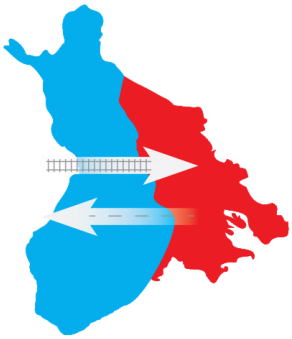

**LOGOKA project: Logistics for Business Karelia-Oulu Region**
https://kareliacbc.fi/en/projects/logoka-ka8009

# Statistical overview of transport & economy in the project region

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UNIVERSITY OF OULU

KARELIA
CBC // Cross-border cooperation

## Introduction

This report examines the general economic situation, foreign trade and transport between Finland and Russia. As part of the Logoka project (https://kareliacbc.fi/en/projects/logoka-ka8009), a special interest lies in the Northern Ostrobothnia and Kainuu Regions in Finland and Karelian Region in Russia. This report presents some of the statistics related to economic and transport development in the project region. A more detailed analysis of the border crossing transport in Kuusamo (Suoperä) and Vartius (Lyttä) stations is presented in Appendix.

## Geography and population

Logoka project regions include North Ostrobothnia and Kainuu regions in Finland, and the Republic of Karelia in Russia. Oulu and Petrozavodsk, two main cities involved in the project, are located some 750 km apart from each other by road. According to Google Maps route planning application, the driving time between the cities is approximately 9,5 hours. The distance from Oulu to Kajaani is 183 km (2.22 hrs driving time) and Kajaani to Petrozavodsk 597 km (7.46 hrs driving time).

Figure 1. Driving distance between Oulu and Petrozavodsk


Source: Google Maps

The geographic area of these regions is relatively large, 36 815 km$^2$ (12.4 % of Finland's total area) and 20 197 km$^2$ (6.8 %) for North Ostrobothnia and Kainuu, respectively. The population is sparse: 11.3 inhabitants per km$^2$ in North Ostrobothnia and 3.6 inhabitans per km$^2$ in Kainuu. The population and the number of employed inhabitants have grown in North Ostrobothnia during the last decades whereas in Kainuu the situation is the opposite (see Table 1).

Table 1. Population and employed in North Ostrobothnia and Kainuu

| | 1990 | 2000 | 2010 | 2019 |
|---|---|---|---|---|
| **Population** | | | | |
| North Ostrobothnia | 350 799 | 372 639 | 398 335 | 412 830 |
| (% of Finnish population) | (7.02) | (7.19) | (7.41) | (7.47) |
| Kainuu | 92 459 | 85 736 | 78 703 | 72 306 |
| (% of Finnish population) | (1.85) | (1.65) | (1.46) | (1.31) |
| **Employed population** | | | | |
| North Ostrobothnia | 148 370 | 148 942 | 159 634 | 166 795 |
| (% of Finnish population) | (6.36) | (6.68) | (6.86) | (7.02) |
| Kainuu | 37 641 | 30 222 | 29 554 | 27 446 |
| (% of Finnish population) | (1.61) | (1.36) | (1.27) | (1.16) |

Source: Statistics Finland

The Republic of Karelia in Russia has an area of 172,400 $km^2$. The population is sparse and has been diminishing during the last decades (see Table 2). Its share of the total population of the Russian Federation is small, below 1%.

Table 2. Population in the Republic of Karelia

| | 1990 | 2000 | 2010 | 2019 |
|---|---|---|---|---|
| Population | 791592 | 732140 | 644 000 | 631 000 |
| (% of Russian Federation) | 0.53 | 0.50 | 0.45 | 0.42 |

Source: Rosstat

**Economic situation**

Economic development in Finland and Russia was positive in the first years of the 2000s until the financial crisis in2008. After that, the development has been quite sluggish (see Figure 2).

Figure 2. GDP growth in Finland and Russia 1990-2019.


Source: World Bank

In Finland, the gross domestic product per capita has grown in the last decades (see Table 3). The growth rate has been remarkably positive in Kainuu and it has almost caught up with North Ostrobothnia by 2020's.

Table 3. GDP per capita (at current prices) in Finland

| **GDP per capita (euro)** | **2000** | **2010** | **2018** | **2020** |
|---|---|---|---|---|
| Finland | 26 359 | 35 079 | 42 364 | 43 513 |
| North Ostrobothnia | 23 723 | 30 706 | 34 820 | n.a. |
| Kainuu | 17 393 | 24 996 | 33 117 | n.a. |

Source: Statistics Finland

The Covid-19 pandemia worsened the economic situation in Finland and Russia in 2020 (see Table 4). The projected development for 2021-2022 is slightly positive, according to EU and World Bank forecasts.

Table 4. Change of gross domestic product (GDP) in Finland and Russia (%) 2020-2022

| | 2020 | 2021* | 2022* |
|---|---|---|---|
| Finland | -2.8 % | +2.8 % | +2.0 % |
| Russia | -3.1 % | +2.6 % | +3.0 % |

Sources: Statistics Finland, Rosstat (for 2020); European Commission, World Bank (for 2021-2022)

**Transport performance and road network (Finland)**

The transport performance (measured by vehicle km) reflects the distribution of population and economic activity in Finland quite well. The extent of the road network especially in Kainuu is large in comparison to transport volume. This reflects a typical problem in many sparsely populated regions: an extensive network has to be maintained for a relatively low use rate.

