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LEGISLATION AND CUSTOMS POLICIES IN INLAND WATERWAY TRANSPORT BETWEEN FINLAND AND RUSSIA

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<p>Tämän opinnäytetyön tarkoituksena on kartoittaa sisävesikuljetusten lainsäädäntöä ja tullausmenetelmiä Suomen ja Venäjän välillä sekä selvittää sisävesikuljetusten tulevaisuuden näkymiä varteenotettavana kuljetusmuotona. Työ toimii osana INFUTURE-projektia. Opinnäytetyön tavoitteena on kerätä tietoa sisävesikuljetuksiin vaikuttavasta lainsäädännöstä ja selvittää, onko lainsäädäntö sisävesikuljetusten kehittymisen esteenä. Teoriaosuudessa käsitellään Suomen ja Venäjän välisiä sisävesikuljetuksia Saimaan kanavassa sekä avataan Keski-Euroopan suurten vesireittien tilastoja, joista haetaan vertailukohtia Saimaan kanavan tilastoille. Tämän lisäksi teoriassa käsitellään Suomen ja Venäjän tullausmenetelmiä sekä Suomen sisävesiliikenteeseen vaikuttavaa lainsäädäntöä niin Suomen kansallisen lainsäädännön kuin Euroopan Unionin lainsäädännön tasolla.</p> <p>Tutkimusmenetelmänä opinnäytetyössä käytetään laadullista tutkimusta. Tiedonkeruumenetelminä toimivat teemahaastattelu ja puolistrukturoitu kyselylomake. Haastattelut toteutettiin pääasiassa kasvotusten tai etäyhteyden avulla. Vertailuanalyysiä hyödynnetään Saimaan kanavan kehitysideoiden saamiseksi tutkimalla Keski-Euroopan suurten sisävesireittien kehitystä.</p> <p>Opinnäytetyölle annettuihin tutkimuskysymyksiin onnistutaan vastaamaan tutkimusmenetelmiä hyödyntäen. Suomen sisävesikuljetuksiin vaikuttavaa lainsäädäntöä ja tullausmenetelmiä saadaan kartoitettua sekä onnistutaan saamaan hyvä käsitys sisävesiliikenteen tämänhetkisestä tilasta ja mahdollisista tulevaisuuden näkymistä. Haastatteluiden ja muun tiedonkeruun perusteella päädytään tulokseen, ettei lainsäädännön koeta olevan sisävesikuljetusten esteenä, vaan pikemminkin lainsäädäntö on suhteellisen löysä sisävesikuljetusten osalta. Vertailuanalyysiä hyödyntämällä onnistutaan löytämään ideoita Saimaan kanavan tulevaisuuden kehitykselle. Keski-Euroopan vesireittien maantieteellinen ja taloudellinen asema on kuitenkin hyvin erilainen verrattuna Saimaan alueeseen, jolloin ideoiden toteuttaminen ei välttämättä ole mahdollista.</p>		
Avainsanat		
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Abstract <p>As a part of INFUTURE project, the objective of the thesis was to investigate the legislation and the customs policies in the inland waterway transport between Finland and Russia, and to examine the future prospects of inland transport as a competitive mode of transportation. The aim of the thesis was to gather information on legislation affecting inland waterway transportation and to determine whether legislation is an obstacle to the development of inland waterway transportation. The theoretical part examined inland waterway transport between Finland and Russia in the Saimaa Canal and statistics on major waterways in Central Europe which were compared to the statistics of the Saimaa Canal. In addition, the customs policies of Finland and Russia as well as the legislation affecting Finnish inland waterway transport were examined, within the frameworks of Finnish national law and European Union regulations.</p> <p>Qualitative research method was used in the thesis. A structured interview and a semi-structured questionnaire were utilized as data collection instruments. Interviews were mainly conducted face-to-face or by means of video connection. Benchmarking was utilized obtaining in development ideas for the Saimaa Canal, based on the development of major inland waterways in Central Europe.</p> <p>The legislation and customs policies regarding the inland waterway transport in Finland were investigated, and was obtained a clear understanding of the current state and future prospects of inland waterway transport. Based on the interviews, it was concluded that the legislation is not perceived to be an obstacle to inland transportation, but rather it is considered relatively loose. With the help of benchmarking, ideas for the future development of the Saimaa Canal were proposed. However, the geographical and economic position of Central European waterways is very different in comparison with the Saimaa region, consequently the implementation of the presented ideas may not be possible.</p>		
Keywords inland waterway transport, legislation, Saimaa Canal, customs policy		

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TERMINOLOGY

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
BWMS	Ballast Water Management System
CEF	The Connecting Europe Facility
EMMA	Enhancing freight mobility and logistics in the BSR by strengthening inland waterway and river sea transport and promoting new international shipping services
INFUTURE	Future potential of Inland Waterways
IWT	Inland waterway transport
IWW	Inland waterways
NAIADES	an integrated European action programme for inland waterway transport
RIS	River Information System
TEN-T	The Trans-European Transport Network
TEU	Twenty-foot Equivalent Unit
VAT	Value added tax

1 INTRODUCTION

“Road transport presents its own set of challenges, including pollution, accidents and road network congestion. Inland waterway traffic, however, could constitute a cost-effective and environmentally friendly option that also attracts the interest of transport companies.” (Merikotka no date.)

This thesis was commissioned by the INFUTURE project, *Future potential of Inland Waterways*. The purpose of INFUTURE project is to find solutions to improve sustainability and cost-efficiency of inland waterway transport (IWT) and define more efficient ways of handling cargo, examine the legislation on freight traffic as well as Finnish and Russian customs policies and also determine the most suitable vessel type for inland waterway transportation. (Merikotka no date.)

The objective of this thesis is to examine the legislation concerning inland waterway transport and customs policies between Finland and Russia for the benefit of INFUTURE project. Particularly, the aim is to define what effect the present regulations have on the transport volumes and what could be done to ensure the legislation would support the growing cargo transport. The thesis also seeks to examine what customs policies are in use in inland waterway traffic between Finland and Russia.

The topic of this thesis was selected to support the involvement of XAMK in the INFUTURE project and respond to the desire to have graduating students to join the project and participate in identifying challenges and problems in inland waterway traffic between Finland and Russia. The topic has not been studied much and is quite relevant today because of the planned renewals for the Saimaa Canal's freight traffic. The aim of this thesis study is to produce materials that the INFUTURE project partners could later utilize.

For this thesis, benchmarking was used, and Finland's and Russia's inland waterway transportation in the Saimaa Canal was compared to similar transport modes in Central Europe where traffic and transport volumes are much higher. Large inland waterways in Central Europe also have a much more developed infrastructure and technology than the Saimaa Canal. (EPRS

2014.). This thesis examines how the massive inland waterways in Europe have developed and how this experience could be utilized in the development of the Saimaa Canal. The objective is to define if there are good models for implementing growth-enhancing regulation.

The world is constantly changing, for example due to the impact of climate change, automation, digitalization, energy efficiency and globalization of the economy. Therefore, it will be crucial to take into account these aspects in the legislation regarding inland waterway transport. This thesis aims to study what changes should be made legislation and regulations to make inland waterway transportation more competitive compared to other, more common transport modes. Thus, the research questions for this thesis are:

- Which legislation and regulations control inland waterway traffic and transport between Finland and Russia?
- How regulations should be changed to support the development of inland waterway transport?
- What customs policies are in use regarding the inland waterway transport between Finland and Russia?

In the conceptual basis of the thesis, the inland waterway traffic is observed by way of three main themes which are related to constant changes in the world, especially with regards to environmental matters. The main themes in this thesis are sustainability, energy efficiency and future. These chosen themes are now very topical because of the current instabilities in the world.

Qualitative research was used as a research method and to collect information on legislation and customs policies. Both structured and semi-structured interview methods were used to obtain more comprehensive information in support of the theoretical framework. By interviewing project partners, Finnish Customs and the Office of Finnish Canal Councilor, it was possible to gather answers to the research questions from professionals' perspectives.

2 RESEARCH

2.1 Aim of the thesis

The objective of this thesis is to study Finland's national regulation and European Union's regulations which have an impact on inland waterway transportation. This thesis examines what changes are expected on the legislation in the near future and how the inland waterway transportation is prepared to face those changes. The purpose is to examine how the legislation of inland waterway transportation reacts to the constantly changing market drivers, especially in so far as how the needs of the future are taken into consideration.

2.2 Theory and background

The conceptual basis of this thesis is focused on inland waterway transportation and especially the legislation and customs policies which influence IWT between Finland and Russia in the Saimaa Canal. The inland waterway transport in Finland has been barely studied so there is a very limited previous research data related to the topic. This thesis utilizes the materials produced by INFUTURE project. In certain parts of Europe, especially in the Netherlands and Germany, inland waterway transport is a significantly more common form of transport than in Finland. Because of that, the conceptual basis of this thesis is mostly based on research data collected outside Finland.

