

The future of Finnish Shipping- 2015 and beyond

PRESENT STATE ANALYSIS APPENDIX

PBI Research Institute 2012



1. Material flows



Export cargo flows (1/2)

Countries of destination

Major volumes go to Russia Germany, UK, France, Spain, Poland, Belgium, Netherlands

Shipping companies

UPM Seaways/Godby Shipping Containerships Transatlantic Wagenborg Bore Meriaura

Transfennica

Paper and paper board ≈ 8,9 mln. tons in 2011

Ports/stevedoring companies

HaminaKotka (ExpT 3,01 Mt) Rauma-Raumo (ExpT 2,7 Mt) Hanko-Hangö (ExpT 0,85 Mt) Oulu-Uleåborg (ExpT 0,79 Mt) Kemi (ExpT 0.74 Mt) Helsinki-Helsingfors (ExpT 0,58 Imatra (ExpT 0,15 Mt)"

Exporters

Stora Enso UPM Metsä Board Myllykoski Metsä-Wood Metsäliitto Metso

Shipping companies Neste Shipping Lundqvist Rederierna

Countries of destination

North America, Sweden, Germany, UK,

Oil products ≈ 7,05 mln. tons in 2011

Ports/stevedoring companies

Kilpilahti-Sköldvik (ExpT 6,17 Mt) Naantali-Nådendal (ExpT 0,55

HaminaKotka (ExpT 0,18 Mt) Kokkola-Karleby (ExpT 0,14 Mt)

Exporters

Neste Oil Exxon Shell ВР

Countries of destination

Estonia, Russia, Belgium, Netherlands, Germany, Denmark

Shipping companies

Prima Shipping Meriaura Bore

General Cargo ≈ 6,23 mln. tons in 2011

Ports/stevedoring companies

Helsinki-Helsingfors (ExpT 2,75 Mt) Naantali-Nådendal (ExpT 1,04 Mt) Turku-Åbo (ExpT 0,89 Mt) Rauma-Raumo (ExpT 0,57 Mt) HaminaKotka (ExpT 0,45 Mt) Hanko-Hangö (ExpT 0,26 Mt) Pori-Björneborg (ExpT 0,11 Mt)

Exporters

Nokian renkaat Valtra Uponor Kuusakoski Wihuri Raisio

Shipping companies

ESL Shipping Transatlantic Wagenborg

Countries of destination

Sweden, Netherlands, Belgium

Ore, concentrates ≈ 5,1 mln. tons

in 2011

Ports/stevedoring companies

Kokkola-Karleby (ExpT 4,42 Mt) Pori-Björneborg (ExpT 0,35 Mt) Kantvik (ExpT 0,096 Mt) Tornio-Torneå (ExpT 0,094 Mt) Raahe-Brahestad (ExpT 0.092 Mt) Helsinki-Helsingfors (ExpT 0,053 Mt)

Exporters

Outokumpu Ruukki Pyhäsalmi Mines



Export cargo flows (2/2)

Countries of destination

Germany, Sweden, Russia, Belarus, Poland

Shipping companies

ESL Shipping Dennis Maritime

Chemicals

 \approx 3,3 mln. tons in 2011

Ports/stevedoring companies

HaminaKotka (ExpT 1,8 Mt) Kilpilahti-Sköldvik (ExpT 0.46

Pori-Björneborg (ExpT 0,21 Mt) Kokkola-Karleby (ExpT 0,2 Mt) Oulu-Uleaborg (ExpT 0.18 Mt) Helsinki-Helsingfors (ExpT 0,16

Uusikaupunki-Nystad (ExpT 0,1

Rauma (ExpT 0,065 Mt)

Countries of destination

UK, France, Spain, Netherlands, Germany

Shipping companies

Bore Meriaura Godby Transatlantic Transfennica

Sawn wood ≈ 2,66 mln. tons in 2011

Ports/stevedoring companies

HaminaKotka (ExpT 0,94 Mt) Loviisa-Lovisa (ExpT 0,51 Mt) Kaskinen-Kaskö (ExpT 0,26 Mt) Helsinki-Helsingfors (ExpT 0,25 Mt) Pori-Björneborg (ExpT 0,2 Mt) Pietarsaari-Jakobstad (ExpT 0,19 Mt)

Hanko-Hangö (ExpT 0,13 Mt) Oulu-Uleaborg (ExpT 0.12 Mt) Rauma (ExpT 0,11 Mt

Exporters

Exporters

Metsä-Wood

Stora Enso

UPM

ISCA

Telko Sachtleben Finnsementti OMG Finland Orion Kemira Tikkurila Nordkalk

Countries of destination

The Netherlands, Poland, Germany, Russia

Shipping companies

Langh Ship Transatlantic Wagenborg ESL Shipping

Metals, metal manufactures ≈ 2,88 mln. tons in 2011

Ports/stevedoring companies

Tornio-Torneå (ExpT 0,68 Mt) Raahe-Brahestad (ExpT 0,55 Mt) Lappohja-Lappvik (ExpT 0,3 Mt) Helsinki-Helsingfors (ExpT 0,29 Mt) Kokkola-Karleby (ExpT 0,25 Mt) Koverhar (ExpT 0,23 Mt) Taalintehdas-Dalsbruk (ExpT 0,21 Pori-Björneborg (ExpT 0,11 Mt)

Turku-Åbo (ExpT 0,11 Mt)

Exporters

Outokumpu Rautaruukki Konecranes Fiskars FNSteel Talvivaara Outotec Cargotec Valtra Luvata Patria

Countries of destination

Netherlands, Germany, France, UK

Shipping companies

Transatlantic Wagenborg lMeriaura

Wood pulp ≈ 1,2 mln. tons in 2011

Ports/stevedoring companies HaminaKotka (ExpT 1,01 Mt)

Rauma-Raumo (ExpT 0,32 Mt) Pietarsaari-Jakobstad (ExpT 0,3 Mt) Kemi (ExpT 0,23 Mt) Kaskinen-Kaskö (ExpT 0,21 Mt)

Exporters

Metsä-Botnia Metso SCA UPM

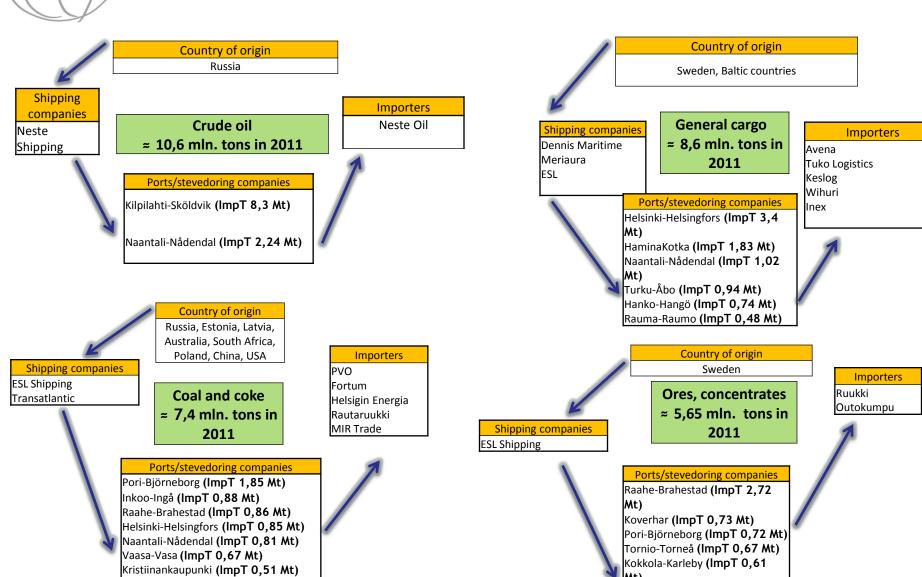


Loviisa-Lovisa (ImpT 0,23 Mt)

