



PRESENT STATE ANALYSIS

Phase 1 in research project:

Future of shipping in Finland 2015 and beyond

PBI Research Institute

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EXECUTIVE SUMMARY

Historically, there have been large Finnish shipping companies with liner traffic even outside of Finland, strongly supported by local industry (FÅA/Effoa, Finnlines). Due to inflexibility of labour unions, cost pressure and globalization, Finnish industry has looked elsewhere and increasingly shifted to foreign suppliers. In the same time, shipowners have increasingly flagged out their vessels. As a consequence, the percentage of Finnish tonnage handling exports/imports has decreased (from 50% in the 70's to 30% in 2010).

Structural changes in the industry have caused changes in material flows and strictening environmental regulations are feared to further enhance this development; i.e. to move production away from Finland. Recent developments have led to overcapacity of vessels globally and as a consequence; poor profitability for most segments in shipping, as well as bankruptcies and consolidation among shipping companies. The image of shipping in Finland is considered poor and the government is criticized for poor competitiveness of shipping compared to other European countries; moreover, Finnish harbours are criticized for inefficiency. However, with the new tonnage tax and existing subsidies, it appears difficult to further improve the competitiveness through political means.

Shipping is too often analysed and developed from a limited shipping point of view, instead of as an extensive part of many industrial companies' cost structure with high value adding potential. The main aim of this research project is to develop business models together with shipping companies, which bring added value to the customers and help improve the profitability of both parties on a long term perspective. For this purpose, the current business models of selected shipping companies have been analysed and feedback has been gathered from shipowners, customer representatives and other stakeholders to determine the present state of Finnish shipping, as well as the customers' future expectations and needs.

The overall conclusion from the present state analysis is that there is today too little cooperation between the shipping companies on the one hand, and with the customers and stakeholders on the other hand. Through more dialogue and long term cooperation instead of short-term optimization, logistical solutions could be co-created that would benefit the customers, the shipping companies and the Finnish society at large. The shipping companies in general need a more positive attitude towards developing innovative, flexible and environmental-friendly solutions together to the benefit of their customers, which means rather fighting the competition from other countries and means of transportation than each other.

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1. INTRODUCTION

1.1. Background

Finnish shipping is facing challenges in terms of low profitability due to poor market conditions, aging fleet and strictening environmental regulations. As a consequence, the shipping companies need to review their offerings and business models to ensure future competitiveness. Varustamosäätiö is a relatively new foundation which aims at supporting the education-, research- and information related activities around shipping, as well as contribute to a positive development of the circumstances around Finnish shipping. Varustamosäätiö assigned PBI Research Institute to carry out a research assignment, spanning over one year, with the title “Future of shipping in Finland 2015 and beyond”.

1.2. Aim

The overall aim of the research project is to support Finnish shipowners in their strategic planning by creating a vision regarding the future and providing guidelines for achieving it, as well as creating sustainable business models to support it. For this purpose it is necessary to outline the prerequisites for shipping to form a strategic part of the customer’s value chain, as well as to strengthen the cooperation within Finnish shipping to ensure competitiveness against alternatives. Another aim is to outline the conditions under which shipping could be competitive without subsidies.

1.3. Method

The research process consists of three stages; a present state analysis, which is reported in this report, forming a strategy for future shipping and finally, recommendations and next steps. The stages and their time schedules are presented in the picture below.



Picture 1: The research project stages

For the present state analysis, 13 shipowners were interviewed: 11 domestic and two others for benchmarking purposes. The two other companies were Wagenborg and Transatlantic, which can be regarded as competitors of the Finnish shipowners in that they are active in the same markets and are employed by the Finnish industry. These are analysed more in the thesis of Annika Rinne, which will be finalized in the summer of 2012. In addition, some stakeholder interviews were performed, namely interviews with the Ministry of Transport and Communications (LVM) as well as the Ministry of Employment and the Economy (TEM) and Finnvera, representing a financier. PBI Russia also carried out four interviews with representatives of shipping companies in Russia. A list of interviewees is provided below.

Company	Interviewee	Position	Date
MSC	Anton Nazarov	Managing Director	18.11.2011
MSC	Vitaliy Akchurin	Deputy of Head of Intermodal Department	23.12.2011
Seago Line	Sergey Mukhin	Managing Director	08.12.2011
Damco	Ivan Karasev	Leading Specialist	19.12.2011
ESL Shipping	Markus Karjalainen	CEO	16.1.2012
Neste Shipping	Niko Ristikankare	CEO	16.1.2012
Containerships	Kimmo Nordström	Chairman of the Board	19.1.2012
Alfons Håkans	Joakim Håkans	CEO	25.1.2012
Langh Ship	Hans Langh	CEO	26.1.2012
Meriaura	Jussi Mälkiä	CEO	2.2.2012
Lundqvist Rederier	Ben Lundqvist	CEO	14.2.2012
Godby Shipping	Dan Mikkola	CEO	14.2.2012
Dennis Maritime	Dennis Saari	Captain owner	21.2.2012
Transatlantic	Patrik Dahl	Head of Short Sea Bulk Division	24.2.2012
Prima Shipping	Christian Grönqvist	CEO	29.2.2012
Bore	Thomas Franck	CEO	2.3.2012
Wagenborg	Albert Engelsman	Senior Manager Shipping Division	16.3.2012
Satamaliitto	Markku Mylly	Director of unit	20.3.2012
Liikennevirasto	Juhani Tervala	Director General	17.4.2012
Finnvera	Riitta Leppäniemi	Senior adviser, responsible for ship finance	20.4.2012
TEM	Risto Paaermaa	Director	27.4.2012
LVM	Tero Jokilehto	Director of unit	9.5.2012