The European Union has ongoing various projects aimed at increasing the proportion of inland waterway transport while at reducing greenhouse gas emissions and other pollution caused by transport. The aim is to utilize the information from these projects and consider how this could be adapted to develop inland waterway transport through the Saimaa Canal. One of the above mentioned projects is the European Commission's NAIADES II project, which aims to improve the quality of inland waterway transport, including through infrastructure and innovation development and also emission reduction (European Commission 2020b). Also, there are ongoing similar projects in the area of Lake Saimaa which serve as a point of reference in the theory part of the thesis.

The Customs of Finland and the Finnish Transport and Communications Agency (Traficom) annually publish statistics for Finland's foreign trade which includes also the shares of inland waterway transport (figure 3). The empirical part of this thesis includes references to the Customs publications and other statistics from Central Europe. For example, annual data and statistics of IWT are collected in Central Europe by Central Commission for the navigation on the Rhine (CCNR) (Market observation 2020).

Figure 1 below is an outline of the theoretical part of this thesis. First, general information about IWT is collected, including inland waterway transport in Central Europe and IWT's benefits and challenges worldwide. Then the study will be focused on Finland's and Russia's inland waterway transport, principally legislation and customs policies.

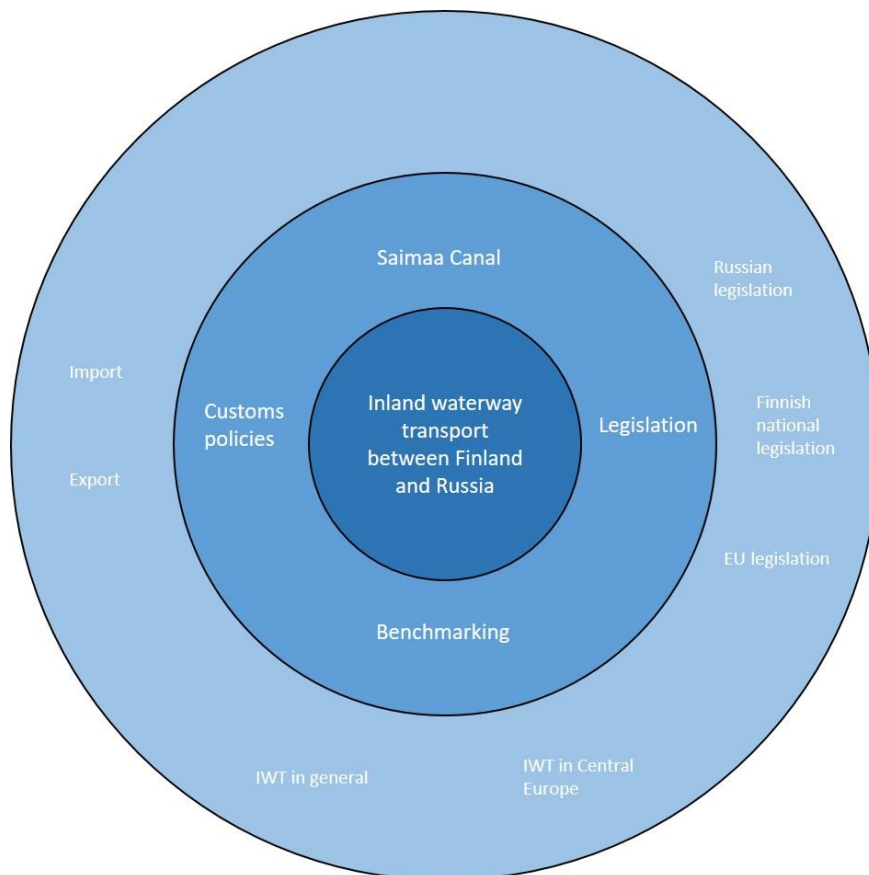


Figure 1. Theoretical framework (Pohjonen 2020)

2.3 Research methods

Qualitative research is the research method in this thesis. Qualitative research method seeks answers to research questions by using a predefined set of procedures, evidence and observations. Its main objective is to find information regarding culture of particular population, for example values, behaviors and opinions. (Mack et al. 2005, 11-23.) This method is frequently used when there is only little previous knowledge, theories or studies regarding the subject. It serves as a foundation for new theories and models. The method also offers an opportunity for in-depth picture of subject. (Kananen 2014, 16-17.) As typical formats of qualitative research, both structured and semi-structured interviews were used in this thesis.

The Qualitative research method was considered particularly suitable for this thesis as the purpose is to examine and collect information about legislation that controls inland waterway transport. With the help of qualitative research method, purpose was to gather as comprehensive answers as possible for the research questions.

2.3.1 Semi-structured interview

Semi-structured interview is one of the material-collecting methods in qualitative research. In semi-structured interview, the interviewer aims to produce a comprehensive picture and understanding of research subject by creating themes in support of the interview. (Kananen 2014, 72.) This form of interview requires careful study of the subject and knowledge of the interviewees. Based on this, the interview can be divided to specific themes. The themes and specified questions act as a support of discussion-like interview and allow the interviewee to discuss about given themes in an informal manner. (Saaranen-Kauppinen & Puusniekka 2006b.)

According to Saaranen-Kauppinen et al. (2006b), the semi-structured interview is suitable when only little is known about the subject. Therefore, it is suitable for this thesis as there is only little information available on the customs policies in inland waterway transport between Finland and Russia. The aim of the semi-structured interview in this thesis was to gather more extensive information about both legislation and customs policies.

2.3.2 Structured interview

The structured interview is also known as the questionnaire interview where the interview is implemented with carefully specified questions and pre-issued answer options. The structured interview is normally used as a material collecting method in quantitative research. When a questionnaire consists of questions which the interviewees can answer more freely, the structured interview method can be utilized in qualitative research. The number of open questions and the extent of the answers determine if the obtained material of a structured interview can be used in qualitative research. (Saaranen-Kauppinen & Puusniekka 2006a.)

For the thesis, Russian contacts such as the director of North-West Russia Logistics and Information Development Centre were interviewed by using the structured interview when face-to-face interview was not possible to perform. By adding some open questions to a Webropol inquiry, it was possible to benefit from this interview form as a part of qualitative research.

2.3.3 Benchmarking

Benchmarking is a form of evaluation where one company's operations and processes are compared to those of another. The evaluation of one's operations and identification of development needs are the key factors for effective development of the operation. The reference of comparison is usually an organization which is in some respects better performing than the one's organization. In benchmarking, the best practices are learned from good models with which the objective is to achieve improvements in organization's own operations. These practices do not necessarily need to be from the same field but learn can also be taken from different industries. (University of Eastern Finland no date.)

For the thesis, benchmarking was exploited to gather development suggestions for Finland's inland waterway transport. Examples and proposals for improvement were taken from major inland waterways in Central Europe. As the main example was used the Rhine River. The thesis aims to highlight examples that could be possible to implement in the Saimaa Canal.

3 INLAND WATERWAY TRANSPORT

“Inland waterways can make a major contribution to a sustainable European Union transport system, reducing congestion and pollution on Europe’s roads. However, national and EU-level initiatives are needed to develop its full potential.” (Promotion of inland waterway transport “NAIADES” 2015.)

Inland waterway traffic refers to the transport of cargo and passengers in inland waterways by means of liner, contract or charter traffic. Also, the ferry traffic between Finnish municipalities and the transit traffic of the Saimaa Canal are included in the concept of inland waterway traffic. (Tilastokeskus no date.). Inland waterway transport offers a competitive alternative for road and rail transport. It is an environmentally friendly mode of transport and has low energy consumption and noise emissions. Also, IWT offers an alternative to moving freight away from heavily congested roads and because of its high safety standards it is a very good mode of transport for dangerous goods (European Commission 2020e.) Of course, IWT has its own limitations, for example in terms of the scope of the waterway network.

Worldwide, there are approximately 623,000 kilometers of navigable waterways of which the largest shares belong to China (18%), Russia (16%) and Brazil (8%). The share of Europe of the global inland waterway’s length is 8%. While inland waterway transport is developed through different projects, the urban development is undermining inland ports and reducing the space of logistics activities in river ports. (Beyer 2018.)

3.1 Inland waterway transport in Central Europe

In Europe, inland waterway transport has an important role in the transportation of goods. Over 37,000 kilometers of waterways connect many industrial regions and cities: there are 13 member states which have an interconnected inland waterway network (European Commission 2020e). In total, 20,000 km of waterways are accessible to 1,000-ton vessels, and approximately 550 million tons of cargo are transported via inland waterways in a year (INE 2020).