Koverhar (ImpT 0,22 Mt)

Kantvik (ImpT 0,19 Mt)

Import cargo flows (1/2)



HaminaKotka (ImpT 0,12 Mt)



Import cargo flows (2/2)



ESL Shipping Dennis Maritime Transatlantic

Country of origin

Sweden

Crude minerals, cement ≈ 5.2 mln. tons in 2011

Ports/stevedoring companies

Kokkola-Karleby (ImpT 0,78 Mt) HaminaKotka (ImpT 0,62 Mt) Raahe-Brahestad (ImpT 0.56 Mt) Rauma-Raumo (ImpT 0,55 Mt) Inkoo-Ingå (ImpT 0,4 Mt) Pori-Björneborg (ImpT 0,38 Mt) Parainen-Pargas (ImpT 0,26 Mt) Tornio-Torneå (ImpT 0,26 Mt) Förby (ImpT 0,24 Mt) Naantali-Nådendal (ImpT 0,2 Mt) Uusikaupunki-Nystad (ImpT 0,17

Country of origin

Baltic countries

Timber, woodchips ≈ 3,66 mln. tons in 2011

Importers

Metso UPM Stora-Enso

Shipping companies

Bore Meriaura

Ports/stevedoring companies

HaminaKotka (ImpT 1 Mt) Rauma-Raumo (ImpT 0,76 Mt) Pietarsaari-Jakobstad (ImpT 0,73 Imatra (ImpT 0.34 Mt) Kaskinen-Kaskö (ImpT 0,23 Mt) Kemi (ImpT 0,23 Mt) Lappeenranta (ImpT 0,22 Mt)

Importers

Rudus

Finnsementti

Country of origin

Russia

Shipping companies

Shipping companies

Dennis Maritime

ESL Shipping

Oil products Neste Shipping ≈ 4,03 mln. tons in 2011

Neste

Ports/stevedoring companies

Kilpilahti-Sköldvik (ImpT 3 Mt) Naantali-Nådendal (ImpT 0,4 Mt) HaminaKotka (ImpT 0,24 Mt) Pori-Björneborg (ImpT 0,15 Mt) Kokkola-Karleby (ImpT 0,07 Mt)

Country of origin

Sweden

Chemicals ≈ 3,03 mln. tons in 2011

Importers

Importers

Sachtleben Nordkalk Tikkurila

Ports/stevedoring companies

Oulu-Uleaborg (ImpT 0,72 Mt) HaminaKotka (ImpT 0,43 Mt) Kokkola-Karleby (ImpT 0,36 Mt) Kilpilahti-Sköldvik (ImpT 0,28 Mt) Helsinki-Helsingfors (ImpT 0,22 Mt) Rauma-Raumo (ImpT 0,14 Mt) Uusikaupunki-Nystad (ImpT 0,14 Mt) Pietarsaari-Jakobstad (ImpT 0,13 Mt) Pori-Björneborg (ImpT 0,13 Mt) Kemi (ImpT 0,12 Mt) Kaskinen-Kaskö (ImpT 0,1 Mt) Tornio-Torneå (ImpT 0,1 Mt)



2. Questionnaire survey (CROL®) feedback



Method for questionnaire survey

- The aim of the CROL® survey is to gather feedback from shipowners and their customers regarding their current and future business, volumes, needs and expectations with regard to shipping
- Questionnaires were sent weeks 13 and 14 by email with an on-line link to:
 - 1. Finnish shipowners, who have not been interviewed in person (sample 14 companies)
 - 2. Companies representing the major export/import volumes (sample 57 companies)
- Reminders were sent and those who did not reply on-line were called by telephone. The response rates were 71% for the shipowners and 33% for the customers.



2.1. Feedback from Shipowners



Answers received from following companies

Company

Rederi Ab Eckerö

Rederi Helmer Lundström Ab

Vidar Shipping

Rederi AB Lillgaard

Northern Tanker Company

Rauma Chartering and Towage Agency

Rederi Ab Gustaf Erikson

Tallink Silja

ASP Ship Management Scandinavia

Kraftline



Please choose your three most important customer segments currently (answer count)

Most important	Second most important	Third most important
Forestry 4	Metal processing 2	Forestry 2
Passengers 2	Forestry 1	Wholesale 1
Chemisty and plastics 1	Food 1	Mining 1
Other 3: Sea transport, Oiltanker, Asphalt	Other 4: Finnish industrial customers, Rolling goods, Rawmaterial, other cargo	Other 3: Oiltanker, Lorries and trailers, Bulk, other cargo

Please choose your three most important customer segments in the future (3-10 yrs) (answer count)

Most important	Second most important	Third most important
Forestry 3	Metal processing 2	Forestry 1
Passengers 2	Forestry 2	Wholesale 1
Chemisty and plastics 1	Food 1	Mining 1
Other 4: Finnish industrial customers, Roro, Oiltanker, Asphalt	Other 2: Rawmaterial, other cargo	Other 3: Lorries and trailers, Bulk, other cargo



Please choose your three main market area(s) currently (answer count)

Most important	Second most important	Third most important
Nordic countries 6	Baltic states 5	Russia 3
Central Europe 2	Nordic countries 1	Baltic states 1
Baltic states 1	Southern Europe 1	Central Europe 1
	Asia 1	South America 1

Please choose your main market area(s) in the future (3-10 yrs) (answer count)

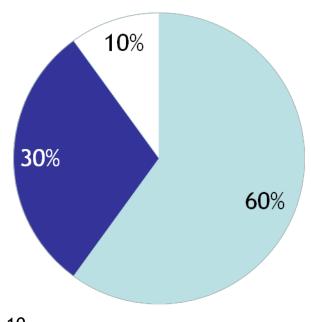
Most important	Second most important	Third most important
Nordic countries 5	Baltic states 5	Russia 3
Central Europe 2	Nordic countries 1	Nordic countries 1
Baltic states 1	Southern Europe 1	Central Europe 1
South America 1	Central Europe 1	Asia 1



How do you estimate the global shipping volumes to develop in the coming 3-10 years?

How do you expect the Finnish shipping volumes to develop in the coming 3-10 yrs?

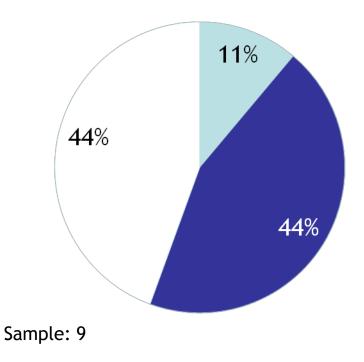
Global shipping



Sample: 10

■ Growing ■ Steady □ Declining

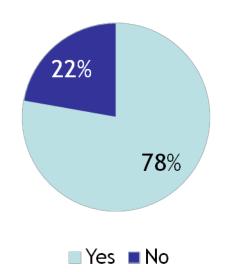
Finnish shipping



■ Growing ■ Steady □ Declining



Do you see a change in shipping material flows in the Baltic region in the coming 3-10 yrs?

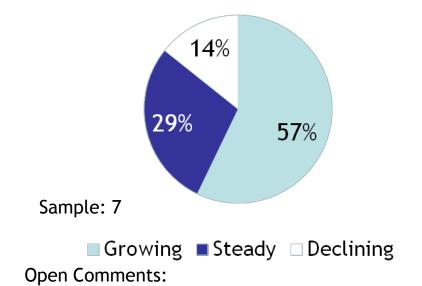


Open Comments:

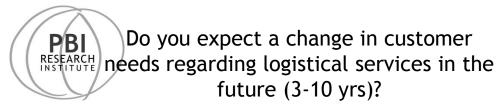
Sample: 9

- Rates go down, smaller vessels run closer at short distances so that fuel consumption goes down. Reduce energy consumption and slower vessels due to energy costs, switch to LNG.
- A reduction, primarily in the paper industry, including steel industry, where facilities were moved away from the North.
- Growth through more integrated manufacturing processes.
- Less volume and fewer lines
- Output in the paper industry will move in part, flows change, but the volumes are kept.

