

# **Kotka - Sillamäe connection potential**

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## 1. KOTKA - SILLAMÄE CONNECTION POTENTIAL PROJECT

Well-functioning and safe logistics services are vital for foreign trade and industry. The connection between Helsinki and Tallinn is the most important route for unit traffic across the Gulf of Finland, but as the security environment in the Baltic Sea region changes, ensuring safe maritime transport and maintaining security of supply have become even more important due to Finland's logistical position. The purpose of the project was to update the situational picture of cargo and passenger potential across the Gulf of Finland to reflect today's security policy environment and market situation.

The project involved interviews and surveys, which examined how necessary a ferry connection would be and who could be the potential customers for a ferry connection. The project examined the profitability, safety and significance of the connection in terms of security of supply. The project also takes into account the impacts of tougher environmental regulation and the potential competitive advantage for the profitability of the route offered by future energy solutions in the area's ports.

The interviews were conducted for a limited target group comprising representatives of companies, public organisations and educational and research institutes. Potential interviewees were contacted directly either by telephone or email. Microsoft Teams was also utilised in conducting the interviews. Part of the study was carried out by drawing up a battery of questions for a wider range of companies using the Webropol system. The Estonian part of the study was carried out by visiting Estonia to meet the operators located there. In Estonia, we met the representatives of cities, Ida-Viru County, travel agencies and the Estonian Defence Forces. On the visit, we gained a very comprehensive picture of tourism in Estonia, the volume of cargo transported over the Baltic Sea and the desire of the cities in Eastern Estonia for a ship route between Kotka and Sillamäe.

I would like to express my great thanks to the representatives of Eastern Estonia for the very comprehensive and versatile discussions we had with them over three days we visited. A heartfelt thank you to all the representatives of Ida-Viru that we had the pleasure to meet.



As the Baltic Sea's security level seemed to deteriorate already during the start of the project, the aim was to place more of an emphasis on the security of the Baltic Sea region by also requesting security assessments from the Finnish Defence Forces and the National Emergency Supply Agency.

## 2. PROJECT MEASURES

At the beginning of the project, a background study on the current situation was carried out using various channels. Numerous previous projects that had focused on shipping in the Baltic Sea region, formed a good foundation for the project at hand. These previous projects include H-T Trans Plan (2011), Trik (2013), RAMAPOT (2007 – 2008), REFEC (2020) Logistiikan muutokset Saimaan alueella (2022) Joint report by three Estonian consultation companies and an Estonian university Analysis of the restoration of Sillamäe – Kunda shipping line (2023). Analysis of the sosio-economic impact of the restoration of passenger traffic on the Sillamäe -Kotka line (2023), ja Feasibility -cost benefit analysis and sosio-economic impact analysis of the restoration of Sillamäe - Kotka shipping line (2023). Other sources, such as news bulletins and local newspapers, were also used.

After the background study, the project sought out companies that could be expected to benefit from the new shipping route. To start off, we examined the changes that have taken place since Russian transports and the use of the Saimaa Canal came to an end for operators such as large forest companies. How have they adjusted to the new situation and how have they arranged the transport of wood raw material now? After this, the cargo potential was examined by investigating cargo that travelled through ports between Estonia and Finland and separately specifically in the direction of eastern Estonia.

Passenger potential was examined by interviewing travel agencies that operate in Eastern Finland that organise travel to Estonia. The Defence Forces was asked to provide security reports and the National Emergency Supply Agency was asked about security of supply aspects. Itä-Suomi Unioni, the union of Eastern Finland was consulted with the assistance of its agents and a Webropol survey was prepared for targeted companies in Eastern Finland.



The possibility of business support and the profitability of the shipping route were examined by comparing other shipping companies. Business support opportunities were also examined in Estonia. One important factor examined in terms of the profitability of the route was the start of emissions trading in maritime transport and its impacts in the future.

### 3. CONCLUSIONS OF THE BACKGROUND STUDY

Previous studies provided an abundance of accurate information on the Baltic Sea shipping routes from 2011 to today. The Covid-19 era 2020–2022 had also been taken into account in terms of traffic and cargo volumes. In addition, various shipping routes, which travelled between Finland and Estonia over these years, had been studied extensively. These projects also examined the profitability of routes comprehensively and passenger potential through market research. The need for support funding had also been examined with several different options. Studies by Estonians focused on one shipping route from Kotka to either the Port of Kunda or Sillamäe. These reports were also very comprehensive and also took the conditions in Finland into consideration. Such a RoPax vessel had travelled between Kotka and Sillamäe in 2006 and 2007, so there is already a report on the route in terms of costs, cargo and passenger numbers although it is from many years ago.

Six studies have already been carried out on the route, passenger potential and cargo potential, making this is the seventh such study. Previous studies are very similar in content and consistent, with a few minor exceptions.

For the purposes of this study, it is not necessary to repeat the results of previous studies, as they can be read from those reports themselves. This study only returns to previous studies to the extent that there have been evident changes since or that they contain information that is comparable to this study. The most comparative information was found in studies carried out for the REFEC project in Finland as the only real difference was that port of departure in the city of Loviisa in Finland, which is just 45 kilometres from Kotka.

Estonian studies also provide comparable information, as the destination cities are exactly the same. The Estonian study provides detailed information on the situation in Estonia. With regard to statistics, passenger



and freight traffic between Finland and Estonia has also been taken into account up to last year. They are also very recent (autumn 2023). In other words, the results describe the current situation masterfully. An update was made for Finland with the help of local companies, shipping companies, universities and travel agencies as well as port operators. What might have changed, and would the change also have an economic interest?

#### **4. CHANGES IN COMPANIES' RAW MATERIALS PROCUREMENT IN 2022–2024**

After the background study, a survey of companies began. In the beginning, it was noted that the forest industry could potentially want to transport their cargo along this route now that the use of the Saimaa Canal and transport of raw material timber from Russia have come to an end. Forest industry companies are already using the Port of HaminaKotka for their transports, and the port's raw timber cargo has doubled since 2022. Companies have their own vessels, but they also have to tender out transport services, especially during economic upswings, which was reflected e.g. in transports in 2022. Would the forest industry have use for a shipping route between Kotka and Eastern Estonia? The route from Eastern Estonia to Kotka and from there to forest industry companies in Southeast Finland and North Karelia is relatively short, so there could be profitability potential for raw timber transported from Eastern Estonia. We also examined the situation of companies in the Viitoskäytävä corridor. Would companies along Road 5 and the Savo rail section be interested in transporting their products via Kotka to Estonia and back?

Following the start of the Russia's war on Ukraine, it significant changes have taken place in the acquisition of raw materials by companies. These changes have been studied less so far, so the logistics and changes in the wood raw material of large companies were one of the subjects of the study.

The study comprised interviews with representatives of large companies in Southeast Finland who were responsible for the procurement of wood raw material for factory plants. They were asked about the current situation and how the closure of the Russian border and the Saimaa Canal had affected material flows at



their production plants. They were also asked about changes in the cost structure of logistics and their development needs in logistics.

From the perspective of the project, questions concerning the procurement of raw materials across the Baltic Sea from Estonia were of importance. Did they already have transports and purchases from Estonia? If they did procure products from Estonia, what were the different parts of their logistic chain? Did they see further development needs in this?

What did they think of the idea of a shipping route across the Baltic Sea from Eastern Estonia? In their opinion, was any other possible shipping route from Estonia worth supporting/safer?

How did they see the future of cargo routes in the Baltic Sea region? Did they still consider the Baltic Sea a safe route for transporting raw materials?

## 5. INTERVIEWS

Companies were approached via email and by telephone when potential target groups in companies had been found. A set of questions were prepared separately for each company according to their specific assumed needs. Whenever possible, interviews were conducted in personal meetings and we recorded, if the company's representative authorised this. The Teams app was also used. The identification data of those interviewed are not mentioned as enquired by data protection practices.

### 5.1 Kotka Mills

Kotka Mills has experienced difficulties in timber procurement at all its units for quite a long time. The substantial increase in the prices of raw material wood compared to the price of products has led to pressures to cut costs. Kotka Mills had to close its mill on Kotkansaari island by the end of 2023. As a rule, domestic timber reserves have been used. Prior to the closure, woodchips and sawdust was procured from Russia. This has been replaced by a woodchips and sawdust imported from Germany and Sweden. There have only been some very random batches of birch veneer woodchips from the Baltic countries. Kotka Mills organises logistics itself and does not see the need for a regular shipping route from Estonia.





## 5.2 Kotkan Energia

Currently, Kotkan Energia procures energy wood mostly from domestic operators, but different one-time batches have also been purchased from the Baltic region and Sweden. The restrictions on imports of Russian wood have not had much an effect, as Kotka Energia was already prepared for the changes in advance.

In the past, energy wood imported from Russia accounted for approximately 8% of Kotkan Energia's total, and its imports were terminated nearly completely one year before the start of the Russian war of aggression. The discontinuation of imports was mostly the result of the entry into force of the EU Renewable Energy Directive (RED2) and its requirements for verifying the origin of timber procured, the sustainability of production and the origin of the used wood. The Russian operators did not provide sufficient and reliable documentation of compliance with the requirements of the RED2 Directive.

Estonia has a well-functioning timber market and numerous operators who supply energy wood. Regular contact is maintained with these operators. The price level in the Estonian timber market is strongly fluctuates with demand and supply, and over the past two years the price level has almost constantly exceeded the domestic price level. There are reservations about the security level of transport in the Baltic Sea, but this is not as decisive of a factor in the current situation, as the overall cost of the entire supply chain. At the moment, Kotkan Energia sees no need for a possible regular shipping route towards Estonia, as there is no detailed information on the cost-effectiveness of the planned shipping route available yet. The purchase price of energy wood used for heat production has increased significantly since the war began. This makes the procurement of fuels/wood for power plants and heat plants very critical, as in the current general economic situation, the increase in costs cannot be passed on in full directly to consumers.

Amendments to the directive, law and regulation that will affect the use of forest biomass and thus have an impact on the sector are actively monitored, and the activities of the sector are adjusted to meet the changed requirements guided by these amendments. A good example of these is the operator's sustainability system and its compliance with the requirements laid down in the RED2 Directive and, consequently, the Sustainability Act (Act on Biofuels and Bioliquids). One new effective directive in the future will be the CSRD



(Company Sustainability Reporting Directive), which will provide an overall picture of a company's corporate responsibility and social and economic sustainability.

### 5.3 Finnish Forest Industries

In order to obtain a comprehensive picture of the forest industry, a representative of Finnish Forest Industries was also interviewed.

Currently, demand for forest industry products has decreased almost regardless of the sector by nearly one fifth compared to last year. Looking back through history in the longer term, it can be observed that the peak in demand caused by Covid-19 increased demand to a high level. Although it now seems as if demand has fallen dramatically, we are in fact in the same situation in relation to demand that prevailed before Covid-19. The forest industry is a highly cyclical sector and future expectations are positive. A steady decrease is only seen in graphic printed products. It is known that numerous forest companies transport timber from the Baltic countries and several ships transport wood raw material. The outlook for the forest industry is that the economic cycles will be positive by next autumn at the latest.

### 5.4 UPM's timber transports

UPM transports wood raw material not only from the domestic timber market and its own forests, but also from the Baltic countries, mainly Estonia. From Estonia, the vessels chiefly depart from Muuga Harbour and arrive at the Port of HaminaKotka harbours in Halla, Hamina and Mussalo. The Saimaa Canal was not a significant transport route for UPM, but after the Russian timber was no longer available, this resulted in a change in the procurement, which now focuses on timber from Estonia, the other Baltic countries and Sweden.

As a whole, Russia's raw timber totalled approximately 9 million cubic metres in Finland, which was mainly divided between the three largest companies when transports took place by rail. (Stora Enso, Metsä Group and UPM). UPM has its own vessels and several cargo shipping companies that it tenders. The other shipping companies cover the insufficiency of UPM's own transport capacity in the event of an economic upturn.



Transports are selected by comprehensively assessing the functionality, total capacity, frequency of transports, cost structure as a whole, and security of supply of the entire chain. This enables them to find a well-functioning package. Ships have up to seven departures per day, and the routes have competed strongly, making it difficult for new operators to enter the market. If there were only e.g. one departure per day from Kotka on a Ropax vessel, the transport volume would be marginal.

However, routes are also sought all the time, and if the conditions are met, they can also be implemented. The price of wood has increased significantly after Russian was no longer available, and large forest industry companies are competing for deliveries. UPM's own vessels are about 5,000 DWT and are conventional vessels. The choice of routes and ships are comprehensive decisions that are influenced by the functionality of the entire transport chain, not just the shipping route. In addition, vessels travel frequently enough, as the volume of transport is large after trade with Russia came to an end. This will continue for a long time, because there is no prospects for a return to the use of Russian wood for many years. In addition, wood consumption continues to grow in Finland. For example, the Metsäryhmä's new pulp mill in Kemi will start using 6–7 million cubic metres of wood annually. The need for wood from abroad will be around 15 million cubic metres now that Russian wood raw material is no longer available .

## 5.5 Possible synergies in the Viitoskäytävä corridor

The project also included interviews with representatives of the Viitoskäytävä project, which was coming to its end. The project period spanned from September 2021 to the end of 2023. The project involved cooperation between regions along Main road 5 and the Savo railway line as well as companies located in these regions in the marketing of the area and its utilisation nationally.