The scale of inland waterway transport is larger in Central Europe comparing the volume of Saimaa area in Finland. The extensive river connections linked in large harbors by the sea, are a great advantage in Central Europe. Annually, circa 140 million of ton kilometers of cargo is transported by means of inland waterway transport. In percentage terms, the share of inland waterway transport is minuscule versus the other modes of transport. Measured in ton kilometers, only 3.7% of cargo is transported as inland waterway transport. Five of the largest foreign trade seaports in European Union are all connected to the network of inland waterways. For example, in 2010 the largest seaport of Europe, Rotterdam in the Netherlands, shipped a third of all the goods by means of inland waterway transport. (EPRS 2014.) In the port of Rotterdam, total of 123,859 inland vessels were loaded or unloaded in 2018. The three most commonly transported segments of goods were liquid bulk, dry bulk and containers. (Market observation 2019.)

The main inland waterway in Europe is the Rhine which is also one of the most frequented inland waterways in the world. One part of the Rhine goes through the border of the Netherlands and Germany. Transport volumes across the border alone are approximately 200 million tons per year and there sail approximately 600 vessels each day. (CCNR no date.) There are circa 3,400 IWT companies in the Netherlands, and 91% of the total turnover in European inland waterway transport consists of Rhine countries (Market observation 2018).

The Rhine is the most developed, maintained and used waterway for the transportation of goods in Europe, and approximately 80 percent of Europe's inland waterway freight traffic goes through it. Various cargoes are transported on the Rhine, contributing to its status as the busiest inland waterway in Europe. Particularly in recent years, the amount of container traffic has grown significantly on the Rhine. Almost 2.37 million TEU (twenty-foot equivalent unit) were transported in Rhine in 2017, accounting for 12% of all transported cargoes. (Market observation 2018.)

Together with the Danube, the Rhine serves as the most important international inland waterway network from east to west crossing the continental Europe (European Commission 2020g). The Rhine-Danube Corridor's length is

14,360 kilometers and it constitutes almost half of internationally significant inland waterways in Europe (Euroopan tilintarkastustuomioistuin 2015).

The following sup-chapters examine the benefits and challenges of inland waterway traffic in the world. Especially, the focus is concentrated on Europe's inland waterway traffic and recent projects which promote inland waterway traffic.

3.1.1 Benefits of inland waterway transport

There are many benefits for transporting goods via inland waterway routes compared to other, more common transport modes. Inland waterway transport has much unused potential and may greatly contribute to the growth of transport volumes. For example, if all the Finland's inland waterway network could be used for freight traffic, its share of the foreign trade of Finland would be as much as 25% larger than at present (Etelä-Karjalan Liitto no date). Inland waterway transports allow the carriage of different types of goods, especially large and heavy shipments. For instance, one inland vessel with 2,000 tons of cargo capacity can carry as much cargo as 80 trucks each carrying 25 tons of cargo. Nowadays, the range of vessels have also been designed to transport all types of cargo and are not restricted to transport only for example bulk cargo such as sand or coal. Low noise level, high safety standards and energy efficiency are considered to be commonly the benefits of the inland waterway transport. Also, it is not as congested mode of transport as road transport. Greenhouse emissions caused by the transports and fuel consumption are approximately one third compared to the road transports. (EPRS 2014.)

Even if inland vessels are much slower than trucks, the congestion caused by road traffic makes road transport almost as slow as inland waterway transport (Glansdorp & Blaauw no date). This enables an opportunity for the customer to choose more environmentally friendly and cost-effective transport mode, inland waterway transport. By choosing IWT the delivery will be transported to the destination at the same time as transported by roads. Also, by utilizing IWT in the transportation of goods organizations can enhance their imago and use it as a competitive advantage on markets.

3.1.2 Challenges of inland waterway transport

Challenges of the inland waterway transport are insufficient connections with other transport modes and inevitable bottlenecks, such as channels' insufficient size and the locks and bridges of the canals which will hold up a development of inland waterway transportation. Another challenge is the fact that inland waterways have poor connections with logistics centers, so it is almost obligatory to also use other transport modes when transporting goods inland. (EPRS 2014.)

Other challenges of inland waterway transport can be the narrow dimensions and low depth of water. Because of this, larger vessels are not able to operate which causes the low traffic volumes on the inland waterways for example in Finland (chapter 3.2). Depth of water can be a major problem for IWT. For instance, because of the hot and dry summer in 2018, the depth of the Rhine was at its lowest since 1881. That caused billions of euros in losses for the inland shipping industry. Exceptionally low water levels forced operators to use lighter vessels and make multiple trips for transporting goods which normally would have been transported by one vessel. (Gustafsson 2019.)

During the European Commission's NAIADES action program (chapter 3.1.3) for developing waterway transport, a major concern regarding the IWT sector was the fact that there was no significant progress made on reducing air pollutant emissions of inland waterway vessels. Road transport uses newer technology in engines. Nowadays, engines of trucks are more modern and cleaner than engines of inland waterway vessels. Inland waterway transport still has a scale advantage over the road, so the amount of emission per ton kilometer is not as high as produced by road transport. However, it is expected that because of a rapid modernization of trucks in Europe, in 2020 the emissions per ton kilometer will be lower in many cases for road transport than for inland waterway transport. (European Commission 2012.)

3.1.3 Projects for promoting inland waterway transport

CEF Transport Projects

The Connecting Europe Facility (CEF) program is financing the main projects concerning all transport modes when implementing the Trans-European Transport Network (TEN-T). By financing the projects, CEF helps to improve infrastructure, eliminate existing bottlenecks and promote sustainable and innovative mobility solutions. The projects involve all European Union's member states and are divided by transport modes. For example, there are nearly 65 different, larger and smaller, projects related to inland waterway transport in the European Union. The projects support logistics, innovation and transport co-modality and also concentrate on the general integration and development of Europe. (European Commission 2020a.)

NAIADES

With the help of NAIADES action program, the European Commission's aim was to promote inland waterway transport by creating better conditions for the further development of that sector. That way, the Commission wanted to encourage companies to use IWT as a mode of transport instead of other transport modes because of its climate-friendliness, energy-efficiency and its potential to promote more sustainable mobility in Europe. The Commission believed that IWT would be the solution for heavily congested transport corridors. The NAIADES action program included the policy of promoting inland waterway transport in Europe. (European Commission 2020c.). The action program covered a period from 2006 to 2013, and the main focus was on five strategic areas: modernizing the fleet, developing human resources, improving market conditions, raising image and awareness and developing infrastructure (European Commission 2012).

NAIADES II

NAIADES II action program was announced in 2013 and its implementation was scheduled to last until 2020. It is a continuation of the previous NAIADES program, and the main aim was to create better conditions for inland waterway transport. The six key aspects of the action program were: quality of infra-

structure, quality through innovation, smooth functioning of the market, environmental quality through low emissions, jobs and workforce and integration of IWT into the multimodal logistics chain. (European Commission 2020b.) With for NAIADES II, the European Commission wanted to renew the original NAIADES program so it will be last until 2020 and for standardize transport policies within EU. One part of this action program was to adopt a new proposal for a directive which would replace the directive 2006/87/EY (technical requirements of inland waterway vessels) and allow uniform requirements to be included into the law. (Euroopan komissio 2013).

EMMA and EMMA Extension

EMMA project was founded in 2016 to focus on the potential growth in inland waterway and river-sea transport. It was funded by the Baltic Sea Region Programme and it was 21 partners from 5 different countries. In the project, pilot programs for inland waterway traffic were implemented, new reports of on traffic bottlenecks were produced and international seminars regarding new innovations were organized within the project. (SVY r.y. 2014a.) EMMA project was completed in at the end of February 2019, and based on the results and recommendations of the project, a new project EMMA Extension was founded. (Project EMMA no date.)

EMMA Extension project started in August 2019 and its objective was, by utilizing the results and partnerships of the EMMA project and enforcing practical solutions of inland waterway transport, to put inland waterway transport's market into operation. As in project EMMA, the Baltic Sea Region Programme acts as a financier of the project (Project EMMA no date.)

NaviSaimaa

The aim of the NaviSaimaa project is to enhance the prerequisites for waterway transport and promote environmentally friendly transport modes of in Lake Saimaa. NaviSaimaa project is concentrated to promote both freight and passenger traffic in Lake Saimaa. The project was founded in August in 2019 and it is planned to last until the end of 2020. It is funded by EU and the cities and municipalities surrounding Lake Saimaa. As INFUTURE project, NaviSaimaa co-operates with Russia with the aim of developing inland waterway transport. (Mikä naviSaimaa no date.)

3.2 Inland waterway transport between Finland and Russia

Finland's and Russia's interconnected inland waterway networks permit the transportation of cargo from Sweden's large lakes all the way to the Caspian Sea. By using inland waterway networks integrated to Central Europe's inland waterways, vessels can sail to the Black Sea. In the future, it will be possible to sail via inland waterways from Finland to the Mediterranean Sea. (Etelä-Karjalan Liitto no date.)

