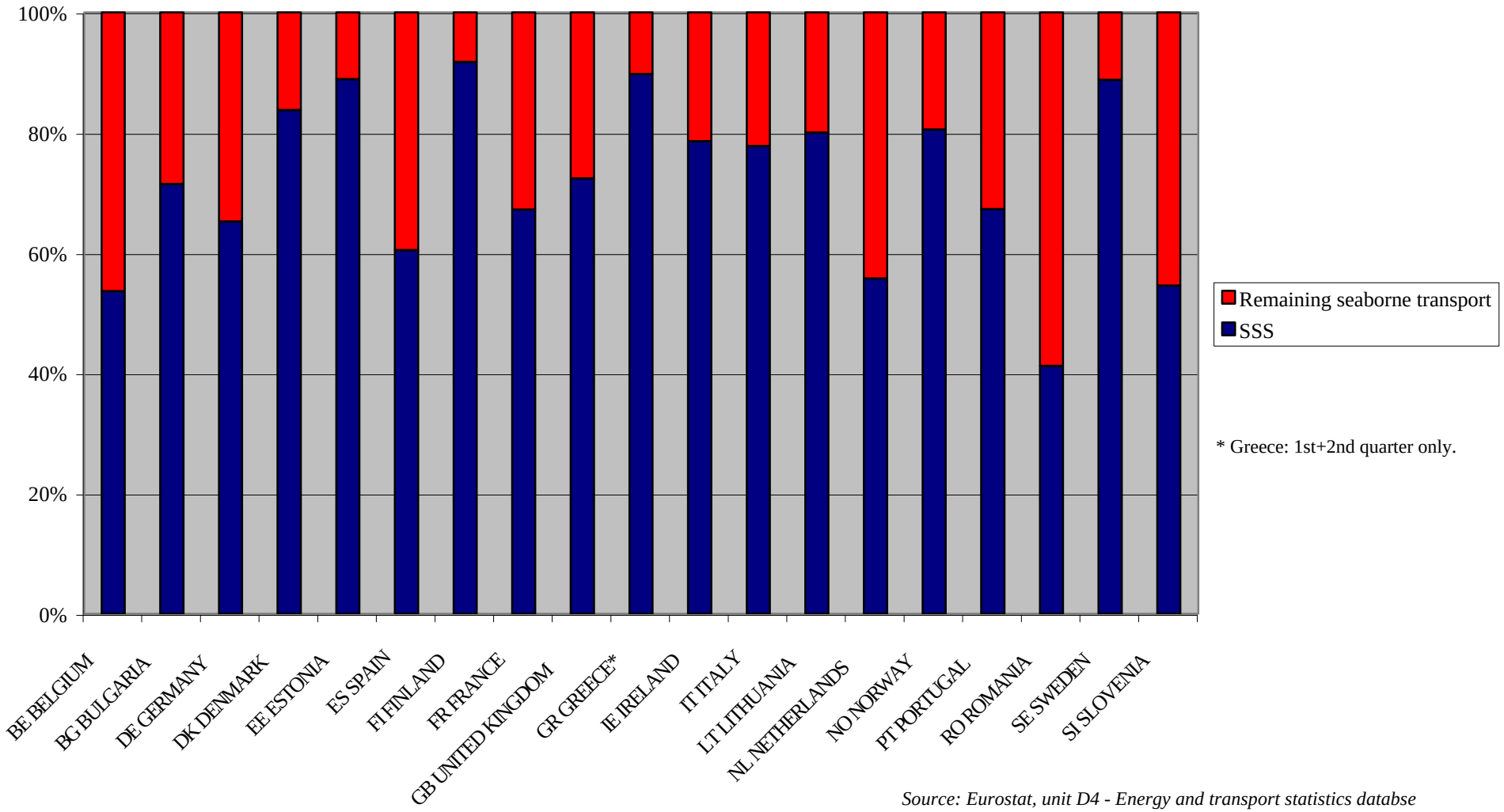
Passengers traffic in European ports (per country)

Country	Passengers traffic in 2003
BE BELGIUM	739,306
BG BULGARIA	3,862
CY CYPRUS	287,225
DE GERMANY	32,145,989
DK DENMARK	48,652,513
EE ESTONIA	5,172,277
ES SPAIN*	20,041,355
FI FINLAND	16,341,273
FR FRANCE	27,404,613
GB UNITED KINGDOM	33,707,627
GR GREECE**	101,183,071
IE IRELAND	3,746,946
IT ITALY	82,575,808
LT LITHUANIA	135,035
LV LATVIA	118,029
NL NETHERLANDS	2,014,627
NO NORWAY	4,656,183
PL POLAND	3,188,187
PT PORTUGAL	615,881
SE SWEDEN	32,748,320
SI SLOVENIA	46,957

