CONCLUSIONS

- The economic and employment impacts of the Finnish maritime cluster are very significant and extend to the whole society.
- The maritime cluster includes marine industries, shipping businesses, port operations and associated activities. Networking is deemed to be very useful and it is being developed. Companies seek to deepen their co-operation into partnerships.
- The internationalization of the maritime cluster has increased significantly. Finnish compa-nies have expanded their operations abroad and foreign ownership in Finnish companies has increased. The maritime cluster is a dynamic growth sector.
- Sea transport via Finnish ports is growing annually. Since 2001 growth has averaged 18 per cent. Well functioning sea transport under all conditions is of crucial importance for Fin-land.
- The volume of sea transport is growing each year, but the share of Finnish ships has de-creased. Increasing Finland's merchant fleet will require the exploitation of the possibilities allowed by the EU to their full extent. The most urgent measures are reforms of the tonnage tax system and allowing the use of ship acquisition reserves.
- The share of the merchant fleet registered in Finland handling Finnish sea transport has decreased and the age of ships is high. Expanding and renewing Finland's merchant fleet will require swift reforms of the tonnage tax system.
- Sea transport and shipping activities must be seen primarily as independent businesses, not just as part of the foreign trade transport chain.
- The strength of the maritime cluster is built on technology. The leading companies on world markets both in ship engines and cargo handling equipment are Finnish. Finland also has numerous leading companies in special fields of marine technology.
- Finland ranks among the top four countries as a builder of cruise and passenger ships and the world's most specialized country in terms of the export shares of these ships compared to other countries.
- The shipbuilding industry spawns new technology companies and products. Ships under construction include a lot of technology and innovations are made in ship projects.
- Ports and sea transport activities play a significant role in Finland's foreign trade. Some 90% of our exports and 70% of our imports are transported by sea. From the standpoint of many production plants the proximity of a port is a key factor of competitiveness.
- Russia might grow to be the largest economy in Europe by 2030. If Finnish ports maintain their market shares, the ports will gain more shipping activities equivalent to almost three times that of Vuosaari.
- The maritime cluster is an entity the future success of which will hinge on all of its compo-nents remaining strong in Finland.

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FINNISH MARITIME CLUSTER 2008

THE AUTHORS OF THE STUDY THANK COMPANIES PARTICIPATING IN THE STUDY!

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FINNISH MARITIME CLUSTER 2008

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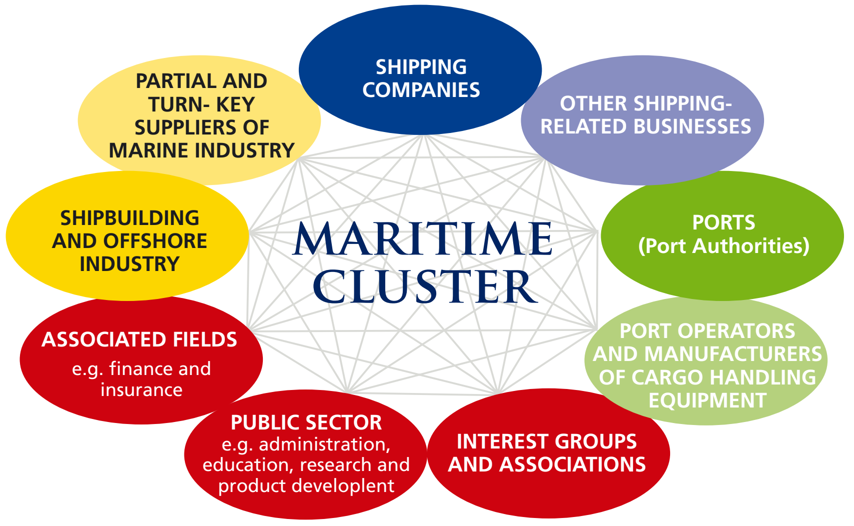
The Finnish maritime cluster consists of an operative whole formed by numerous maritime busi-nesses. The companies and other entities belonging to the cluster function in close interaction with each other and thus benefit from this network. The maritime cluster includes marine industries, shipping and port operations in the private and public sectors. One of the main aims of the Finnish Maritime Cluster 2008 study is to update the information regarding statistics and competitiveness in the first maritime cluster study. The aim is also to increase the awareness of the significance of the maritime cluster in Finland and to promote its development. The study has been carried out by the Centre for Maritime Studies, University of Turku, and Etlatieto Oy.

In the study an extensive questionnaire was directed to Finnish maritime cluster companies in or-der to evaluate changes that have occurred in recent years and future prospects. This was sup-plemented by interviews of the companies' top management in order to obtain their views on com-petitiveness and strategic analysis from within the maritime cluster. The interviews were focussed on the major maritime cluster companies in such a way that the regional and functional coverage were as good as possible. The study covers 385 maritime cluster companies that responded to the questionnaire, participated in interviews or were otherwise taken into account.

Maritime cluster's economic significance and employment effects

There are about 2,900 companies in the Finnish maritime cluster, including municipal port authori-ties. The data obtained in the questionnaires were supplemented by data from Statistics Finland and other registers. The combined turnover of all activities directly related to the maritime sector was about 13.2 billion euro, i.e. almost 2 billion euro more than in 2001. The maritime cluster employs about 43,400 persons in activities directly related to the maritime sector. The impact of the maritime cluster extends directly and indirectly to almost all sectors and very widely to the whole society. Taking into account the indirect effects extending to the whole country, there are at least 500,000 persons in the sphere of the employment effects of the maritime cluster.



