CARGO TRANSPORT POTENTIAL &
REGULATION OF FOREIGN FLAG VESSELS ADMISSION BETWEEN RUSSIA AND FINLAND

29th January 2020

in a framework of CBC Project:
Future Potential of Inland waterways, INFUTURE (2018-2021), WP1

Winter Seminar
Vesitiepäivä 2020
PART 1.
Cargo Transport Potential

CBC Project:
Future Potential of Inland waterways, INFUTURE (2018-2021), WP1
INFUTURE project - “Future Potential of Inland Waterways”

November 2018 – October 2021

1) Kotka Maritime Research Association KMRA (LP, FIN)
2) South-Eastern Finland University of Applied Sciences XAMK (FIN)
3) Finnish Waterway Association (FIN)
4) North-West Russia Logistics and Information Development Center ILOT (RU)
5) SeaHow Meritaito Ltd (FIN)
6) Admiral Makarov State University for Maritime and Inland Shipping (RU)
7) Aalto University (FIN)

Overall Objective of the project:

More opportunities to create for Russian and Finnish business to operate on inland waterways of the countries;

New economic network for enterprises create around the topic “inland waterways”.

Marine Cargo Bureau (RU)
Marine Engineering Bureau (RU)
Aker Arctic (FIN)
Initial presumptions for the INFUTURE project

1) Needs of transport communications and of international trades by IWWs between the countries and in particular by Saimaa Canal and Volgo-Balt:
   - new partner companies in the trades, new goods, new logistics solutions, etc.;
2) Needs for infrastructure development of the Saimaa waterway system and Volgo-Balt waterway systems using both countries technologies, and best practices of other leading countries in river-sea transportation
   - new infrastructure, new fairway technologies etc.;
3) Needs for new vessels concepts operable in Saimaa waterways system due to reconstruction of its locks;
4) Social needs for people living along the rivers, lakes and canals for jobs and sustainable development of the rural hinterland.
Trade between Finland and regions of Russia
(example of January-November 2018)

<table>
<thead>
<tr>
<th>Region</th>
<th>Trade, in $ mln</th>
<th>Share, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moscow</td>
<td>6080</td>
<td>45.2</td>
</tr>
<tr>
<td>St.-Petersburg</td>
<td>1070</td>
<td>7.9</td>
</tr>
<tr>
<td>Leningrad region</td>
<td>744</td>
<td>5.5</td>
</tr>
<tr>
<td>Murmansk region</td>
<td>672</td>
<td>5</td>
</tr>
<tr>
<td>Karelia</td>
<td>293</td>
<td>2.2</td>
</tr>
<tr>
<td>Novgorod region</td>
<td>138</td>
<td>1</td>
</tr>
<tr>
<td>All regions:</td>
<td>13400</td>
<td>100</td>
</tr>
</tbody>
</table>
Transport volumes between Finland and other countries

Maritime transport of goods 2008-2018
Geographical area where Saimaa IWWs and Volgo-Balt IWWs meet
(from Map of the European Inland Waterway Network)
INFUTURE project - “Future Potential of Inland Waterways” (continue)

WP1 Related with cargo flows and ports development

WP2 Related with waterways development

WP3 Related with new vessels development

Pilot Task 1
Trial Voyage of Meriaura vessel to Volgo-Balt IWWs

Pilot Task 2
Trials of Meritaito AIS ATON Buoys at Volgo-Balt IWWs
## Domestic and international maritime transport through the Saimaa Canal

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic transport</th>
<th>International transport</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Export</td>
<td>Import</td>
<td>Total</td>
</tr>
<tr>
<td>2008</td>
<td>94428</td>
<td>56328</td>
<td>150756</td>
</tr>
<tr>
<td>2009</td>
<td>47271</td>
<td>24117</td>
<td>71388</td>
</tr>
<tr>
<td>2010</td>
<td>93466</td>
<td>24533</td>
<td>117999</td>
</tr>
<tr>
<td>2011</td>
<td>86266</td>
<td>38501</td>
<td>124767</td>
</tr>
<tr>
<td>2012</td>
<td>23958</td>
<td>14522</td>
<td>38480</td>
</tr>
<tr>
<td>2013</td>
<td>42990</td>
<td>132</td>
<td>43122</td>
</tr>
<tr>
<td>2014</td>
<td>56602</td>
<td>20579</td>
<td>77181</td>
</tr>
<tr>
<td>2015</td>
<td>50968</td>
<td>10108</td>
<td>61076</td>
</tr>
<tr>
<td>2016</td>
<td>62524</td>
<td>34014</td>
<td>96538</td>
</tr>
<tr>
<td>2017</td>
<td>74886</td>
<td>25515</td>
<td>100401</td>
</tr>
<tr>
<td>2018</td>
<td>54571</td>
<td>18774</td>
<td>73345</td>
</tr>
</tbody>
</table>