Table 1: List of interviewees

All interviews were recorded, transcribed and summarized. A business model canvas was made for each shipping company based on the interviews. These are found as appendix to the power point presentation distributed together with this report. The canvas template used is based on Alexander Osterwalder's model (Osterwalder & Pigneur, Business Model Generation, 2009) and has been modified by PBI to better suit the purpose; i.e. shipping business. The template (below) provides a one-page overview of the strategy, customers and market areas, offering and earning logic of the shipping company.

Main market areas and market development			Strategy and ownership	
Customer Segments	Shipping Routes/Harbours	Offering / Value Proposition	Assets	Pricing Mechanism
	Material Flows	Partners & Collaboration		
Risks			Possibilities	

Picture 2: Modified version of Osterwalder’s business model canvas template

Based on the interview material, business model canvases, an on-line survey for shipowners and customers, as well as other related reports and statistics, a present state analysis of Finnish shipping has been made. The findings are described in the next section of this report.

2. FINDINGS AND ANALYSIS

Finnish shipping can be said to be at a crossroad. The recession in 2009 hit shipping hard and many companies saw a sharp fall in profits, from which they have not yet fully recovered. Freight rates still remain low, in comparison to the situation before the recession, and competition for contracts is fierce. Furthermore, the average age of the Finnish fleet is higher than that of other shipping nations. The new environmental regulations coming into effect in a few years, mainly the 2015 0.1% sulphur limit in the SECA, but also the stictening NOx and ballast water regulations, call for a need of investments in the fleet. Upgrading very old vessels is often not economically viable, which is why also newbuildings are needed. However, few companies have the money for this after some rough years and financing is harder to come by than before, as the banks have become more risk aversive after the financial crisis. In addition, it appears that the industrial customers are more reluctant than before to make long contracts regarding their logistical solutions, rather they want to optimize the costs on a relatively short term, 1-3 years.

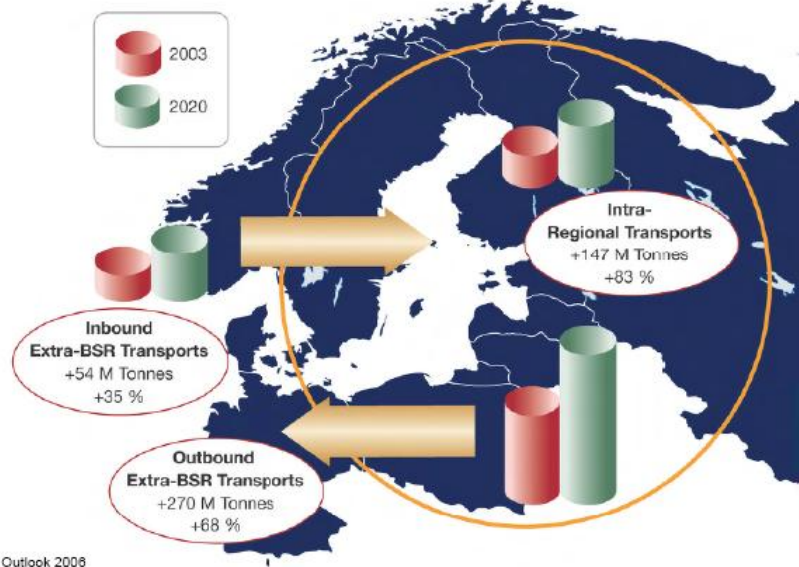
On a positive side, Finland has finally managed to get the tonnage tax in place, which puts Finland in a similar position as other countries, which have already had the system in use. This has been very well received by the shipowners, and results of this are already seen in terms of flagging in vessels and orders for newbuildings. The shipping industry is already quite heavily subsidized by the government, and due to strict EU-rules regarding subsidies and competition, there are few things that can be done by the government to further support the industry. What it boils down to is the need for shipowners and shipping companies to constantly develop their offering to and cooperation with the clients, in order to develop sustainable business models that match their needs and outperform competition.

In the next chapters the material flows to and from Finland, as well as the development of the Russian market are described. The feedback gathered through interviews and an on-line questionnaire is summarized.

2.1. Material flows in main market areas

An increase in the material flows in the Baltic Sea is expected, as is described in the picture below. Especially the intra-regional and outbound transports are anticipated to grow significantly. Exports by sea transport are growing faster than e.g railroad.

Growth in transport flows expected



Picture 3: Expected growth in transport flows to and from the Baltic Sea region (source: Baltic Maritime Outlook 2006)

According to the report “Baltic Transport Outlook 2030”, the Baltic dry cargo market is expected to grow over 40% by 2030 due to growing trade for mining, biofuels and Russian coal export. The largest increase is for container transport with an increase of 135% from 2010 to 2030. Raw materials are increasingly transported in containers for easy transloading to e.g. China. Ro-Ro services are expected to grow by 49 % and other vessel types by 30%. Finally, liquid bulk is estimated to decrease by 8 % between 2010 and 2030, due to a lowered demand for oil as an energy source.

