Retf Project. HILMA 2018-020890
IMATRA-SVETOGORSK KANSAIN-VÄLISEN RAUTATIEYHTEYDEN KEHITTÄMISEN TOIMENPIDE-SUUNNITELMA
There are two reports, the scope of this report is about SVETOGORSK BCP and development actions planned on the RUSSIAN side of the border

REGIONAL COUNCIL OF SOUTH KARELIA

THE ACTION PLAN FOR DEVELOPMENT OF INTERNATIONAL RAILWAY CONNECTION AT IMATRA SVETOGORSK

Svetogorsk BCP report




30th April 2019

LOGISTICS PLANNING AND CONSULTING
NRC Group
proxion
Transport Integration LLC.

THE ACTION PLAN
FOR DEVELOPMENT OF
INTERNATIONAL RAILWAY CONNECTION
AT IMATRA SVETOGORSK

Svetogorsk BCP Report

CONTENTS

SUMMARY

Current status

In accordance with Decree of the Government of the Russian Federation No. 2665-r dated 29 November 2017, the railway border-crossing point "Svetogorsk" is cargo-and-passenger temporary multilateral simplified border-crossing point, though in fact it operates as a bilateral BCP i.e. a BCP that is used to cross the national border of the Russian Federation by citizens, including within the simplified procedure, and vehicles of the Russian Federation and the neighboring state, as well as for transport of cargo, goods and animals of the Russian Federation and the neighboring state only.

The Foreign Ministry of the Russian Federation and the Foreign Ministry of the Republic of Finland exchanged diplomatic notes dated May 12, 1997 which gave the simplified railway border-crossing point "Svetogorsk – Imatra" the status of an international BCP. However persons and vehicles from third countries will only be able to use it once the BCP is equipped appropriately and has the conditions necessary for operations of government control bodies. This can only be achieved through reconstruction of the border-crossing point.

Cargo

At present, the RwBCP "Svetogorsk" is only used in the export of a limited range of goods such as wood, chips, bitumen and coal. No import cargo goes through the BCP.

The record year for cargo traffic through the RwBCP "Svetogorsk" was 2013 (2.9 million tons). The decline in the trade between Russia and Finland caused a decline in the export cargo traffic through RwBCP "Svetogorsk" between 2014 and 2016. However, in recent years the cargo traffic went up – from 2.2 million tons in 2016 to 2.5 million tons in 2018 (+14%).

Cargo exported to Finland via the RwBCP "Svetogorsk" originates from many regions of Central, North-West and Volga federal districts of Russia. Goods exported from Russia via the RwBCP "Svetogorsk" go to many Finnish companies, primarily pulp-and-paper factories.

The survey of Russian industrial and transport companies revealed their interest in using the RwBCP "Svetogorsk" in their export operations. Many Russian companies are planning to increase their exports to Finland (primarily timber industry companies). With regard to improvement of the RwBCP "Svetogorsk", the Russian companies mentioned the need to develop the infrastructure of the RwBCP and shorten the time that border and customs control procedures take.

Analysis has revealed that after a certain decline in 2017 and 2018, cargo traffic between Russia and Finland has growth on roads and railways. The total international cargo traffic between Russia and Finland in 2018 reached 27.8 million tons. Railways are used to transport about 57% of cargo between Russia and Finland, with 16% of the cargo traffic going by road and 27% by other transport modes. The export cargo flows from Russia to Finland were 17 to 20 times greater than the import cargo traffic from Finland to Russia in the last three years.

Railways are used to carry 59.4% of export cargo from Russia to Finland, with 12.3% of the export cargo traffic going by road and 28.4% by other transport modes.

Roads are used to transport over 76% of import cargo from Finland to Russia, with 18% of the import cargo transported by train and 6% by other transport modes.

About a half of the entire cargo traffic between Russia and Finland goes through border-crossing points of Leningrad Region.