(Traficom, 2019)
## Major transport products in Saimaa canal (incl. transit traffic)

<table>
<thead>
<tr>
<th>Year</th>
<th>Timber, Raw wood, chips</th>
<th>Sawn wood</th>
<th>Paper, cardboard</th>
<th>Woodpulp</th>
<th>Plywood, veneer</th>
<th>Crude minerals</th>
<th>Chemicals, fertilizers</th>
<th>Coal, coke</th>
<th>Metals, metal products</th>
<th>Other merchandise</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>831 137</td>
<td>42082</td>
<td>216 419</td>
<td>231 600</td>
<td>2285</td>
<td>488 921</td>
<td>83 549</td>
<td>136806</td>
<td>3193</td>
<td>79746</td>
<td>2115738</td>
</tr>
<tr>
<td>2009</td>
<td>272 472</td>
<td>33791</td>
<td>166 067</td>
<td>74 730</td>
<td>406 812</td>
<td>39 650</td>
<td>58731</td>
<td>1001</td>
<td>30038</td>
<td>1083292</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>676 993</td>
<td>43160</td>
<td>157 315</td>
<td>124 170</td>
<td>465 723</td>
<td>95 342</td>
<td>66406</td>
<td>30847</td>
<td>1659956</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>736 421</td>
<td>43624</td>
<td>149 137</td>
<td>116 981</td>
<td>473 712</td>
<td>120 878</td>
<td>87394</td>
<td>35244</td>
<td>1763391</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>806 465</td>
<td>48447</td>
<td>143 118</td>
<td>105 408</td>
<td>347 569</td>
<td>133 033</td>
<td>101107</td>
<td>32945</td>
<td>1718283</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>856 480</td>
<td>65270</td>
<td>132 473</td>
<td>90 018</td>
<td>368 314</td>
<td>134 049</td>
<td>81972</td>
<td>3482</td>
<td>31566</td>
<td>1763624</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>726 826</td>
<td>53204</td>
<td>130 066</td>
<td>79 796</td>
<td>372 827</td>
<td>151 027</td>
<td>39268</td>
<td>16125</td>
<td>25913</td>
<td>1595052</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>442 672</td>
<td>43859</td>
<td>100 902</td>
<td>86 466</td>
<td>396 950</td>
<td>168 623</td>
<td>22039</td>
<td>25179</td>
<td>30457</td>
<td>1317147</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>363 739</td>
<td>43009</td>
<td>125 187</td>
<td>68 720</td>
<td>313 636</td>
<td>163 517</td>
<td>56373</td>
<td>33883</td>
<td>28958</td>
<td>1197176</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>400 478</td>
<td>49338</td>
<td>124 467</td>
<td>62 248</td>
<td>399 540</td>
<td>142 207</td>
<td>37802</td>
<td>27956</td>
<td>27891</td>
<td>1272032</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>583 411</td>
<td>34951</td>
<td>87 159</td>
<td>49 175</td>
<td>370 580</td>
<td>104 898</td>
<td>42058</td>
<td>10853</td>
<td>20898</td>
<td>1303983</td>
<td></td>
</tr>
</tbody>
</table>
Dynamics of cargo flows by Basin Administrations, 2008-2018, thousand tons

White-Sea-Onega Basin

- 2008: 5017
- 2009: 3300
- 2010: 4687
- 2011: 5612
- 2012: 5324
- 2013: 5112
- 2014: 4400
- 2015: 4771
- 2016: 5309
- 2017: 6100
- 2018: 6200

Volgo-Balt Basin

- 2008: 19280
- 2009: 17638
- 2010: 18366
- 2011: 22074
- 2012: 22435
- 2013: 21903
- 2014: 17777
- 2015: 15823
- 2016: 16251
- 2017: 16600
- 2018: 16200
Structure of cargos transported in Volgo-Balt and White Sea-Onega (e.g. 2016)

- Oil products: 54%
- Building Materials: 10%
- Wood: 9%
- Grain and mil products: 1%
- Metal: 1%
- Scrap: 9%
- Fertilizers & Chemicals: 3%
- Flux agent: 3%
- Slag: 1%
- Salt: 1%
- Other: 1%

Building Materials: 88%
Wood: 2%
Main Russian inland ports for transported cargos destined to Finland in 2016