Especially the material flows to and from Russia are expected to increase by 50%, also due to the Russian WTO membership. This is discussed more below.

2.1.1. Finnish market development

In 2011 the total volume of Finnish exports and imports was 107 M tons, showing a growth of 4% compared with the previous year. 84% was transported by sea, showing a growth of 6% (road transport meanwhile dropped 9%).

The Finnish export industry is still dominated by the forest industry, which accounted for 41% of the total exports volume, although paper volumes are overall decreasing. For example UPM is shifting focus from paper to biofuels. However, they stated earlier this spring that the energy tax reduction will cause an increase in production in Finland by 150 000 tons (Kauppalehti). Oil products were exported to the amount of 7 M tons in 2011. Ore and metal products also account for a large

part of Finnish exports, showing a growth of 10% in 2011. Imports are energy-dominated, as crude oil and oil products form the major part, followed by coal and coke.

The main countries of destination for exports are Sweden and Germany, of which exports to the latter declined in 2011. On the other hand, exports to Russia increased 14% and to China, 81%. Regarding imports, Russia dominates heavily, followed by Sweden and Norway. Although the exports to Russia are increasing, there is a strong imbalance between export and import.

Mining activities are picking up in Finland and volumes are expected to increase to about 5 M tons, benefitting mainly Kemi, Raahe and Kokkola harbours. Outokumpu's purchase of Inoxum from ThyssenKrupp is, although criticized by some, expected to raise the output of stainless steel in Finland.

2.1.2. Russian market opportunities

The Russian market for transportation services is rapidly developing. Based on statistics, desk studies and interviews with local representatives of shipping companies, the main trends related to maritime transportation taking place in the North-Western region of Russia were analyzed in order to identify opportunities for Finnish shipowners and shipping companies. The structure of import and export was examined. The key trend is that the volumes of transportation of cargoes in containers are increasing with a very high pace. Today containers stand at the first place in import cargo flows and at the third place in export cargo flows. Moreover, this type of cargo also has the highest growth rate (10-12% pa). Russian membership in WTO will also support this trend as customs duties for most imported goods, which are transported in containers, will be lowered until 2015. Secondly, the global trend, which also takes place in Russia, is conversion of cargoes. More and more cargoes, which earlier have been transported in bulk carriers or other types of vessels (e.g., such cargoes as fertilizers, ore, frozen meat and fish, steel products, fruits and some others), are now transported in special types of containers. Thirdly, a significant amount of money is invested in construction of new terminals in Ust-Luga and St.Petersburg. Major investments go to terminals for liquid cargoes, especially oil and oil products, and to terminals for containers. This fact will work for increasing volumes of cargo transportation in the North-Western basin. Finally, redirection of cargo flows takes place in the Baltic Sea. New ports are developed by global container shipping companies in the Baltic region, i.e. port of Gdansk and port of Klaipeda. This fact will lead to the situation when not only big transshipment ports as Antwerp, Rotterdam and Hamburg but also East European ports will take deep sea long lever touches. This will lead to increased volumes of short-sea container shipping services in Baltics (using both feeder and huge DWT vessels). Reasons mentioned above lead to the conclusion that short-sea container

shipping services have the most significant potential for growth and bring good opportunities for market players.

Another opportunity is related to stronger cooperation with vertically integrated Russian exporters of steel and coke. Today there is a tendency to control Russian export flows on the territory of Russian Federation. That is why many holdings invest in development of logistical infrastructure for own needs, i.e. buy rail cars, create special companies, which are responsible for logistics, build/buy own terminals or even buy ports in order to get control over whole logistical chain. However, the shipping part of the chain is controlled only by few of these holdings, thus they need reliable shipping solutions. Some major connections between Russian exporters and Russian or foreign shipping companies have been established already, however, as export flows are rapidly increasing, the need for new shipping solutions will be also increasing, thus providing opportunities for also other companies with the right offering and contacts to enter the market.

2.2. Shipowner business models

The business models of the studied shipowners shared some similarities but also many differences. All except one were mainly active in the Baltic region, and most companies dealt with bulk cargos, serving the same customer segments, i.e. mainly the forest- and metals industries. The exceptions were Neste Oil and Lundqvist Rederier, who are active in the tanker segment. Lundqvist also differs from the rest in that their operations are fully outside of Finland. The sizes of the fleets and the vessels vary greatly, from 2000 dwt (Meriaura, Dennis Maritime) to 56 000 dwt (ESL). Even the biggest Finnish actors are small compared with the foreign competition. The main cost item for all is bunker, followed by personnel costs. The companies try to control the former through optimizing speed and filling the vessels to a maximum, and the latter through using mixed crews when appropriate.