Objectives of the Viitoskäytävä corridor project:

*"The Eastern Growth Zone of Finland, which is developing through partnership, combines different regional development actors, crossing administrative and regional boundaries and forming an extensive and committed partnership network. Viitoskäytävä corridor's most substantial value is its cross-regional shared strategic vision and operating model. Viitoskäytävä corridor is a mental landscape and expression of intent,*



**Euroopan unionin  
osarahoitama**

**KYMEN  
LAAKSON  
LIITTO**



*where qualitative factors are emphasised. The objective of the Viitoskäytävä corridor is to highlight the national significance of the growth zone and to make it one of Finland's main development and growth zones." /1/*

This project sought synergies with the potential interest and willingness of larger companies along Viitoskäytävä corridor in finding new routes for transporting raw materials and products from their production facilities. The possible passenger potential in the Viitoskäytävä corridor area was also considered. We contacted the Confederation of Finnish Industries with their help to look for companies to target in our survey. The Confederation of Finnish Industries was sympathetic to the project and organised the sending of our questions to targeted companies. The possible companies were reviewed and the survey was carried out using the Webropol questionnaire.

## 5.6 University of Eastern Finland Department of Timber Industry

An expert on the timber industry and its logistics flows from the University of Eastern Finland, an expert on was interviewed.

The closure of the Saimaa Canal caused major changes to timber procurement in Eastern Finland as a whole, after approximately 10 million cubic metres of wood were no longer available. Wood from Estonia and Latvia is transported through the Port of HaminaKotka and is delivered to Southeast Finland. The total amount of timber felled in Estonia is approximately 7 million cubic metres per year. Around 10 million cubic metres of timber is felled in Latvia, but they are transported along different routes. Alternative channel solutions have been sought, including the Mäntyharju canals, but they have not seemed profitable. In terms of traffic, the transport of timber has now shifted from the Saimaa Canal on board relatively small vessels and barges to rail and road transport, as well as inland waterway transport.

The idea that passenger and forest industry freight traffic would be carried out on the same vessel is considered very unlikely, for example in terms of loading and unloading of cargo at the same time as passengers, even if the need for transport, will possibly grow with an increase in as the total volume of timber



increases in the future. In this case, a sufficient amount of container traffic should be found and preferably in both directions.

## 6. SUMMARY OF INDUSTRY'S NEEDS FOR THE NEW ROUTE

The interviews were sufficiently comprehensive in terms of the needs of the forest industry, involving forest industry companies, the University of Eastern Finland, representatives of the Viitოსkäytävä corridor, and the Finnish Forest Industries.

Based on the interviews, the current situation, after Covid-19 and after the beginning of the war of aggression, has become established in the procurement of raw material timber. There has been quite a bit of turbulence over the past few years, and companies have had to spend a lot of time reorganising their timber procurements. However, they have been successful in doing so, although the cost increase for wood raw material has been great. Despite last year's economic **upswing**, there has been a sufficient supply of wood raw material through new routes. With the current downturn, some of the previously acquired logistic volume remains unused.

Companies have their own vessels and price-competitive suppliers used in economic upswings. Important quality criteria include the reliability of delivery timetables and the adequacy of the volume of deliveries. The arrival of new suppliers in a competitive offering means comprehensive supply chain planning and management - not just a specific shipping route. Delivery agencies take care of the entire chain and find the most affordable routes, and, from the perspective of businesses volume management and the speed of deliveries are crucial.

The operation of an individual vessel between Kotka and Estonia and its use is not out of the question, as cheap routes are sought all the time. In this case, timetables and the ability of ports to handle cargo and passenger traffic at the same time may become a problem. The transport of timber by truck is not considered profitable, at least not in the current situation. This means that the use of RoPax vessels would not be profitable. Obviously, all existing potential will be used during an economic upswing



## 7. PASSENGER POTENTIAL FOR A NEW ROUTE FROM KOTKA TO EASTERN ESTONIA

### Kotka -Sillamäe route

A ship route from Kotka to the Port of Sillamäe was tested with a Ropax vessel in 2006 and 2007, and there are several reports on this, including Analysis of the restoration of Sillamäe - Kotka shipping line written by Estonians in 2023. This analysis used the Vironia vessel, which travelled between Kotka and Sillamäe during the period, as a reference. Numerous problems were identified on the route, which reduced interest in using said route, such as the vessel and port facilities were insufficient for the needs and expectations of modern passengers. The detour around Hogland island increased travel time and fuel costs to a significant extent. Insufficient marketing in both countries, unsuitable timetables, etc. contributed to the route being discontinued in 2007 as it was unprofitable. This trial was carried out with private funding. However, it was apparent that the route could have been profitable if had been maintained for a longer period of time.

Estonian studies focused on the possible reopening of the route. They have also considered different ship models and the related procurement and operating costs. Investments would also have to be made in ports and roads. According to Estonian calculations, EUR 7 million would be needed per year to subsidise the activities and EUR 10-20 million, depending on the type and age of the ship, in order to find a company for the route. More detailed information can be found in Estonian reports. /2/

After the Vironia vessel, there were also plans to use the Stella Lines vessel Julia for the same route. Russia waiving visas for the St. Petersburg route simultaneously changed these plans as Julia travelled from Kotka to St. Petersburg for a few months. This, too, proved to be unprofitable.

After COVID-19, there has been growth in traffic in the Baltic Sea, and many large passenger ferry companies have reacted to this growth by bringing new vessels mainly to Sweden and Åland. Tallink-Silja MyStar 2022 is also a new vessel on the Helsinki-Tallinn route. However, traffic flows are not yet at the pre-Covid-19 level.

Traffic is currently highly competitive in the Baltic Sea and transport unit prices are low. Over the past few years, many large shipping companies have invested hundreds of millions of euros in new vessels and the



renovation of their older fleet. Traffic predominantly runs west from Finland, i.e. the Helsinki-Stockholm, Turku-Stockholm, Naantali-Kapellskär, Hanko-Umeå routes. The new ships are of high quality, e.g., two new Finnlines ships even have spas. These vessels also have a very large cargo capacity of more than 5,000 lane metres. Finnlines vessels are thus make their profit by transporting cargo making up 90% of their turnover.

A new Wasaline vessel has started operating between Vaasa and Umeå. It is a Ropax vessel, whose passenger/freight ratio is 65%/35%. The routes between Finland and Estonia are currently Helsinki - Tallinn, Vuosaari - Muuga. The Vuosaari - Muuga route also takes passengers if they have a car. The route Muuga - Port of HaminaKotka has been used for cargo traffic by companies such as UPM and Stora Enso. Previous routes have included the Hanko – Paldiski route, which was discontinued in 2020.

Of previous studies, one that should be highlighted is the REFEC - Reinforcing Eastern Finland-Estonia Transport Corridor project, which is a good reference for the idea of a new route and its profitability. The REFEC report was completed in 2020. It examined the route between Eastern Finland and Eastern Estonia between the ports of Loviisa and Kunda. The connection run almost directly along a north-south axis and would be 54 nautical miles in length. Moreover, there is no Russian territorial water in between to requiring a detour. /3/

The study was carried out by the University of Turku's Centre for Maritime Studies (CMS) and its partners the City of Loviisa, the Port of Kunda and Posintra Oy. The project with funding of EUR 700,000 aimed to develop a transport corridor between Eastern Finland and Estonia took place from 2017 to 2020.

The project sought a direct route for Via Baltica and examined the prerequisites for opening a transport corridor between Eastern Finland and Eastern Estonia. The key objective is to promote the realisation of the Loviisa-Kunda connection through practical measures. The measures included drawing up business models with potential shipping companies, operating and investment plans for ports, a plan to meet permit and regulatory requirements, connection schedules and route alternative plans, marketing plans and marketing events.



The aim was also to examine the cargo potential of the transport corridor and to verify the effectiveness of the transport corridor, i.e. the shorter travel time, numbers on the use of the corridor and the Loviisa-Kunda connection. The transport corridor would speed up and streamline cargo traffic between eastern Finland and Estonia, but the new corridor would also bring other benefits. The more direct connection would also benefit Via Baltica traffic, which runs to Eastern Finland of away from Eastern Finland.

The corridor would also curb the growth of heavy traffic and its adverse effects, such as congestion, emissions, noise and dust in central Tallinn and Helsinki. A reduction in transport kilometres would also reduce carbon dioxide emissions. In practice, this very comprehensive research carried out with large amounts of funding examined the same thing as in this study, the Port of Kunda has also been considered as another Estonian port on a possible new route. The difference between this and the University of Turku's study is only 45 km by road in Finland, between Loviisa and Kotka, although port operations are different, the journey from Loviisa to all Estonian ports by sea is considerably shorter.

The REFEC project noted, among other things, the significant impact of the length of the shipping route on profitability and the impact of the Vuosaari-Muuga route on the reduction of congestion between Helsinki and Tallinn. In Tallinn, congestion has been eased with the new Reidi road departing from the port. The construction of a tunnel to streamline traffic and major expansions of cargo and passenger terminals are under way for the West Terminal in Helsinki. Once completed, congestion will decrease significantly. The frequency of vessels between Helsinki and Tallinn is good, which speeds up the mobility of cargo. /3/

On this basis, we can examine what the Kotka-Sillamäe route could offer as added value to the current situation. In order to implement the new transport route, there would have to be a natural flow of goods based on geography and the market. The basic precondition for the transport demand and profitability of the new connection is a sufficiently good service level and price competitiveness. In other words, the new route should provide some added value compared to the existing one.

The route could be cheaper, faster, easier to use and also more environmentally friendly. Another thing that would bring added value added value would be a destination where there was something "new and amazing". This is from the perspective of the individual traveller.





Cargo transport, on the other hand, sets very different conditions. Geography is very important; what is the geopolitical status of the port of departure and the destination? Can a sufficient volume of goods be transported in both directions to ensure the route is profitable? Or are exports only in one direction so valuable that the route could be profitable? The frequency of ferries is also important for cargo transport, as fast delivery is a significant quality value. There are 16 departures from Helsinki to Tallin each day.

From the perspective of individual passengers, the coastline and cities of Eastern Estonia themselves are worth seeing. Novelties have always attracted passengers. Novelty can also be achieved with a new high-quality vessel, such as Finnlines has shown with its new vessels.

From the perspective of tourism travelling, what is in eastern Estonia? The harbour area in Sillamäe still lacks a suitable terminal for passenger ferries, and there is one hotel and restaurant in the town itself. Narva, which is located nearby, is a much more interesting destination and offers more services. This would mean ferry travel with cars to allow passengers to visit Narva or stay overnight. Narva is on the Russian border, and this may be a risk for passenger interest, even if border issues with Russia do not grow worse.

Taking these facts into account, the vessel operating the route would have to be new and at its best of a high standard for example at the same level as Finnlines' Finnsirius. The new route will require long-term and wide-ranging marketing and definitely improvements to facilities in the destination towns. In addition, in view of the fact that cargo accounts for 90% of the result for these Finnlines vessels, the ferry should have a profitable amount of cargo in both directions.

With regard to the profitability of the route, it would be beneficial if the vessel could be 'customised' precisely for this route, according to cargo and passenger numbers, as Wasaline has done on its new Aurora Botnia vessel. This would, of course, mean a new vessel when market research shows that there is sufficient demand for the vessel.

The RoPax vessel that operated on the route in 2006-2007 carried 1/3 of the cargo for the third vessel's entire cargo space, i.e. approximately 400 metres of the vessel's 1,200 lane metres. The comparison is again to



Finnsirius, which has more than ten times more cargo space. On the basis of this study, the cargo carried on board the RoPax vessel from Eastern Estonia and to Estonia was not available anymore.

Increasing and already increased costs should also be taken into account. Emissions trading began at the beginning of 2024, and the price of emissions will increase every year until 2030. When considering the use of an older vessel the emissions trading price rise must be added to the price of the diesel used by the vessel and, of course, the higher consumption of older vessels and the need for maintenance in general.

## 8. INTERVIEWS WITH CHARTER BUS SERVICE PROVIDERS

The study examined charter bus trips from Eastern Finland during telephone interviews, personal interviews and Teams meetings with travel organisers. The target group selected for the interviews comprised the area's largest operators Pohjolan matkat, Matkapojat Oy, Imatran kyytibussit Oy, and Heino Tours.

Domestic tourism as a whole has decreased after the coronavirus pandemic. Now that there are no longer Russia tourists, this has impacted Eastern Finland, Eastern Estonia and the Baltic countries. The focus of tourism has shifted to foreign and air travel. Helsinki and Lapland, during the winter season continue to attract people, but efforts need to be made to increase the share of summer tourism to Lapland. Tourism in Eastern Finland lacks networks, marketing, sales and accessibility and the area is poorly known, i.e. all key factors related to tourism. Finland is still the least known of the Nordic countries as a tourist destination, so more visibility is needed. Finland and the Baltic countries

bring up the rear as tourist destinations. As of yet, there is no growth in sight. /4/

### 8.1 Imatran Kyytibussit

Imatran kyytibussit Oy organises trips to Estonia from Eastern Finland predominantly from Simpele via Imatra and Lappeenranta to Helsinki and from there to Tallinn and elsewhere in the Baltic region, such as Pärnu, Riga and Tartu. As an example, there have been no chartered trips to Narva. It is assumed that Narva is



considered a 'Russian place' and is therefore not attractive. The customers are group travellers, pensioners and members of clubs and associations. There are no passengers from the southern areas such as Kouvola and Kotka. The trips are tailored group tours, and Southern Finland has other tour operators. The beginning of 2024 has been very quiet, but the company believes that there will be more bookings as spring approaches. A bus should have a minimum of 30-40 passengers, but now this has proved very challenging.

When asked whether the company would be interested in using a new shipping route from Kotka to Eastern Estonia, for example via Sillamäe, to Tartu, the company saw the shorter land travel route as an advantage, if they did not need to drive all the way to Helsinki. The bus journey would be shortened by about 150 kilometres, but this benefit will be lost due to the 6.5 hour ferry journey. They believed that 4-4.5 hours at sea would still be short enough, but 6.5 hours was too long. The timetables would need to be suitable for them, as passengers do not want to leave at 3:00 a.m. if a ferry departs early in the day. The ferry would need to have sufficient restaurant and other outsourced services, as the fares are so low that the margin should be obtained from other sales.