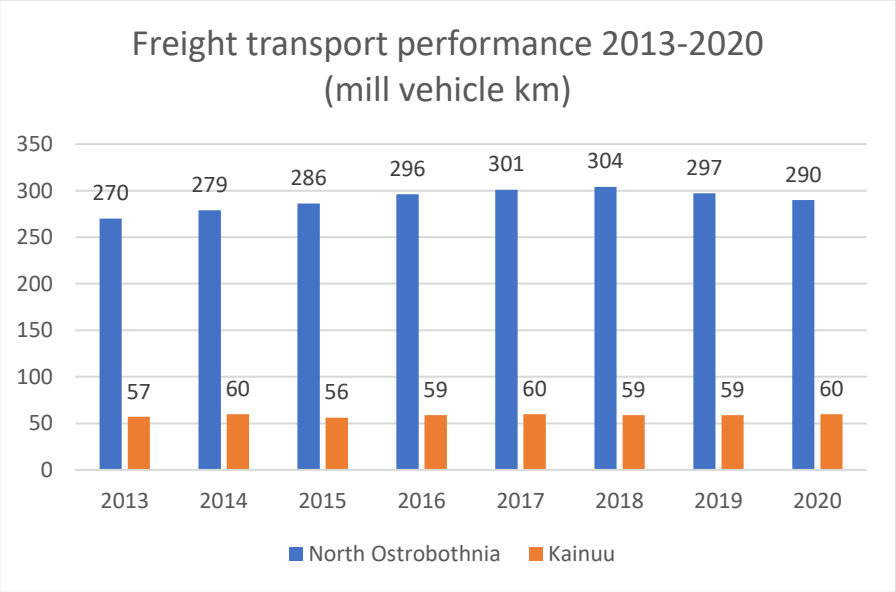
Table 5. Transport performance and road network in Finland (2020)

| | Transport performance (million vehicle km) | % | Road network (km) | % |
|---|---|---|---|---|
| Finland total | 35 971 | 100 % | 77 908 | 100 % |
| North Ostrobothnia | 3 193 | 8.9 % | 8 354 | 10.7 % |
| Kainuu | 663 | 1.8 % | 4 412 | 5.7 % |

Source: Finnish Transport Infrastructure Agency

Road freight transport performance (measured by vehicle-km of heavy vehicles) has been relatively stable during the last decade in North Ostrobothnia and Kainuu (see Figure 3). In 2020, the pandemia caused a slight reduction of freight transport in North Ostrobothnia whereas in Kainuu there was no change.

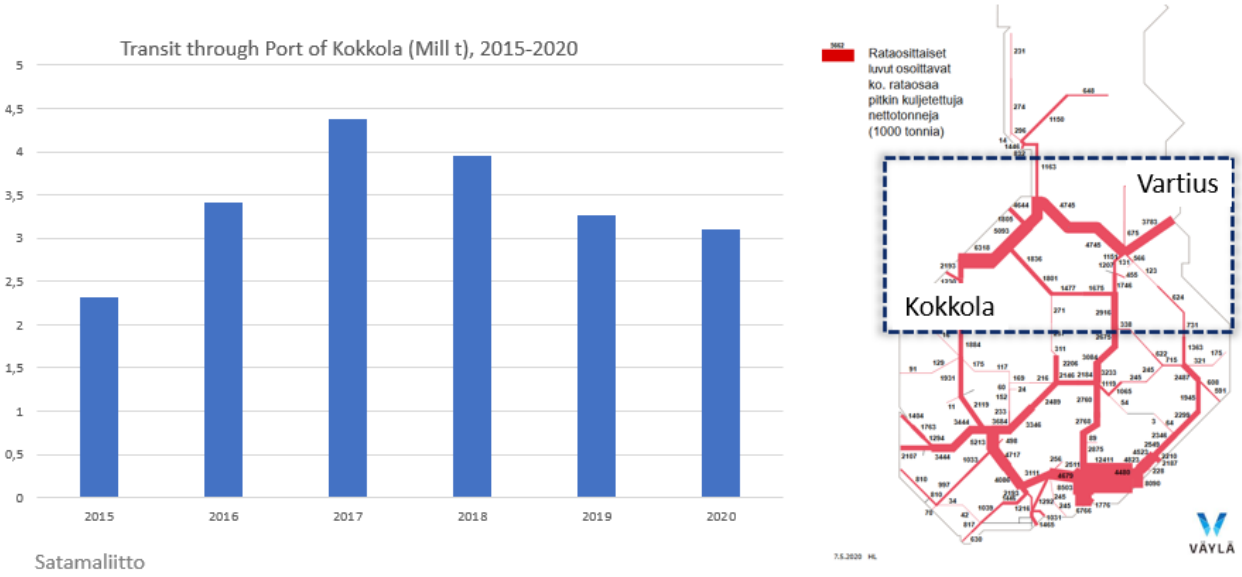
Figure 3. Road freight transport performance (million vehicle km) 2013-2020




Source: Finnish Transport Infrastructure Agency

An important transport flow in the region is formed by the transit freight by rail from Kostamuksha to the Port of Kokkola.