The percentage of owned versus chartered vessels varies, but it appears that a balance of both models is the best and most flexible alternative. Chartering vessels provides a bigger flexibility to adjust the activity based on demand than owning vessels, which after reaching a certain age may be hard to get rid of to a decent price, as the case has been recently. On the other hand, charter rates may vary significantly based on the market situation. In many cases part of the own fleet is under Finnish flag and part is flagged outside of Finland, but for example Godby's seven vessels all carry the Finnish flag.

Company ownership also plays a part in the chosen business model. Family owned companies are usually in the business long-term and may have lower profit requirements than e.g. listed companies. On the other hand, some companies remain quite small, as they are run more like families than businesses and appear to

lack the interest to grow. Wagenborg is an interesting example of a family-owned company, which has grown significantly and today runs a large fleet of 180 vessels, thanks to the captain owner system. They have also diversified their activities and have terminals, agencies abroad, cranes etc. but want to control everything themselves. Godby Shipping is another example of a family-owned company, which has again focused very strongly on one business model, chartering vessels long-term to one customer, with whom vessels have been co-designed.

Contracting forms vary from longer contracts (more than 3 years) to shorter ones (maximum or even less than one year), depending on the customers and whether it is a time-charter contract, contract of affreightment or project delivery. Most shipping companies are also active on the spot market in order to employ their vessels maximally. Meriaura also has longer contracts, but is specialized on special transports and large projects, as they are the most profitable. Meriaura has taken up on the market opportunity offered through the massive investments in offshore windfarms, which require special vessels for installing the foundations and turbines, by ordering a new vessel for this purpose.

Perhaps the biggest differences in the applied business models can be found in the offered services. E.g. Neste Shipping is focusing quite much on developing their services portfolio, through introducing e.g. bunker trading and inspections activities. Transatlantic, Containerships, Meriaura and Prima Shipping all offer door-to-door services, which are however delivered in different ways. Transatlantic works through a partner network and in addition offers IT solutions, Containerships has trucks of its own and a harbor in St. Petersburg. Meriaura operates with the help of other companies belonging to the same group as well as outside parties, and Prima Shipping has its own harbor in Tolkiš and offers services through Prima Logistics.

The competitive advantages of the companies vary largely: from ESL being “lean and mean” in their operations to Containerships promoting itself as a one-stop-shop, Bore offering new, fuel efficient vessels, Dennis and ESL having self-unloaders, Langh Ship offering special cradle solutions, to Meriaura’s focus on specialization. In many of the interviews conducted for this report, Meriaura was especially mentioned as an example (often the only example) of an innovative, fearless and successful shipowner, of which developing waste-based bio-oil as ship fuel is only one example. Also Langh Ship stands out in terms of innovation with its many patents, self-cleaning systems etc. Langh Ship also has other strong legs, besides chartering out ships, with their cleaning business and special containers.

It can be concluded that in general it is recommended to have more than one business model, to avoid being too dependent on one customer or product. Further, offering other services besides shipping may prove more profitable, as is illustrated by the picture below. For example, about half of the turnover of Containerships comes from land transport.

Figure 2

Container shipping industry value chain and segment definition

	Shipment origination, routing and capacity procurement	Provide containers	Provide and operate vessels	Load and unload shipments	Inland delivery ^a
Key Activities	<ul style="list-style-type: none"> • Customer sales • Shipment routing • Capacity procurement • Customer service • Billing • Tracking 	<ul style="list-style-type: none"> • Ownership of containers • Storage and maintenance • Repositioning 	<ul style="list-style-type: none"> • Ownership of vessel • Operation of vessel 	<ul style="list-style-type: none"> • Terminal control (ownership or lease) • Terminal operation • Container handling 	<ul style="list-style-type: none"> • Control of trucks • Ownership of railroads • Container handling
Competitor types	<ul style="list-style-type: none"> • Container carriers • Forwarders / NVOCCs 	<ul style="list-style-type: none"> • Container carriers • Container leasing companies 	<ul style="list-style-type: none"> • Container carriers • Outsourced/ third party • Dry leases • Wet leases 	<ul style="list-style-type: none"> • Container carriers • Captive terminal operators • Third-party terminal operators 	<ul style="list-style-type: none"> • Railroads • TL truckers • Drayage truckers • Container carriers (limited)
Total revenue	\$32 billion	\$8 billion	\$102 billion	\$35 billion	\$28 billion
Historical growth (Revenue '97-'07 CAGR)	10%	11%	7%	11%	7%
Estimated ROCE ^b	50%	9%	3%	25%	34%

Notes: ^a Defined as inland portion of itinerary purchased by customer (e.g., port gate to door); does not include transload market.

^b ROCE = return on capital employed calculated at EBIT (earnings before interest and taxes) divided by net working capital plus book value of plant and equipment.

Source: MergeGlobal analysis and estimates.

Picture 4: Example regarding revenues for different services (source: MergeGlobal analysis and estimates)

2.3. Questionnaire to shipowners

Those shipowners who were not interviewed face-to-face received an on-line questionnaire. The questionnaire was sent out to 14 respondents, of whom 10 replied (response rate 71%).