Fuel surcharges and emission charges, which are already in force from 1 January 2024, were also seen as a risk and believed to eat away at profitability, and these will increase in the future. This will have a major impact on shipping.

## 8.2 Heino Tours Kotka

Heino Tours, which operates in Kotka, is the only bus tour operator that has organised trips Narva already at the time when a Ropax vessel travelled there in 2006-2007. At that time, they were able to sell a good amount of trips and cabins were always fully booked. A large amount of cargo was also carried by the ship. However, this transport route proved unprofitable with private funding and no subsidies and ended after 1.5 years. Heino Tours continues to organise occasional trips to Narva via Tallinn. It is also possible to still enter Russia by car from Koidula situated south of Narva.



Heino Tours sees a new possible shipping route from Kotka to Sillamäe a very positive thing. For example, the city of Narva has developed in a good direction in terms of tourism in recent years. Spas and hotels have been built in the city. The area's landscape is the best in Estonia and something tourists have not seen before. When travelling by car, you can enjoy them e.g. in the area around Lake Peipus. The region is also historically important, and heritage tourism is an excellent contribution. Security is also at a good level and no disturbances have occurred.

Heino Tours also sees the shipping route from Kotka to Eastern Estonia as important for the future. An increase in tourism from Europe to Finland and to the north has already been noted. Climate change may boost tourism from Central Europe to Finland in the future.

At the moment, road travel from Europe tends to pass through Tallinn and Helsinki and head north. Tourism from Europe to Lapland has increased and will continue to grow. It is called 'snow tourism', because the slopes of Central Europe have been 'black'. Tourism still consists in great part of air travel, but the prices of flights will rise, and there is also a sense of 'flight shame'.

This change may create a market for car tourism from Central Europe to northern Finland. With the current model, Eastern Finland is left to the wayside. Expanding travel options also towards Eastern Finland would allow part of the tourist flow to spread to wider area in Finland. If travel were possible from Europe to Sillamäe and via Kotka to Eastern Finland, tourists would flow through the cities of Eastern Finland. The distance from Italy to Skibotn in Northern Norway is about 4,000 kilometres via Sillamäe and, for example, along Main Road 5 or through Joensuu. There are 250 million people living along this route, so the passenger potential would be enormous.

This also requires long-term marketing and partnerships with sales agents in Europe in order to sell trips. Large travel agencies and shipping companies have their own organisations and expertise for this type of sales. Small operators are not in a position to do so.



### 8.3 Matkapojat/ Elämys Group

Matkapojat have merged with the Elämys Group, but they operate as a completely separate company. They organise tours to numerous European destinations, but the Baltic region is their main market and they organise more than 300,000 trips to Estonia each year. They are Finland's largest organiser of bus trips in the Baltic region. Most of the trips are to Tallinn and Pärnu. Some trips are also made to Narva and Tartu in Eastern Estonia. They use all major shipping companies operating to Estonia.

70% of their clients live north of Ring Road III. Large shipping companies mainly market trips to those who live south of Ring Road III. Around 60% of the company's customers are different groups, Christmas party trips, clubs and associations. Regionally, they live in the area of Eastern Finland south of the Joensuu - Savonlinna line and somewhat in the areas of Pirkanmaa and Satakunta. Kotka could be a good place to cross the sea. Their customers are mainly couples aged 50+.

In Eastern Estonia, they organise trips to Narva, spas located in Narva -Joe'suu, Kohtla and Toila within a radius of about 100 kilometres from Sillamäe. They are familiar with the Port of Sillamäe and feel that the port's facilities and operations are sufficient. A bus could board and off-board a ferry with the passengers inside. The security situation in Narva is good, and there is plenty to see in the area, which is positive from the perspective of marketing. The area's prices are also generally about 30% lower than in Tallinn.

The company stated that a ferry journey departing from Kotkas would bring them savings and shorter travel times for their customers. The purpose of these trips is to go somewhere and getting there is only a "mandatory transition period". If a ferry journey lasts 6.5 hours, the time saved will be lost. The travel time between Tallinn and Helsinki by ferry is approximately 2 hours and 15 minutes, so the travel time would be extended by a couple of hours and it is too much for marketing.

The vessel used is also important, as passengers today have different club cards with discounts offered by large shipping companies. A well-known brand name will benefit from this when an individual passenger is planning a journey.



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As this is a transition journey, the vessel is not required to provide as many services as it would on overnight journeys. The general cleanliness of the ferry, buffet meals and cafés are sufficient services and sufficient seating space. For example, Finnlines' "freed vessels" Mariella and Rosella would be quite sufficient. The ferry's schedule is also very important when collecting people over a long distance. Departures must not be too early in the day. The arrival of a new vessel and a new route would mean long-term marketing and the conclusion of marketing agreements with the shipping company. Are we the main player or only part of the sales? This will affect the price of journeys.

## 8.4 Pohjolan matkat

Pohjolan matkat organises group trips and charter trips and plans travel packages, as well as provides bus and coach services. The company has 200 buses. They organise ferry trips to Helsinki and from there to destination countries from Finland via Main Roads 4, 5 and 6. Currently, only 1-2% of all travellers come from Eastern Finland via Main Road 6, as the share of passengers from Eastern Finland starting from Joensuu is very small. They have also organised group trips to Narva. In Estonia, distances are short, so trips can be made through Tallinn to any Estonian city.

On ferry travel times, they stated that 2–3 hours is suitable for transition traffic, as it is the same as between Helsinki and Tallinn. If the journey time on the ferry is longer, the ferry itself should be the destination of the journey and the service level should be higher than in transition traffic only. Timetables are also crucial, there can be no departures for bus passengers before 2 pm as otherwise departures from their original departure point will be too early. A bus driver's maximum shift time with driving and downtime is 16 hours per day. This time is reached if they drive for 6 hours in Finland, and the crossing time of the ferry is 6 hours. This will only leave 3-4 hours to travel to the destination. In addition, this is a factor that will increase costs. However, a rest period can also be arranged for the driver on the ferry in a cabin. They did not feel that Helsinki and Tallinn were too congested for a smooth running journey. They did not see travel in the opposite direction, from Central Europe to Finland, as having potential in the future either, and at most seasonally.



## 9. BENCHMARKING FOR TRANSPORT IN THE BALTIC SEA

Several new vessels have been acquired in Finland and investments have been made in vessels already in use in 2021–2024. These vessels are combined vessels capable of carrying both cargo and passengers. Finnlines, Wasaline, Tallink, Viking Line and Eckerö Line have all invested in new vessels, a total of 8 new vessels, five LNG vessels and three low-emission biofuel-driven vessels. Older vessels have also been renovated, allowing for the more efficient and reduced consumption of fuel. These provide a reference basis for potential vessels that could travel from Kotka to Estonian ports.

What do they have that enables traffic and what should be taken into account when planning new shipping routes? The preconditions for building these new routes have been examined here. Viking Line brought its newest ferry Viking Glory to the Turku - Stockholm route in March 2022. Tallink has renovated its fleet. Silja Serenade and Silja Symphony have been renovated with tens of millions of euros in recent years. Two new ferries have started to travel on the Helsinki -Tallinn route, Megastar in 2017 and MyStar in 2022. /5/

Vessels already on the routes create strong competition where pricing is tight and large margins are not reached. Opening a new route would require long-term marketing work, as passengers, skippers and forwarders are used to using traditional companies. If the vessel were relatively new, as should be the case in such a competitive situation, the investment will in any case have a long repayment period.

Marketing of a vessel is faster for cargo traffic, as companies and forwarding companies are quick to make changes as long as the cost structure is competitive. Previous projects have determined that the marketing of passenger services should begin in good time before the start of the traffic. In addition, the marketing of passenger services must take into account the novelty of the route. What does this shipping route have that others do not?

Ease of access to the vessel and harbours are also a selling point. Helsinki - Tallinn - Stockholm and other Swedish ports are very congested ports. Those travelling by car would appreciate the extra space and ease of port operations at both the port of departure and the port of destination. The expected passenger and cargo potential must be sufficient to start planning a new route and transport channel. Alternatively, it should



be considered whether and existing transport channel can be replaced with a new channel that could bring added value?

New vessels also take environmental friendliness into account, e.g. Wasaline's Aurora Botnia, is marketed as the world's most environmentally-friendly vessel. Environmentally-friendly new ferries are expensive, but these are important features for the marketing of routes in addition to luxury services. Two new types of vessels with positive profitability expectations have been selected for benchmarking and more detailed examination.

## 9.1 Wasaline m/s Aurora Botnia

This vessel started traffic between Vaasa and Umeå in 2021. The ferry is specifically designed for this particular trip. The towns of Vaasa and Umeå are owners of the companies that own Wasaline. NLC Ferry Ab Oy is a shipping company registered in Finland that is responsible for Wasaline's business. Previous vessels on the same route have been old and originally designed for other uses. Aurora Botnia has thus been tailored to this particular route through market research and existing demand.

"The vessel has 1-2 departures in both directions every weekday. M/S Aurora Botnia is a modern passenger ferry with two cargo decks. The vessel has a transport capacity of 935 passengers and 1,500 cargo metres. The vessel is designed to be environmentally friendly. Shore-side electricity and battery energy can be used in ports. The engines is designed to burn multiple types of fuels in its operation and it can be operated with battery energy. The most important fuel is liquefied natural gas (LNG). The vessel also has a readiness to use biogas as fuel. The vessel has four engines that are operated separately and can be operated with different fuels.

In the future, one engine could be changed to use e-methanol. This is still being studied in cooperation with Wärtsilä and Ligid Wind. However, e-methanol is substantially more expensive than current fuels.





Wasa Express, which has been sold abroad, was previously operated on the route. This is therefore an old route with already known passenger potential. Wasa Express had significantly higher operating costs than the current vessel. Emissions on the new vessel are approximately 70% lower when using LNG.

In 2013, the two towns decided that shipping on the route was necessary for the economic, infrastructure and general development of towns. The strong role of towns enabled long-term strategic development. There appeared to be no preconditions for the private sector to maintain shipping. The original intention was to obtain financial support from the EU for the acquisition of the vessel, but this did not happen. An EU loan was granted for the acquisition of the vessel.

The utilisation rate of the ferry varies depending on the seasons. There are no major differences in cargo volume, but there are in passenger volume. In winter 2022, the ship had 18 departures per week, i.e. 9 round trips. In the summer, there will be 22 departures per week (11 round trips). The timetables for weekdays are largely determined by the needs of cargo traffic, while the aim is to arrange weekend timetables so that they are optimal for short-distance cruise passengers.

Normally, the travel time is four hours, which means a relatively low travel speed of 13-14 knots. A small share of the trips have a travel time of 3.5 hours. Usually one hour is reserved as time in port, in some cases only 45 minutes. In principle, there would be capacity for even more departures. The ferry could easily make two round trips a day, even without having to take advantage of night time, but the markets do not require such a high utilisation rate. This would mean 28 individual journeys a week. The ship is actually only intended for daytime traffic. Passenger cabins are mainly used as rest facilities for truck drivers.

The figures for 2021 indicate that the company has been able to recover effectively from the pandemic despite the fact that the pandemic affected operations for almost an entire year. Traditionally, passengers have accounted for 65% of turnover and cargo for 35%. As a result of the pandemic, the share accounted for by passengers deteriorated, but returned to the previous figures at a good pace.

The purchase price for MS Aurora Botnia was approximately EUR 120 million. Even so, the owners have stated that the project is economically realistic and on a solid foundation. The owners are aiming for continuity and



the diverse societal benefits of transport for the economies of the regions. The financial analysis is based on a relatively long payback period of 22 years.

There are good conditions for business growth in general and especially as a result of the attractive experiences brought about by the new ferry. This is, of course, mainly linked to passenger transport, but also to cargo, where volumes are increasing. The MS Aurora Botnia can transport larger and wider units than previous vessels.

The number of passengers has increased substantially since 2020, despite the fact that the pandemic played a major role throughout 2021. The pandemic seemed to have no impact on the number of cargo units, but growth seems to have accelerated quite a lot since the pandemic and MS Aurora Botnia has started transport.

The development of cargo is naturally the result of the general economic development and industrial projects on both sides of the Kvarken. There are 1,500 lane metres for cargo units. During the winter season, the load is often 30-50 units per trip.

Passenger transport consists of individual journeys, short-distance cruises and conference packages. The focus has evidently been on Finnish passengers, but Wasaline continues to develop marketing on the Swedish side to attract passengers. Outside the summer season, cruise traffic focuses on weekends, one-day round-trip cruises and weekend hotel packages. Today, the timetables have been adapted especially for the benefit of travellers departing from Finland. During the winter season, passengers mainly come from areas close to Vaasa and Umeå, meaning areas no further than 300 km from Vaasa and Umeå. In the summer, as well as during the ski season, tourists come from much wider area. For example, during the winter ski holiday period, there have been trips where the number of passengers has exceeded 700, i.e. close to the ferry's maximum capacity.

Wasaline expects significant growth in conference activities, especially as Ms Aurora Botnia has significantly better and larger meeting facilities than MS Wasa Express did. By opening all the meeting rooms into one space there is enough room for up to 150 people. Interest in ship conferences is growing." /6/



## 9.2 Finnlines' vessels Finnsirius and Finncanobus

In autumn 2023, Finnlines began to operate a new Ropax vessel the Finnsirius between Naantali and Kapellskär. Its sister vessel the Finncanobus started operating on the same route in February 2024. The company has a strong position especially in the maritime transport of truck carried freight.