Figure 4. Transit transport between Kostamuksha and Kokkola 2015-2020

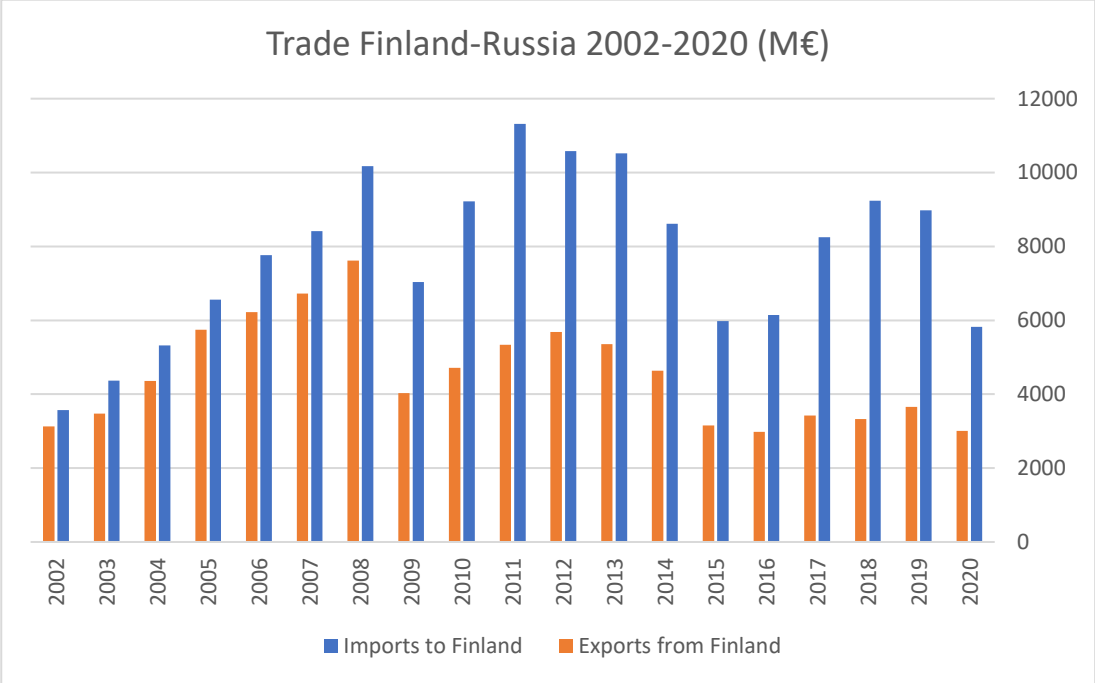



Source: Satamaliitto

**Foreign trade between Finland and Russia**

Foreign trade between Finland and Russia grew steadily until the financial crisis in 2008. After the crisis especially imports to Finland recovered quickly. Another decline occurred when the European Union introduced economic sanctions against Russia in 2014. In March 2020 the Covid-19 pandemia hit the global economy. A significant volume reduction can be seen in imports from Russia to Finland whereas the exports from Finland to Russia has remained relatively stable.

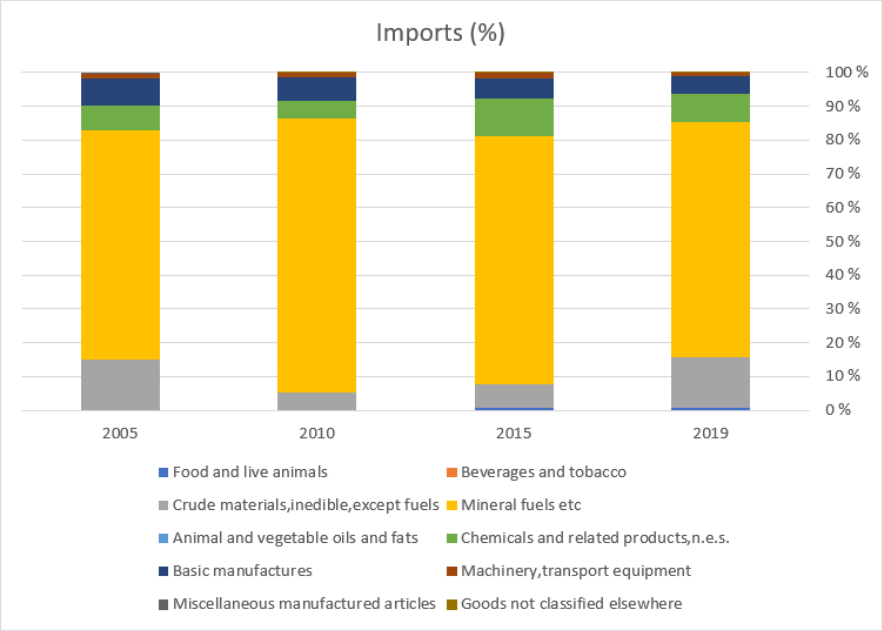
Figure 5. Value of foreign trade between Finland and Russia, 2002-2020




Source: Finnish Customs

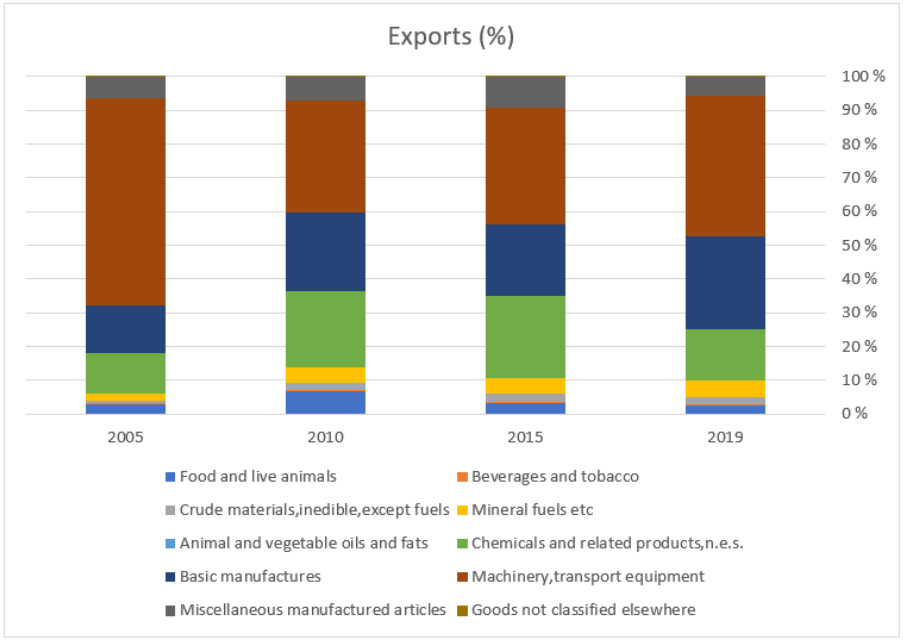
The imports to Finland from Russia are heavily based on mineral fuels, approx. 70% of total import value in 2019 (see Figure 5). The exports from Finland to Russia show greater versatility; in 2019, machinery and transport equipment accounted for approx. 40% and basic manufactures approx. 25% of total export value (see Figure 6).