The main customer group of the respondents today and in the future (3-10 years) is the forest industry and the main market areas now and in the future are the Nordic countries, Baltic States and Russia. The global shipping volumes are by most of the respondents expected to grow within the next 3-10 years, whereas the Finnish volumes are seen as steady or declining, portraying a more pessimistic view than that by the customers (see next chapter). This is most probably due to the fact that the forestry volumes are predicted to decrease, whereas the sample of customers who responded to the survey mainly represents the metals segment. Regarding changes in the material flows, the shipowners predict some changes mainly in terms of less volume especially for paper. The passenger market on the other hand is predicted to grow by the majority, especially to the Baltic States and Russia. Customer needs regarding logistical services are predicted to change by the majority of respondents. Regarding growth of own company, 70% indicate that they

aim for a moderate growth, the main strategy for which is to increase the fleet. Both newbuildings and second-hand vessel purchase are planned. New vessels entering the market should be energy-efficient. 56% (5/9) of the respondents are planning to enter into new business areas, such as LNG, Russian market or offshore, and half are planning to introduce new services.

When asked about the competitive situation in the Baltic region, all respondents felt that there is strong competition, mainly from Germany and the Netherlands. The competitive advantage of Finnish shipping is not clear to most respondents, but some feel that ice-class tonnage and knowledge of ice conditions is an advantage compared to competition. The main competitive disadvantage is the high cost of labour. In order to improve the competitiveness of Finnish shipping, the respondents suggest more innovativeness, more cooperation and coordination between stakeholders and increasing the cost-efficiency of labour. Overall the view is quite pessimistic, as the respondents see few opportunities. On the other hand, listing threats appears to be easier, such as competition outside EU, sulphur emission directives and foreign ownership. The strictening environmental regulations are by the majority seen as a threat to the business, but some also see them as opening up new opportunities. The solution to the 2015 problem varies; some do not know how they will solve it, a few others plan to use marine diesel, LNG or install scrubbers.

The majority of the respondents indicate that there is not enough cooperation between the different parties involved in shipping in Finland, as is stated by one respondent: *“The whole industry should cooperate much more!”*.

2.4. Questionnaire to customers

An on-line questionnaire was sent to the main exporting and importing companies in Finland in April 2012. The questionnaire was sent out to 57 companies, of which 19 replied (response rate 33%). When interpreting the results, it needs to be considered that the vast majority of the respondents represent the metals segment. Based on the responses, it appears that both the export and import volumes are increasing or steady, as only a few respondents indicate a decline. As can be expected, shipping will remain the main transportation method, followed by trucks. Europe is the main market but its importance is declining in favour of Asia. There is also a weak signal that Russia will increase in importance. Some material flow changes are expected, such as increasing flows outside of Europe but also growing volumes in Europe. The strictening environmental regulations are seen mainly as a threat, or their impact is unknown. Rising costs are feared.

The price of services is seen as the main criteria for choosing a supplier for shipping, followed by the services offering and the reliability of the company. It does not appear to be of great significance whether the shipping company is

domestic or not. In that light it is interesting that 85% of respondents state that the Finnish shipping companies offer better value for money. As the main advantages of domestic companies, the responses vary from the knowledge of the local circumstances to flexibility and understanding customer needs better. On the other hand, the Finnish shipping companies have a disadvantage in the smaller fleets, lack of competitiveness for longer routes and even taking the domestic customers for granted.

Liner traffic or contracts of affreightment are the most used contracting forms and 1-3 years the most often used contracting time period. The willingness to commit to a certain supplier for a longer time period in exchange for new investments and commitment to supply chain productivity improvements is based on this sample not very big, but it is not ruled out, as 59% replied maybe.

About half of the customers indicate that their logistical requirements will change, as they will for example outsource or need more storage capacity, areas where shipping companies could work out a solution if deemed interesting. The customers express interest especially in developing new cooperation models and door-to-door services, which are offered by some shipping companies already. Ro-ro, lo-lo and container vessels are seen as the most interesting vessel types for the customers' future logistical needs. The main features that are looked for are fuel efficiency and ice travelling features. Overall, more cooperation is called for between ship owners but also with the customers.

“Ship owners should be ready to negotiate with customers about contract and cooperation models, not stay so tightly within old models”.

2.5. Solutions to the strictening environmental regulations

The SECA requirements bring with them a need to review the fuel utilized by the vessels with traffic in these areas, as continuing to use HFO is not an option. Instead of actively trying to find a solution to the problem, many shipowners appear to have been applying a wait-and-see attitude, hoping for a postponement, the prospect of which has been highly unlikely from the start. Now the discussion is whether the EU could grant some form of support to the shipowners in order to cope with the matter.

One reason for the little action in the matter has been the lack of viable alternatives. Diesel oil is an expensive alternative, and there is a fear that availability will become a problem, thus pressing up the price even more.

Scrubbers have been offered as the solution by suppliers such as Wärtsilä, but have so far only been installed on a few vessels and it is claimed that the solution is not yet ready. Moreover, the investment is expensive and is therefore not considered for older vessels. Retrofitting scrubbers is also feared to change the balance of the vessels.

Biofuels are being investigated, but so far there is not a solution applicable for vessels. Meriaura is a frontrunner in developing a vessel for installing offshore wind mills, which is to be partly run on biooil from their own plants, but is quite alone so far.

Most shipowners see LNG as the most viable future solution to meet the environmental regulations. There are, however, some open questions regarding this. One is the aging fleet, for which a conversion to LNG-engines is deemed as too expensive and means that new vessels are needed. The other is the present lack of and high costs of building infrastructure for LNG.