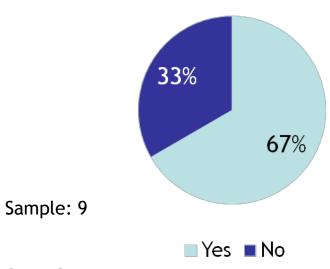
How do you see the development of the cruise/ferry passenger market in the coming 3-10 yrs?

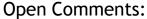


- Small growth expected. On new lines, Baltic states, other Europe, Scandinavia, possibly Russia
- Baltic States
- Baltic States and Russia

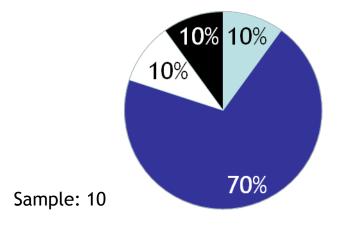


What is your company strategy regarding growth?





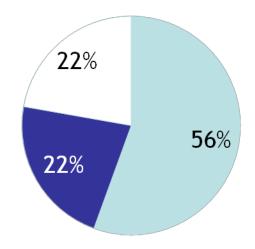
- Complete solutions
- Ever more flexible and specialized
- Short routes with small vessels with high frequency.



- ■We aim for significant growth
- We aim for moderate growth
- No changes
- Reduced activity



What is your company strategy regarding growth?



Sample: 9

■ Increase fleet■ No changes□ Decrease fleet

If you answered increase, please state how you plan to increase your fleet:

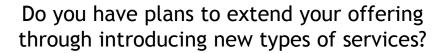
- 2 x Purchase second-hand vessels
- 2 x Newbuildings

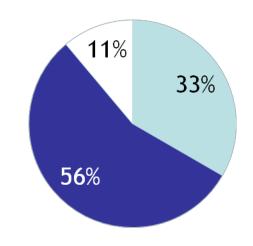
Which characteristics or features do you see as most important for new vessels entering the market?

- Easy to use, economical
- Different segments of the maritime industry will have to obtain more cooperation.
- Convert old vessels to more energy efficient.
- Environmentally friendly, ship speed.
- Special Tonnage, custom made vessels for the market, off shore supply - brand new production facilities on board the ship in deep sea drilling. Land-based industries moved out to the offshore industry.
- Operational efficiency.



Is your company entering or planning to enter into new business areas?





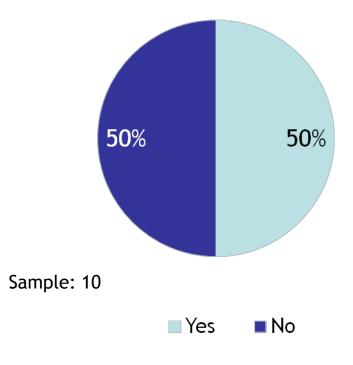
- Focus on current core competence
- Focus to somewhat expand into new business areas
- ☐ Strong focus in looking for new business areas

Please specify which new business areas you see as potential:

LNG

Sample: 9

- Russian market
- Expand offshore



Please specify which types of services you are planning to offer:

- Ever more flexible and specialised
- LNG transportation in container form among other LNG solutions.
- Ice-breaking
- Services are been developed continuosly



How would you describe the competitive situation of shipping in the Baltic area?

All 10 answerers are evaluating the situation as "Strong competition".

From which areas or countries do you think your strongest competitors will come from in the future (3 -10 yrs)? If you like, you can name the companies.

Country	Area	Other
Germany 5	Baltic states 1	Whole Baltic Sea
Holland 4	Nordic countries 1	Main routes to Sweden and Estonia
Russia 2	Central Europe 1	Non- EU-country



Please specify which are according to you the competitive advantages of Finnish shipping now and in the future (3-10 yrs)?

Please specify which are according to you the competitive disadvantages of Finnish shipping now and in the future (3-10 yrs)?

- Rather non existent unfortunately.
- No advantages, not now, not in future.
- Finland does not have much to offer.
 Knowledge of ice driving, ice breakers predecessor.
- Should be innovative and come up with something new, should take advantage of expertise available.
- Vessels that are suitable to traffic in ice.
- The Finnish competition was improved when the tonnage tax and regulatory framework was introduced. Finnish seafarers, the government has not understood that the Finnish shipping is an industry. Competitive advantage does not exist, it has all gone long time ago.
- Staffing possibilities, staffing with non-EU citizens.

- Difficult to get motivated employees.
- High salary costs and hard governmental requirements in North Europe.
- Single minded politicians and unions
- We have expertise, but it has not been utilized so far.
- Cheap labor that can be used in other vessels than Finnish.
- Level of costs
- Staffing with Finnish contract is almost twice as expensive, a new staffing system is needed.



In your opinion, what kind of actions or changes are needed in order to improve the competitiveness of Finnish shipping?

- Attitude to work needs to change.
- See how Germany and Holland managed to create their fleets
- New ideas are needed and we should be quicker to develop and be innovative. More coordination between the ship building industry, ship owners and authorities.
- Higher subsidies, same benefits for us than others has, related to labor cost.
- Cost reduction
- Increasing the cost-effectiveness by using cheaper labor. Depends under which country's flag ship travels, from where the crew is, the rules that are followed goes with that.
- Building a Finnish shipping industry: 1.shipping financing, 2.there is no risk capital, 3. is losing maritime know-how and expertise



Please specify which opportunities you see for Finnish shipping in the future.

- I do not see possibilities
- Cooperation is necessary
- Talented staff
- Position of Finland.
- The only possibility is to be allowed to operate under mixed crew, that they have realized in Sweden.
- The future prospects does not look good if it continues like this.

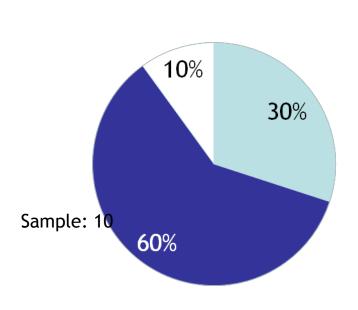
Please specify which threats you see for Finnish shipping in the future.

- Labor costs and efficiency.
- Cheap labor. Actors who do escape regulatory requirements. Too expensive to operate in Northern Europe. Industry in Northern Europe dump prices. Environmental requirements are a threat despite the fact that shipping is environmentally friendly option over land transport.
- Fierce competition, high labor costs, high fairway dues. Charges could be alleviated with lower energy costs and slower speed, but the ice challenge. Fuel-efficient through the ice a problem.
- Good example Finnlines, nowadays owned by Italian interests - in that direction Finnish shipping has gone.
- Competition from outside of the EU.
- Lets do the same as in Sweden, there is no vessels, too tight politics related to vessels maintenance and other.
- New sulfur emission directive and what it will bring. In general costs, fuel price development.

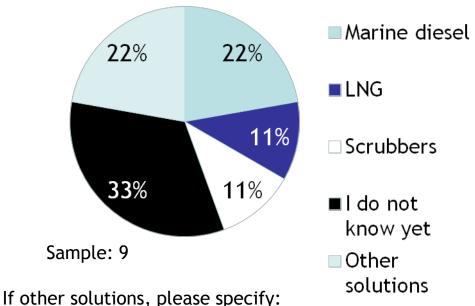


How do you estimate that the strictening environmental regulations will affect your company?

Which solution(s) will your company apply after new sulphur emission regulations in 2015?