"Finnlines transports more than one third of the approximately one million trucks that pass through the three most important sea bridges from Finland to Sweden, Germany and Estonia. These sea bridges connect Finland to the rest of Europe. Finnlines has succeeded in increasing its passenger numbers, but its main focus is still on cargo traffic. 90 per cent of the Group's turnover comes from cargo. The company's two new vessels also take cruise passengers. In summer 2023, Finnlines' passenger numbers increased by up to 50 per cent on the Finland-Sweden route.

Finnlines' market share is over 70% on the route between Turku and Stockholm. Its vessels operate continuously. The shipping company competes partly for different passengers than the shipping companies operating from Turku. The concept is different from that of other companies, as Finnlines has many so-called needs-based travellers. This opens up a new opportunity for many people living in Åland to travel to mainland Finland or to Sweden.

The new vessels use diesel engines that are much more efficient and cause fewer emissions than before. Large ship engine manufacturers develop engines that run on green fuels and when these fuels are available in several ports, we can transfer to their use. However, the time for this is not quite yet.

The Finnlines Group's profit took a downturn in January-September 2023. The result for the reporting period was about 57 million, compared with about EUR 100 million last year. However, the turnover increased somewhat. The geopolitical situation remains unstable, as stated in the Group's press release.

The development of passenger numbers has been very good. Despite the decrease in cargo volumes, Finnlines was able to maintain its market share. Finnlines received three hybrid-RoRo vessels already in 2022.



Finnsirius will replace the smaller Star-class Europolink RoPax vessel on the route. Europolink was transferred to a route operating between Sweden and Germany." /7/

### 9.3 Kristina Cruises

Kristina Cruises was selected as a reference due to the RoPax voyages it organises and due to their long experience of vessel traffic from Kotka through the Baltic Sea. They have offices in Kotka and 35 years of experience in traffic in the Baltic Sea on several routes and with several cruise ships. Today, Kristina Cruises does not have its own fleet and collaborates with partners such as Finnlines Group, by organising journeys on Finnlines' fleet as local cruises in the Baltic Sea region.

Local cruise ships are RoPax vessels and carry both cargo and around 300 passengers at a time. The vessels depart from Vuosaari harbour to Germany, Sweden and Denmark. Kristina Cruises only organises trips for passengers on the vessels not for cargo. The journeys are marketed for certain dates and are thus one-off journeys and take place on e.g. church holidays and seasonal holidays. It is assumed that more trips can be sold. There is not enough steady passenger flow for regularly scheduled routes. The number of passengers for whom Kristina Cruises has organised journeys is around a few thousand on an annual basis, most of whom come from the Uusimaa region and about 10% from the area around Kotka.

It is difficult to see any criteria for the profitability of travel to Estonia outside of the route from Helsinki to Tallinn. This has been tested over the years, but the number of passengers has not been sufficient. There are several shipping companies that operate vessels to Estonia that have tendered the prices down, and the shortest distance to Estonia is between Helsinki and Tallinn, which would make any competing route to another port more expensive and it would not be possible to compete with prices. If we consider a route between Kotka and Estonia, the used vessel must be of such large cargo volume that this will ensure the route is profitable. Cruise travel is then "the cherry on the cake". Timetables are of key importance in cruise travel as is the ferry's "quality".

Subsidised trips are of course a different matter, but there should be good grounds for the subsidy either in terms of security of supply or based on the number of passengers. Despite everything, the volume of traffic



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to Sweden was quite high during the coronavirus pandemic, and the National Emergency Supply Agency subsidised this traffic form. It is difficult to find similar grounds for travel in the eastern Baltic Sea region.

## 9.4 Other passenger ferry companies

Research was also carried out on the activities of other shipping companies operating in the Baltic Sea region, and this report summarises their situation. "Chinese tourists were usually a significant customer group for shipping companies. The lack of this group on ferries is reflected in the number of passengers and results of shipping companies, as the average number of duty-free purchases made by the Chinese was clearly higher than by other customer groups. Approximately 350,000 Chinese tourists travelled on Tallink Silja ferries each year.

In summer, the ships also had American tourists. But due to the war in Ukraine, many Americans are currently unwilling to book a trip across the Atlantic to Europe. The choice of destination is impacted by the U.S. Department of State's travel guidelines for citizens. According to shipping companies, the war in Ukraine has not affected travel bookings. In 2021, Tallink Silja carried 2.9 million passengers on board its ferries. People first travel to neighbouring countries and do so by ferry.

Eckerö Line is expecting in particular car tourists travelling to Europe, and Viking Line's sales have been boosted by the new Viking Glory, which has just begun travelling between Finland and Sweden. Last year, 2.3 million people travelled on board the company's ships. More bookings have been made now than at the same time in 2019, which was the last normal year of travel before the pandemic. A new vessel will clearly increase interest in cruise travel, and the pent up demand will be realised in bookings.

Apart from the war, the high cost of fuel has been of great concern. Viking Line has introduced a fuel surcharge in cargo traffic. Fuel surcharges will also be adopted in passenger transport in 2024. In addition, the dynamic pricing of trips is in use, which means that fewer cheaper tickets may be available." /8/



## 10. SUMMARY OF SHIP ROUTE COMPARISONS AND CONCLUSIONS

The share of cargo traffic on both Finnlines' (90%) and Wasaline's (35%) vessels as a share of net sales and high-quality services for new ships contributed to their business potential and profitability. There is a lot of ready-made customer potential on the Naantali - Kapellskär route in terms of both cargo and passengers, e.g. a lot of commuter traffic. The coronavirus pandemic had a major impact on the number of passengers, and the companies received support for the traffic during the pandemic from the National Emergency Supply Agency to cover losses.

The infrastructure for transport from western Finland, mainly to Sweden, has been in place for a long time and, as a result, it has been less risky for shipping companies to invest in new ships, and the intent of the cities as well as sufficient support from the cities to continue their operations have been an added bonus. However, despite all the support, the Vaasa – Umeå route has not yet been profitable, even though passenger and cargo volumes have constantly increased since the coronavirus pandemic. The Vaasa – Umeå route's vessel is owned by the two cities through companies and it did not receive EU support despite applying for it. They received a loan from the European Central Bank.

After the coronavirus pandemic, there has been a clear increase in passenger traffic, and also in cargo traffic. Of course, this provides opportunities for new actors, but where had this growth been directed and can this be changed? Passenger transport to Sweden, commuting and cargo transport have significant potential. Tallinn is the main corridor towards Estonia and no change to this is foreseen. Is it possible to make changes to this traffic infrastructure that is sufficiently large in volume for passenger and cargo traffic to be directed to alternative routes?

In the current situation, it is difficult to see changes in eastward traffic in the near future. What methods could be used to persuade tourists to choose travel to the east compared to Sweden and Tallinn?

The appeal of new high-quality vessels has clearly emerged in marketing, as has the "built-up" pressure after to go on a cruise again after COVID-19. The share of cargo is also significant on new vessels. Even large passenger potential is not enough on its own. Cargo potential is directed to the same routes where there is



passenger potential, as tough competition with higher passenger volumes will "help" to lower the price of cargo transport, which is very affordable on passenger ferries. If there is "too little" passenger potential, this will increase the price for cargo. There needs to also be cargo potential between Estonia and HaminaKotka in addition to what already exists.

Passenger potential in the Baltic Sea as a whole has been affected by the absence of Chinese, Russian and American tourists, and growth has been dependent on local tourism in Finland's surrounding area. /9/

## 11. PORT OF HAMINAKOTKA PREPAREDNESS FOR A NEW ROUTE

An interview survey was conducted at the Port of HaminaKotka with port experts. HaminaKotka is well prepared to receive a new vessel on a possible route. There is a new nearly unused passenger terminal in the main port, which can be equipped with all passenger port services when it is commissioned. The passenger terminal was built with support funding for tourism to St. Petersburg and is now unused due to the border being closed.

When considering continuous route traffic to the port, the possibility for vessels to use shore-side electricity should be invested in the berth as an energy solution in the near future. At the moment, it does not exist. The EU Directive requires the use of shore-side electricity for 40 vessels with annual visits by 2030. For the port, the investment will cost millions of euros.

Traffic at the Port of HaminaKotka has been undergoing a change, first due to the coronavirus pandemic and then due to border closures and sanctions. The coronavirus did not have a significant impact on cargo volumes, and they even increased at some point. Now that Russia's transit traffic has almost completely disappeared, the volume of cargo has decreased. The forest industry's weak market development has also contributed to this.



The main form of cargo from Estonia that enters the port is raw wood, wood chips and sawdust. Mostly from the Port of Kunda. If we consider cargo traffic from Eastern Estonia to the Port of HaminaKotka, it does not exist at this time.

From the shipping company's point of view, the new route was still seen as a cost risk due to the detour around Hogland, which is unlikely to change in the next few years, and the possible vessel's facilities. Helsinki - Tallinn and Vuosaari - Muuga can be considered competitors for the new route. The Vuosaari- Muuga route, in particular, is an attractive option for motorists coming from Eastern Finland.

The facilities are good for short crossings, and the route is less congested than between Helsinki and Tallinn. In addition, if we consider old RoPax vessels, future emissions surcharges will increase costs. The use of shore-side electricity at berths required in ports also applies to Estonian ports.

From the perspective of the port, it is difficult to see the profitability of the route with the current infrastructure. If external support was provided for the route for at least the first few years, it could work. There should be good grounds in order for financiers to grant support for the route. As regards the role of the Defence Forces in the port, the only thing mentioned was the existence of cooperation plans and a good level of preparedness.

When considering challenges that may be encountered on the possible route, the following were mentioned:

- Strong competition with Helsinki - Estonia routes.
  - The price for freight on trucks is very cheap on the route, only a few hundred euros per axle. In order for the Kotka-Sillamäe route to be of interest, it also needs to be considerably cheaper for trucks than the Helsinki route.
  - There are several departures per day from Helsinki, which increases competitiveness, as there are hardly any waiting times in port.
  - The sea voyage on the Kotka route is longer, which increases the fuel consumption on the crossing. With emissions surcharges, the price of fossil fuels will increase further. In the future, we will also have to pay more for their use due to emissions trading that has already begun and due to blending obligations from the beginning of 2024.
  - The new route will provide no significant savings to land freight transport costs compared to the Helsinki route. Towing a semi-trailer costs about EUR 1/km. Exports departing from Eastern Finland will save approximately 100 km/100 euros





in Finland, but this saved amount will disappear on the other side of the crossing if, for example, transports are to Poland, which is a large market on the freight side.

## 11.1 Steveco

The study also included an interview with a port operator which operates at all Port of HaminaKotka harbours. Steveco has extensive stevedoring and logistics services, customs clearance, cargo handling and storage in port areas. Steveco also has a very comprehensive view of port activities.

The end of Russian exports and imports did not have a major impact on Steveco's deliveries, but the situation on the world market and the related many negative events, such as the war in Ukraine, the crisis in the Red Sea, the strikes in the paper industry, the market difficulties in forest industry products, etc. have reduced deliveries by an average of 30-40% over the past three years.

They have tried HVO diesel as a future energy solution for stevedoring machines, and it has proven to be an excellent drop-in fuel. The high price of HVO so far will slow down the transition to the more environmentally-friendly fuel.

We are not aware of any cargo or other traffic to Estonia that Steveco may currently have. The company's view is that the idea of a direct route from HaminaKotka to Kunda or Sillamäe would mean that some cargo would also travel, but the volumes would be so small that it would probably not be economically sensible.

The main route Helsinki–Tallinn works well due to connections and frequency, among other things. Steveco has a lot of trailer traffic from Kotka to Helsinki and then via Tallinn to Poland. If the idea was to transport this cargo from Kotka to, e.g., Sillamäe, the cargo would still need to be transported to Tallinn for their connecting transport, which is the same length as a land route. The road from Kotka to Helsinki is very good, the distance is relatively short, and new motorways have been built for Tallinn's connecting transports. The frequency of daily vessel crossings is also important. A vessel travelling one or two times a day cannot



compete with continuous traffic. Traffic through Sillamäe would not be competitive for these transports. The arrival of the battery industry in Kotka may change the situation, but it is still several years off in the future.

There have been talks with shipping companies, and some shipping companies have tested the passenger terminal with their vessels, and they have considered different route alternatives also through the Port of Kotka. These considerations have yet to be put into practice. According to the port operator, there is no shipping company in Finland that would bring the vessel to the route.

## **12. Results of Webropol survey from companies in Eastern Finland**

We had access to Cursor's customer database through which we intended to send the questions to companies. However, it turned out that Cursor's customers are the "wrong" target group, as they are not tour operators but rather provide accommodation and other tourism services in the Kotka region.

The Confederation of Finnish Industries also provided us access to their company database and they forwarded our business survey to companies in Eastern Finland that were thought to perhaps be interested in the shipping route. The questions were drawn up on the basis of a similar survey conducted by Estonians to ensure that the answers were comparable. An effort was made to make the questions clear and easy-to-answer and questions were drawn up separately for cargo handlers and tour operators.

Questions were sent to the companies at the beginning of April 2024. The questions were preceded with a description of the project's objective, i.e. the passenger and cargo potential of the planned shipping route and their interest in using the route in question. The survey was "open" for about a month, but we did not receive any answers. As the survey coincided with strikes, this may have resulted in less enthusiasm for responding, but the lack of interest also reveals something about their possible need for the route.

## **13. VISIT TO ESTONIA AND REPORTS ON ESTONIAN WORKSHOPS**



We visited Estonia to engage in cooperation and research, and on this visit we saw the ports of Kunda and Sillamäe, the town of Sillamäe and the town of Narva. We met Sillamäe town leadership, the Mayors of Sillamäe and Narva, as well as members of the board of the cities, district management, a representatives of the ministry, representatives of schools, representatives of companies and military leadership. One of the aims was to find existing or pending cargo and passenger potential for the eastern route. Wood raw material is transported from Kunda and Sillamäe to Finland. Granite is transported from Finland to the Port of Kunda. A RoPax vessel is not suited to carry these types of cargo. The new VKG pulp mill, which is to be completed sometime in 2027 - 2028, will be large in volume, but it will not require a ship route between Finland and Estonia , nor will its cargo be suitable for such a route.