Maritime Cluster
The core consists of the marine industry (yellow), shipping and shipping-related businesses (blue) and port operations (green).

COMPANY QUESTIONNAIRE:

The companies were asked for key figures as well as information and views on future business prospects and labour demand, customer relations, co-operation between companies, competitive situation and changes in demand.

The topics of the interviews also included globalization, significance of the operative environment and actions desired for development of the maritime cluster.

A list of the main companies and those interviewed is presented in an appendix of the research report.

	Number of companies	Turnover MEUR	Share of maritime sector %*	MEUR	Employees	Share of maritime sector %*	No.
Main companies	385	20,200	44	**8,880**	69,550	43	**30,040**
Other maritime cluster companies	2,482	86,920	5	**4,350**	267,440	5	**13,370**
Total	2,867	107,120		**13,230**	336,990		**43,410**

The maritime sector denotes activities related to companies' navigation, maritime industry and port operations.
The main companies include those that responded to the questionnaire, participated in interviews or were otherwise taken into account.

*The percentage share for the main companies is a weighted average (weighted by company size) based on data pro-vided by the companies or otherwise available for maritime sector activities. For the other maritime companies, the per-centage share is estimated on the basis of their share of the maritime sector.

There were a total of 385 maritime cluster companies from assorted sectors that responded to the questionnaire, participated in interviews or were otherwise taken into account. The figures of these main companies are presented in the table below.

	Number of companies	Turnover MEUR	Share of maritime sector %*	MEUR	Employees	Share of maritime sector %*	No.
Shipbuilding	5	1,350	100	**1,350**	5,000	100	**5,000**
Other marine industry	196	10,640	28	**2,970**	31,900	26	**8,420**
Shipping Companies	66	2,460	100	**2,460**	9,560	100	**9,560**
Other shipping related businesses	57	3,120	21	**640**	15,360	9	**1,440**
Ports	30	240	100	**240**	900	100	**900**
Port operators	28	530	96	**510**	4,460	96	**4,300**
Manufacturers of cargo handling equipment	3	1,860	39	**720**	2,370	45	**1,070**
Total	385	20,200	44	**8,880**	69,550	43	**30,040**

*The percentage figures are weighted averages of the subgroups of the maritime cluster while the shares of the main groups in the maritime sector are always deemed to be 100 per cent.

Maritime cluster 2001-2008

Compared to the previous maritime cluster study, the internationalization of companies has in-creased significantly. Finnish companies have sought partners from abroad and expanded their operations there. The number of foreign companies operating in Finland has grown and several Finnish maritime cluster companies from different sectors have shifted to foreign ownership. The maritime cluster is a dynamic growth sector.

Specialization and networking are key themes in the strategies of maritime cluster companies. Companies seek to deepen their cooperation with other companies into partnerships. Special know-how combined with seamless collaboration form the basis of the future of the Finnish mari-time cluster.

High technological and professional know-how are characteristic of the Finnish maritime clus-ter. The availability of professionally-skilled blue collar labour will be a challenge in the future as well that e.g. the educational system must address. Supply and demand must be made to match better than at present, which requires closer co-operation between companies and schools. The significance and need for continuing professional education is emphasized.

Special know-how about arctic conditions in ship construction, shipping operations as well as in port operations is a specific strength of the Finnish maritime cluster companies. The proximity to Russia and its rapidly growing transport are an asset to all activities in the maritime cluster.

Future growth prospects are bright. Globalization increases the marine transport while increas-ing leisure time combined with growing wealth spur demand for cruise packages.

The competitiveness of the maritime cluster

The strength of the maritime cluster is technology. The leading companies on world markets for ship engines and cargo handling equipment are Finnish. Finland also has numerous lead-ing companies in special fields of marine technology. Finland ranks among the top four countries as a builder of cruise and passenger ships and the world's most specialized country in terms of the export shares of these ships compared to other countries. Unique know-how has helped Finland remain a shipbuilding country.

The shipbuilding industry spawns new technology companies and products. Ships under construc-tion include a lot of technology and innovations are made in ship projects. Examples of technol-ogy already having reached world market leadership are the azimuth thrusters of ships, waste management systems, fire prevention technology and design programs. In the future companies in the marine industry will increase the servicing activity and pre-emptive maintenance of their prod-uct areas internationally.

In shipping operations, Finland could strengthen its position if the taxation of shipping companies and crew costs were eased to the level of its competitor countries. Shipping companies have in-deed been forced to seek competitiveness via unique specialization. Despite this, a significant part of shipping companies have ended up in foreign ownership. The most promising operating field of shipping companies is in the Baltic Sea, where marine transports are growing at a record pace in the wake of expanding Russian imports and exports.

The livelihood of ports depends on Finnish foreign trade and they compete for transit shipping to and from Russia. Forest industry exports could decrease by over 20 per cent if the importing of raw timber from Russia stops, but will probably recover when the domestic wood supply is increased. Making production more efficient will increase metal industry imports. The capacity of the oil indus-try has been increased and bio-oil investments are on forthcoming. New mines also increase ex-ports. However, growth is fastest in the Russian transit shipping. Russia might grow to be the larg-est economy in Europe by 2030. If Finnish ports maintain their market shares, our ports will gain more shipping activities equivalent to almost three times that of Vuosaari.