- It opens up new opportunities
- It is a threath to the business
- ☐ The impact on business is minor
- ■I don't know yet

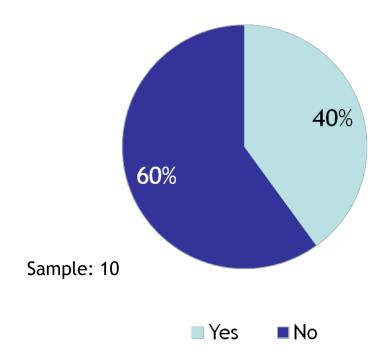


. other bottations, produce of

- Methanol
- There is no economical possibilities to the vessels that we have.
- Short routes in combination with the train is environmentally friendly in the future.
- The future regulations are vessel dependent.
- Scrap a large part of tonnage
- Activities will to have to be shut down, own vessels are no longer useful, in that case charter ships.



Do you feel there is enough cooperation between different parties involved in Finnish shipping?



If not, which parties do you think should cooperate more closely within Finnish shipping?

- Ports and government and unions
- All ship owners and charterers.
- Towing companies and shipping companies
- The entire shipping industry should cooperate much more!



How do you think the Finnish harbours and related activities should be developed?

- More environmentally friendly fuels should get discounts.
- All should have access to them, different sizes of vessels.
- Hopefully improvement
- Finnish ports are in a monopoly position should be open competition in all areas.
 Otherwise it works fine. If there is no
 development, just settlement and increase in
 cost as it is now.
- Larger ports should be working 24/7, every closed day costs. The ships should be able to operate all the time and not wait for the AKT's agreement to be fulfilled.

Do you have other comments regarding Finnish shipping?

 The same investigation should be done in Russia and other neighboring areas (Germany, Sweden) in order to know how they see the future, in order to compare trends and find out how they relate to the challenges of high energy costs.



2.2. Feedback from customers



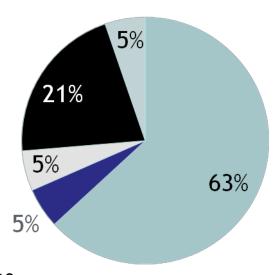
Answers received from following companies

Company	Industry
OMG Finland	Metal
Sachtleben Pigments	Chemicals and plastics
SOK	Consumer goods
Outokumpu	Metal
Cargotec	Metal
Yara	Chemicals and plastics
Nordkalk	Mining
ABB	Electronics
Talvivaara	Mining
Uponor	Construction supplier
Valtra	Metal
Luvata	Metal
Rolls-royce	Metal
Metso	Metal
Planmeca	Metal
Kuusakoski Group	Metal
Andritz	Metal
UPM-Kymmene	Wood processing industry
Rautaruukki	Metal



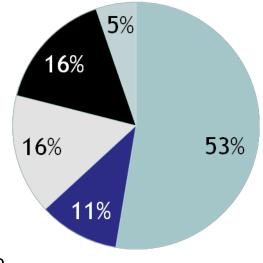
Please indicate your annual export volumes (tons)

Please indicate your annual import volumes (tons)



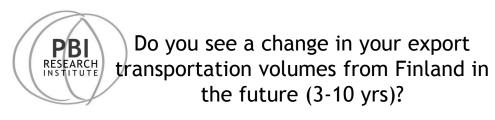


- Below 100.000 tons
- 100.000-500.000 tons
- 500.000-1 million tons
- ■1 million-5 million tons
- 5-10 million tons
- ■over 10 million tons

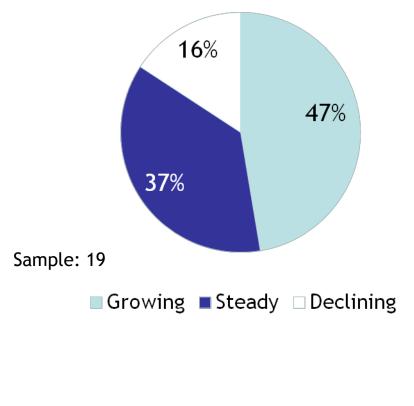


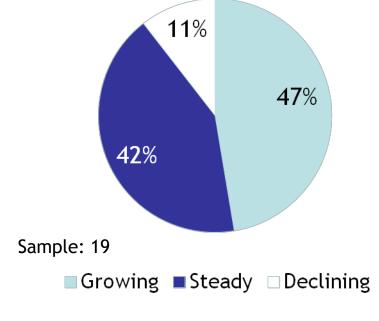
Sample: 19

- Below 100.000 tons
- 100.000-500.000 tons
- 500.000-1 million tons
- 1 million-5 million tons
- 5-10 million tons
- over 10 million tons

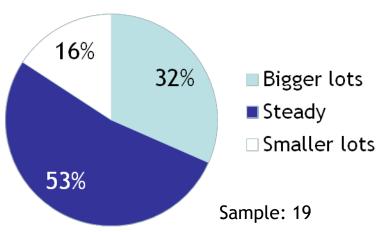


Do you see a change in your import transportation volumes to Finland in the future (3-10 yrs)?





Do you see a change in your lot sizes in the future (3-10 yrs)?





Which transportation methods are currently mostly used for your exports/imports to and from Finland? (answer count)

Most used	Second most used	Third most used
Sea 13	Truck 9	Air 9
Truck 6	Sea 5	Truck 5
	Air 2	Train 2
	Train 2	

Which transportation method will be most relevant for your business in the future (3-10 yrs)? (answer count)

Most important
Sea 14
Truck 5



Please choose your current main market areas (choose 3 areas) (answer count)

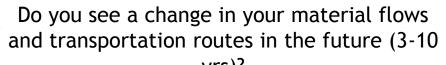
Most important	Second most important	Third most important
Central Europe 10	Asia 7	Russia 4
Nordic countries 4	Central Europe 3	Central Europe 2
Asia 5	North America 3	North America 3
	Russia 2	Asia 2
	Baltic states 1	Southern Europe 2
	Nordic countries 1	Nordic countries 1
	Southern Europe 1	Baltic states 1
	South America 1	

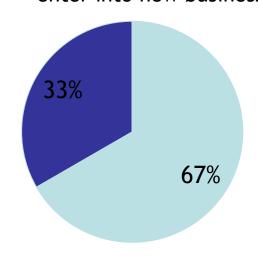
Please choose which areas you expect to be your main market areas in the future (3-10 yrs) (answer count)

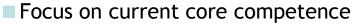
Most important	Second most important	Third most important
Asia 8	Asia 5	Central Europe 4
Central Europe 6	Russia 4	North America 3
Nordic countries 4	North America 4	Asia 2
Southern Europe 1	Central Europe 3	Russia 3
	South America 1	Baltic states 2
	Nordic countries 1	Southern Europe 1
	Southern Europe 1	South America 1



Is your company entering or planning to enter into new business areas?







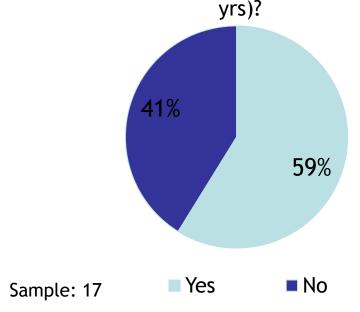
- Focus to somewhat expand into new business areas
- ☐ Strong focus in looking for new business areas

Please specify which new business areas you see as potential:

USA

Sample: 18

- South America
- Eastern Europe



What kind of changes, which material flows and routes will increase in importance?

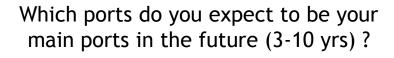
- Manufacturing and component procurement will move totally to Asia
- South America and Far East traffic will increase
- Procurement will be done in new areas
- Thinner material flows, and material will be routed to customers through other countries, rather than through Finland as the case is now.
- Transports will be coordinated in Finland rather than shipments coming from Finland.
- Volumes in Europe will grow, biofuels/pulp material production will increase fastest
- Difficult to specify, but there will definitely be changes. Routes will get shorter for low value goods, especially on roads.