The Port of Kunda is relatively small and has no capacity for passenger transport. The main cargo exported through the port include raw material wood and cement, while crushed granite is imported via the port. Without investments, the port cannot be used for passenger transport. An average of 500 ships visit the port each year.

The Port of Sillamäe is quite large and has a good condition ground terminal. There is no actual berth for passenger ferries or a pedestrian bridge, so passengers must be taken by bus or car to the terminal. The port and town plan to build a new terminal and a new berth. There is a rail connection from the port to Tallinn and to the south. There port has four ship terminals. Nearly 5 million tonnes of cargo has travelled through the port, which is about one third of that which has travelled through the port in Kotka. At the moment, the volume of cargo has fallen significantly, just as at other ports due to changes in world politics. The cost of a passenger terminal would be approximately EUR 20 million. Container traffic is possible, but there has been none. Container traffic is centred at harbours in Tallinn and Muuga. The port has shore-side electricity for vessels.

At the meetings, we asked the city management, ports and entrepreneurs questions to which we wanted answers. Listed here are the questions that we also sent in advance, so they had time to prepare their responses.

Questions presented during out visit to Estonia 3 - 5 April 2024:



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1. Future prospects in the city of Sillamäe and Ida-Viru County?

How do they link to Tallinn?

Russia's influence? Border operations?

Are there any foreseen changes to passenger numbers and freight volumes in Eastern Estonia?

2. Who are the passengers who could travel from Estonia to Finland?

a. What amounts per year/month?

b. Would there be commuting to Kotka/Eastern Finland?

3. What cargo could be transported from Estonia to Finland?

a. What amounts per year/month

b. Freight quality, container, bulk wood raw material?

c. From which port? Kunda Sillamäe?

4. Is there traffic from Central Europe to Eastern Estonia?

a. What traffic, tourism? cargo?

b. If there was a shipping route, would it be possible to redirect current traffic to Tallinn to eastern Estonia?

5. Infrastructure?

a. Port infrastructure, Kunda Sillamäe,

b. shore-side electricity at the quay?

c. Services, Terminals?

d. Roads in the area?

e. Roads to the south and west, condition?

6. Possible vessels?



- a. Ropax?
  - b. Condition and age of the vessels?
  - c. Services on vessels?
  - d. Has the impact of emissions trading in 2024-2030 been taken into account?
7. Possible shipping companies?
- a. Have Estonian operators been identified that could start operating the route?
8. Security situation in the Baltic Sea and Eastern Estonia?
- a. Risk factors at sea? Scenarios?
  - b. Risk factors at the border?
  - c. Effect of NATO and the Defence Forces?
9. Possible subsidies/aid for the route?
- a. Need for aid, amount? / in total/year?
  - b. Sources of aid, cities? EU, States, other aid?

Estonia:

Questions: shore-side electricity and the functionality of the terminal?

Roads in the vicinity, in the direction of Tallinn , to the south?

Cargo volumes and passenger numbers towards Finland?

Age of the ship, impact of emissions trading on the profitability of the route?

The significance of eastern Estonia in terms of tourism, Tourist attractions, spas in Narva,

History-related tourism for Finns. Services in general?

Price level?

The questions were answered insofar as they concerned the contact persons we met. We heard from the town of Sillamäe that they are applying for EUR 1.2 million in CEF Transport funding to pilot transport. We met with representatives of the tourism cluster during a seminar at Toila Spa. Estonia has high expectations



with regard to Finnish tourists now that there is no tourism from Russia. They will market Ida-Viru County in Finland in order to attract Finnish tourists to the region.

The answers to our questions showed that there will be no growth in sight in cargo traffic between Finland and Estonia now or in the near future. Passenger potential could be achieved on the existing routes in use with strong marketing, after which it would also be possible to consider the new shipping route. However, it has already been noted in several studies that passenger potential is not enough, as there must also be enough cargo.

## **14. ANALYSIS OF CHANGES IN CARGO AND PASSENGER TRAFFIC IN THE BALTIC SEA 2022-2024**

"Cargo volumes to Finnish ports have decreased throughout the end of 2023 until January 2024. Maritime transport from Finland to other countries had decreased by 12% in November 2023 compared to November 2022.

In November 2023, a total of 0.8 million people were transported in passenger traffic. 438,401 people travelled between Finland and Estonia, 384,071 people travelled between Finland and Sweden, and 5,979 people travelled between Finland and Germany. Compared to November 2022, the overall number of passengers decreased by 6%. The overall number of passengers was just 67% of what it was in November 2019. There has been no major change in passenger traffic compared to autumn 2023.

In February 2024, a total of 0.8 million people were transported in passenger traffic. 455,898 people travelled between Finland and Estonia, 364,814 people travelled between Finland and Sweden, and 9,412 people travelled between Finland and Germany. Compared to February 2023, the overall number of passengers increased by 2%.

There was a change in sea cargo transport, with an increase of as much as 19% in February 2024. A 32 per cent increase in the value of timber exports was also recorded in February. The value of paper and cardboard



exports also increased by 32 per cent and the value of paper pulp exports by 12 per cent from February 2023.  
" /10/

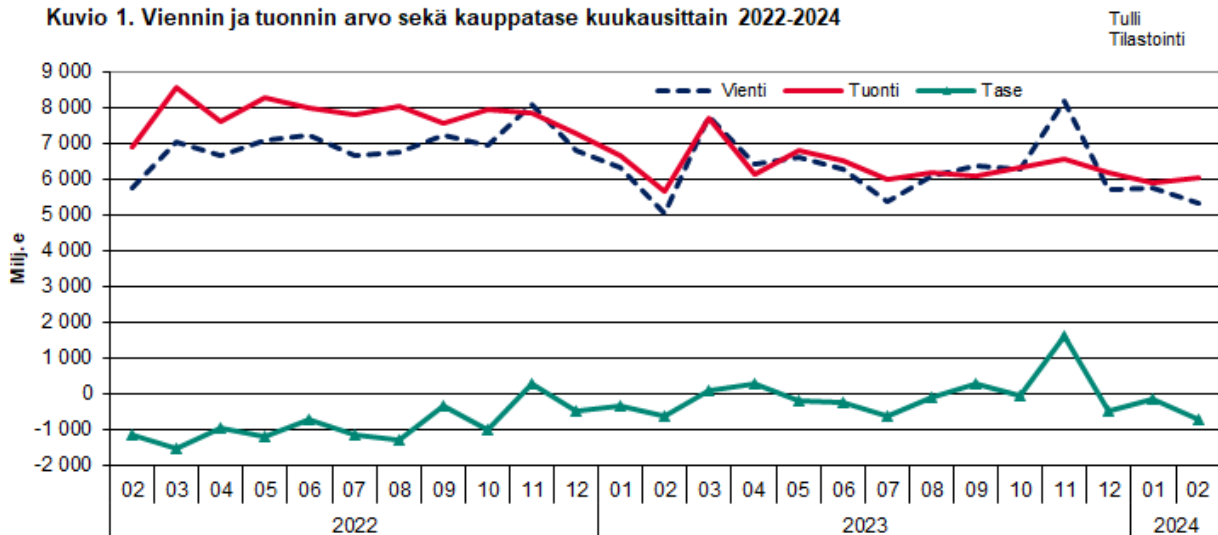
## 14.1 Most recent statistics by customs

"The value of Finnish exports of goods was EUR 5.3 billion in February 2024 according to the Customs' ex ante statistics on foreign trade in goods. Export volumes increased by 12.1 per cent, but export prices decreased by 4.6 per cent from the year before. The value of exports was 5.8% higher than in February 2023. Import volumes increased by 12.3% in February, but import prices decreased by 5.7% from the same time in 2023. The value of the imports increased by 6.5% from the reference month to EUR 6.0 billion. During the reference month February 2023, a port workers strike significantly reduced foreign trade in goods. Compared to January 2024, the value of exports decreased by 7.8%, but the value of imports increased by 2.3% in February 2024.'/11/

'In January-February, the total value of exports decreased by 2.3% and the value of imports decreased by 3.1% compared to January-February 2023. The latest 12-month change in export volume was -5.0% (12-month moving average, March 2023 - February 2024). The corresponding change in import volume was -8.4%.

In February, the trade balance showed a deficit of EUR 720 million. In January-February, the deficit amounted to EUR 855 million. In February 2023, the trade balance showed a deficit of EUR 640 million and in January-February of that year a deficit of EUR 980 million.' /11/





### Value of forest industry product exports increased in February

"A 32 per cent increase was recorded in the value of timber exports in February. The value of paper and cardboard exports also increased by 32 per cent and the value of paper pulp exports by 12 per cent from February 2023. The value of exports of industrial machinery and equipment increased by 5 per cent, but the value of exports of electrical machinery and equipment decreased by 6 per cent. The value of energy product exports decreased by 23 %. The value of iron and steel exports increased by 36 %. The value of copper exports increased, the value of nickel exports decreased.

Imports of energy products increased by 24% in February. The value of imports of industrial machinery and equipment decreased by 3 per cent, but the value of exports of electrical machinery and equipment by 6 per cent. Imports of transport equipment, medicines, plastics and ores increased in value.

The volume of both EU external and internal trade exports increased. According to preliminary data, the value of exports to EU countries increased by 5.0% in February and the value of exports to non-EU countries by 6.9% compared to the same month in the previous year. The volume of exports to EU countries rose by 13.2% and to external trade by 9.8%.



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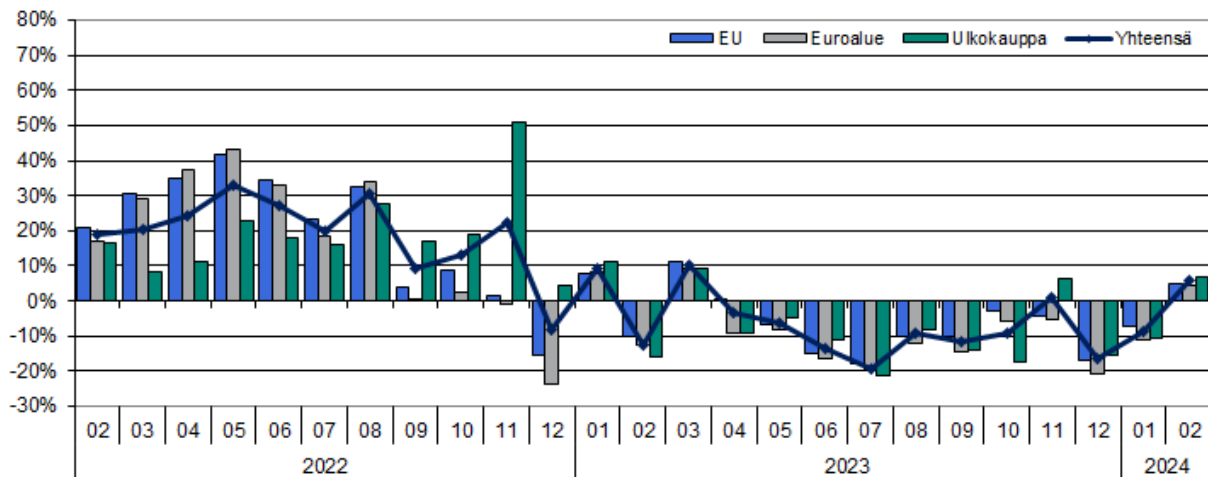
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In January-February 2024, the total value of exports to EU countries decreased by 1.7 %, but the volume of the 12-month moving average of exports increased by 1.6 %. The value of exports outside the EU decreased by 3.2%, and the volume of the 12-month moving average of exports decreased by 3.7 %. In February, the value of exports to Germany increased by 8.2% and to China by 15.3%. The value of exports to the USA decreased by 0.1% and those to Sweden by 6.6%.

Kuvio 2. Viennin arvon muutokset edellisen vuoden vastaavasta kuukaudesta 2022-2024

Tulli  
Tilastointi



According to preliminary data, the value of imports from EU countries increased by 0.9% in February and the volume of imports increased by 5.2% compared to the same month in the previous year. The value of imports from outside the EU increased by 15.7% and the volume of imports increased by 37.7%.