- BELIY RUCHEIY: 68 thousand ton, 22%
- BELOUSOVO and SHALA: 44 + 44 thousand ton, 14%
- MONDOMA and VYTEGRA: 37 + 31 thousand ton, 12% + 10%
Main Finland inland ports for transported cargos originated from Russia in 2016

- IMATRA: 107 thousand ton, 35%
- LAPPEENRANTA: 60 thousand ton, 20%
- KAUkas: 36 thousand ton, 12%
Annual voyages and transported wooden cargos from Russia to ports of Finland

Export transportation of wood by WSO and VB annually totaled > 500 000 ton

<table>
<thead>
<tr>
<th>Cargo type</th>
<th>Number of voyages per year</th>
<th>Quantity of cargoes transported, ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>235</td>
<td>307 992 (75%)</td>
</tr>
<tr>
<td>Wood Balances</td>
<td>202</td>
<td>269 081</td>
</tr>
<tr>
<td>Wood Round</td>
<td>24</td>
<td>34 514</td>
</tr>
<tr>
<td>Wood Chips</td>
<td>9</td>
<td>4 397</td>
</tr>
</tbody>
</table>
Main vessels type navigable through Saima and currently commercially viable from Volgo-Balt to Saimaa
### Vessels & agents/shipping companies

<table>
<thead>
<tr>
<th>Vessel’s Type</th>
<th>Company name</th>
<th>Number of voyages</th>
</tr>
</thead>
<tbody>
<tr>
<td>10523</td>
<td>NEVA GROUP</td>
<td>135</td>
</tr>
<tr>
<td>1743.1</td>
<td>MARINE AGENCY HANGUT</td>
<td>39</td>
</tr>
<tr>
<td>2-95A</td>
<td>ASTRA SHIPPING AGENCY</td>
<td>37</td>
</tr>
<tr>
<td>326.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P168</td>
<td>TOTAL</td>
<td>235</td>
</tr>
</tbody>
</table>
1) All general cargo vessels navigable for Saimaa operating from Russia were built in large series before 1995;

2) Outdated design – first vessels were built from 1949, most from 50-60ies of last century;

3) Cargo carrying capacity is from 700 t up to 1300 t;

4) Ageing fleet – min average service life is 34 years, for most of the vessels exceeds 40 years;

5) Needs for fleet replacement due to its physical and functional obsolescence;

**QUESTION** is – What vessels to design and to build for the Saimaa future?

**How vessels to be operated?**
INFUTURE: Gateway and Hub ports for Finland and Russia IWWs
Recommendations on technical requirements for a new vessel concept

Class of the vessel and Flag:
Russian Maritime Register of Shipping or Russian River Register

Purpose of the vessel:
Carriage of general and dry bulk cargoes, carriage of containers (TEU & FEU), and carriage of dangerous cargoes.

Area of navigation:
Inland waterways of Finland and Russia, sea coastal areas for navigation on line Saimaa Lakes – Finish Gulf of Baltic Sea.

Navigational conditions/operability:
Ice conditions – sailing in crushed ice with 40 centimeters thickness;

Autonomy:
The autonomy of the vessel in terms of fuel, oil, water and provisions is 15 days. Autonomy under environmental safety conditions - 15 days.

Speed:
Vessel speed - at least 10 knots at 85% MDM.

Number of seats for the crew:
Provide 9 (nine) crew seats, one spare single cabin and one cabin for the pilot.
Ship equipment, ship systems:
The specification and design of ship’s equipment and ship’s systems must comply with the requirements of the RRR or RS Rules.

Propulsion, steering and power plant:
Two options for the propulsive complex:
- the classic propulsive complex (GD-reducer-shaft-propeller) for the vessel with the maximum possible completeness coefficient;
- propulsion system with full-rotary helical-steering columns for a ship with a high ice class.

Marine Power Station:
Ship power station power network 400V, 50Hz. The electrical system is three-phase, three-wire, isolated. Provide two main diesel generators, emergency auxiliary diesel - generator. Equipment to provide power supply from the shore, when vessel berths in the port, or in repair.