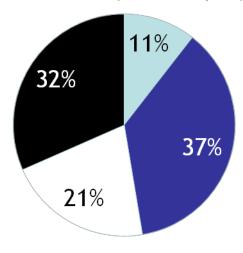
Market areas and material flows



Sample: 19

How do you estimate that the tightening environmental regulations will affect your company?





- they open up new opportunities
- they pose a threat to the business
- ☐ the impact on business is minor
- ■I don't know yet

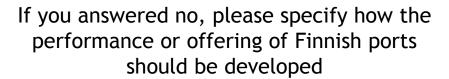
Please specify how they threaten your business and what the consequences will be:

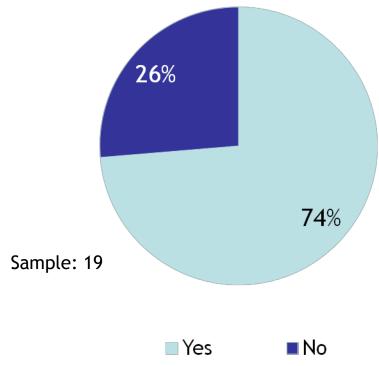
- Sulphur emission directive 2015: significant raise of costs, rush hour payments: rising costs
- New sulphur emission directive
- Rising costs
- Threat to sea transport

- Kokkola, Pori, Rauma
- Pori (Mäntyluoto & Tahkoluoto), Rauma, Helsinki
- Helsinki, Hanko
- Shanghai, Dalian (China), Haiphong (Vietnam)
- Uusikaupunki, Kokkola, Siilinjärvi
- Helsinki, Rauma, Shanghai
- Kokkola, Oulu
- We buy door to door transportation. I do not know which ports the transport companies are using.
- Vuosaari
- Mäntyluoto, Rauma
- Rauma clearly main harbor
- Helsinki, Rauma, Turku
- Vuosaari
- Kantvik, Pori
- Hamina-Kotka, Hamina
- Rauma, Kotka, Helsinki, Hull, Tilbury, Santander, Essingen, Gdynia, Tallinn
- European main ports, ports capable of handling steel products, most likely Antwerp



Does the performance and offering of Finnish ports meet your needs?





- Strikes and availability of special equipment is sometimes a problem (for example flat-tracks, open-top containers)
- Public ports are slow and expensive. They are not competitive compared with Baltic states' ports.
- There are too many ports and this is ineffective. Ports should be consolidated and efficiency increased.
- Close overcapacity, centralize the operation.
- We operate two of ports of our own so there is no one else to blame if we find efficiencies with them. We would like to use larger vessels but would not be able to access the ports. There are too many ports and some should be consolidated.



Which are your main criteria when choosing shipping company (choose 2 main criteria)? (answer count)

Most important	Second most important
Price 7	Price 5
Service offering 4	Reliability of company 5
Reliability of company 3	Service offering 3
Vessel features 1	Previous experience 2
Size of fleet 1	Vessel features 1
Other 3: We use road transports	Other 3: Freight handler will take care the contacts to shipping companies

Please indicate your present service providers

	Other option, please specify
We use a combination of Finnish and foreign shipping companies 9	We use road transports. To get a place for trucks in ships during summer period is sometimes a problem for transport companies.
We use brokers 5	We are not in direct contact with shipping companies.
We use solely foreign shipping companies 2	



Please indicate your present contracting models for shipping (answer count)

Most used	Second most used	Third most used
We use liner traffic 8	Spot market 7	We use liner traffic 2
We use contracts of affreightment 6	We use liner traffic 3	Spot market 2
We charter vessels 1	We charter vessels 2	We use contracts of affreightment 1
Spot market 1		

Please indicate typical length of shipping contract

1-3 years, 11

Maximum 1 year, 5

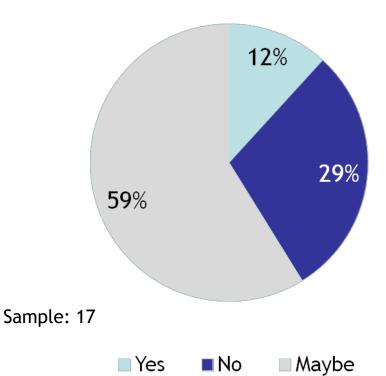
Long-term contract (3 years or more), 2



What kind of changes do you see in your shipping contracts in the future?

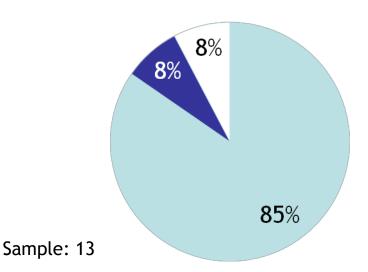
- We have a significant amount of freight (both COA and spot) in Asia and that will continue. In container traffic we use line agents and it will most likely continue.
- Stays the same.
- Contracts of affreightment will increase, spot freight will decrease.
- No major changes.
- Contract lengths will get shorter
- No major changes. I do not believe in long contracts, because markets are changing so fast.
- Bunker clauses need to be discussed more thoroughly.
- No major changes.

Would you be willing to commit to a certain service provider for a longer time period in exchange for new investments and commitment to improve productivity throughout the supply chain?





How do you see the competitiveness of Finnish shipping companies compared with foreign companies?



- Finnish shipping companies offer better value for money
- No difference to foreign players
- Foreign shipping companies offer better value for money

From which areas or countries do you think the strongest competition to Finnish shipowners will come from in the future (3 -10 yrs)? Feel free to name companies if you like.

- Holland, Norway (especially tankers)
- Sweden, Baltic states, Norway
- Denmark
- Holland, Sweden, Norway
- I do not know
- Russia
- Far-east, Mærsk
- Asia
- Baltic sea area, maybe Central Europe
- Germany and Denmark
- Eastern-Europe possibly based on cost structure, central eastern-Europe



Please define which competitive advantages you think Finnish shipping companies have compared to foreign companies

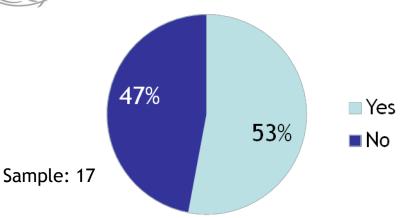
- Pilot exemptions, good local knowledge, ships often under EU flag.
- Flexibility
- Know their customers' needs better
- I do not know
- Reliability, efficiency
- Competitiveness on short routes inside Baltic Sea, based on price and service
- Situation is maybe improving in the intra-Baltic region

Please define which competitive disadvantages you think Finnish shipping companies have compared with foreign companies

- Often smaller fleet (needed replacement vessels are difficult to get), often rather old ships
- No disadvantages
- Dismissive attitude towards Finnish customers, because they are believed to be loyal to current service providers services
- They do not operate enough long routes for our needs
- Strike threats, high price level
- Less competitive on longer routes
- I do not know
- Vessel size too small for our purpose
- No much except costs, but that is improving



Do you think your company's needs regarding logistical services will change in the future?



Open comments:

- Our own functions will be partially outsourced.
 Timetable will be specified based on deliveries.
- Storage services need will grow in importing.
 Collaboration with other shipping companies so that the customer will get services from one point to whole sea travel, even if there would be different transporters.
- Material shipment batches will possibly increase in size.
- When the shipment chain develops there will be a need for new solutions.

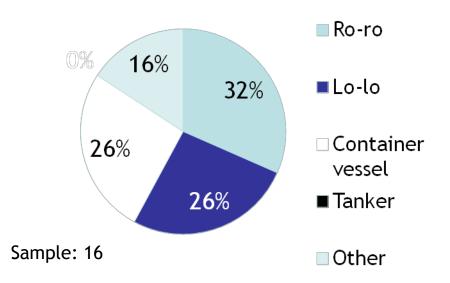
What kind of offering or services should shipping companies provide to their customers in the future?