*** Spain dat only for the major ports**
**** Greece data for 2002**

Source: Eurostat, unit D4 - Energy and transport statistics database

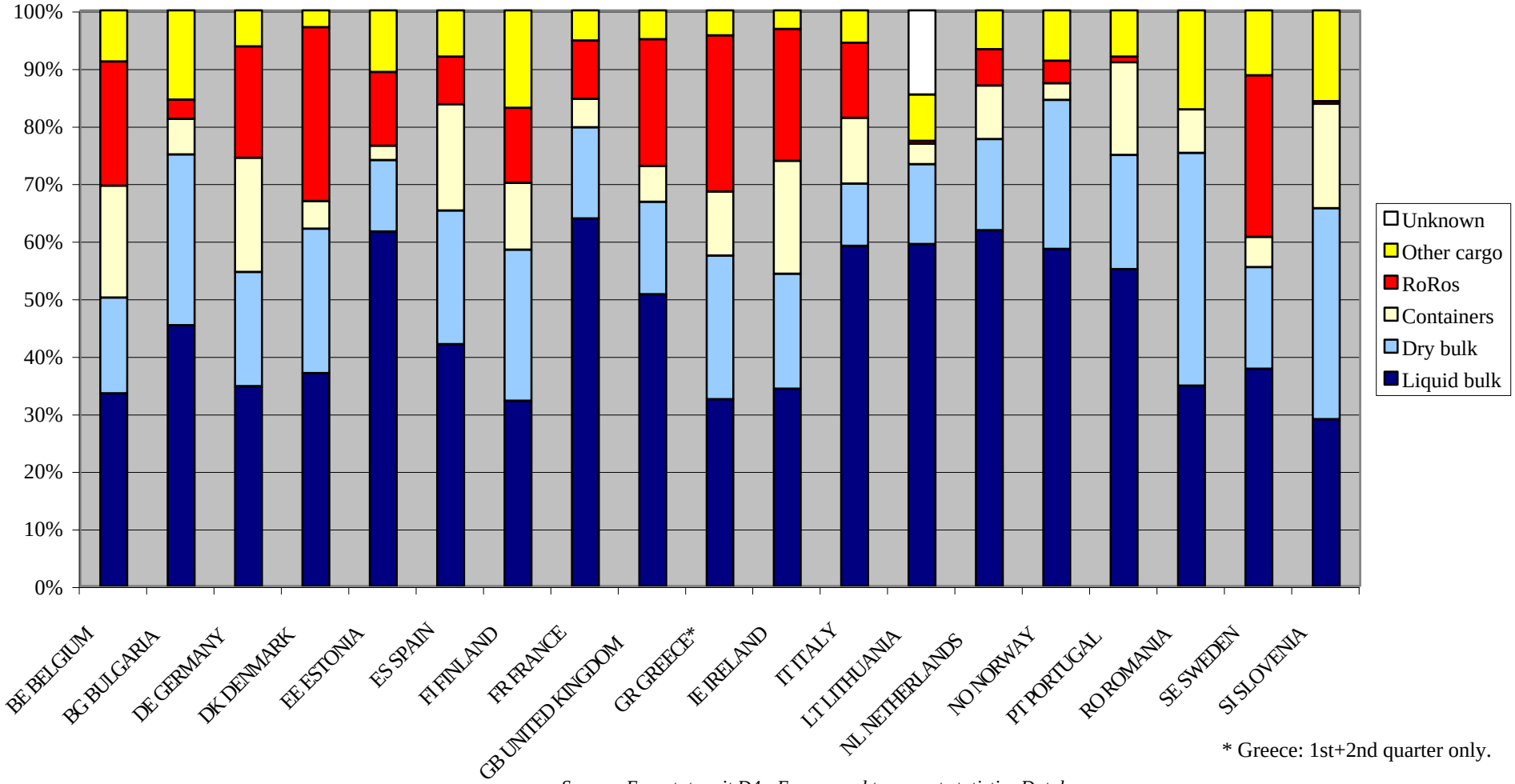
Share of Short Sea Shipping in total annual tonnage turnover in 2003 (in %) in major ports



* Greece: 1st+2nd quarter only.

Source: Eurostat, unit D4 - Energy and transport statistics databse

Shares of types of cargo handled (inward and outward) in Short Sea Shipping (in % of total cargo handled) in major ports in 2003



* Greece: 1st+2nd quarter only.

Source: Eurostat, unit D4 - Energy and transport statistics Database