Figure 6. Breakdown of imports to Finland from Russia, 2005-2019




Source: Finnish Customs

Figure 7. Breakdown of exports from Finland to Russia, 2005-2019

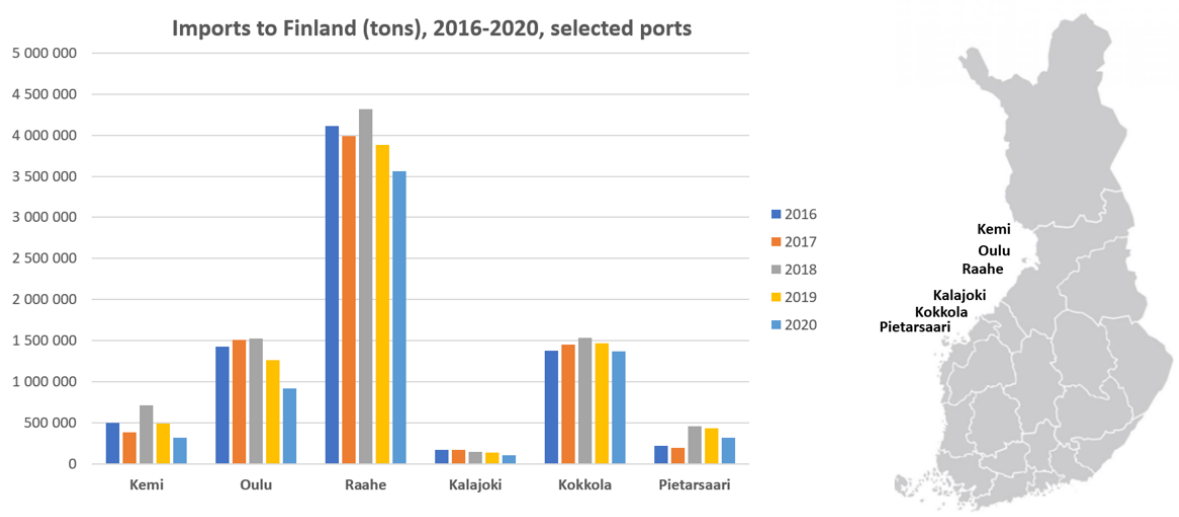



Source: Finnish Customs

**Ports**

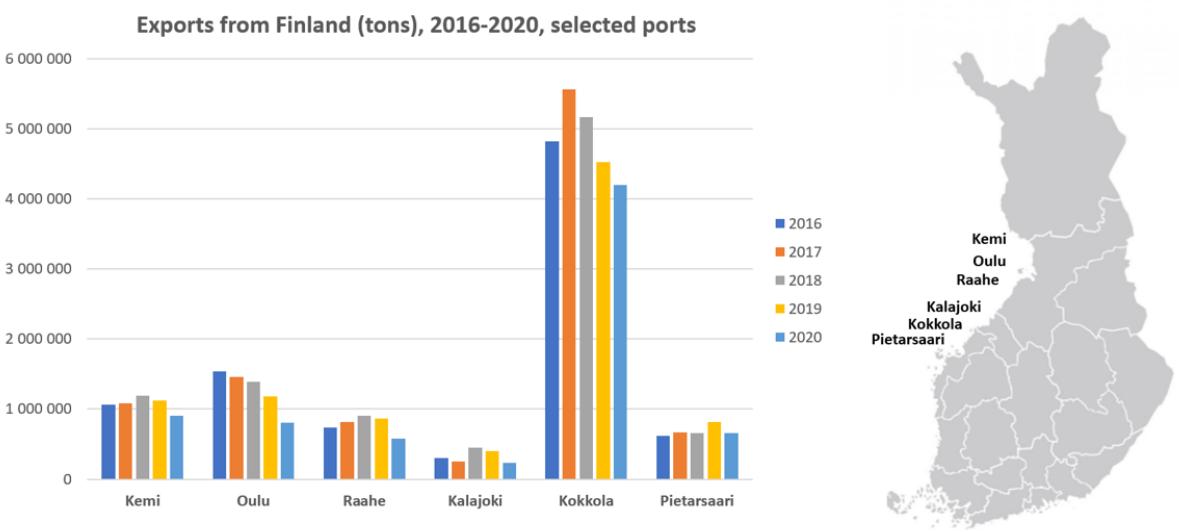
In the Bothnian Bay area, Kokkola is the biggest port, thanks to the transit traffic flow from Kostamuksha that accounts for over 50% of the port's total volume. Raahe is the biggest import port, with most of the volume coming from iron ore imports from Sweden. In Oulu, the volumes were reduced in 2020 by the production stop of the paper mill caused by transformation from paper to board production. The volumes of the ports in 2016-2020 are shown in Figures 7-8.

Figure 8. Import volume in selected ports (tons), 2016-2020




Source: Finnish Ports Association

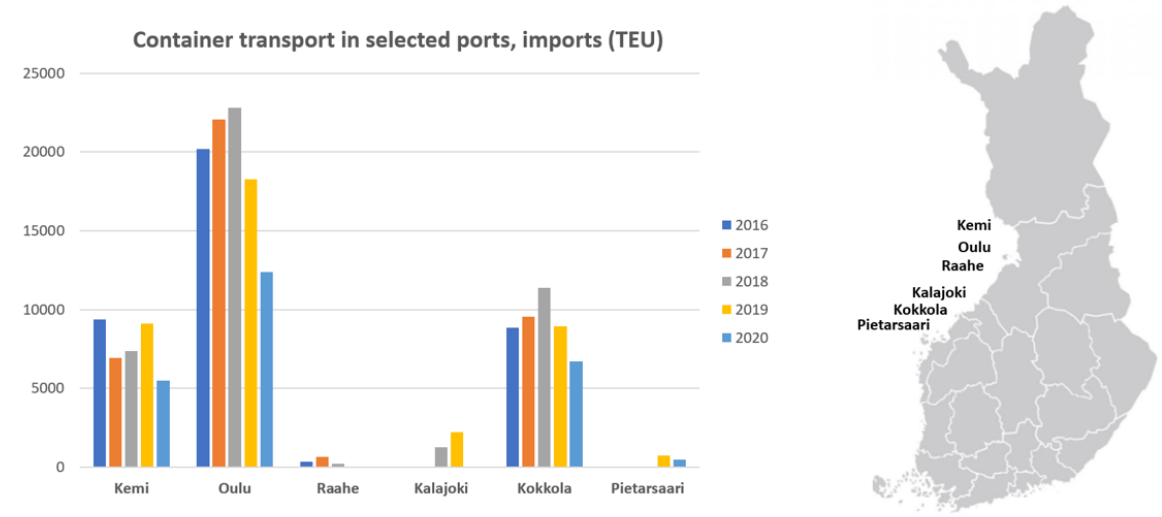
Figure 9. Export volume in selected ports (tons), 2016-2020