Most important	Second most important	Third most important
New cooperation models 4	New cooperation models 8	Door-to-door services 5
Door-to-door services 4	Containerization 2	Intelligent solutions 4
Intelligent solutions 3	New contract models 3	New contract models 3
Containerization 2	New vessel types 1	New vessel types 1
New vessel types 2	Door-to-door services 1	New cooperation models 1
New contract models 3	Other 4	Other 5
Other 3		
Transport system, to minimise costs	We use road transport	We use road transport



Which kind of vessels do you see as most relevant for your logistical needs in the future?

Which characteristics or features should future vessels possess, in order to meet your needs?



Other:

 Special ships designed for transporting heavy steel structures (Asia)

- Ice classification (reasonably good ice travelling features), EU flag, boxed cargo area, cargo area dividers, vessels suitable for Saimaa
- Ice classification is meaningless if the machinery is not adequate to power through ice.
- Speed, freight height, ability to operate in low waters
- Multipurpose vessels
- We use road transport, so ro-ro suitability is important
- No special needs
- Should be able to transport oversized goods with the greatest possible cost-efficiency.
- Small amount of crew needed and low fuel consumption
- As well suited as possible to transporting steel, adequate engine power for ice travel, low fuel consumption



In your opinion, what kind of actions or changes are needed in order to improve the competitiveness of Finnish shipping?

- Cost management
- Tax benefits
- Feeder transport should be cost efficient enough and timetables should be frequent enough in order for long distance delays not to adversely affect schedules.
- · Flag costs should stay competitive
- Customers sharing risks and costs is essential in order to ensure that suitable new vessels come on the market.
- Cooperation between ship owners; everyone does not have to do everything
- Better discussion with Finnish industry
- Everyone has same challenges
- Better dialogue is needed
- Common agreements how to work
- Newer types of vessels with enough power

Other comments

- Vuosaari port needs flexibility(opening hours), unions actions are negatively affecting the port.
- Finnish flag is not a necessity, money matters after all
- Shippers should stick to what they know and not try to be everything to everyone
- Ship owners should be ready to negotiate with customers about contract and cooperation models, not be so attached to old models.



3. Business models of interviewed companies



Low cost crews

Alfons Håkans

RESEARCH	113 Hakaris					
Main market areas and marke	t development		Strategy and ownership			
Finland & North Sea			Family ow	ily owned		
			Providing r	reliable service to customers, presen	t in all major ports.	
Customer Segments	Shipping Routes/Harbours	Offering / Value P	roposition	Assets	Pricing Mechanism	
Harbors/Cities	All major Finnish ports from Kaskinen in the northern part	Offshore anchor ha	andling	Broad Fleet	Project based	
Insurance companies	of the Gulf of Bothnia through to the port of	Towing		Good reputation	Contracts	
Oil and gas industry	Hamina in the eastern part of the gulf of Finland.	Salvage		Broad network of vessels		
	In Estonia harbor towage services cover all the major ports from Paldiski to	Ice Breaking r Heavy sea transport				
	Sillamäe.	Ship repair				
	Sea-going tugs for immediate dispatch in strategic ports around the coasts of Finland and Estonia.	e Broad network of vessels				
	Provides offshore tug services for the oil and gas industry in the North Sea					
	Material Flows	Partners & Collabo	oration	Competence / Advantage	Cost Structure	
	Project based	Achilles		Know-how in cold climate & weather conditions	Bunker, Crew	
		Technip		Competent crew		
Risks			Possibilitie	es		

North sea & arctic drillings



Bore

Market Areas/ Market Development

The main market area is North-west Europe The market areas may be adapted or developed based on the customer needs

West Mediterranean will be a new market area

Strategy/ Ownership

A Finnish family owned shipping company, belongs to the Rettig Group

Strategy: Provide full in-house service to the RoRo and CoA market

Customer Segments	Shippi
(customers)	

Timecharter:

P&O Ferries Shipping between England,

Belgium and Holland -RoRo/containerised products

Transfennica England - Finland: Fredrikshamn -

Petersburg, mostly paper Mann Lines England – Finland and to Poland.

Hanko – Tilbury in London – St.

the Baltic countries and Germany -RoRo products (paper, metal industry products UECC

Cars are between southern bay of Biscay and NEW Europe including **Baltics**

Fret Cetam Airbus parts and RoRo cargo southern bay of Biscay and western Mediterranean

Contract of Affreightment: Forestry products from the Swedish west coast and from the

Finnish east coast to the UK's east coast and Northern France

Northbound, clay/biofuels etc.

The big ship owners and line operator are the biggest competitors

Risks

ing Routes/Harbours

See customer segment-column

Routes & harbours are adapted according to customer needs

Energy efficiency through new

Offering / Value Proposition

vessels Being frontrunners regarding

sustainable development

Long relations with customers

Partners & Collaboration

Assets

hired

Average age of the ships is 12 years

Operates 19 ships: owns 17 and 2 are

All of the vessels are ice class A1

Finnish and Dutch flags

Pricing Mechanism Volume contracts (CoA)

80 percent is based on contracts and 20

percent is Spot

The RoRo vessels have been chartered with longer contracts – up to 15 years

Cost Structure

The cargo is the customers

See customer segment-column

responsibility

Material Flows

Through new customers, new products may be added, specifically as new vessels can take different kind of cargo

Competence / Advantage Collaborating close with customers in order to identify new needs

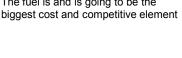
The technical knowledge, the staffing, and the ability to find new logistic

solutions for the industry

The new buildings were financed with a

bank loan from Germany, Financing easier due to being part of Rettig Group

The fuel is and is going to be the







Possibilities

More cooperation throughout the transport chain

New logistic solutions - seamless logistics



Dennis Maritime

INSTITUTE DETITIES IVIAITUTIE						
Main market areas and market	development		Strategy ar	nd ownership		
Nordic countries, Poland and Germany			Four main owners: Saari, Gustafsson, Liljeström, Partanen (3 Captain owners)			
Customer Segments	Shipping Routes/Harbours	Offering / Value Pro	oposition	Assets	Pricing Mechanism	
Different industry - Bulk (minerals) - Grains - Timber - Projects	Finland, all ports SWE/EST - Parainen / Inkoo Vaasa – Hamina range Baltic States Poland Germany Denmark Norway ARAG	Bulk transport from smaller harbors Operates four vessels - 2 X 1200dwt (Josefine & Nathalie) - 2 X 3000dwt (Serafina & Lady Magda)		Owns three vessels One vessel on time charter from the Netherlands Self-unloading vessels from 2500-3000 dwt	Several year contract with Nordkalk Spot market mainly due to lack of ice class for smaller vessels Freight price fluctuations less for smaller vessels	
	Material Flows	Partners & Collabo	ration	Competence / Advantage	Cost Structure	
	Limestone	Nordkalk		Captain owners	Bunker prices, harbor fees	
	Grain	Stora Enso		Small organization; trustworthiness,		
	Steel	UPM		flexibility		
	Projects	Finnsementti		Fast vessels with low consumption		
		Rudus		Selfdischarger		
		Avena				