Overall, the cargo flows between Russia and Finland via RdBCPs and RwBCPs in Leningrad Region increased from 13.2 to 14.5 million tons (+10.3%) over 2017-2018:

- cargo traffic through road border-crossing points increased from 3.6 million in 2017 to 4.0 million tons in 2018 (+12.7%);
- cargo traffic through railway border-crossing points increased from 9.6 million in 2017 to 10.5 million tons in 2018 (+9.4%).

The largest amount of international cargo in 2018 went through the RwBCP "Buslovskaya" – 8.0 million tons (55% of the total cargo traffic through RdBCPs and RwBCPs in Leningrad Region), and the RwBCP "Svetogorsk" – 2.5 million tons (17%). The total cargo traffic at the three RdBCPs in 2018 was 4.0 million tons (28% of the total cargo traffic through RwBCPs and RdBCPs in Leningrad Region).

The growth in trade between Russia and Finland and the railway container traffic between Finland and China through Russia increases the workload on railway border-crossing points at the border between Russia and Finland. That calls for optimal

redistribution of cargo flows between border-crossing points to balance the workload thereon, and partial transfer of cargo flows from roads to railways in order to relieve the roads and improve traffic safety and the environment.

Passengers

The total passenger traffic by land-based transport modes between Russia and Finland in 2017 was 8 849.8 thous. pax, including 8 237.9 thousand passengers who traveled by road (93%) and 611.9 thousand passengers who traveled by train (7%).

About 82% of the total passenger traffic by land-based transport modes between Russia and Finland go through border-crossing points of Leningrad Region.

At present, the demand for travel by road between Russia and Finland through the BCPs of Leningrad Region is 12 times as high as the demand for train services. For example, 6666.2 thousand (92.4%) out of 7217.5 thousand trips between Russia and Finland through road and railway BCPs of Leningrad Region in 2018 were made by road and only 551.3 thousand trips (7.6%) – by railway.

The busiest road border-crossing points are *Brusnichnoye* with 2719.6 thous. trips in 2018 (41% of the total) and *Torfyanovka* with 2403.6 thous. trips (36%). The traffic through the RdBCP "Svetogorsk" in 2018 was 1543 thous. trips (23% of the total).

Passengers crossing the border at Svetogorsk use the RdBCP "Svetogorsk" and travel by car, bus or bicycle.

The highest passenger traffic was recorded in 2013 (2.6 million pax), the lowest year being 2016 – 1.4 million pax. In 2018, about 1.5 million persons went through the RdBCP "Svetogorsk".

The traffic at the RdBCP "Svetogorsk" in 2018 was about 670 000 cars and 6 000 buses. The traffic peaks in summer months and during holidays.

The popularity of road transport is due to the fact that:

- the cost of travel by train between Saint Petersburg and Helsinki per passenger is much higher when that of travel by road;
- there is no passenger train service from Saint Petersburg to Lappeenranta and Imatra (while 4262.6 thousand people traveled to those destinations by road in 2018).

Road traffic and waiting times at the border

In 2018, 2.8 million road vehicles crossed the national border in Leningrad Region (including 2.4 million passenger cars), with 1.0 million vehicles going through the RdBCP "Torfyanovka"; 1.1 million vehicles – through the RdBCP "Brusnichnoye", and 0.7 million vehicles – through the RdBCP "Svetogorsk".

In 2018, the demand for the three BCPs in persons exceeded the design capacities of the BCPs. The workload on the RdBCP "Torfyanovka" and the RdBCP "Brusnichnoye" in persons who crossed the border there in 2018 was about 125%, while at the RdBCP "Svetogorsk" it was 169%. The workload on the RdBCP "Svetogorsk" and the RdBCP "Brusnichnoye" in vehicles that crossed the border there in 2018 was about 149% and 121% respectively.

The demand beyond the capacity of the border-crossing points in Leningrad Region increases the waiting times at the BCPs. On average, it takes 1.5 to 2.5 hours to go through the Russian and the Finnish BCPs by car on a weekday and 3 to 4 hours during weekends and holidays. The average border-crossing time for trucks going through the Russian and the Finnish BCPs is hours to days.