Source: Finnish Ports Association

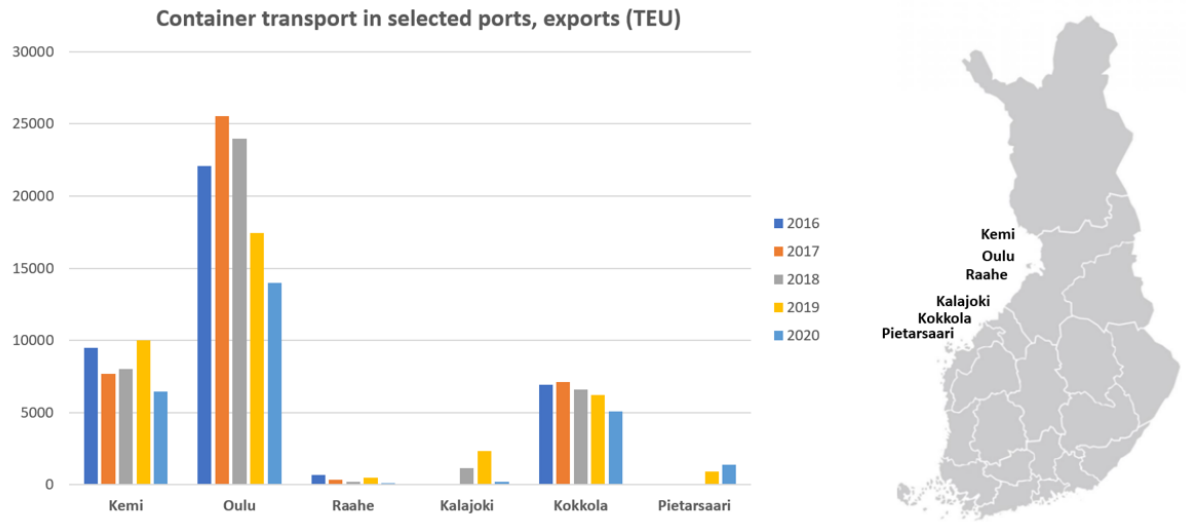
Container transport volumes in the Bothnian Bay region are quite modest. In 2020, the six ports (Kemi, Oulu, Raahe, Kalajoki, Kokkola, Pietarsaari) accounted for 3.1% of container imports and 3.9% of container exports in Finland. Import and export volumes of containers (measure by twenty-foot equivalent units, TEUs) in the Bothnian Bay region are shown in Figures 9-10.

Figure 10. Container transport in selected ports, imports 2016-2020




Source: Finnish Ports Association

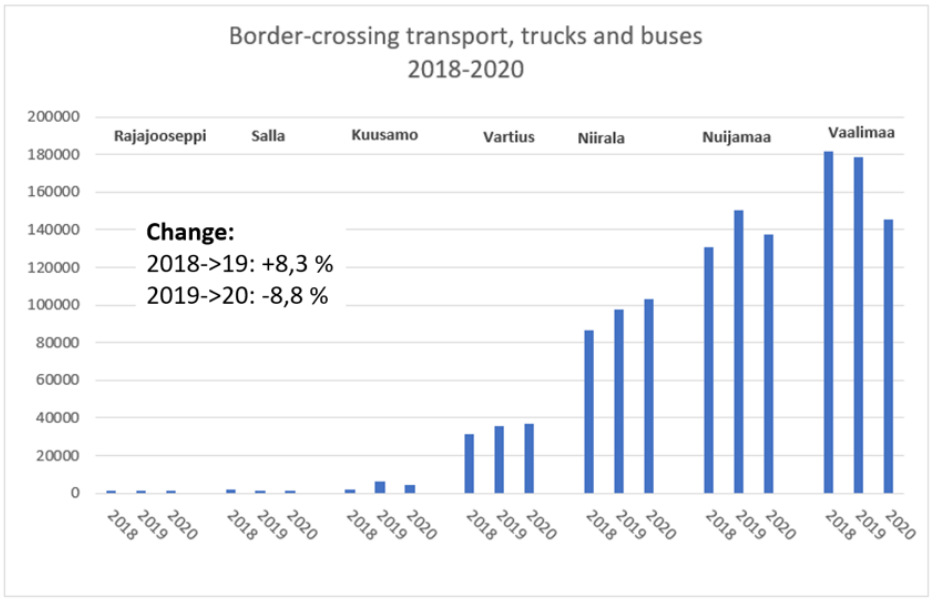
Figure 11. Container transport in selected ports, imports 2016-2020




Source: Finnish Ports Association

**Border crossing traffic**

Border-crossing transport between Finland and Russia is heavily concentrated to the South-Eastern parts of Finland (Vaalimaa, Nuijamaa and Niirala). The most northern border-crossing points (Kuusamo, Salla and Rajajooseppi) have relatively small volumes while Vartius in the project region is a fairly active crossing point.