ESL Shipping

The overall financial situation in the industry

Environmental regulations are impacting the future activity

Market Areas/ Market Development			Strategy/Ownership			
ESL Shipping operates in the Baltic Sea ESL has few direct competitors in their market area, as their ships are specially designed for Baltic Sea ports and year round conditions		To be the leading bulk shipping company through year-around activity, reliable transports, tight customer relations, skillful staff and suitable ships				
			ESL Shipping is owned by Aspo Oyj			
Customer Segments	Shipping Routes/Harbours	Offering / Value Proposition		Assets	Pricing Mechanism	
The steel industry 59% Rautaruukki, SSAB, Ovako, Nordkalk	One regular route: Luulaja-Raahe (pellets)	Shipping solutions/ bulk transportation in the Baltic Sea		Operates ten ships ; the ships are not designed for any specific products	Two thirds of the customer relations are long-term transport contracts and one third are spot-customers	
The energy industry 33% Fortum, PVO, Helen, Glencore,	Ports in Finland: Helsinki, Inkoo, Parainen, Naantali, Pori, Kokkola,	Spot solutions with big v	volumes .	Ships 10 000 – 56 000 dwt		
Alinos/ Krutrade, MIR Trade, Suek	Kristiinankaupunki and Raahe	Self-unloading ships (cra ship)	nes on the	Two are TC-ships and the rest are either owned or part-owned		
Other 8% Pyhäsalmi Mines, Finnsementti, Sachtleben	International major seaports: all ports in Russia (most important: St.Petersburg, Ust-Luga and	Traditional bulk shipping company; harbour-to-harbour rather than door-to-door		Two tug boats and six barges		
	Vysotsk), all ports in the Baltic, ports in Poland, Sweden, Norway, Holland and Belgium			2 newbuildings with ocean-going capabilities		
All customers located close by the harbours	Imports of coal to Finland from Russia, Estonia, Latvia and Poland			The utilization rate of the ships varies, because it might not always be profitable to search for return cargo		
narbours	Import of limestone from Gotland to Finland and Sweden			Own vessels Finnish flag, others Swedish or Dutch		
	Material Flows	Partners & Collaboration	n	Competence / Advantage	Cost Structure	
	Carbon energy 33% Coke and coal 12% Limestone 12%	Outside help is needed of project-based operations everything is managed b	s, otherwise	Dry bulk transports in cold conditions Self-unloading ships with cranes in	Have been able to maintain profitability through being "lean and mean" in their operations	
	Pellets 22% Enriched ore 13%	group		harbours or transloading at sea	Fuel costs; try to optimize through right	
	Other 8%	Close cooperation with the customers		Small organisation, flexibility	speed and amount of cargo, e.g. fully loaded ships	
					New constructions are financed by bank loans. Financing easier due to being part of Aspo	
Risks			Possibilities			

The new tonnage tax system

Increasing material flows in the Baltic, e.g. mining and Russian market development



Godby Shipping Ab

Main market areas and market development

Finnish forest industry, declining forest industry production in Sweden and Finland

Speculations on less harbors

Russian market growth

Strategy and ownership

Family owned

High class tailor made sea transportation for the forest industry

Customer Segments	Shipping Routes / Harbors	Offering / Value Proposition	Assets	Pricing Mechanism
Forest Industry The vessels Mimer (built 1990), Mistral (1999), Miranda (1999), Misana (2007) and Misida (2007) are all time chartered to UPM- Kymmene One is time chartered to CMA CGM and one to Holmen	Forest Industry Products from Finland (Sweden) to: Northern Spain, Santander London Rostock Antwerp	Offer high class tailor made sea transportation for the forest industry. Tailored vessels for customer need Sea transport only, port to port	Long contracts with key customer Seven ro-ro vessels All vessels flagged in Finland	Time Chartering, long contracts
32.	Containers and trailers back, possible other goods as e.g. cars to St. Petersburg. UPM uses Rauma & Kotka (Jakobstad)			
	Material Flows	Partners & Collaboration	Competence / Advantage	Cost Structure
	Paper, containers and trailers	UPM-Kymmene, new ships designed together with customers	Ships designed together with customers	150 employees (all Finnish, besides ten Estonians with Finnish contracts),
	Forest Industry Products from Finland to Europe and container and trailers back	Investors, banking	Customer centrism Finnish labour	High competition affects profitability
				Cost of capital

Risks

 $\label{thm:possible} \begin{tabular}{ll} Declining forest industry production in Finland \& Sweden. Possible new forest industry investments going to Central Europe or South America. \end{tabular}$

Possibilities

SECA-zone will protect the market from outside players

Oil prices are considered a high risk now and in the future



Langh Ship

Main	market	areas	and	marke	t deve	lopment

Russia a strongly attractive market in the future

Feeder traffic will be growing when large containerships do not manage small ports. Container transportation of zinc and nitrates is increasing

Finland, Russia and Sweden rich in raw materials, extended flow to global markets

Strategy and ownership

Family owned Langh Ship owns and operates 5 modern vessels. The company has also developed special containers for steel transportation and leases them.

Sister company, Industrial and Ship Cleaning Services Hans Langh offers industrial cleaning services for ship yards, factories etc. around the Baltic Sea and North Sea. In case of average, the prevention of further damage can be done around the world.

The family also owns a large grain growing farm.

Customer Segments	Shipping Routes/Harbors	Offering / Value Proposition	Assets	Pricing Mechanism
Chartering ships for steel transportation (at the moment Outokumpu) and for container	Mostly Finland to Northern Europe to Russia	Multipurpose vessels transporting steel, bulk and containerized goods.	Owns five multipurpose ships (6500 DWT to 11500 DWT) with container capacity of 466 – 907. Ice class A 1 Super + 1 A	Ships: Contracts normally 1 – 5 years (time charter agreements)
traffic (at the moment Containerships).	Tornio – Netherlands (Steel)	Special cradle tween decks and cassettes for steel coil	Nearly 1000 special containers for steel	Container leasing up till five year contracts.
Lossing special containors and	Helsinki, England, Rotterdam	transportation.	and bulk transportation	
Leasing special containers and cassettes for steel transportation.	Containers to St. Petersburg	Special containers for transportation of steel coils, steel		Cradle transportation unit leasing & licensing 1 – 5 years
Licensing steel transportation solutions.	Ust-Luga in the future?	plates and bulk.		
3014110113.				
Solutions.	Material Flows	Partners & Collaboration	Competence / Advantage	Cost Structure
Solutions.	Material Flows Steel coils, steel plates and bulk in special containers. European container traffic for	Partners & Collaboration Agents for special container in Korea and Canada. Direct contacts to European customers. Member of the Finnish Cargo Ship Association.	Competence / Advantage Minimizing cargo damages in sensitive products such as stainless steel, automating cargo handling and eliminating the need of stuffing material.	Cost Structure Main costs: Personnel (118 employees), capital costs, insurances and maintenance of the vessels.
Solutions.	Steel coils, steel plates and bulk in special containers.	Agents for special container in Korea and Canada. Direct contacts to European customers. Member of	Minimizing cargo damages in sensitive products such as stainless steel, automating cargo handling and	Main costs: Personnel (118 employees), capital costs, insurances and

Risks

Political risks

New environmental regulations will impact as high costs - still with innovative product development and new technology the cost may be kept reasonable.

Foreign ships with lower salary costs

Possibilities

Containers to army use

Know-how in ice traffic & environmental-friendly fleet



Lundqvist Rederierna Ab

Main market areas and market development			Strategy and ownership		
Oil transport business			Consists of Ångfartygs Aktiebolaget Alfa and Rederiaktiebolaget Hildegard		
Market development is mainly dictated by world market changes and political			Lundqvist f	amily major shareholder	
decision making			Transportir	ng crude oil	
Customer Segments	Shipping Routes/Harbours	Offering / Value Pr	oposition	Assets	Pricing Mechanism
The largest oil companies in the world	75% / 25% shipped on North Sea transport and Mediterranean	Oil transport		Strong liquidity thanks to cautious investment policy	Spot market, customers are only invoiced for transport from A to B.
Two main oil companies contract 75% of all transports	England			8 Aframax tankers owned by 3 companies in the Bahamas and managed by Lundqvist	Smallest tanker (96 000 tons) is most profitable as larger vessels are rarely utilized to 100%.
(Exxon, Shell, BP)	North Western Europe			No plans to build new vessels due to vessel overcapacity	are rarely utilized to 100%.
	Material Flows	Partners & Collabo	ration	Competence / Advantage	Cost Structure
	Crude oil, fuel oil about 5%	Two main brokers and good relationsl key customers		Long background in the field, advantage to have close relationships with oil giant	Bunker costs, harbor fees, insurance fees
Risks			Possibilitie	S	
Extra taxes for companies based in Bahamas		Economic recovery			
Aging fleet, safety risks and auditing					
Changes in world markets & wo	rld politics				