Finland has the longest inland waterways in Europe. When all the canals, lakes and rivers used by cargo traffic are included, the length of inland waterways is over 8,000 kilometers (EPRS 2014). Finland's inland principal cross-border waterway goes via the Saimaa Canal connecting to the inland waterways of Russia (figure 2). Russia's inland waterway network is nearly 102,000 kilometers long and has a shortcut connection for all the European seas (AYAT 2020). It also links the White Sea, the Baltic Sea, the Caspian Sea and the Black Sea together via the Volga (Pike 2020).

Saimaa Canal

The Saimaa Canal was opened in 1856. The length of the canal is 43 kilometers and it contains eight lock gates of which three are on the Finnish side and five in the Russian territory (VisitLappeenranta no date.). The Canal connects the river basin of Lake Saimaa with the Gulf of Finland via the cities of Lappeenranta and Vyborg (figure 2). Finland has leased the area of the Canal from Russia because the territory is owned by the Russian state. Currently, the lease contract has been effective for 50 years until 2062. The lease contract is unique and there are no similar territorial lease arrangements in the world. The area consists of the Saimaa Canal and the road alongside between the towns of Nuijamaa and Brusnitšnoje which are in the territory of the Russian Federation. According the lease agreement, the two countries are represented in matters related to the canal by Canal Counselors named by the governments of the countries. (Etelä-Karjalan Liitto no date.)



Figure 2. Saimaan kanavan pituus on noin 43 kilometriä (YLE Uutisgrafiikka 2018)

The length of the inland waterway network in Finland is comparable to the networks of Germany and Netherland. However, in Finland there is great amount of unused potential in the transportation of goods via inland waterways, and the use of infrastructure is ineffective. For instance, 1.3 million tons of freight goes through the Saimaa Canal in a year, when even today the infrastructure capacity would allow the transportation of 5 million tons of cargo. (Etelä-Karjalan Liitto no date.)

In 2018, the share of inland waterways in the transport of goods between Finland and other countries through the Saimaa Canal was 1.230,638 tons. The share of export was 378,696 tons (0.3%) and the share of import was 851,942 tons (0.7%). (Figure 3.) Cargoes mainly consisted of timber, forest industry products, crude minerals, coal, coke and other manufactured goods. The transported bulk cargo is mainly accounted for by large industrial companies such as Stora Enso and UPM-Kymmene Oyj. (Traficom 2019.) Of the approximately 1,200 cargo ships sailing in the canal, only 8% are under the Finnish flag, 28% sail under the Russian flag and the rest of the ships are from Netherlands and other countries. (Koskinen 2019.) Through the Saimaa Canal, cargo can be transported far into Europe without any transloading during the voyage, which improves efficiency. The voyage from Lake Saimaa to Central Europe requires usually 48 to 72 hours. (Rahtiliikenne no date.)

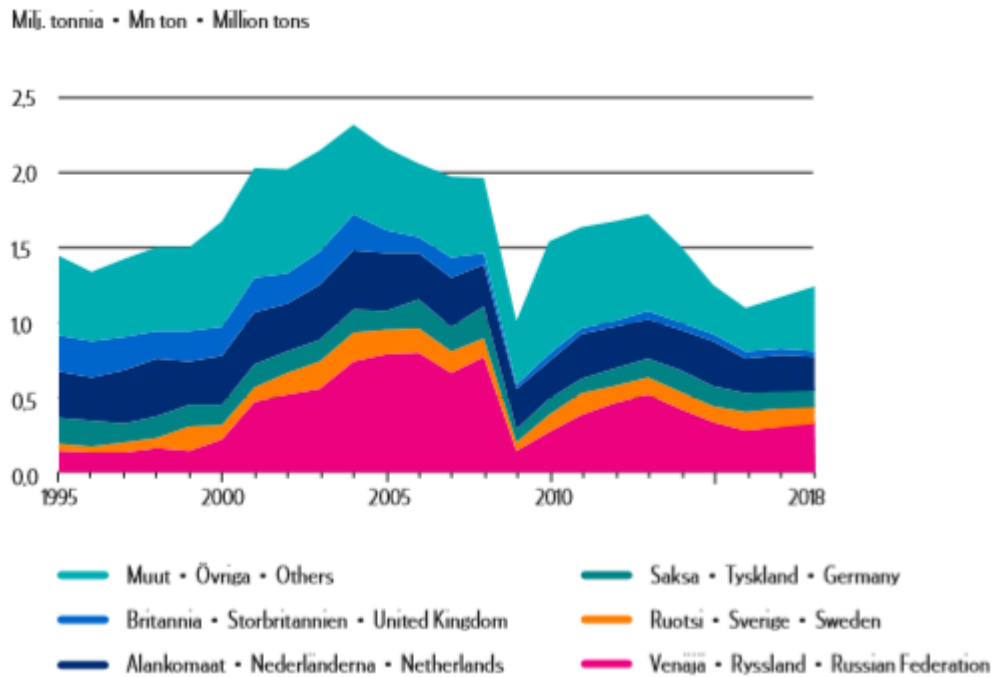


Figure 3. Goods traffic between Finland and foreign countries through the Saimaa Canal, 1995-2018 (Traficom 2019)

A challenge to inland waterway transport between Finland and Russia is the low capacity of the Saimaa Canal. Already, some of the lock gates of the canal are renewed and the renewing of the locks' lower gates have been started in the beginning of 2020. In the future, this will enable for larger vessels to sail in the canal. Also, the lengthening of the locks allows for the Saimaa Canal to be open for traffic nearly year-round. Formerly, the canal has been forced to shut down in wintertime because of heavy ice conditions. (Tanskanen 2019.)

One of the largest challenges for the development of the inland waterway transport in the Saimaa Canal has been the use of old Russian cargo vessels. Almost a third of all ships consists of these old vessels some of which have been sailing since 1980s. Due to the renewal of the locks, it will be possible to use much longer vessels in the Saimaa Canal which will also survive better in winter conditions and will rise cargo capacity 1.75 -fold from the present volumes. (Tanskanen 2019.)

4 LEGISLATION OF INLAND WATERWAY TRANSPORT

In Finland's inland waterway traffic, national legislation and the European Union's regulations are followed mainly in compliance with international maritime

legislation. It is not necessary for Finland to obey all the EU directives because of the low transport volumes of inland waterway network. As the Saimaa Canal extends from Finland to Russia, Russia's national legislation must also be observed when transporting goods to Russia. In the following sub-chapters, the most central laws and regulations regarding inland waterway traffic operations on the Finnish side of the border are introduced.

All member states of the European Union have uniform requirements for the permission of inland waterway's navigation. This simplifies compliance with regulations and improves the level of safety when transporting in inland waterways. (European Commission 2020d.)

All traffic in the Saimaa Canal must comply with the general maritime legislation and the regulations governing navigation in inland waterways. In addition, there are special traffic rules: guidelines on the operation of vessels to Russian ports in the Baltic Sea, traffic instructions for canals and opening bridges (512/91) and the Finnish Transport Agency's decision on traffic periods and opening hours for canals and open bridges. Merchant shipping must comply with international maritime regulations, and neither vessels nor their crews are required to provide any non-standard documents. Passage in the Saimaa Canal is allowed for the merchant vessels of all countries, and they can operate in the canal without special permission if their dimensions do not exceed: 82.50 meters in length, 12.60 meters in width and 4.35 meters in draught. However, all vessels with a length of more than 35 meters must use a pilot. (Väylä 2018.)

4.1 EU legislation

The European Commission regulates most of the legislation for inland waterway transport that takes place in the member states of the European Union. The legislation concerns vessels, environment, jobs and qualifications, market and river information system (RIS). (European commission 2020f.) Below is a listing of the EU legislation which have an influence on inland waterway traffic and transportation.

EU directive of laying down technical requirements for inland waterway vessels

Directive 2016/1629 of the European Parliament and of the Council lays down technical requirements for inland waterway vessels, amends Directive 2009/100/EC and repeals Directive 2006/87/EC. One of the purposes of Directive 2006/87/EC (technical requirements of inland waterway vessels) was to harmonize the requirements for technical certificates in all inland waterways in the European Union. This directive also sought to prevent distortion of competition and variations of safety levels for applying the same technical requirements for all EU waterways. The directive is applied for vessels with a length of at least 20 meters or with such dimensions of length, width and draught that result in 100 cubic meters or more in volume. Also, it is applied for tugs and pushers which are intended to push or tow other vessels or floating equipment. The directive is not applied for ferries, naval vessels or seagoing vessels. Along with ten other countries (Denmark, Estonia, Greece, Slovenia, Malta, Spain, Cyprus, Latvia, Portugal, Latvia) Finland does not need to transpose and implement this Directive for a part of its national legislation because inland navigation is not used to a significant extent. (Directive (EU) 2016/1629.)