There are over 10 daily regular bus services from Saint Petersburg to Finland. The average occupancy of buses going to Finland is 70%. The main advantage of such bus services is that buses do not have to queue to cross the border.

Accidents

The road traffic between Russia and Finland being significant, there is a lot of traffic on roads leading to the multilateral road border-crossing points of Leningrad Region. The existing roads leading to the multilateral RdBCPs mostly have one lane in each direction. The road accident rate is significant due to heavy traffic, congestion on a number of road sections and poor condition of the roads.

In 2016-2018, there were 383 road accidents on the roads A-181 *Scandinavia*, *Vyborg – Brusnichnoye, Vyborg – Svetogorsk*, and *Kamennogorsk – Lesogorsky*, with 85 people killed and 440 injured. The number of road accidents has declined over the recent years, but the severity of consequences has increased: the number of people

killed in road accidents went up from 21 persons in 2016 to 33 persons in 2018, while the number of injured persons went up from 106 to 183 persons.

Passenger train services between Russia and Finland

At present, the trains operating between Russia and Finland are the high-speed *Allegro* trains (Saint Petersburg – Helsinki) and the standard *Lev Tolstoy* trains (Moscow – Helsinki), which go via the railway BCP "Buslovskaya" – "Vainikkala". The ridership on passenger trains operating between Russia and Finland and going via the railway BCP "Buslovskaya" – "Vainikkala" in 2018 totaled 551.3 thousand people, including 481.8 thousand passengers of the *Allegro* trains and 69.5 thousand passengers of the *Lev Tolstoy* trains.

Regular train operations between Saint Petersburg and Imatra started in 1892 which halved the time of travel between the two cities. Up to 14 trains went from Saint Petersburg to Imatra every day in summer. Imatra was a popular tourist destination with residents of Saint Petersburg due to its attractions including the beautiful Imatrankoski waterfall. Then the train services between Saint Petersburg and Imatra stopped operating in 1914. There are no regular passenger services going via the RwBCP "Svetogorsk" at present (except for ad-hoc trips organized within various initiatives related to specific events). The 26 km railway section from Kamennogorsk to Svetogorsk is not electrified.

Resumption of passenger services via the RwBCP "Svetogorsk" would require improvements, reconstruction of the railway infrastructure and the railway station for passengers.

The comparison of the time and price parameters of various passenger transport services available between Russia and Finland has revealed that trains are the most attractive option in terms of speed, comfort level and safety of passengers. Since train services have a number of advantages over traveling by road, it can be assumed that there is potential demand for international train services, which could be met by introducing new train services to attractive destinations if border and customs control procedures are conducted on a moving train and the pricing policy is flexible.

Survey results

The public survey in Saint Petersburg and Leningrad Region and the survey of passenger transport companies and travel agencies identified interest in the new regular train service to Imatra and Lappeenranta via the RwBCP "Svetogorsk". 64% of the respondents who took part in the survey would use the train service to Imatra and Lappeenranta.

To assess the interest of the population Saint Petersburg and Leningrad Region in the new train service going through RBCP "Svetogorsk", a survey was conducted on open web-sites, on the web-site *Фонтанка.ру* which publishes the main news of Saint Petersburg.

Two questions were asked:

- "How often would you travel to Imatra and Lappeenranta if there were a train service?";
- "Would you take a train to Imatra/Lappeenranta if there were a train service?".

3208 votes were received for the first question, with 78% of the respondents willing to use the new train service to Finland. They believe that the new train service to Imatra and Lappeenranta would be the safest and the most comfortable option. However, the respondents expect an adequate fare comparable to the cost of travel by road. The respondents thought it important to have document checks onboard of a moving train in order to minimize the time involved in passport control and customs inspection. In addition, the respondents believe that the arrival time(s) of the new train should provide a convenient connection with trains in Finland.

650 voted on the second question. 92% would use the train if the fare were 600 to 1 000 rubles (€8 – €13). A 40% increase in the price would reduce the demand by 40%.