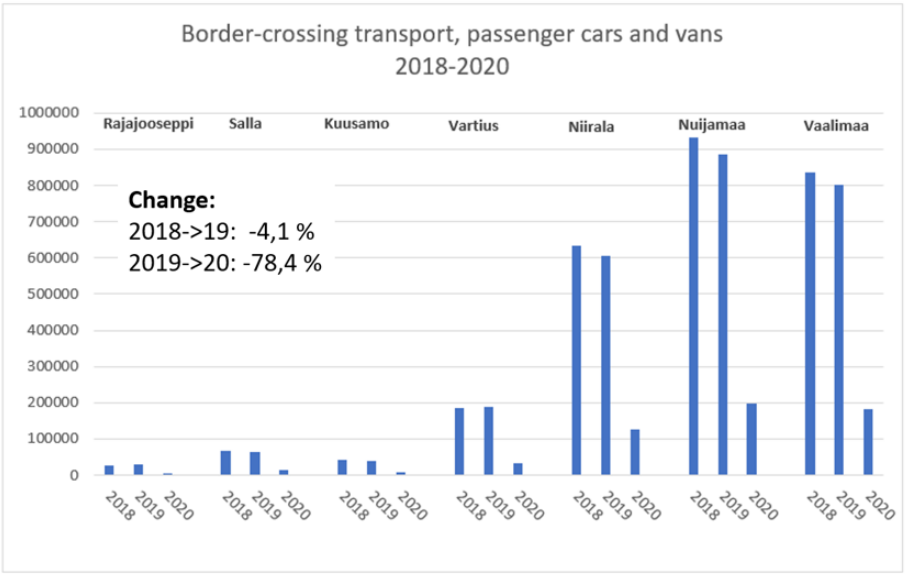


Passenger car transport has been suffered very severely from the pandemia, the reduction 2019-2020 was over 78%. By contrast, heavy vehicle crossings diminished by less than 9%.

Figure 12: Border-crossing transport 2018-2020, trucks and buses

Source: Finnish Customs

Figure 13: Border crossing transport 2018-2020, passenger cars and vans





Source: Finnish Customs

# APPENDIX. CROSS-BORDER TRAFFIC IN KUUSAMO-SUOPERÄ and VARTIUS-LYTTÄ 2010-2020

Information provided by Finnish Customs: Kirsti Malinen, Vartius; Markku Kvist, Kuusamo


## 1. KUUSAMO-SUOPERÄ

Kuusamo-Suoperä border-crossing station is open between 8.00-19.00. The amount of traffic in Kuusamo – Suoperä border crossing point is quite limited compared to other border-crossing points. In the last years there have been two kinds of cargo: wood chips and round wood from Russia. In 2019, a wood chipping company started on the Russian side of the border. Wood chips go to StoraEnso's plants in Kemi and Oulu. Round wood is delivered to Pölkky Oy in Kuusamo and also to StoraEnso Oulu mill. Transit cargo is not transported via Kuusamo border station. After delivering the cargo to Finland, Russian trucks mostly return empty back to Russia.

**Cross-border transportation statistics**

As seen in the figure 1.1., the amount of import (including transit) by truck and lorries from Russia to Finland was 50,115 tons in year 2020. During the previous year 2019, the import was higher 70,181 tons. The export from Finland to Russia via this border-crossing point is very limited; only a few kilograms. Earlier, most of the freight from Finland to Russian side went to a tax free shop which is now closed. In the year 2018, a sawmill was transported via Kuusamo to Russia, which explains the high figure in year 2018.

Figure 1.2. shows the number of trucks and buses crossing at the Kuusamo cross-border station.

In the year 2020, around 2200 trucks crossed the border at Kuusamo, approximately 1000 less than in 2019. The same number of trucks are crossing the border both ways; that is, the same vehicles cross the border both ways in Kuusamo. Figure 1.3. shows the origin of vehicles crossing the border at the Kuusamo border crossing station. Most of the trucks are from Finland. They go empty to collect the cargo and return with cargo from Russia.

The biggest impact of Covid-19 epidemic is on passenger car traffic. In the year 2019 around 20 000 cars crossed the border while in 2020 the figure was around 4000.

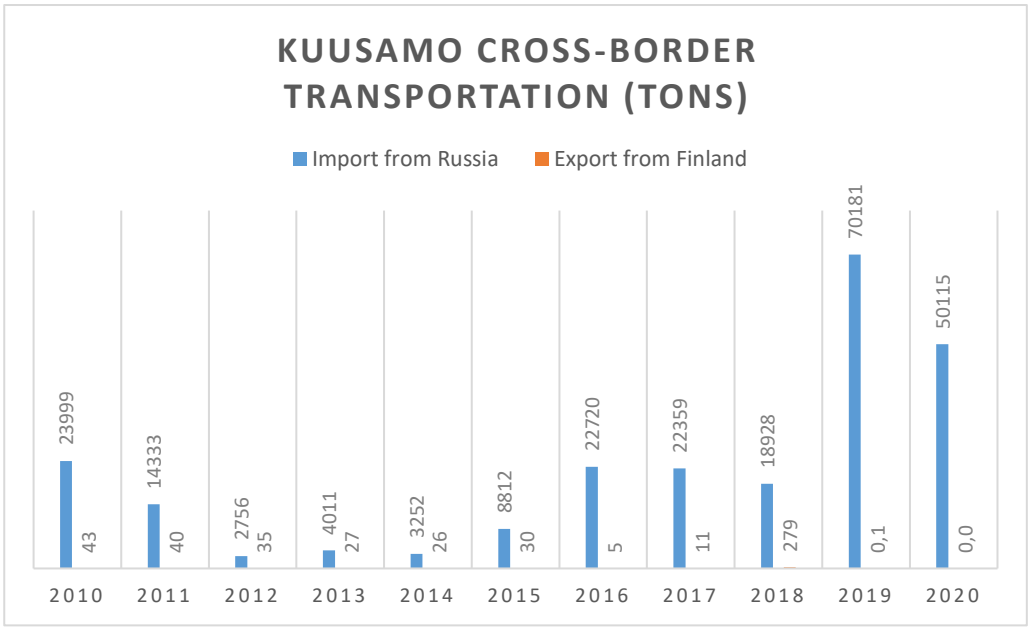



Fig. 1.1.