EU directive of transporting dangerous goods in inland waterways

Directive 2008/68/EC of the European Parliament and the Council on the inland transport of dangerous goods determines rules for dangerous goods of inland waterway transportation (ADN) in European Union. The scope of this directive is applied to the transport of dangerous good that occurs by inland waterway, rail or road. The directive establishes the ground rules for the transportation of dangerous goods, but all member states have the right to apply more stringent national rules for transport performed in their territory. (Directive 2008/68/EC.)

EU directive of navigability licenses for inland waterway vessels

One of main objectives of European Parliament's and the Council's directive 2009/100/EC on reciprocal recognition of navigability licenses for inland waterway vessels is to make inland waterway traffic safer by standardizing the navigability licenses for all of the European Union. The directive also defines in which circumstances and conditions it is possible for Member States to cancel

the passage of vessels. For example, the cancellation of a vessel's passage is possible if its condition is deemed to pose serious harm for the environment. The vessel can continue forward after all the defects are rectified. (Directive 2009/100/EC.)

EU directive about recognition of professional qualifications in inland navigation

Directive 2017/2397 of the European Parliament and of the Council on the recognition of professional qualifications in inland navigation is made for the safety of inland waterways. This directive regulates the terms and procedures which apply for authenticating qualifications of people who participate in the operation of vessels in the area of the EU. (Directive (EU) 2017/2397.)

EU directive about systems of chartering and pricing

Council Directive 96/75/EC concerns regulations for chartering and pricing the national and international carriage of goods by inland waterway within the community. Because of the congestion of road and rail traffic, and for the sake of safety and more environmentally friendly operation and lower energy consumption, the potential of inland waterway traffic should be constantly developed. The differences in national laws concerning inland waterway transport currently prevent the smooth functioning of the internal market. By streamlining inland waterway transport and introducing common provisions for the inland waterway market, the functioning of the internal market can be improved. Consequently, organizations can achieve commercial flexibility and more freely chartering and pricing. (Council Directive 96/75/EC.)

EU directive on harmonized RIS in the Community

The European Parliament's and of the Council's Directive 2005/44/EC on harmonized river information services (RIS) on inland waterways in the Community introduces common requirements and technical specifications which guarantee a harmonized, interoperable information services in the inland waterways within the community. The Directive aims to support and increase efficiency, environmental friendliness and safety of inland waterway transport. The RIS should be based on open and public standards, so those must be available to all users and system suppliers, and it should be a minimum requirement regarding RIS for Member States to provide at least the information

services on their inland waterways. A particular Member State does not necessarily need to follow this directive if its navigable national waterways are not linked to the inland waterway network of other Member States. Still, it is recommended that RIS is used also in these waterways and national systems are made interoperable with it. (Directive 2005/44/EC.)

Regulation of technical specifications for electronic ship reporting

Commission implementing regulation 2019/1744 on technical specification for electronic ship reporting in inland navigation regulates that electronic reporting should improve the safety and efficiency of the inland waterway traffic by making it possible to share electronic information between competent authorities and with the parties involved in IWT. With electronic reporting, it should be possible to avoid reporting the same data several times to the authorities and other parties of the transport chain. The regulation specifies what messages, codes, data items and references must be used in inland waterway navigation, and it applies to all Member States of the Union. (Commission Implementing Regulation (EU) 2019/1744.)

Regulation of statistics of goods transport by inland waterways

European Parliament's and European Union's Council's regulation 2018/974 contains common rules concerning the production of European statistics of inland waterway transport. The EU statistics must be collected in accordance with common concepts and standards, which makes it possible to compare the statistics between transport modes. The European Commission uses these statistics for following and developing common transport policies and the transport elements of trans-European networks. (Regulation (EU) 2018/974.)

4.2 Finland's national legislation

Merchant shipping operations in the Saimaa Canal must follow the common international maritime legislation and are regulated by many international standards and agreements which are implemented in Finland through national legislation and regulations. Preparation of those regulations are made by the Finnish Transport Agency together with other Finnish actors in the field of

maritime, such as with Traficom, the Finnish Transport Safety Agency. (Väylä 2019b.)

Law about leasing a part of the Saimaa Canal from Russia

Laki Saimaan kanavan Venäjälle kuuluvan osan ja siihen liittyvän alueen vuokraamisesta Suomen tasavallalle sekä Saimaan kanavan kautta tapahtuvasta alusliikenteestä Venäjän kanssa tehdyn sopimuksen lainsäädännön alaan kuuluvien määräysten voimaansaattamisesta ja sopimuksen soveltamisesta (4.2.2011/104) defines the leasing of the Russian part of the Saimaa Canal and the related area to the Republic of Finland. The vessel traffic via the Saimaa Canal between the Republic of Finland and the Russian Federation are also defined in this law. The law is the most fundamental law regarding inland waterway traffic in the Saimaa Canal. For implementation of the lease agreement of the Saimaa and to improve its vessel traffic, competitiveness and accessibility, there are the Canal Counselor in connection with the Ministry of the Transport and Communications. The Government appoints Canal Counselor for this task for a period of five years at a time. The Canal Counselor also works as the president of the Canal Commission which task is to act as a licensing authority of the Saimaa Canal.

Law about waterway traffic

Vesiliikennelaki (19.6.2019/782) is applied in all watercraft which are used on the territorial waters of Finland. In the Saimaa Canal, according to chapter two (principles and rules of water traffic) section 36 § of *vesiliikennelaki*, captain of merchant vessel must report information regarding vessel, its route or cargo if the information is asked by canal service provider. In the same chapter in section 39 § is adjusted about canal dues. In *vesiliikennelaki* is defined that in Finland a payment, rewards or other compensations are not collected during canals official opening hours. However, the payment can be collected if the canal is used outside of office hours. In the law, it is prescribed separately about this matter. *Vesiliikennelaki* repeals the Degree 8.3.1991/512 about traffic rules for canals and openable bridges (*Asetus kanavien ja avattavien siltojen liikennesäännöstä* 8.3.1991/512).

Law about transporting dangerous goods

Meaning of this law is trying to prevent the danger of which the transportation of dangerous goods would cause for humans, environment or property. This law is applied only for general cargo transports in Finland's territorial waters. It does not apply for bulk cargo or vessels which are supervised by the military of Finland. (Laki vaarallisten aineiden kuljetuksesta 2.8.1994/719.)

Pilotage Act

Luotsauslaki (21.11.2003/940) is applied to pilotage which is in use on Finland's territorial waters and leased territory of the Saimaa Canal. The purpose of this law is to promote the safety of vessel traffic and prevent the environmental damages caused by vessel traffic. Also, it regulates the duties, justice and responsibilities of pilot. (Luotsauslaki 21.11.2003/940.) Over 35 meters long vessels must use a pilot for transportation in Saimaa Canal. However, the Ministry of Transport and Communications can grant a special permission for the captain of vessel which permits the vessel to sail without a pilot on some parts of the canal. For obtaining the permission, the captain must first complete the required examination. (Väylä 2019a.)

Law about ballast water management

Laki alusten painolastivesien ja sedimenttien valvonnasta ja käsittelystä tehdyn kansainvälisen yleissopimuksen lainsäädännön alaan kuuluvien määräysten voimaansaattamisesta (17.6.2016/472) defines the regulations contained in the international convention of the control and management of vessels' ballast water and sediments. The convention was established in London in 2004 to reduce the spreading of invasive species in waterways. By the year 2024, each vessel must have a ballast water management system (BWMS) for the processing of the ballast water (Laamanen & Korpinen no date).

The Finnish Transport Agency's regulation on traffic periods and opening hours for canals and openable bridges

The regulation is given under the law about waterway traffic and the degree about traffic rules for canals and openable bridges. It concerns the traffic periods and opening hours of state's lock and open canals. For example, the

length of the traffic period in the Saimaa Canal is agreed in each year observing the ice-conditions and the Finnish Transport Agency publishes the information of opening and closing dates of canal on their website. (Liikennevirasto 2017.)

5 CUSTOMS POLICIES BETWEEN FINLAND AND RUSSIA

Customs policies used in inland waterway traffic between Finland and Russia do not differ from the policies used with other transport modes. There are a few exceptions regarding vessels transported via the Saimaa Canal. For example, the entry summary declaration and exit summary declaration must be submitted to the Customs not later than two hours before the vessel leaves the country, arrivals to the border or leaves the Customs office of exit (Tulli 2019a).

For the import and export of goods, should first be clarified if the freight and forwarding contracts have been concluded, if any customs regulations as import restrictions aimed to the goods and if it is possible to obtain tariff preferences on the goods. The main documentaries of import and export include invoice, packing list, customs declaration, certificate of origin of goods and bill of lading. (Hörkkö et al. 2010, 162-186.)