Radio equipment and navigation equipment:
Must meet the requirements of the RRR or RS Rules for the intended navigation area of the vessel.
PART 2. 
Regulation of Foreign Flag Vessels Admission Between Russia and Finland

CBC Project: 
Future Potential of Inland waterways, INFUTURE (2018-2021), WP1
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (Pilot Task 1)
Main documents regulating Foreign Flag Vessels Admission to Russian Inland Waterways:


2) Paragraph 23.1 of the Inland Waterways Transport Code of Russian Federation “Sailing (of vessels) under the flags of foreign countries on inland waterways”;

3) Resolution/order of the Government of the Russian Federation N 734-P (of May 2012) – “The list of ports and the list of inland waterways open to vessels flying a foreign flag”;
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (continue)

Main documents regulating Foreign Flag Vessels Admission to Russian Inland Waterways:

Paragraph 23.1 of the Inland Waterways Transport Code:

1. Sailing of vessels flying the flags of foreign states on inland waterways is permitted on the basis of international treaties of the Russian Federation, as well as on the basis of decisions of the Government of the Russian Federation…;

2. Sailing of sports sailing vessels and pleasure boats under the flags of foreign states on inland waterways shall be carried out in accordance with the rules established by the Government of the Russian Federation. (Regulation of Sport Sailing Vessels, Leisure and Small Boats is by Merchant Shipping Code and Federal Law № 36-FZ from 23rd April 2012 with amendments from 29th December 2017);

3. The list of ports open for vessels entering carrying the flags of foreign states and inland waterways on which such vessels are allowed to sail is established by the Government of the Russian Federation.
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (continue)

Obtaining permission to sail vessel (Decision of the Government of the Russian Federation):

1) Sending Requesting Letter of the Competent Authority of Foreign State (e.g. Ministry of Transport and Communications of Finland) to the Ministry of Transport of Russian Federation:
   - no less then **60 calendar days** prior to ship voyage;
   - Requesting Letter in Russian language shall contain following information:
     - Vessels name (International name in accordance with ship documents is permissible in case impossibility to transliterate name into Russian);
     - Flag of the vessel;
     - Shipowner’s name;
     - Port of registry;
     - Vessel’s type;
     - Main dimensions (length, width, draft, air draught);
     - Route of the voyage;
     - Information on cargo carried and passengers;
     - Timing and purpose of the entry (number of entries) to IWW.
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (continue)

Obtaining permission to sail vessel (Decision of the Government of the Russian Federation):

2) Receiving Requesting Letter the Ministry of Transport of the Russian Federation:

- preparing of a Draft Resolution (order) of the Government of the Russian Federation on permission to foreign flag vessel to sail (navigate) on inland waterways of the Russian Federation; and

- agree the Draft Resolution of the Governments of the Russian Federation with other governmental bodies:
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (continue)

Obtaining permission to sail vessel (Decision of the Government of the Russian Federation):

3) the Ministry of Transport of the Russian Federation notifies the Competent Authority of a foreign state about the decision made by the Government of the Russian Federation within 5 calendar days from the date of its adoption, which indicates:

- name of the vessel;
- flag (nationality) of the vessel;
- ship sailing route;
- the timing and purpose of the entry (number of entries);
- the need for border, customs and other types of control of the vessel, its crew and passengers.
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (continue)

Obtaining permission to sail vessel (Decision of the Government of the Russian Federation):

NOTE!
Between 1) and 2) can additional procedure appear:

In case of incompleteness of the information specified in the Requesting Letter of the Competent Authority … Ministry of Transport of the Russian Federation requests from the Competent Authority of a foreign state additional information.

If the Competent Authority of a foreign state does not provide additional information, the Ministry of Transport of the Russian Federation informs them of the impossibility of considering accordingly the request of the competent authority.
Regulation of Foreign Flag Vessels Admission Between Russia and Finland (continue)

Inland Ports and inland waterways open to vessels flying a foreign flag:

- Totally 40 inland ports;
- Petrozavodsk (Republic Karelia);
- Podporozhsky (Leningrad Oblast);
- Saint-Petersburg – Passenger (Saint-Petersburg);
- Cherepovets (Vologda Oblast).
AIS-ATON BUOYs of Sea How Maritaito Co. (Pilot Task 2)
Conclusions

1) IWWs of Russia and IWWs of Finland can and should play more significant role in maritime industries of both countries and in logistics of the neighboring regions;

2) IWWs of Russian Federation, e.g. Volgo-Balt main waterways areas and Saimaa canal are formally open to operate with or for foreign flag vessels to enter;

3) In the future potential of IWW transportation is legally and physically viable for cargo transportation and with high probability justifiable for passenger/tourists transportation too, the question is on the economics, which is to be carefully calculated for specific routs and goods;

4) Hinterland ports development in both countries and their wider inclusion into trade will foster local development of many aspects – industrial, social, etc.;

5) Saimaa infrastructure development shall stimulate old fleet replacement with more efficient vessels of both countries.
Thank you for your kind attention

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Winter Seminar Vesitiepäivä 2020
January 29, 2020
Sokos Hotel Lapee, Lappeenranta