In January-February 2024, the value of imports from EU countries decreased by 3.0% and the volume of the 12-month moving average decreased by 4.7%. The value of imports from outside the EU decreased at the same time by 3.3% and the volume of imports decreased by 12.7%. In February, imports from Germany increased by 12.1%, but imports from Sweden decreased by 11.4%. Imports from China increased by 8.2 % and imports from the USA increased by 44.1 %.' /11/

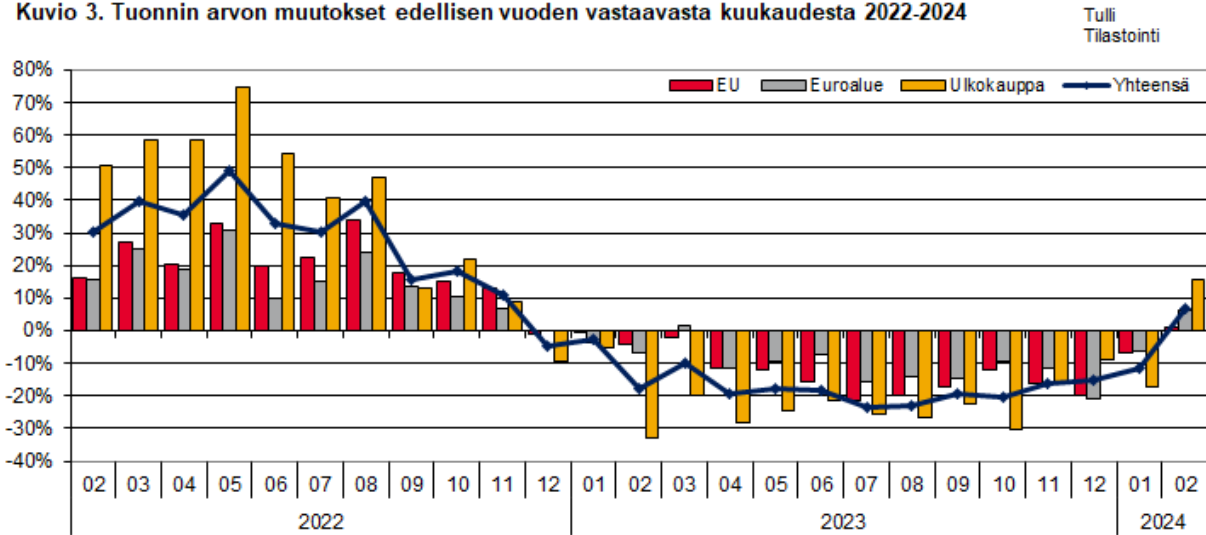


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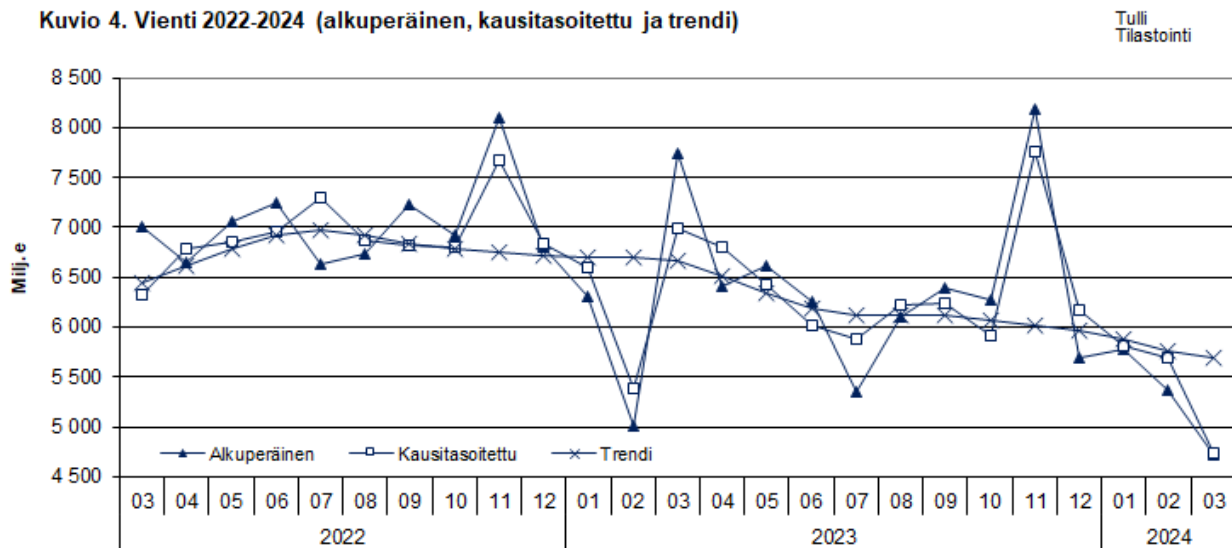
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Kuvio 3. Tuonnin arvon muutokset edellisen vuoden vastaavasta kuukaudesta 2022-2024



Changes in exports seasonally adjusted

Kuvio 4. Vienti 2022-2024 (alkuperäinen, kausitasoitettu ja trendi)



Changes in imports 2022–2024 seasonally adjusted.



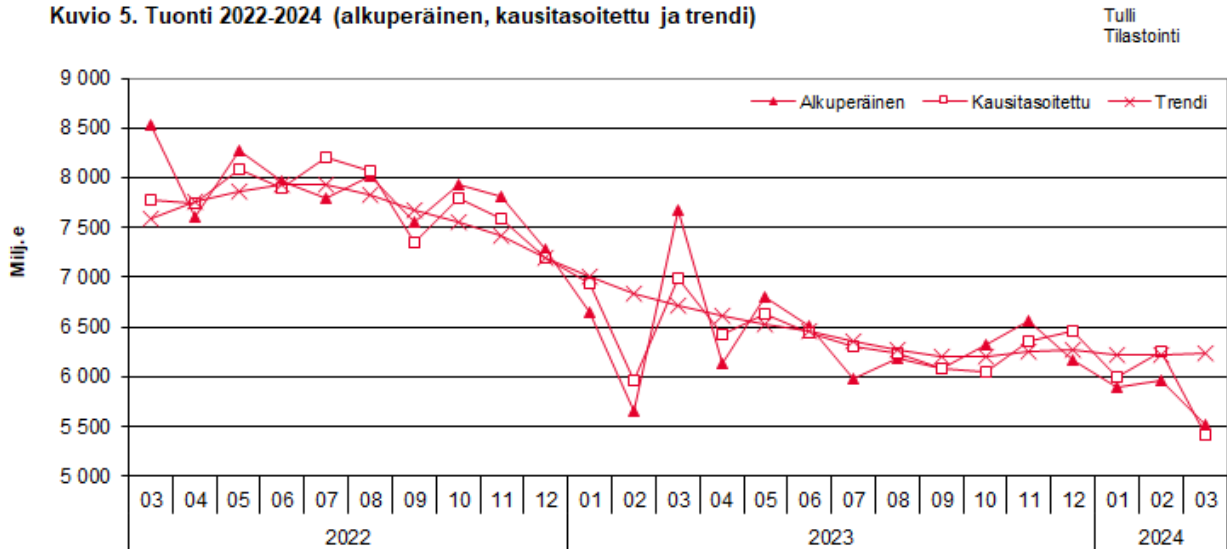
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Kuvio 5. Tuonti 2022-2024 (alkuperäinen, kausitasoitettu ja trendi)



'In January-March, the total value of exports decreased by 16.8% and the value of imports decreased by 12.9% compared to January-March 2023. The latest 12-month change in export volume was -5.0% (12-month moving average, April 2023 - March 2024). The corresponding change in import volume was -10.3 % . /11/

Statistics for March and April 2024 are not comparable due to strikes.

## 14.2 Amounts and products in foreign trade in the intended destination area

### Port of Kunda

The Port of Kunda mainly handles forest industry products, log wood, cement clinker, wood chippings, cereals, crushed stone, wood pellets and pulp. The Port of Kunda has three berths. There is no passenger terminal in the port and passenger transport would require large investments. The volume of goods has been 1.5 million tonnes per year. Wood raw materials are exported to Finland to the Port of HaminaKotka harbour, and crushed rock is imported from Finland.

### Port of Sillamäe



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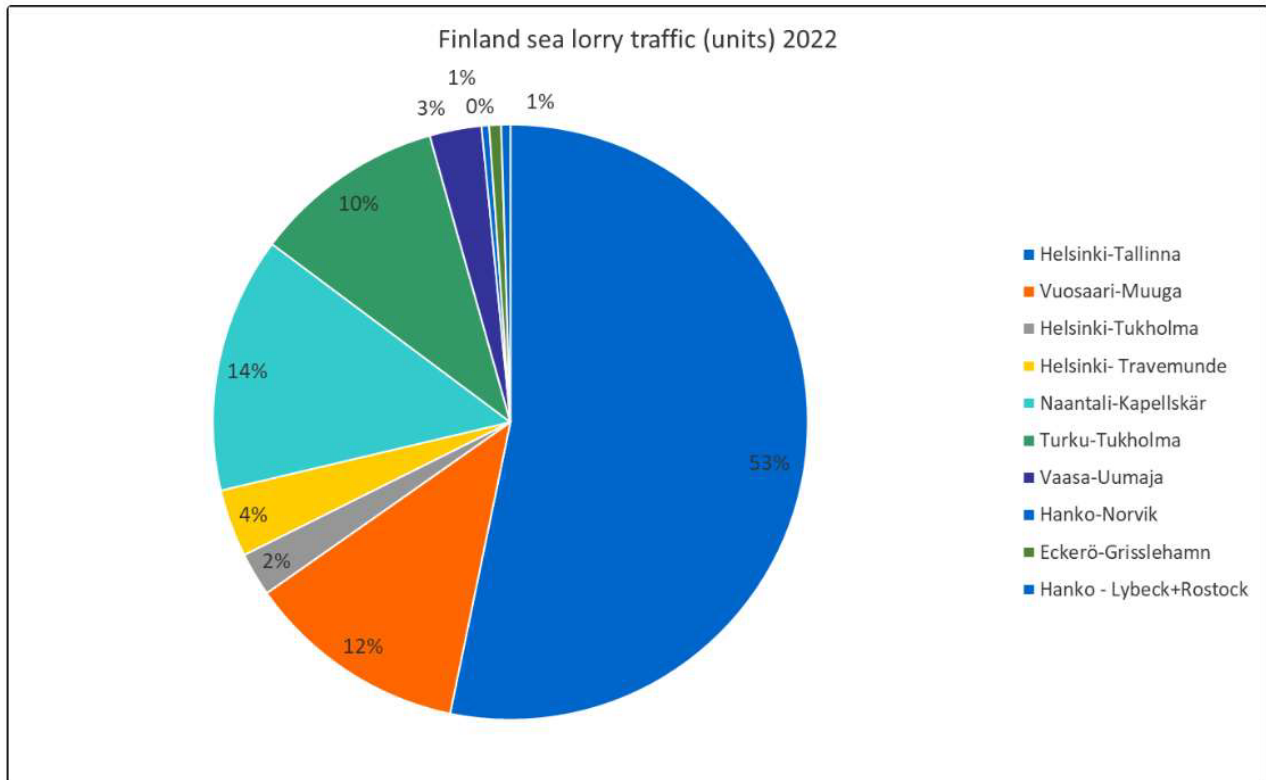
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The Port of Sillamäe is the EU's easternmost seaport 25 km from the Russian border and is privately owned. The port has a free trade area of 750 hectares for transit traffic. The port handles oil products, dry cargoes and containers. The port's draught is 16.5 metres, so even large ships can reach the harbour. The volume of freight in the port has been approximately 4.9 million tonnes per year, but in the current situation the volume has fallen by about 20%. There are 4 berths for container traffic.

Around 60% of Estonian maritime traffic and practically all container traffic passes through the Port of Tallinn. Approximately 25% of Estonia's maritime traffic has been transported via Sillamäe as liquid and dry bulk products. When considering the RoPax vessel for the route, there must be enough container and truck traffic to make the route profitable. The port has a land terminal, but the procurement of its own quay and a passenger terminal would cost approximately EUR 20 million. There is a rail connection from the port to the rest of Estonia. /12/.

The graph shows the distribution of freight traffic in Baltic ports. The Helsinki - Tallinn route is by far the largest, followed by Naantali - Kapellskär.





Reference: FEASIBILITY-COST-BENEFIT ANALYSIS AND SOCIOECONOMIC IMPACT ANALYSIS OF THE RESTORATION OF SILLAMÄE-KOTKA SHIPPING LINE 2023

### 14.3 Changes to passenger transport in Estonia

The statistics below show that tourism in Ida-Viru County has been low compared to that of Pärnu and especially that of Tallinn. The statistics on the left shows the number of overnight stays by all tourists by region and the statistics on the right show overnight stays by Estonian tourists in 2023. /13/



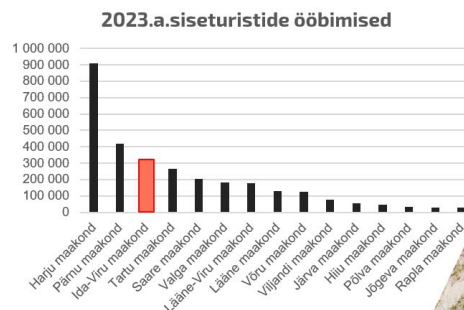
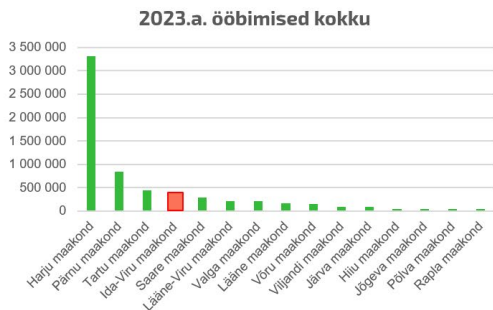
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## Hetkeseis: Ida-Viru Eesti turul 3. kohal Kõik turud kokku 4. kohal



**Eelarve 2023: 600 000 €, s.h. 100 000 €**  
omaosalus turismiklastri partneritelt

#idaviruturismikonverents

### 14.4 Changes to passenger transport in Finland

In 2023, Finns took 480 000 day trips or cruises to Estonia, which were mainly directed at Tallinn. According to the tourist's residential area, the number of trips abroad from each of Finland's regions was higher than in the previous year.

Measured in median duration, the longest recreational trips abroad (6 nights) were made from Northern Finland. The share of Helsinki Metropolitan Area residents to go on foreign package tours was 16%, whereas more than one fifth of the trips from other regions were package tours.

The number of domestic trips decreased in almost every region as the popularity of international tourism continued to grow. The number of domestic leisure time trips decreased for the second consecutive year in



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2023. In 2023, Finns took about 21.3 million domestic leisure trips involving overnight stays, which is more than a tenth less than the year before.

With the exception of the Åland Islands, the number of trips decreased in all regions in 2023, and the number of overnight stays related to trips decreased by 14% throughout the country. However, the number of overnight stays in South Karelia and Kainuu increased by about one fifth and those to Åland by just over 10%. The longest journeys in duration were made to Lapland (5 nights) and Åland (4 nights).