The following sub-chapters present the most general customs policies of Finland and Russia. The information is gathered how goods are cleared as import and export between Finland and Russia. Otherwise, there would be much more procedures and alleviations to write about that would not relate to the subject of this thesis.

5.1 Finland's customs policies

When importing goods from the third countries (as Russia) to Finland the procedures of customs can be release for free circulation, temporary importation, inward-processing and placing goods to storage or customs transit procedures (Tulli 2019e). The most used import customs procedure is release for free circulation which applies commercial policy measures for transported goods. In that procedure, after the legal customs duties are collected goods will have

the customs status of the European Union goods. When releasing the goods for free circulation, they can not be under any restrictions or prohibitions. (Tulli 2019b.)

In Finland, the goods are exported to the third countries mainly as export, temporary export or export for repair/other processing (Tulli 2019c). Export to outside the European Union is exempt from value added tax (VAT) and the seller can receive the sale as VAT exempt with customs confirmed release. The export declaration helps customs authorities of the exporting country to both supervise the exit of export goods and combat terrorism and international crime. Also, the export restrictions and prohibitions on export goods are supervised with the help of export declaration. (Tulli 2019d.)

When transporting Union goods from EU nation to another, the goods can be moved without customs formalities. However, if the route of transportation deviates outside the customs territory of the EU, it is necessary to prove the customs status of the Union goods when they return to the customs territory of the EU. For this occasion, the customs status can be proved by using T2L import or export document approved first by the authority of the country of dispatch. In Saimaa, with T2L document the goods can be transported without customs formalities from Finland through Russia to EU and in the other direction. This provides the vessel not having any loadings or unloadings in the third country, Russia. When the vessel comes from the Russia to Finland, the shipbroker presents a confirmed T2L document to the authority of Finland who accepts or rejects the document. (Tulli 2016.)

5.2 Russian customs policies

In Russia, customs procedures are strictly practiced and controlled. Goods must be cleared either in the border of Russia or in the customs office before they can be released for a purchaser. All the values and duties must be paid before the goods cross the border. Especially, the Russian Customs is particularly specific the weights of the transported goods, and compares them to the information of relevant documentation. (imrg 2018.)

Import

There are three different procedures for making the customs clearance when importing goods in Russia. In first alternative, the whole customs process and all the customs measures are done on the border of Russia. The goods are delivered to the customs office located on the border from where they are obtained not until the purchaser has delivered all the necessary documents for a review and has paid all the possible costs. The purchaser is completely responsible for the documents and payments. As a disadvantage of this customs procedure is a high possibility for delays with data transfer. 18% of the material flow between companies is customs cleared in this way. (imrg 2018.)

In second procedure, companies can use the customs centers which are located in Russia for the customs clearance. In this procedure goods can be delivered directly to these internal centers with the special movement document which lets goods to be moved from the border without direct customs clearance. It is freight carrier's responsibility to present the movement document and other necessary documents for the customs center. The purchaser is responsible to prepare those documents and take care of customs payments pertaining carried goods. Even 80% of imported goods are cleared by utilizing this procedure. (imrg 2018.)

As a third option to import goods is to use an electrical customs declaration. In this procedure the goods are physically in the border of Russia, but the customs clearance is done by a remote declaration center located within the territory. All documents included in the shipment must be sent electrically to the remote declaration center. After processing with the documents and clearing the goods, the center gives a permission for goods inspection for customs post on the border. After that, the cleared goods can be transported from the border directly to the destination. This procedure is the most recent and only 2% of goods are cleared according to this scheme. (imrg 2018.)

Export

When exporting goods from Russia to Finland, freight forwarder is able to do the export customs clearance after the buyer has paid the seller all the payments arising from the export. For the export customs clearance, the freight forwarder needs the copies of certificates and passports for goods in addition

to other general documents from the exporter. (Realexport Ltd 2020.) The freight forwarder must inform the names of the seller and buyer, customs tariff heading (from the Harmonized System) and customs value. The informed seller must be a Russian legal entity. When the transported goods arrive at the border crossing, the driver must be accompanied by all required documents, such as invoice, export agreement and the transaction passport for display to Customs. For having the sale as VAT exempt, the exporter must deliver required documents to the Federal Tax Service. The documents consist of invoices, payment of duties and proof of passage at the border. (Santander 2020.)

6 INFUTURE PROJECT

Most of the international freight traffic runs on the roads. Road transport causes more pollution than any other mode of transport, in the year of 2014 road transport accounted over 70% of greenhouse gas emissions. (European Commission no date.). The European Commission's aim is to tighten the emission standards and move 50% of freight traffic to the railways and waterways by the year 2050 (European Union 2011). The purpose is to develop inland waterway transport as a credible and competitive alternative for current and more common transport modes by emphasizing its cost-effectiveness and friendliness to the environment (SVY r.y. 2014b).

INFUTURE project is established to improve inland waterway transport with resistant and cost-effective solutions. For example, a new IT-system for the support of customer service is created, a new type of vessel for inland waterway transport is developed and more suitable practices of operation are planned with the assistance of this project. The INFUTURE project focuses on investigating the customs clearances between Finland and Russia, researching the legislation of freight traffic and discovering for more efficient ways to manage freight. As a part of the project, this thesis examines these above-mentioned matters: what customs policies and legislation are in use in inland waterway transport between Finland and Russia. As project partners co-operate Kotka Maritime Research Center, Aalto University, South-Eastern Finland University of Applied Sciences, Meritaito Ltd, Finnish Waterway Association, Admiral Makarov State University for Maritime and Inland Shipping and North-

West Russia Logistics and Information Development Centre. The INFUTURE project is planned to be realized by October of 2021 and the main contributor of the project is The South-East Finland – Russia CBC 2014-2020 program. (Merikotka no date.)

As INFUTURE project The South-East Finland – Russia CBC 2014-2020 program is also one of the co-operation programs between Finland and Russia. It is mainly concentrated on promoting business, qualified labor and health of environment in the program area. Also, it promotes traffic and safety at the border of Finland and Russia. (CBC 2014-2020 Kaakkois-Suomi – Venäjä no date.)

7 IMPLEMENTATION OF THE INTERVIEWS

The interviews were implemented as a Webropol questionnaire, face-to-face interviews and with a Skype during March 2020. Because of the global pandemic, those formats of the interviews were not possible to implement for all interviewees. Therefore, a few interviewees were interviewed by emails. Unfortunately, the answers were not possible to gather from all who were planned to interview but luckily, the most of interviews were able to implement. The interviews were recorded and transcribed for facilitating the writing process and for having the content of the interviews as correct as possible.

To gather a comprehensive information about legislation which impacts inland waterway transport in the Saimaa Canal, Seppo Kykkänen was interviewed from the Ministry of Transport and Communications. Kykkänen works as a head of an office of the Canal Counsellor and has the most current information about legislation. The semi-structured interview was implemented by using Skype. Though, the original plan was to perform face-to-face interview in the office of the Canal Counsellor in the city of Lappeenranta. As a head of an office of the Canal Counsellor, Kykkänen and his colleagues support and help the canal counsellor of Saimaa and issue the necessary permits for the leasing area.

For obtaining the information of customs policies in Saimaa, the qualitative research method was utilized to interview Finnish Customs. The semi-structured

interview was implemented as face-to-face interview in Nuijamaa customs office for the head of Customs Petri Kukkonen and his colleagues. The main duties of the Customs in Nuijamaa's border crossing are to control customs clearances made by freight forwarders. Also, casual vessels' surveys and measurement of vessels as random tests are under the responsibility of the Customs.

The project planner of naviSaimaa project, Kaisa Hirvonen was interviewed to gather information of the Saimaa Canal's traffic and development. It was interesting to interview a person who has familiarized with the subject as she has worked as a project planner in a similar project as INFUTURE. The semi-structured interview was implemented by using a video chat application. The naviSaimaa project and its aim have been presented in chapter 3.3 in this thesis.

A structured interview was implemented as a Webropol inquiry for the director of FGU Saimenskij kanal's office, the director of North-West Russia Logistics and Information Development Centre and the Head of Economics of waterway transport department of Admiral Makarov. For these Russian contacts, the interview was easier to implement as the Webropol questionnaire. By interviewing them, the aim was to gather their opinions on the current state and future of inland waterway transport. The office of FGU Saimenskij kanal's main duty is to control how Russian Federation's organizations and Finland implement the terms of the leasing area of the Saimaa Canal (Hallituksen esitys Eduskunnalle Saimaan kanavan Venäjälle kuuluvan osan ja siihen liittyvän alueen vuokraamisesta Suomen tasavallalle sekä Saimaan kanavan kautta tapahtuvasta alusliikenteestä Venäjän kanssa tehdyn sopimuksen hyväksymisestä ja laiksi sopimuksen lainsäädännön alaan kuuluvien määräysten voimaansaattamisesta ja sopimuksen soveltamisesta HE 22.10.2010/215).