The survey has identified that the population of Saint Petersburg and Leningrad Region is interested in a regular passenger service that would go through the RwBCP "Svetogorsk".

Forecast scenarios of cargo and passenger traffic via RwBCP "Svetogorsk"

The cargo and passenger traffic forecast for the RwBCP "Svetogorsk" was developed using:

- the forecast of the socio-economic development of the gravity zone of RwBCP "Svetogorsk";
- the forecast of trade between Russia and Finland; and
- the forecast of tourism in the border areas of Russia and Finland.

This report covers three scenarios of development of cargo and passenger services going through the RwBCP "Svetogorsk":

- the "zero scenario". In which the RwBCP "Svetogorsk" keeps the status of a "temporary, simplified BCP" and continues to be only used for cargo traffic (mostly, to export wood from Russia to Finland);
- the "conservative scenario". In which Svetogorsk Railway Station and the RwBCP "Svetogorsk" would have gone through reconstruction by 2025, with the railway approaches to the RwBCP electrified, and the RwBCP would become a "multilateral, permanent" BCP used by:
    - cargo trains carrying various types of goods, with some cargo traffic changing from the RwBCP "Buslovskaya" to the RwBCP "Svetogorsk";
    - passenger trains operating on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*, which would also be used by some passengers who previously traveled to Finland by road (by car and by bus);
    - this scenario corresponds to the conservative scenario developed within the Forecast of the Socio-Economic Development of the Russian Federation through 2036, which envisages slow growth in the economy and foreign trade of the Russian Federation;
- the "baseline scenario". In which Svetogorsk Railway Station and the RwBCP "Svetogorsk" would have gone through reconstruction by 2025, with the railway approaches to the RwBCP electrified, and the RwBCP would change its status to that of a "multilateral, permanent" BCP used by:
    - cargo trains carrying various types of goods, with some cargo traffic changing from the RwBCP "Buslovskaya" to the RwBCP "Svetogorsk";
    - passenger trains operating on the route Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta, which would also be used by

some passengers who previously traveled to Finland by road (by car and by bus);

- this scenario corresponds to the baseline scenario developed within the Forecast of the Socio-Economic Development of the Russian Federation through 2036, which envisages average growth in the economy and foreign trade of the Russian Federation.

Cargo traffic forecast for RwBCP "Svetogorsk"

According to the forecast of trade between Russia and Finland:

- the export of goods from Russia to Finland will amount to 27.91 million USD in 2035, while the goods import from Finland to Russia is expected to amount to 7.83 million USD;
- the goods export from Russia to Finland in value terms is forecast to grow 2.5 times by 2035 vs. 2018, with the import from Finland to Russia growing 2.3 times.
- the fastest growth in exports from Russia to Finland for the period through 2035 is expected in the following commodity groups: fertilizers, organic chemical compounds, ferrous metal products, wood and wood products;
- under the baseline scenario of the socio-economic development of the Russian Federation, the trade turnover between Russia and Finland in 2035 will total 60 million tons, with the export from Russia to Finland being 57 million tons, and the import from Finland to Russia – 3 million tons;
- the average annual growth in goods export from Russia to Finland between 2019 and 2035 would be 104.2%, which is consistent with the forecast for Russia's goods exports.

The forecast of international cargo traffic between Russia and Finland was developed on the basis of the international trade forecast. According to the forecast, the export traffic on railways will increase from 16 million tons in 2018 to 37 million tons in 2035 (2.3 times), with the import traffic going up from 0.2 to 0.5 million tons (doubling). The share of railway transport in export cargo traffic is expected to increase from 58% in 2018 up to 65% in 2035 thanks to new cargo transport routes, new services and improved quality of services.

The forecast for export traffic through the RwBCP "Svetogorsk" in 2035 is as follows:

- under the "zero scenario" – 3 million tons (1.3 times as much as in 2018);
- under the "conservative scenario" – 7 million tons (2.6 times as much as in 2018);
- under the "baseline scenario" – 9 million tons (3.7 times as much as in 2018).