Meriaura

Market Areas/Market Development			Strategy/Ownership			
The Baltic Sea and the North Sea regions. The ships are although inspected for global traffic but local traffic in seen as more lucrative		Meriaura is owned by Jussi Mälkiä				
The transportations to Russia have increased. Danish and German markets are interesting as well			Strategy is to owning too r	survive by developing cost efficient and spec many vessels	ialised solutions. Does not believe in	
Customer Segments	Shipping Routes/Harbours	Offering / Value Propo	sition	Assets	Pricing Mechanism	
Finnish industry is Meriaura's most important customer Pulp and paper , agriculture , mineral, recycling , shipyard and	Sweden, Denmark, Germany, Poland, the Baltic countries and southern Finland There is no route traffic, the tracks	Door-to-door solutions, responsible for the whole chain Value through: Innovations, environmental aspects and environmental-friendliness		Operates 16 ships, both conventional and special vessels. Owns six the rest is TC-ships from other group members or other outside operators	Contracts range 1-5 years Mostly makes annual, volume-based contracts	
technology industry are main shippers	vary a lot			Specializes in size 2000-5000 dwt	Special transports and large projects are most profitable	
Customers are found mostly without the help of brokers	Agribulk and pellets from Southern Finland to Germany, Denmark and South Sweden	Efficiency in cargo handling and project management		The fleet needs some renewal as average age is 14.5 years		
20% of the customers are responsible for 80% of the turnover	Wood from Baltic countries to Finland			Five vessels flagged in Finland, also newbuildings will have Finnish flag		
Also foreign customers, e.g. windfarm developers	Material Flows More than 2,5 mio tons of cargo every year Carrying basic raw materials: 30% agribulk and biofuels 30% recycling materials, minerals, forest products and wood 40% project cargo and general cargo, e.g. offshore wind farms	Partners & Collaboration Collaborates mainly with other subsidiaries within the company, i.e. VG-Shipping and Pernotrans Subsuppliers in Finland and abroad for arranging door-to-door services		Competence / Advantage Meriaura believes in specialization New special ships., such as offshore windfarm installation vessel Innovativeness: e.g. developing a new fuel from waste-based bio-oil	Cost Structure The fuel is the biggest cost Ship management is handled handled by VG Shipping, who also serves other companies	
Risks			Possibilities			
Rising costs could lead to conversion i transportation volumes are quite sma	nto land transports — a threath for Meria	ura, as their	Offshore wind farm and energy sector development			
transportation volumes are quite sma			If the industr	y could get some outside investors or new fin	ancing instruments, it would help a lot	

Neste Shipping

Market Areas/ Market Development

Baltic sea (main business area)

Canada, New York (gasoline)

Sweden, Denmark, France, Ireland (oil)

Solvent: Israel, Italy, Greece

Markets are expected to improve within the next 5 years. However, business is dictated by oil market development.

The Baltic Sea is seen as one of the growing transport routes in the world. Russian market is growing within the near future and is expected to develop into more refined products.

Strategy/ Ownership

Neste Shipping is the only Finnish tanker company, and also a relatively large shipowner on a Finnish scale. Neste Shipping is the parent company's wholly-owned subsidiary, which was incorporated in 2007 for tax reasons. Neste Shipping is the sole provider of transports for Neste.

Company wants to be the leading environmentally friendly s tanker company.

Shipping Routes/Harbours Offering / Value Proposition **Customer Seaments** 23 vessels: Neste, 50% of turnover Primarily in the Baltic Sea, the North In the future, market development will Sea, and the North Atlantic move towards service business. 6 fully owned, 3 50% owned by Neste Company needs to be able to sell Shell solutions. 11 vessels under finnish flag The Gulf of Bothnia (gasoline to Sweden) Scandinavian and Russian companies Company has started to manage their

fuel supply by themselves. In the future Harbours: they plan to offer the service for others - "Bunker trading". Primorsk; one way traffic of crude oil to Finland Inspection activities, technical services

are also possible future solutions. The Ust-Luga business is currently small, but there is potential to grow Rotterdam

Offers services also in other regions with vessels owned by third parties Several terminals in Finland and in the Baltic Region: Porvoo, biggest

Assets

- 12 chartered (for 1-3 years, from Swedish companies)
- JV-vessels (co-ownership with Stena Line)
- Also 50% of capacity is chartered out

The company has invested in new refineries (Singapore and Rotterdam)

Owns terminals in Finland and the Baltic countries

Newbuildings are planned as market situation is favourable; vessels are tailormade due to ice conditions. LNG possibility for newbuildings.

Pricing Mechanism

Bare boat vessels

Transportation contracts are typically shortterm (about a year)

Spot trading due to price fluctuations

96 % utilization rate of vessels

Baltic region most profitable

3 tugs which generate some income from ice-breking etc.

Material Flows

Transports around 35 million tons of crude oil, petroleum products, and chemicals:

harbour by it's tonnage, Naantali

- Diesel
- Gasoline
- Renewable energies

Partners & Collaboration

Co-partnership with Stena (three vessels)

Maintenence contracts with suppliers: Wärtsilä and ABB

Competence / Advantage

Neste Shipping has long and stable relationships with its customers and a strong brand.

The big volumes enable business agility.

The company has a well-designed business environment.

Neste Shipping has a good distribution network. They have the ability to provide maritime transports effectively and competitively.

Cost Structure

Half of the ships are chartered, because of the need for flexibility

Company has invested in new refineries: Singapore and Rotterdam

Fuel supply is one of the biggest costs

Cost savings: The company has a preventive maintenance related to e.g. fuel consumption and usability.

Risks

Lack of equity; new financing mechanisms e.g. funds needed to ensure investments

The Russians' own refinement business will grow

Possibilities

To increase product development and create global business models, if compared to present businesses

Finland should create a stronger brand image, in order to attract and involve foreign companies in their businesses



Prima Shipping Group Ab

Main market areas and market development			Strategy and ownership			
Operates in Finland and Baltic Sea region			Family ow	ned		
Russia an emerging market			Economic downturn reconstructed the strategy, now a more wider range of service is provided for customers to better protect from volatile market changes			
Customer Segments	Shipping Routes/Harbours	Offering / Value Proposition		Assets	Pricing Mechanism	
Road and building industry	Gulf of Finland – Baltic sea	Prima Logistics, door-to-door A-B with spot shipping		5 minibulkers (owns 3, 2 captain owners)	Mainly spot market backed up by some contracts	
Paper and food industry	Inkoo - Tallinn	Operates Tolkis ha Forwarding and ag		Port of Tolkkinen		
Steel and shippbuilding industry	South Finland - ARAG	Prima Chartering oil and chemical chartering Port of Tolkkinen located 35 km east of Helsinki		Prima Chartering		
Power generations plants	Lake Saimaa			Owns partly Sal ship & Gran ship		
	Inkoo - St. Petersburg			Prima Logistics		
	Material Flows	Partners & Collabo	oration	Competence / Advantage	Cost Structure	
	Bulk	Brokers, ports and service providers i		Port of Tolkkinen is becoming a advantage	50/50 bunker/personnel	
	General cargo	service providers i	ii logistics		64 employees, long freights	
	Projects			Suitable ships also for smaller ports and fairways	Repay loans	
Risks			Possibilitie	es		
Increasing competetion			Several development projects ongoing in Port of Tolkkinen			
Globalisation			Possible LNG terminal as neighbour to Port of Tolkkinen			
Infrastructural costs			Opportuni	ities in the biofuel sector		
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