The number of people travelling abroad from Finland has been by far the highest from the Helsinki Metropolitan Area and Western Finland. The lowest number of people travelling abroad are from Eastern Finland. /14/



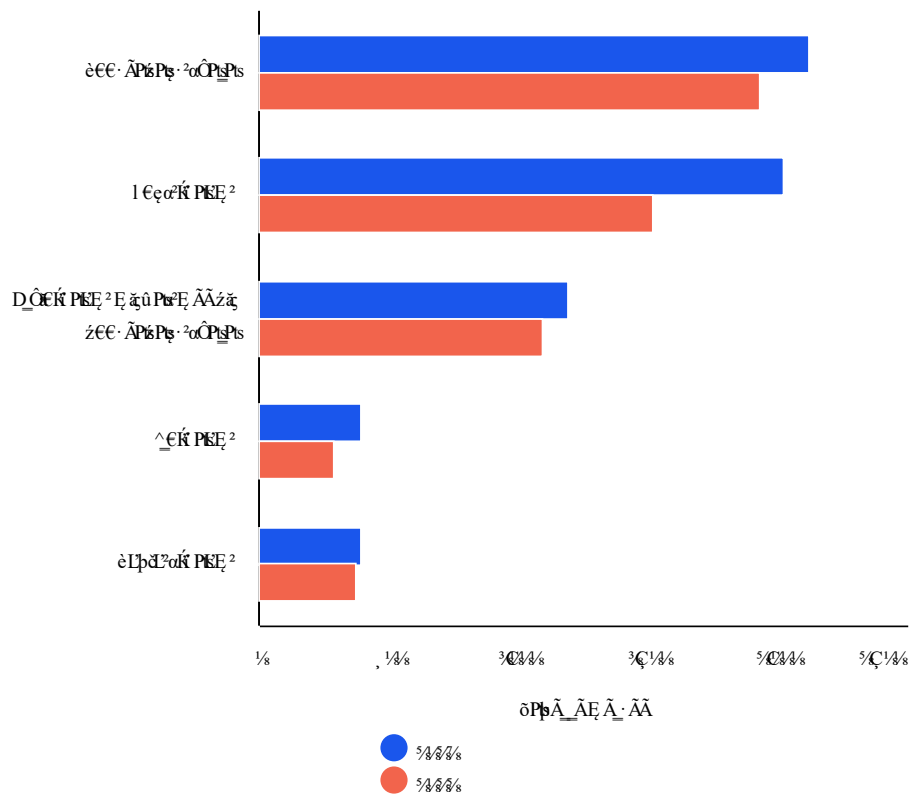
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## 15. OPPORTUNITIES FOR SUPPORT FUNDING FOR THE KOTKA - SILLAMÄE ROUTE

In connection with looking into the business world's possibilities and the desire to open a shipping route between Kotka and Sillamäe, it was determined that the route will likely need several years of support to ensure that the shipping route is profitable. This has also been noted in the Estonian study. According to



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Estonian calculations, a sum of around EUR 7 million in support is needed per year for approximately a period of five years. How could funding be obtained and from where, and how much could be obtained?

If, looking at the shipping route from the perspective of the Finnish Defence Forces, the connection between HaminaKotka and Sillamäe could be justified as an alternative (additional) route from Europe to Finland and could thus also increase military mobility, added by the Kouvola RRT and KCY terminals and the so-called dry harbour idea. This would make Kymenlaakso a significant part of Finland's and Estonia's military mobility. In other words, it would not be the only route to Finland, but it could be a necessary addition. The Finnish Defence Forces and Navy did not provide any information on their plans to the project, which is understandable. The future will show whether there is support for this idea, but it will not lead to any concrete action at the moment.

According to the National Emergency Supply Agency, infrastructure projects can in principle also be funded from the Logistics 2030 programme, but the security of supply criterion must be met and the threshold for the funding in question high. Determining this criterion would require, first a carefully drawn up application, and then consideration of whether there is a basis for security of supply. NATO membership also adds an additional element to security of supply and complements the functions of the National Emergency Supply Agency through cooperation. NATO support is possible for a selected locations if this is an important target for military security of supply or a civilian location. This too will require a detailed account and a clear justification.

According to a report by the Estonians, the town of Sillamäe and **Estonia's regional council** are applying for some EUR 1.2 million in funding for possible follow-up projects. The Estonian Ministry of Economic Affairs considers the project to be important, and Members of the Ida-Viru Parliament are also interested in the project. They will propose parliamentary-level discussions with Finns once the results of the report have been published.

The Confederation of Finnish Industries considers it important to develop the economic area of Eastern Finland and wants Eastern Finland to thrive as a special economic area. They feel that the situation in Eastern Finland is serious and exceptional in terms of both the economy and security. It is in the interests of the entire



country, and of the EU, that Eastern Finland remain viable and inhabited. According to the Confederation of Finnish Industries, without special measures, Eastern Finland will not see an upswing. This will also require support from public authorities and the Finnish Government plays a key role. The Confederation of Finnish Industries believes that it is important to engage in collaboration with the Baltic States and Poland in convincing the EU that a new financial instrument is needed to strengthen the strategic position of Russia's neighbouring countries.

The Confederation of Finnish Industries proposes appointing a special envoy to manage this extensive set of measures. When the special envoy has been appointed, they should be made aware of the shipping route issue for cooperation with Estonia and the EU. /15/

## 16. ENVIRONMENTAL IMPACTS OF TRAFFIC IN THE BALTIC SEA REGION

The project also wanted to examine in more detail the environmental impacts of transport in the Baltic Sea and the cost factors affecting transport in the future. Maritime transport is currently undergoing a major change due to emissions trading and the future regulation and use of different fuels with less environmental impact. At least six different fuels are being planned for maritime transport. Ammonia, methanol, hydrogen, e-methanol, synthetic LNG, and synthetic diesel mm. Availability, supply and price levels will be crucial for selection of which of these to use. All in all, whichever more environmentally-friendly fuel is used, either as a blend or exclusively, these will be a factor that results in a large increase in prices.

A thesis was completed in connection with the project, which examined the impacts of these factors in more detail. Here is a summary of the essential parts of the thesis in terms of environmental impacts. Casper Nykänen, (Ympäristösäätelyn vaikutukset merenkulkuun 2024). /16/

### 16.1 Environmental regulation of shipping

#### International Maritime Organization (IMO)



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Shipping is guided by the International Maritime Organization (IMO). Finland was elected to the IMO's Council of 40 Member States for the period 2024–2025. Consequently, Finland is strongly involved in developing shipping internationally. (Finnish Government 2023.) The role of the International Maritime Organization (IMO) is to create a level and fair playing field that is effective, generally accepted and implemented by the parties. The IMO is responsible for and develops maritime safety and prevents environmental pollution caused by shipping. The IMO encourages countries to develop their activities, make them more efficient and engage in innovation.

In 2018, the IMO's Marine Environment Protection Committee adopted plans for preliminary greenhouse gas emission reduction targets. At that time, the target set for international shipping was to reduce carbon dioxide emissions by at least 40% by 2030 compared to the 2008 level. The target for reducing CO<sub>2</sub> emissions by 2050 was set at 70% compared to the 2008 level. The overall target for reducing greenhouse gas emissions from international shipping by 2050 was set at 50% compared to 2008 levels.

In 2023, the IMO updated its greenhouse gas strategy to be significantly more ambitious. It set a target of completely greenhouse gas-free international shipping by 2050. In 2023, the IMO updated its greenhouse gas strategy in its entirety in the following manner:

1. Improved planning requirements for the energy performance of ferries, reducing the carbon intensity of ships.
2. A reduction of at least 40% in carbon dioxide emissions from international shipping by 2030 compared to 2008 levels.
3. As regards greenhouse gases, the introduction of zero- or near-zero-emission technologies, fuels and/or energy sources in maritime transport, so that they represent at least 5% of the energy used in maritime transport by 2030. The aim would be to reach 10%.
4. Greenhouse gas emissions to zero in international shipping by approximately 2050./16/



IMO greenhouse gas reduction targets compared to 2008 levels.

Reduction of greenhouse gases	Minimum	Aim
(Instructional checkpoint) 2030	20 %	30 %
(Instructional checkpoint) 2040	70 %	80 %
2050	100 %	100 %

## 17. FUTURE OUTLOOK FOR ENVIRONMENTAL IMPACTS

When considering the cost impact of a vessel for the new route, the fuel used by the vessel must be taken into account. The emissions cap will be limited already this year (2024).

### Press release of the Government and Ministry of the Environment 18 December 2022:

"The EU's current emissions trading system, which has been expanded to cover maritime transport will see a cut of 62% in emissions cut by 2030 compared to the emissions level in 2005. To achieve this, the annual cut in the cap will be tightened and two single cuts will be made to the cap, the first in 2024 and the second in 2026.

In the current emissions trading system, some of the emission allowances are allocated to operators free of charge, and changes to this so-called free allocation were agreed upon in the negotiations. An agreement has been reached during the negotiations on the establishment of a carbon limit mechanism, and now it was agreed, among other things, that free allocation will gradually be discontinued in 2026-2034 for those sectors that will be protected by the new carbon limit mechanism. A decision will be made on whether municipal waste incineration will be kept as part of emissions trading from 2028 onwards on the basis of the Commission's 2026 report.

Emissions from maritime traffic will be included gradually in the current emissions trading system in 2024–2026. Emissions trading includes emissions from ships with a gross tonnage of 5,000 and above carrying passengers or commercial cargo when operating at sea or in a port within the EU, as well as half of emissions from routes outside the EU. From 2026, greenhouse gases taken into account will include not only carbon



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dioxide, but also methane and nitrous oxide. Emissions trading will take the ice strength of vessels into account in wintertime maritime traffic." /17/

Although emissions trading already started on 1 January 2024 and the blending obligation will enter into force on 1 January 2025, their exact impact on fuel costs is still unknown. EU directives and laws are only just being drafted, so cost impacts can only be roughly assessed at this time. In any case, it is certain that they will have a cost-increasing effect, but the euro or percentage effect will remain to be seen.

The International Maritime Organization (IMO) defines environmental regulation, the purpose of which is to create an economic steering instrument for maritime transport. The cost increase caused by emissions trading is estimated to be about 30% above the current diesel price. It is impossible to estimate the price of biofuel, as it will depend on the quality of biofuel used and its availability in ports. The prices of known biofuels are significantly higher than those of diesel. In practice, it is estimated that prices will double or triple in the future compared to the current price of diesel.

This great of an increase in costs combined with an old ferry and a substantially longer journey compared to the Helsinki-Tallinn route will make it extremely challenging to gain a profit from the route.

## 18. FUTURE SECURITY POLICY SITUATION IN THE BALTIC SEA REGION

The security policy situation in the Baltic Sea region has changed in recent years and is still changing. As part of the project we wanted to determine the views of the Finnish Defence Forces and Navy on security risks and the scenarios to be taken into account in the civilian transport in the Baltic Sea. Experiences of safety or lack of safety are also important when planning passenger transport.

After requesting answers to questions, the Navy urged the project to use information available in public press releases due to other information being classified. The project is public, so the Finnish Defence Forces did



not want to say anything other than what can be read in public press releases published by the Defence Forces containing various comment by experts on the Baltic Sea.

Recent events in the Baltic Sea can also be considered from the perspective of future scenarios. The outdated fleet used by Russians for e.g. the transport of oil is an existing environmental threat and Finland must and already has made preparations for this.

During the study, between February and May 2024, there were several drone attacks near Finland and Estonia, in places such as Ust-Luga, St. Petersburg, Vyborg and Port of Bronka. The most recent was on 19 May 2024 at Vyborg's oil harbour. The Russians had shot down drones about 40 km from St. Petersburg on top of the sea. The situation is constantly changing. As these may continue, they constitute a security threat or at least an image of the Baltic Sea as a dangerous area.

Support for Ukraine by western countries will continue, and Ukraine is also receiving long-range missiles that could be used to strike Russian ports in the Baltic Sea again. Larger military exercises by the Russian Navy could also interfere temporarily with traffic in the Baltic Sea.

Towards the end of the study, GPS signal interference in the Baltic Sea region was so severe that two Finnair flights to Tartu had to return to their place of departure and the airline interrupted flights to Tartu for a month. A GPS-independent approach solution must be implemented at Tartu Airport. There are Russian electronic warfare units in the Kaliningrad region from where the interference is likely to originate. The interference may also be related to protecting their own area, but creating uncertainty serves Russia, and such interference may be related to producing uncertainty. Interference can also affect the steering vessels. In the worst case scenario, signal distortion can be used, and, e.g. giving incorrect spatial data to position a vessel.

In May 2024, the Russian Ministry of Defence entered a proposal to the Russian Government on the revision of Russia's maritime borders in the Baltic Sea at sea borders with Finland and Lithuania. We do not yet know what this will mean, for example in the case of Hogland. The most recent steps by Russia on Estonia's eastern border in Narva was the unilateral removal of border buoys in the Narva River. This was reported on as a



'dangerous situation' because if the Estonian Border Guard had intervened, there could have been an armed conflict.

The South-Eastern Finland University of Applied Sciences is establishing the European Logistics Institute (ELI), the basic purpose of which is to ensure security of supply, assist operators in the region in problem issues, and possibly of link with NATO to the future. The centre is carried out in cooperation with the Finnish Defence Forces. In the future, it will be possible to obtain studies and support on the security policy situation in the Baltic Sea region and future scenarios through ELI.

As a general conclusion, the security situation in the Baltic Sea has deteriorated rapidly. Even in autumn 2023, the situation at the beginning of the project was very different from what it is now. Russia's unpredictability increases uncertainty and increases preparedness for action if disruptions continue.

## 18.1 NATO membership

"Nato membership improves Finland's military security of supply and the resilience of society.