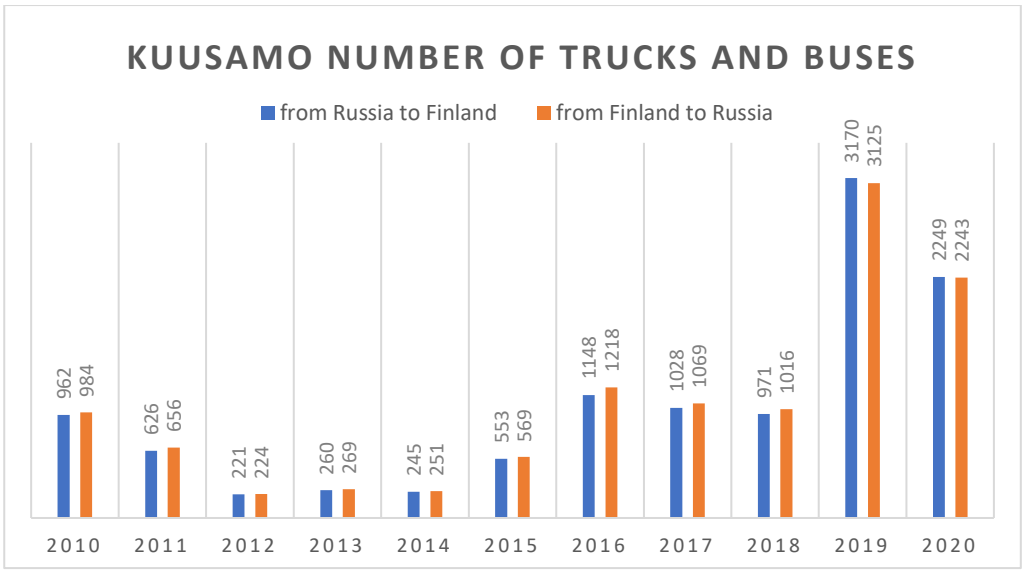



Fig. 1.2.

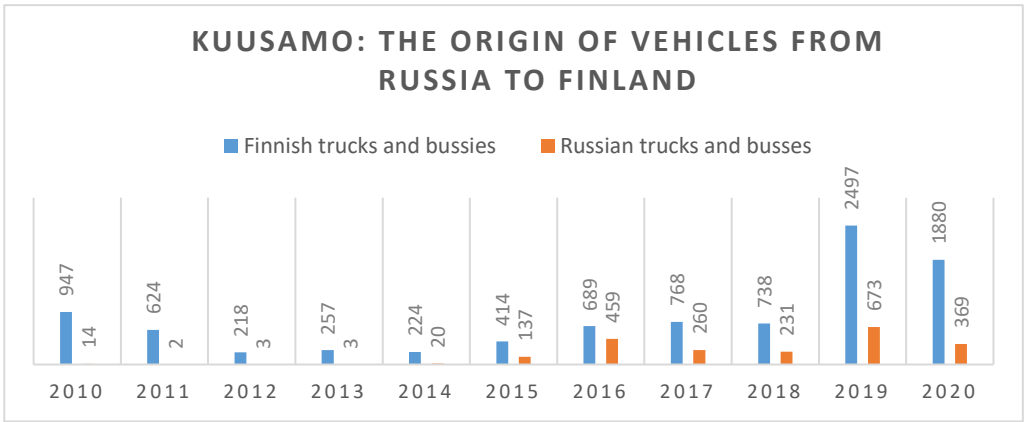



Figure 1.3.

# 2. Vartius-Lyttä

The border station in Vartius is open in the wintertime between 07:00 and 21:00. Vartius station also carries out Plant Health Traces control, around 14,000 in year 2020.

**Road transport via Vartius border station**

30-75 trucks are crossing the border daily. In the year 2019, about 60 trucks arrived at Vartius daily. Imports from Russia to Finland is mainly based on wood materials: raw wood, wood chips, sawdust, pellets, briquettes, and timber, building materials and chemicals. Timber and some pellets have been transported to Oulu port for transit. Electronics parts are transported from Kostamuksha to Raahe.

The export from Finland to Russia in 2020 was mainly paper, fish feed and electronics components for processing.

Figure 2.1 shows the figures of road transport via Vartius border station. The amount of import from Russia is much higher than export from Finland. The import in 2020 increased from year 2019 and was at its highest level in ten years.

Figure 2.2. shows the number of trucks and buses crossing the border at Vartius. Around 16,000 trucks crossed the border. The transportation was at the same level as in 2018. The number of passenger cars crossing the border collapsed with the pand: In the year 2019 almost 90 000 cars crossed the border while 2020 the figure was slightly over 20 000.