The picture below illustrates the present LNG infrastructure and plans in SECA.

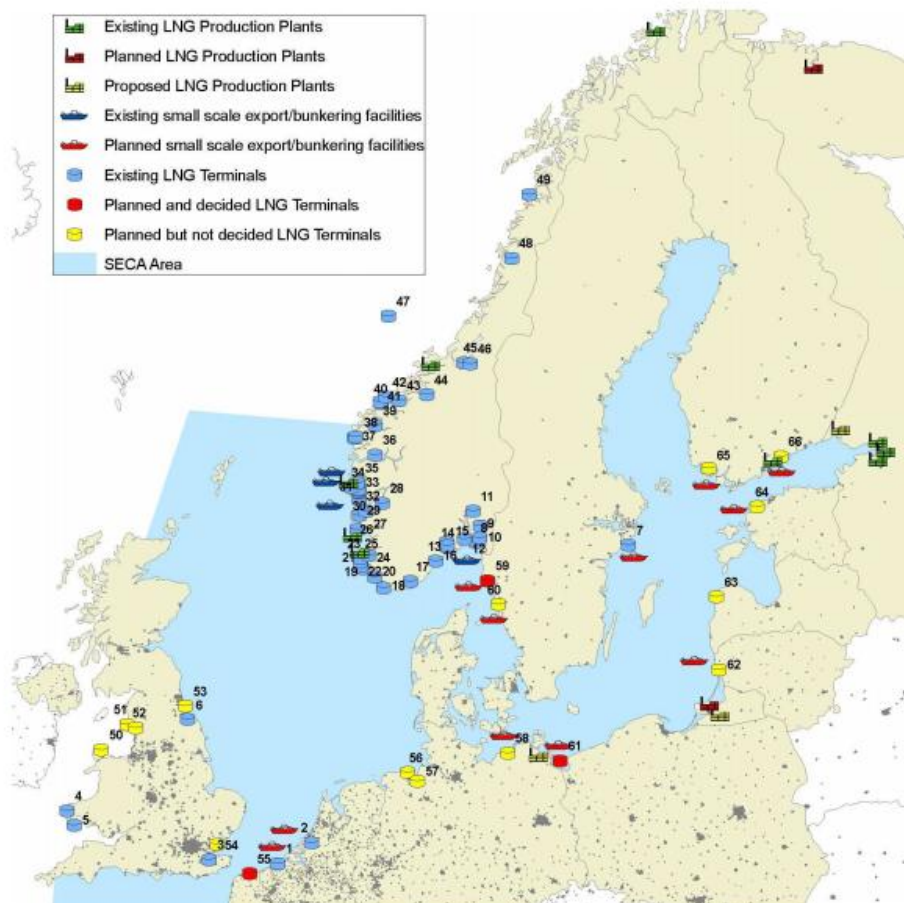
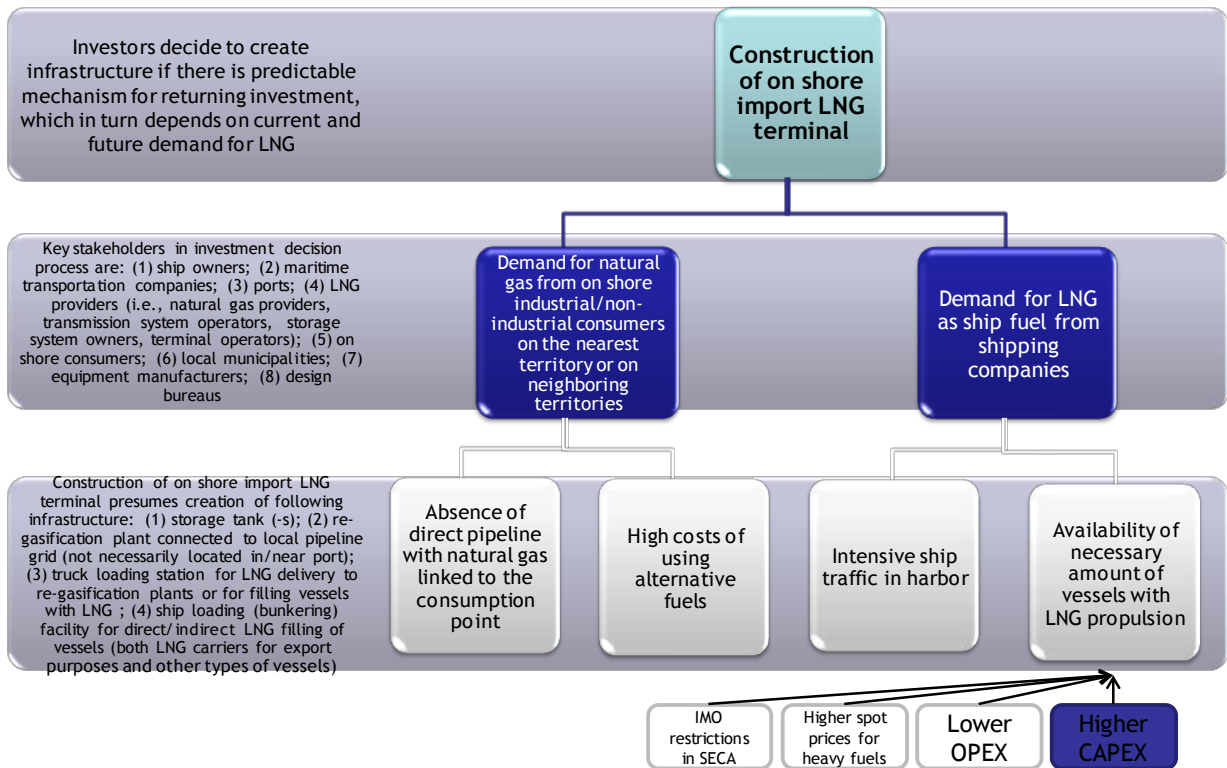