The interviews were implemented with two different formats. For Petri Kukkonen, Seppo Kykkänen and Kaisa Hirvonen the semi-structured interview method was used (Appendix 4/4). Mainly, in the face-to-face interviews were asked the same questions as the email interviews, but it was considerably easier to ask additional questions and sustain the debate when facing each other with interviewees. The interviews were built around the questions related

to the theme which interviewees were able to openly answer, based on their own knowledge. Interviews may have asked detailed questions as well as completely new questions that came to mind during the interview. The other format was structured interview which was implemented by using a Webropol program. The structured interview method was utilized for interviewing people in Russia, as the director of North-West Russia Logistics and Information Development Centre (Appendices 2/4 and 3/4). The Webropol inquiry was more formal and included predefined answer alternatives in addition to open-ended questions. As semi-structured interview, the structured interview was compiled on the themes of the thesis.

8 ANALYSIS OF THE INTERVIEWS

With the help of the interviews, the purpose was to gather valuable information about at present and future state of IWT in Finland. This information was utilized together with existing literature for making conclusions on the current state of IWT and possible proposals for improvements for the future.

8.1 The legislation

One of the main objectives of this thesis is to gather knowledge about the legislation of IWT. Based on the interviews, it became clear that legislation is not the obstacle for the development of the inland waterway transportation. According to Kykkänen (2020) the most determining factor on operation of the Saimaa Canal is the lease agreement of the canal which creates conditions for the operation on the canal. Also, if the vessel loads a part shipment onboard first from Finland and then from Russia after which continues its journey to the Europe, possible restrictions and regulations may appear (Hirvonen 2020).

When asked about influences of legislation and how they control the inland waterway transport in the Lake Saimaa, Kykkänen (2020) said that legislation is quite loose for IWT compared to other transport modes such as rail, air or road transport and transport in inland waterways obeys common maritime legislation. Finland's inland waterways are open for a competition and all operators can freely operate on those waters. The Canal is open to everyone, Finnish, Russian and third country commercial vessels. It is only restricted in the

canal's lease agreement that army vessels and third country vessels which are not in a commercial use can not operate in the canal. General cargo regulations of waterway transportation apply to inland waterway transport. However, there are some exceptions, such as it is forbidden to transport any crude oil in the Lake Saimaa. Lighter mixtures may be transported if there is suitable vessel for transport that meets double floor requirements. Other limitation factors are ballast water regulations and hold water procedures. (Kykkänen 2020.)

According to Kykkänen (2020), the dimensions of the canal are the limitation factor more than the legislation is. Those dimensions have an influence on the volumes of the traffic and the size of the vessels in the Saimaa Canal. Another burden for the canal and therefore Saimaa's inland waterway traffic is the compulsory pilotage combined with long waterways. This creates practical burdens compared to coastal sea traffic where pilotage distances are usually much shorter. Due to that, the government try to compensate the pilotage fees of inland waterway transport by giving a support which covers the part of the total pilotage fee. Also, on the inland waterways, there are not collected any channel fees which also seeks to support IWT. This is because there are not collected any fairway fees from other modes of inland transport either. (Kykkänen 2020.)

Webropol inquiry's (2020) result for the question regarding the legislation of IWT was that only Russia's national legislation defines operations in inland waterways. The result was quite predictable that in inland waterways of Russia only Russian legislation can be used. However, when asked in which field the legislation controls IWT the most, the answers were more comprehensive. The Russian national legislation affects the most on vessels, operational functions as transportation and port operations and navigation in IWT.

8.2 Customs policies in the Saimaa Canal

One of the interview questions regarded customs policies in the Saimaa Canal. The customs policies that are in use regarding the inland waterway transport between Finland and Russia and the possible difference in customs

policies between transport modes wanted to be investigated with the interviews.

Kukkonen (2020) raised the truth that the Saimaa Canal has not brought to the EU level as the Rhine. If the planning of the Saimaa Canal was taken into account as Rhine, the “third country” status of the leasing area of the Saimaa Canal could be changed. Therefore, certain customs policies would be eliminated, and the movement of goods and passengers would become easier. However, the customs procedures have been planned as simple as possible to make the movement of vessels effortless. Vessels can sail via the Saimaa Canal without stopping at the border crossing, customs clearances and documents are sent online and customs inspections are done only when needed.

One of the main objectives of this thesis is to examine what customs policies are in use regarding inland waterway transport between Finland and Russia. The purpose is to establish if there are differences in customs policies between transport modes. The Finnish Customs in Nuijamaa told that customs procedures in the Saimaa Canal are export, export with T2L document and import with T2L document (chapter 5.1). According to Kukkonen (2020) because in the Saimaa Canal transports plenty of bulk cargo, the organizations that operate in Saimaa can use a periodic clearance as a customs procedure. In the periodic clearance, the goods can be released for free circulation with an incomplete declaration. During the specified period, freight forwarder marks each transport to an accounting. The freight forwarder must send the supplemental information of those transports for Customs before appointed deadline. Therefore, the transported goods can be customs cleared at once in larger number, and their transportation across the borders become easier. Accounting markings can be done from organizations own premises with a Customs Authorisation Centre’s granted permission. This permission is called a local clearance procedure.

8.3 The future of inland waterway transport

As told (chapter 3.2), currently only large industrial companies operate in the Saimaa. It has become as a competition between the companies to transport their goods via the canal to the EU. Current vessels can carry 2,5 tons of

cargo in Saimaa when small and medium-sized companies do not have that much cargo to transport. It would not be cost-effective for them to wait every second month to transport full cargo. As a solution, with the part shipment integrations would be able to offer IWT to a greater amount of operators, including small and medium-sized companies. (Hirvonen 2020.)

According to Kukkonen (2020) the future of IWT depends much on industry in the Saimaa region and about world demand for their products. However, companies should be interested in exploiting inland waterway transport in export instead of using the other, faster modes of transport. This could be encouraged by new environmentally friendly vessels, which could be used by companies to promote their green image. (Kukkonen 2020.)

The renewing of lock gates of the Saimaa Canal was one of the key topics in interviews. The Saimaa Canal's future depends largely on the renewing. In order to increase the vessel and cargo capacities, acquire newer vessels from the European Union and keep the canal open for traffic a year-round, the lock gates should be extended eleven meters. According to Kukkonen (2020) if the changes are not done in the canal, the freight traffic has a possibility to disappear from the Saimaa. Due to this, the Saimaa Canal will only be used for yachts which is expensive.

According to Hirvonen (2020), when the ballast water convention's regulation of the ballast water management system comes into operation the oldest vessels will have a high probability of disappearing from waterways (chapter 4.2). As the cost of BWMS was circa 400,000 euros the installation of the BWMS for over 55-year-old vessels would not be profitable. In the consequence of installation the value of old vessels would double. Because of the ballast water convention all the Russian vessels can disappear from the Lake Saimaa. Consequently, almost a third of the vessels operating on the Saimaa can disappear.

According to Kykkänen (2020) the future of IWT in Finland does not look particularly bright. This is due to a few major bottlenecks of which the largest is the period of operation which is not year-round in the Saimaa Canal. If the pe-

riod of operation was a year-round or even 11 months, it would allow significantly higher traffic volumes. The second considerable bottleneck is the dimensions of the canal. Cargo capacity is continuously increased in all other modes of transport, but the Saimaa Canal creates limitations for the growth of the Finland's IWT creating a frame for the maximum size of the vessels. This decreases the competitiveness of the IWT. Also, this does not support new investments when the canal works as a blockage of the traffic. For the future of the Saimaa Canal, it would be necessary to extend the length of the canal locks.

Kykkänen (2020) said in the interview that there is still a future for the IWT in the Saimaa, but currently situation is quite miserable. One of the key reasons of the situation is that mainly raw materials are transported in Saimaa. Principally raw materials as logs are imported in Finland through Saimaa waters, but the export of finished products is extremely low. For making the future brighter, Finland's IWT sector needs more co-operations between the operators of the Saimaa area, in particularly between industry. This co-operation would allow lower transport costs for all importers and exporters. For making international inland waterway transport more profitable, a new service model would be needed, in which the traffic would not only serve large-scale industry and it would be possible to consider the combination of cargoes of different companies. According to Kykkänen (2020), that would be one possible solution for a brighter future of IWT. However, it is necessary that transport does not continue for only large-scale industry transportation as it is now, where companies are very strict about the fact that vessels are loaded only with their own cargo. Such activities do not support the common interest of all and the development of inland waterway transport. (Kykkänen 2020.)