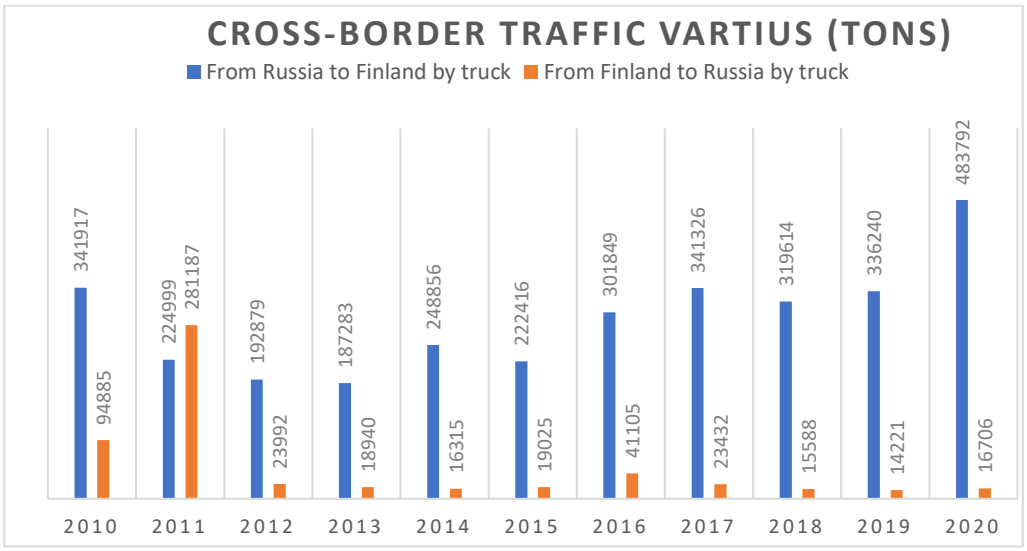



Fig. 2.1

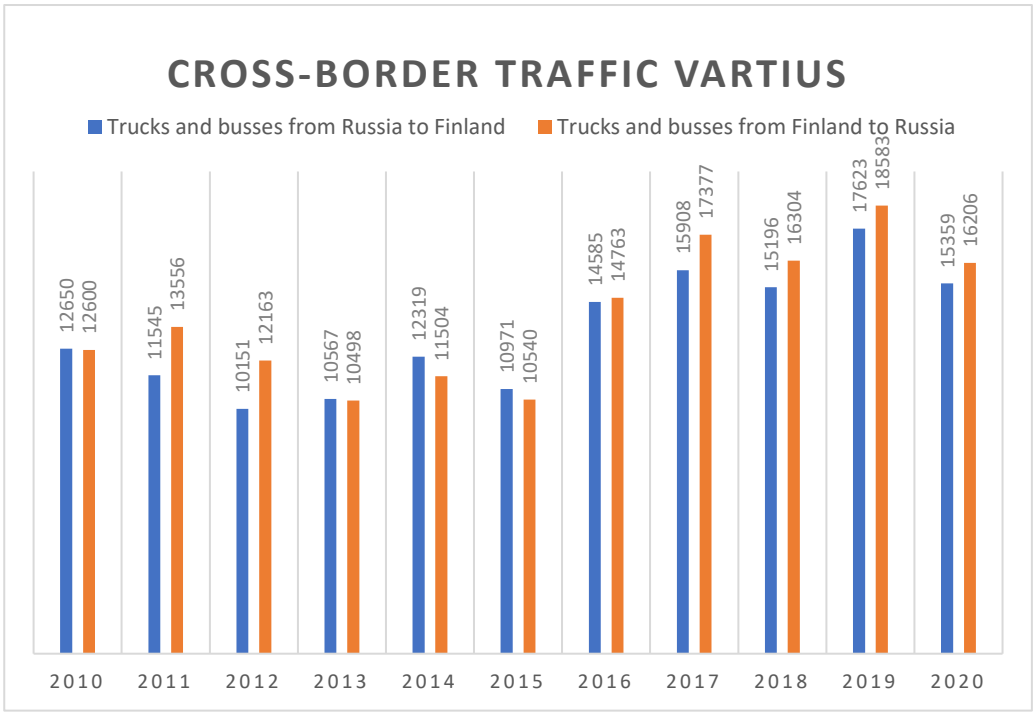


Fig. 2.2.

**Rail transport via Vartius border station**

Train transportation is mainly iron ore pellets from Kostamuksha to Raahe, usually 1-4 trains daily. There are 60 wagons in an average train. Around 50-65 trains /month go to Raahe steel factory – others are transit material. The wagons return empty to Russia; earlier at least some aluminum oxide was transported by train.

Figure 2.3 shows the amounts of cross-border transportation by train via Vartius. As seen from the figure, the volume increased in year 2020 both ways – total 3 801 450 tons from Russia to Finland and 200 617 tons from Finland to Russia.

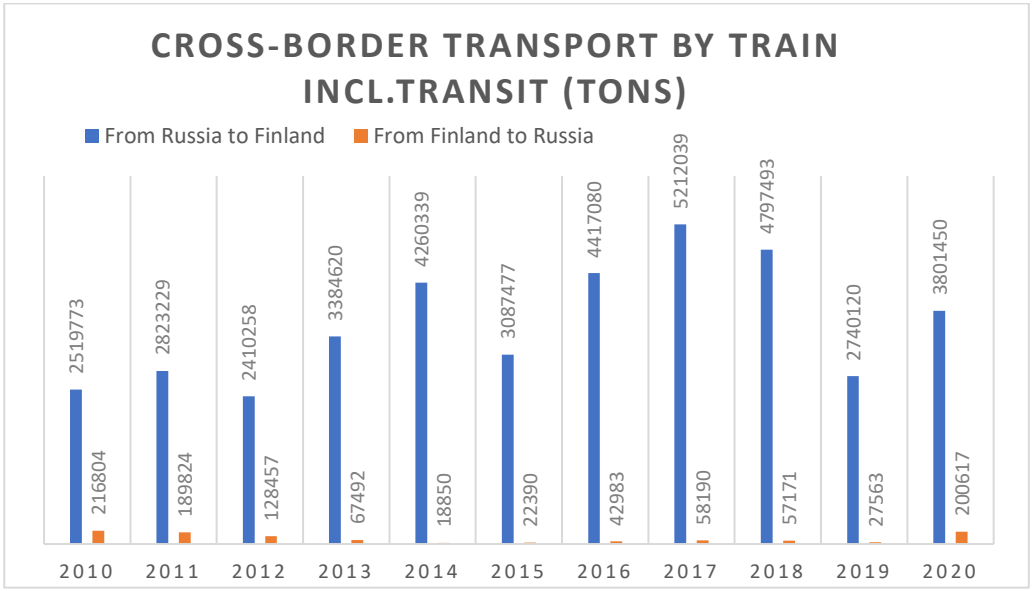


Fig. 2.3.