Figure 14. Existing and planned production plants and LNG terminals in SECA
 Source: Gas Infrastructure Europe, 2011, ÅF, 2011, Gasnor, Gazprom. Note: Gazprom's proposed production plants will be either in Vyborg or Greifswald.

Picture 5: Existing and planned production plants and LNG terminals in SECA. (Source: Gazprom)

Although costly, expanding the LNG infrastructure is not seen as a major problem, as supply follows demand also in this case. If there is a sufficient amount of vessels running on LNG in traffic in the area, the infrastructure will follow, but this would require more cooperation between shipowners and LNG providers. This is illustrated in the picture below.



Picture 6: Logic for decision-making regarding LNG infrastructure construction

A positive example of this is that the new passenger vessel by Viking Line, which will run on LNG and which has caused Gasum to plan large investments in a terminal in South Finland. Whatever the solution to the sulphur problem will be, it is clear that action is needed and fast as 2015 is only a few years ahead and ship projects take time.

3. CONCLUSION

3.1. SWOT

Based on all the previous and as an outcome of phase 1 in the research project, the following SWOT analysis was made.

<p style="text-align: center;">STRENGTHS</p> <ul style="list-style-type: none"> Ice-class tonnage Competent crew Small size vessels Reliability Knowledge of local conditions 	<p style="text-align: center;">WEAKNESSES</p> <ul style="list-style-type: none"> Aging fleets High crew costs Small actors, lack of cooperation Dependency on Finnish export /few customers Not being part of customer strategic value-chain
<p style="text-align: center;">OPPORTUNITIES</p> <ul style="list-style-type: none"> SECA regulations; protected market LNG solutions and infrastructure Growing markets, especially Russia New tonnage tax Mining industry growth, biofuel exports Co-creation of smart solutions Containerization of raw material Multipurpose vessels 	<p style="text-align: center;">THREATS</p> <ul style="list-style-type: none"> SECA regulations; increase bunker costs and may lead to relocalization of production plans Russian investment in own harbours decrease transito traffic and need for feeder traffic Increasing containerization Lack of financing Declining export volumes for paper&pulp Inefficient harbours/Strikes (AKT)

Picture 7: SWOT analysis of Finnish shipping

As the main strengths of Finnish shipping, the competence in ice conditions is mentioned. Although also shipping companies from abroad have ice-strengthened vessels, their personnel are not as skilled in working in these circumstances or the vessels may have too weak engine power for ice conditions. Local companies also know the local conditions and fairways and understand local customer needs better. Further, domestic suppliers are often perceived as more reliable than foreign ones.

The fact that the vessel sizes are in general small works both for and against the companies. There is a lack of small vessels that can work short-sea, transporting smaller lots or transloading from larger vessels and going into harbours, which cannot be reached by the big vessels. On the other hand, small size vessels are less efficient on longer routes and a general trend is towards larger size vessels and concentration to less and larger harbours.

The fleets of the Finnish shipowners are comparatively small. Having a small fleet means less flexibility in the offering towards the customers, and the local shipping

companies are therefore often too dependent on a few customers. Although they have a limited number of customers, they are rarely considered as a strategic partner by the customers, rather as a “necessary evil” with whom to negotiate in order to press prices. This is something that needs to be changed. Other weaknesses are the aging fleets, which as already mentioned are in the need of renewal, as well as high crew costs when using domestic seafarers. As a result, vessels have been flagged out and mixed crews have become very common.

Based on our analysis, one major weakness is the lack of cooperation between the small Finnish actors. Much more cooperation can be seen e.g. in the marine industry segment, where attempts have been made to find solutions for the benefit of the whole industry in cooperation between the shipyard, design agencies, suppliers and even customers. Narrowing down three shipowner associations to one in 2006 (Finnish Shipowners’ Association) is a step in the right direction, but more is needed to lift the industry.

As for opportunities, although the SECA regulations are mainly perceived as a threat, in terms of industry moving away from Finland as a consequence of too high transportation costs, it can also be seen as an opportunity. If Finnish shipowners would be able to develop a solution to this, for example through LNG usage or equivalent, it would be a good way of keeping foreign competition out, as they would hardly be interested to invest in their fleet if they can do business in areas with higher limits. As has been presented, the increasing material flows in the Baltic Sea region and especially to and from Russia, present an opportunity as they give hope that there will be demand for shipping services also in the future. Mining activities in Finland have increased, and also the amount of biofuel shipments is increasing. However, the amounts of paper exports are decreasing strongly, which is hard to make up for volumewise.