Membership includes securing national logistics and security of supply in all situations, including in the Baltic Sea. Finnish ports and their security arrangements are in good condition. Training troops from partner countries have been visiting Finland for years, and the reception of the troops is nothing new for ports either. The legal basis brought about by NATO alliance facilitates practical arrangements.

There are no state-owned ports or harbours in Finland, with the exception of some official quays at naval bases. However, it is not likely that a new military port would be built in the country.

Ports owned by cities have drawn up preparedness plans for emergency conditions. After incorporation, there has been no obligation, but the situation is changing. The National Emergency Supply Agency will start guiding ports in preparedness, which will be improved. Harbours must be prepared to receive up to



thousands of soldiers or defence materials, which will mean that preparedness must include taking movements, access restrictions, storage of special material and the general maintenance of troops into consideration.

The Finnish Defence Forces' logistics department is responsible for developing logistics infrastructure and concluding agreements with ports. Cooperation will be deepened in the future. Data will be collected for allies on the capacity of the ports and their further connections, including roads and railways.

The Defence Forces have trained and drafted preparedness plans at ports before NATO membership, and this will continue in the future. Systematic preparedness can mean investment, but the increasing number of troops and cargo will mean, above all else, business opportunities for the forwarding sector and for logistics as a whole. It is also worth investigating the possibility of applying for EU funding for military mobility projects in ports." /18/

## 18.2 Importance of Kaliningrad

"Many regional and global factors affect the security of the Baltic Sea. In addition to old, familiar tensions, new phenomena also have an impact.

Russia continues to play a key role in the Baltic Sea region's geopolitical situation. The country's military presence, especially in the Kaliningrad region, has raised concern among neighbouring countries. The Kaliningrad region is Russia's important external maritime border in Europe and provides Russia with a military presence in the Baltic Sea region.

Two-thirds of the Russian Baltic fleet is in Kaliningrad. The location of Kaliningrad provides Russia a strategic position in the event of conflicts. Military and strategic resources in the region, such as military bases and ports, are important for Russia.





Kaliningrad facilitates rapid military mobility and activities in the Baltic Sea. There has been much talk about the connection between the Suwalki corridor and Kaliningrad's fate in the event Russia were to challenge NATO in the Baltic States. Kaliningrad provides Russia with an opportunity to operate from a forward-situated base, thus disrupting NATO's defence support for the Baltic States.

Kaliningrad also has an important commercial role in trade between Russia and the EU. Ports in the region promote trade and logistics between Russia and the EU. The Kaliningrad region has energy infrastructures of strategic importance to Russia, such as gas pipelines. These infrastructures support Russia's energy supply and transport, especially in relation to the EU. However, right now all trade between Russia and the EU has been put on ice.

Heavy merchant shipping traffic in the Baltic Sea, including Russian oil transports, has long been identified as a risk for environmental accidents that could have a fatal impact on the habitats and nature of the Baltic Sea's coastal states. Although Russian oil exports have decreased as a result of its attack on Ukraine, it continues to be transported in the Baltic Sea, as more than half of Russian crude oil exports pass through the Gulf of Finland from their oil ports, Primorsk and Ust-Luga.

The risk is increased by the fact that oil is transported on the most vessels that are in increasing poor condition and at the end of their life cycle. Such oil transports are risky in everyday life, but they are also vulnerable to action if someone wants to consciously disturb them and cause a major environmental disaster." /19/

## 19. FUTURE VISIONS

Eastern Finland and Eastern Estonia have an extensive and clear interest in developing in particular tourism in both regions. The desire is great and can be seen in such things as numerous studies into the matter. The beginning of the Russian war of aggression had a significant impact on passenger flows to cities on the eastern border. In eastern Estonia, 60% of tourists had come from Russia. According to Statistics Finland's



accommodation data, a total of 153.744 tourists from Russia visited the area of Eastern Finland (Kymenlaakso, South Karelia, South Savo, North Savo, North Karelia) in 2019, whereas in 2023 this number had fallen to 2.675, which is only 1.7% of what it was before the coronavirus pandemic and the border closures. This has created a great need in both countries to quickly replace the 'hole' with tourists from their neighbouring areas. For Estonia, Finland is a natural direction to look to for visitors.

Itä-Suomi Unioni (Eastern Finland Union) and the Eastern Finland project are doing the same in Finland. Fast solutions are sought in the transition phase, but these do not usually carry far.

The passenger flow during the exceptional period has already been visible. During January-April 2024, 7,300 Finns have already crossed the border from Narva into Russia. Finns have also passed through the Koidula border crossing located south of Narva. The only way to cross the border from Narva into Russia is by foot, and this has favoured bus travel. Vehicles can also cross the border in Koidula. These passengers are not tourist passengers the shipping route would like to see as a whole. Instead, they are travelling due to a 'family relationship', not stopping in Estonia, but just crossing it.

Furthermore, if a shipping route were to be built for this kind of travel, it would be contrary to Finland's current political decision, which is the border closure. Finding new tourists to replace the missing tourist flow will require long-term work to create networks and new marketing for the new target group. Visibility and accessibility must be good. If the shipping route was opened without such long-term preparation work, it would be difficult to find sufficient passenger potential for it. It would be good if there was a previously used route for passenger flow, for example, passengers coming from Finland via Tallinn. In this case, it would be easier to offer another route and the profitability of the vessel would be more secure.

Eastern Estonia must therefore invest heavily in its marketing, gain visibility in Finland and network with tourist agencies. Eastern Estonia is a new and interesting tourist destination, and its price level is cheaper than e.g. Finnish spas.

According to this study, old vessels are out of the question based on profitability. The cost of emissions trading when using diesel or even a blend increases the price of fuel significantly. The route is also 100 km



longer than the Helsinki - Tallinn route. Passenger expectations of high-quality travel mean that old vessels are out of the question. In addition, the price of travel on Tallink and Viking are very low due to strong competition.

Passenger flow could be expected if a larger shipping company were interested in the route. It would be easier to find a vessel suitable for this particular route in terms of its size and fuel consumption, also taking environmental friendliness into account.

There has been brainstorming on tourism from Central Europe to the north. This can be positively influenced by "weather tourism" that may emerge as a result of climate change. Some may also view air travel unfavourably due to its emissions. Going along with this line of thought would mean that, an environmentally friendly vessel would be an advantage. Approximately 250 million people live along the route from Italy via Eastern Estonia to Lapland, which means that the actual tourist flow could also be generated with the travel route to the north through eastern Finland.

A large shipping company would also have a large organisation for marketing. It could set up agents and offices in Central Europe to promote and organise journeys. The world is undergoing a transformation and no one knows what will happen in the future, but it is a good idea to create different positive scenarios, as if they are ready, they will be easier to introduce when the right opportunity arises.

## 20. Summary of the project

In spite of the short period in which the project was completed, the project in its entirety was a very comprehensive sample of the actors involved in the project. We were able to interview a large number of companies, educational institutions, port operators, cities and development companies, as well as the leaders of previous projects related to the topic. People had a very positive attitude towards the project, and it was easy to involve the interviewees. More than thirty of the area's operators and experts from Finland participated in the interviews.



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LAAKSON  
LIITTO**



During the Estonian Co-operation Days, we interviewed 16 people in the city leadership including mayors, representatives of business life, schools and the Estonian Defence Forces. Some thirty representatives from travel agencies also took part in the seminar, and we met with them. We also visited two spas to learn about them as well as Kunda and the towns of Sillamäe and Narva.

As a rule, the idea of implementing shipping traffic between Kotka and Eastern Estonia was supported. It would bring in stimulating business to the region. The lockdown of Russian borders and the absence of traffic in the Saimaa Canal have permanently changed the logistics infrastructure in the area, it was viewed as a good thing that alternative possibilities and new market areas are examined.

When approaching the topic in a more in-depth manner, the challenges related to profitability, cargo potential and passenger potential emerged. These issues were investigated on both sides of the Baltic Sea finding only minimal cargo potential. Cargo is transported in both directions, but the cargo, including wood raw material and granite crushed cannot be transported on RoPax vessels. There has also been a clear reduction in passenger potential in Eastern Finland in recent years.

Of the interviewees, only one believed that the route would be profitable, although only in terms of passenger potential.

The potential equipment to be used on the route was also considered a risk. Older vessels were considered particularly in Estonia as an option. Emissions trading in Baltic Sea transport has begun this year, and emissions charges will increase annually until 2030. Operating older diesel-fuelled vessels will be even more expensive than their alternatives. For example, Viking Line has announced that they will have around EUR 5 million in emission charges as a whole this year and already EUR 20 million in 2030, even though they have already upgraded their fleet to use more environmentally-friendly fuels. The cost of fuel for old diesel vessels will double or triple.

In addition to the emissions charge, the obligation to blend biofuels into fossil fuels will be imposed at the beginning of 2025. There are many alternatives, in which case the availability of biofuels on the route in



question must be examined, and the cost impact of the biofuel used compared to diesel fuel must be determined.

The price of a new environmentally friendly vessel is approximately EUR 200-250 million, as this is what the new Tallink Silja LNG vessels have cost.

In this case, external support would be needed to enable the route. According to Estonian calculations, a shipping company would need some EUR 7 million per year in support, and even this would mean the use of older cheaper vessels. In addition, several million euros are needed for the development of infrastructure. For example, it is estimated that the Sillamäe passenger terminal will cost EUR 20 million.

There must be solid grounds for receiving support, regardless of the party providing the support. The grounds could include a large volume of cargo and large numbers of passengers, similar to the Vaasa - Umeå and Naantali - Kapellskär routes. The security of supply perspective could also be a basis for support. No support was found for the project from the perspective of security of supply. A project with EUR 1.2 million in funding has been prepared in Estonia to develop the possibility of a shipping route.

Even during the project, there were several disruptions in the area's security that were suspected to have been caused by both Russia and Ukraine. The threats already known as the consequences of Russia's actions are unchanged and there is no prospect of any change in this respect. Such "disturbances" are likely to continue. Of course, when it comes to Russia, we must be well prepared for security threats.

Based on this study, if we consider the ideal situation without financial constraints and the profitability of the vessel operating on the route: The vessel should be a new and in the same category as new vessels owned by Finnlines or Wasaline, which would make the ferries more attractive, and the vessel could be the tourist destination not just a methods of transition.

In addition, there should be alternatives to fuel that would meet the blending obligations required in the future and ensure a lower the price in emissions trading.



These obligations and the price of emissions trading must be clarified before the starting any kind of transport, as they have a major impact on the total costs and when calculating the price of the journey paid by passengers and cargo drivers. At the moment, only rough estimates of the cost effects are possible, as the method for price formation in emissions trading has yet to be decided at the EU level. The quality of the blended fuel, which is also still unknown, will have a direct impact on the costs of the route.

Passengers have become accustomed to crossing the Baltic Sea in just over two hours. There need to be good grounds for a crossing that lasts six hours in terms of how interesting the destination is. If the vessel had a high service level, this would lower the threshold. If in an ideal world the shipping route could travel past Hogland on its east side making duration of the journey 4 hours, or even less on an express vessel ship, the travel time itself would no longer be such an obstacle. This would also allow passengers to travel eastwards. Ida-Viru is a relatively new and attractive destination for Finns, which would likely be of interest.

In an ideal world, a vessel would also have cargo that would make the shipping route profitable. A continuous flow of goods of sufficient volume should be available at either end or preferably both ends of the route. This volume of cargo would already need to exist on an alternative shipping route that is slower, or more expensive for transport. In such a case, it would be risk-free to prepare surveys and contracts in advance, which would ensure that the cargo for the route and there would be no need to "search" for cargo any longer once the vessel is already on the route. The basis of the finances would already be more secure, and the random and season-based flow of passengers and marketing would be easier to manage.

When searching for a potential shipping company in Finland, large shipping companies should be consulted, which would have sufficient organisational capacity to meet the obligations required today and sufficient investment capacity for a new or updated vessel, in which case the actual operating costs would remain competitive. Large shipping companies can also steer the transport infrastructure in the desired direction by offering a wide range of services with schedules and, of course, a competitive price level that seems particularly challenging on this route.

As proof of the strong desire for this route particularly in Estonia, for completely understandable reasons, numerous such studies have already been completed. Unfortunately, we cannot make wishful thinking



profitable just by carrying out studies. The problem is the coordination of two different components. Passenger and cargo transport are different modes of transport and a large proportion of ships transporting cargo are not also suitable for passenger transport. Container traffic is also suitable for a combination vessel, but no such traffic was found in the area of Eastern Estonia. If it were thought e.g. that transporting the forest industry's wood raw material together with passengers were possible, the situation would be quite different in terms of cargo flow. Geopolitics also sets its limits, where there could be sufficient passenger flow does not have sufficient cargo flow, and vice versa. From Helsinki to Sweden, this idea is realised. When approaching the problem from this angle, cargo and passenger traffic should be completely separate from the perspective of the destination and port operations and the vessel most suitable for the "material" to be transported should be selected.

Traffic on the main route to Tallinn is also a major factor that directly affects the profitability of the route. The price level is already low due to competition, and the frequency of departures is very good, currently at 16 departures per day. In addition, Tallinn and Helsinki are too close to the planned route ports for there to be any benefit to the alternative route in terms of transport kilometres.

In the years to come, strong marketing in Finland should provide tourist flows to eastern Estonia via existing routes, even without the Kotka – Sillamäe shipping route. Apparently, there is no foreseeable tourist flow in the opposite direction. In addition, if there are changes in cargo flows that cannot yet be foreseen, there can keep this possibility on the shelf. It can be assumed that if there is enough pressure and enough already existing traffic on alternative routes, this route will also be introduced when sufficient economic conditions exist.

At the moment, there is no foreseeable cargo or passenger potential for a new shipping route from Kotka to Eastern Estonia and vice versa.



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