When interviewing Petri Kukkonen, the Head of Nuijamaa Customs, he shared the opinion about the challenging future of Finland's IWT. It became clear that it would be crucial to increase the length of the canal locks to allow new larger vessels to pass through the canal. Without this modification the canal will be almost useless for cargo use when the current fleet gets older and will be out of service. In the Central Europe, larger vessels are in use and for them to reach the Saimaa area, changes must be made to the canal. (Kukkonen 2020.)

The Webropol inquiry (2020) also raised the fact that the transport period should become longer for example with river icebreakers. The future of IWT was seen both growing and descending, and as the Finnish interviewees told, the inquiry proved that no legislation limits the development of inland waterway transport. The Webropol inquiry respondents had quite similar opinions as Finnish interviewees on how inland waterway transport could be developed. For example, for widening the IWT between Finland and Russia it would be necessary to develop the spectrum of cargo first. Thus, the usage of containers should make much wider.

9 SUMMARY

“Efficient infrastructure, environmentally friendly and modern inland waterway vessels, an optimum integration of inland waterway transport into the multi-modal logistics chain, qualified staff as well as the use of digital services are basic prerequisites for a competitive waterway mode” (Federal Ministry of Transport and Digital Infrastructure 2019).

The research questions of this thesis were: which legislation and regulations control inland waterway traffic and transport between Finland and Russia? How regulations should be changed to support the development of inland waterway transport? What customs policies are in use regarding the inland waterway transport between Finland and Russia?

During this thesis study it became clear that inland waterway transport obeys mainly common maritime legislation and this mode of transport does not have special exceptions in the legislation. IWT in Finland is controlled by Finnish national and European Union legislation. The most significant law on the Saimaa Canal is the act on the canal's rental area which gives a framework for the operation in the canal. The outcome of the study was that legislation is not perceived as a hindrance to development of IWT of Finland.

In the Europe, inland waterway transport has increased and developed to a more different environment than Saimaa. For example, winter ice conditions

do not need to be taken into account there as in Finland and Russia. The inland waterways in the Central Europe have grown in connection with large cities over the years. Due to that, there are more supply and demand, so the transportation is naturally easier and more profitable to carry out by inland waterways. As noticed by the implemented interviews and collected materials, the regulation does not limit the development of inland waterway transport. Ports and infrastructure are more of a hindrance to the development. Central Europe's IWT offers a great model and various development ideas for inland waterway transport. However, because of geographical and economical differences, all the ideas are not possible to realize in Saimaa.

Various types of goods are transported in the Rhine River and the proportions of the goods to be transported are very evenly distributed, which allows more operators to operate on the inland waterway. Also, the increase of container transport has been growing trend in the Rhine in recent years. Due to that, it could be beneficial to the Saimaa Canal if it was possible to adopt container traffic there. Container allows transporting part shipments from different suppliers and combining loads are easier than when transporting bulk cargo. This would benefit small and medium-sized enterprises of the Saimaa area and encourage them for using IWT as a transport alternative. Currently, the transportation market in the region serves only major industry. Thus, it would be beneficial to whole Saimaa area to acquire more competition in transport market. The use of containers would also facilitate the connection of inland waterway transport into the multimodal logistics chain, when transferring cargo would become easier.

The material of customs policies that are in use in Finnish inland waterway transport, in the Saimaa were poorly found. However, the extensive information regarding the interview questions was gathered by existing literature and interview for the Finnish Customs. For example, the knowledge that there is no difference in customs policies between transport modes, was gathered on interview. As new matters appeared in interview, were that in Saimaa there are local clearance procedure and periodic clearance in use.

According to Bonnerjee et al. (2009) "IWT – requires the least amount of fuel per tonne-kilometer of cargo carried" for now but as mentioned in chapter

3.1.2 the developed engines of trucks have decreased the greenhouse gas emissions of road transport. If the development of IWT does not begin immediately, after all, whether inland waterway transport will become such a profitable mode of transport to compete alongside other transport modes when road emissions are already reduced by modern and cleaner engines.

Vessels sailing in the Rhine are mainly newer and more modern than the vessels in the Saimaa. Modern vessels enable low emission and environmentally friendly transportation. Environmental friendliness inspires companies to choose inland waterway transport over the other modes of transport when promoting their own green values. Probably, it is only a matter of time when vessels of Saimaa will renew due to aging of current fleet and renewing of lock gates of the Saimaa Canal. No later than the regulation of the ballast water management system, by 2024, the old Russian cargo vessels will probably disappear from Saimaa as it would be too expensive to install the BWMS on them.

10 CONCLUSIONS

The thesis process progressed well, and the implementation of the thesis went nearly as planned. Plenty of information was gathered regarding the current and future state of inland waterway transport with the help of interviews. Also, the Finnish customs import and export policies were examined and the most important legislation regarding IWT was collected at both Finnish and EU levels. However, not much information was gathered about Russian customs policies and legislation. More time and resources should have been allocated to collect this information. The research questions were answered with the help of collected sources and qualitative research methods. For some research questions, for example, the one concerning how regulations should be changed to support the development of inland waterway transport, it was challenging to find a clear answer because this study found no obstacles in legislation that might hinder the development of IWT.

During the thesis process, the subject was observed critically and from different perspectives. The interviewees had very different opinions for example on the future of IWT, both optimistic and pessimistic. Due to that, it was important

to reflect on both perspectives in the study. The material of this thesis was, as extensively as possible, collected from several Finnish and international sources, mainly literature written in the 2010s. The reliability of sources is deemed appropriate since they were mainly published by the European Union such as EUR-Lex and Finlex. The reliability of the study was increased by recording and transcribing the interviews to ensure the content of the interviews would stay unchanged. Information on the customs policies currently used in Russia could have been gathered by interviewing Russian freight forwarder or the Russian Customs. It was difficult to find relevant sources on Russian import and export customs procedures. Thus, in this respect, there is a need for further study.

Qualitative research method was suitable for this thesis, and semi-structured and structured interviews. Even if not all the people were could be interviewed as planned, comprehensive answers were gathered from representatives of different sectors. In order to obtain more responses from a larger range of perspectives, the interviews should have started earlier than in March 2020. On the other hand, the worldwide pandemic was not predictable which may have been a reason for some organizations to refuse to agree to an interview. Thus, it was understandable that at the time organizations had more important matters to take care of than answering to the questionnaire with the framework of this thesis.

The aim of the thesis was to examine the legislation of inland waterway transport and customs policies between Finland and Russia for the INFUTURE project. The objective was achieved, and this thesis serves as a source of information for the INFUTURE project. No similar information package exists, and other studies and projects regarding inland waterway transport between Finland and Russia can utilize the materials presented in this thesis. In order to expand the scope of this study, the Russian perspective on the subject could be examined and interviews with operators in different fields could be organised as part of a follow-up study.

As Bonnerjee et al. (2009) state, "Inland waterway transport provides a safe, environmentally sustainable form of transport, which is a key element of sus-

tainable economic development.” Based on the thesis, there are potential development patterns, and no legislation currently prevents the Saimaa Canal from exploiting them. The future shows whether inland waterway transport will challenge other modes of transport in Finland.

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Figure 2. Saimaan kanavan pituus on noin 43 kilometriä. YLE Uutisgrafiikka. *YLE* 10.8.2018. Available at: <https://yle.fi/uutiset/3-10343385> [Accessed 6 January 2020].

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STRUCTURED INTERVIEW QUESTIONS 1/2

Interview for thesis

1. How your operations regard/reflect in inland waterway traffic between Finland and Russia? *

2. What legislation defines operations in inland waterways?

- EU directives
- Finland's national legislation
- Russia's national legislation

Some specific law? How it defines the operations?

-

3. In which field the legislation controls inland waterway transportation the most?

- Human resources
- Environment
- Operational functions (transportation, port operations,...)
- Vessels

Other?

4. How do you see the future of inland waterway transport?

- Growing
- Descending
- Developing
- Unchanging

Does any legislation limit the development of inland waterway transportation?

STRUCTURED INTERVIEW QUESTIONS 2/2

Yes, what?

No.

What changes would be necessary for the growth of transport volumes?

-

5. What customs policies are in use regarding the inland waterway transport between Finland and Russia? Are there differences between transport modes?

6. What else would you like to comment about the subject?

Thank you for your answers!

SEMI-STRUCTURED INTERVIEW QUESTIONS

- How your company's operations regard/reflect in inland waterway traffic between Finland and Russia?
- How do you seek to protect your market and action in Saimaa?
- How the legislation defines operations in inland waterways?
 - EU directives/ Finland's national legislation?
 - Some specific law?
- How do you see the future of inland waterway transport?
 - Does the legislation limit the development of inland waterway transportation?
 - What changes would be necessary for the growth of transport volumes?
 - Are there already any reforms?
- What customs policies are in use regarding the inland waterway transport between Finland and Russia?
 - Are there differences in customs policies between transport modes?
- What else would you like to comment about the subject?