Shipping is still the by far most economical means of transportation and Finland, being an island, will be dependent on shipping for exports and imports. The new tonnage tax provides tax relief to the companies, which frees resources to invest elsewhere, e.g. in new vessels, and balances the competitive disadvantage that Finnish companies have had compared to e.g. the Netherlands. Flexibility appears to be the key word; the winners will be those with vessels that can shift between different types of cargo and are able to combine freights, as lot sizes are decreasing and the market becomes less predictable.

Containerization is increasing, which is a global trend. Even raw materials are increasingly transported in containers. This is listed as both a threat and an opportunity, as there are at present few companies in Finland specialised in container traffic. Therefore it could be of importance that the future vessels can also take containers. As has been stated before, co-creation of smart solutions between shipowners and their customers is needed and the parties should take on a more long-term perspective in this than 1-3 years. Having said that, shipowners

cannot wait for a long-term contract in order to order newbuildings but need to develop innovative concepts, believe in them and take some risks. This also goes for the development of logistical services outside of traditional shipping, such as door-to-door transports, storage, IT solutions etc. There will always be customers for superior solutions, which the customers can benefit from. On the other hand, shipowners should also be able to capitalize on these, so that a win-win situation is achieved. Being awarded a contract before someone else is hardly a sufficient reward for large investments, as customer savings should also provide some pay-back to the shipowner. This again calls for new types of cooperation and contract models, such as value based pricing, profit sharing etc.

The Russian protectionism can be seen as a threat. Russia invests in their own harbours and terminals, as well as shows a tendency to want to control the whole logistical chain, which may affect the transito traffic through Finland, as well as the Baltic countries. Therefore it would be important to find partners in order to get into these chains, while the situation is still under development. Although the Finnish harbours are often criticized for inefficiency, the Russian harbours are not yet developed enough to be able to handle the increasing material flows all by themselves.

As concerns the Finnish harbours, there is an on-going discussion that the amount should be reduced in order to improve efficiency. This will probably be a long process, but the reform of the municipalities and incorporation of harbours, which has been started, will probably contribute to this development. An educated guess is that the remaining harbours will increasingly specialize in certain material flows.

Last but not least, the lack of financing has been mentioned several times as a main weakness. Shipping is very capital intensive and newbuildings costs several millions. In the absence of customers willing to commit themselves to long contracts, the shipowners take a high risk and may find it hard to get financing, especially at a time characterized by an overcapacity of vessels, low freight rates, high bunker costs and overall poor profitability. The interviewees often refer to the German shipping funds, so called KG-funds, which have been used to finance vessels in Germany. A similar fund is called for in Finland. These shipping funds, with a total volume of 51.5 billion euros and almost 450,000 investors, are exempt from corporate tax and thus can provide cheaper financing than banks. However, they are predicted to disappear as a major financing source for ships, due to tighter lending criteria and higher interest rates at banks causing insolvency.

If the shipowners were, for example, to order vessels jointly, a scale of economy could be achieved. Constructing a series of newbuildings at a Finnish shipyard could be a way of maximizing the subsidies and e.g. guarantees from Finnvera, as the Viking Line case has shown. The problem is that Finnish shipyards are more specialized in passenger vessels than cargo vessels and their price is much higher than e.g. Asian shipyards. Another obstacle to this at present is the competition

between domestic shipowners, who often want their vessels to be different from the others.

3.2. Summarizing conclusion

As has been described in this report, although the situation at hand is challenging, there are also positive signals related to increasing material flows, new vessels coming in and tax benefits. Viking Line has opened the game regarding LNG, which is already resulting in investments and others may well follow. As the Finnish shipowners are dominated by small companies with only a few vessels, consolidation may be an alternative that should be seriously considered. Also pooling has been brought up as a possibility to offer more flexibility to the customers in terms of a larger fleet to choose from. Joint procurement of vessels is another possibility brought up in this report.

The overall conclusion is that a closer cooperation is needed between ship owners, suppliers, customers and harbours in developing competitive solutions based on efficient cargo handling and environmentally-friendly solutions. Instead of everyone optimizing their own profit, it should be of national interest to explore how cooperation could benefit all parties long-term. Suppliers could be involved more in developing these solutions, as has been done in shipbuilding.

The shipowners should also review their offering and see what can be done to extend the services they offer to their customers. The business models should include a network of partners for fulfilling the needs of those customers who look for outsourcing the whole logistical chain or parts of it. Several business models are needed in order to maintain flexibility to serve different types of customers in changing markets. Based on future material flows, customers outside of Finland should also be actively sought to avoid becoming too dependent on 1-2 companies. Overall, the shipping companies need to become more integrated with their customers and enter into a continuous dialogue with them, in order to be able to offer them solutions to optimize their logistics.

3.3. Next steps

The next step (Phase 2) in the research program is creating a strategy for Finnish shipping. This will be done through workshops involving different stakeholders, as well as mapping the future ecosystem based on the outcome of the workshops. The aim is to describe the business models that will ensure the future competitiveness of Finnish shipping.