According to the forecast, the share of the RwBCP "Svetogorsk" in the total cargo traffic on railways between Russia and Finland would increase as follows:

- under the "conservative scenario" – from 15% in 2018 up to 19% in 2035;
- under the "baseline scenario" – from 15% in 2018 up to 24% in 2035.
- the workload on the RwBCP "Svetogorsk" as calculated using the cargo traffic forecast would be:
    - in 2025: 91% under the "conservative scenario" and 102.1% under the "baseline" scenario;
    - in 2030: 100.5 % under the "conservative scenario" and 119.7% under the "baseline" scenario;
    - in 2035: 111.7% under the "conservative scenario" and 143.6% under the "baseline" scenario.

The workload on the RwBCP "Svetogorsk" is forecast to exceed the capacity of the RwBCP by 2025 under both scenarios, which proves that the reconstruction is needed.

Passenger traffic forecast for RwBCP "Svetogorsk"

The forecast of passenger flows between Russia and Finland was based on the forecast of foreign citizens' visits to Russia from Finland and Russian citizens' visits to Finland from Russia. According to the forecast over 7 million foreign citizens will come to Russia from Finland in 2035 (1.7 times as many as in 2018). International traffic via the border-crossing points in Leningrad Region is forecast at 11 997.3 thous. persons in 2035 (1.7 times as many as in 2018).

The demand forecast for the train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* for the period through 2035 was produced using the assumptions as follows:

- the price of the train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would be comparable to the cost of travel by car;
- the border and customs control procedures would take place on a moving train (similar to *Allegro* trains).

Lastochka regional rapid passenger trains could be used as rolling stock on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*. *Lastochka* trains were designed on the basis Siemens Desiro for Russian Railways JSC. ЭС1 and ЭС1П electric trains are double-system rolling stock (3 kV DC and 25 kV AC) which could operate both in Russia and Finland. The relevant EU certificates would have to be obtained for *Lastochka* trains to be used in Finland.

The passenger traffic on the train route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* for the period through 2035 is forecast as follows:

- in 2025 – 0.9 to 1.1 million pax;
- in 2030 – 1.1 to 1.4 million pax;
- in 2035 – 1.3 to 1.6 million pax.

The demand for the proposed train service would be partly generated by people who now travel between Russia and Finland by road via the RdBCP "Svetogorsk" and the RdBCP "Brusnichnoye). According to the calculations, 15% to 25% of passengers expected to use the RdBCP "Svetogorsk" and the RdBCP "Brusnichnoye" would travel by train instead.

Development of railway passenger connections to other regions of Finland would also increase the demand for the proposed train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*.

If the governments of Russia and Finland sign a Local Cross-Border Travel Agreement, the demand for the proposed train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would go up 20% to 25%.

Results expected from reconstruction of RwBCP "Svetogorsk" and railway approaches thereto

The forecast of demand for cargo and passenger transport via the RwBCP "Svetogorsk" has confirmed the expedience of the reconstruction of the border-crossing point.

On the Finnish side, there is the ongoing ENI financed (5.2 Million EUR) equipment work (e.g. X-Ray's for both wagons and passenger personal items), to be completed by 2025. Moreover, the first phase of the Imatra infrastructure investments involves the construction of facilities to enable passenger and cargo traffic in the new international status situation by 2025.

Since funding has been allocated in Finland to infrastructure/improvement of the RwBCP "Imatra" and electrification of the railway approaches thereto, reconstruction of the RwBCP "Svetogorsk" and electrification of the railway section *Kamennogorsk – Svetogorsk* in Russia would be expedient as well.

Such project would:

- increase the capacity of the *Kamennogorsk – Svetogorsk* railway section, and allow more efficient use of Svetogorsk Railway Station and the RwBCP "Svetogorsk";
- allow the RwBCP "Svetogorsk" to change its status from a "simplified, temporary" BCP to a "permanent, multilateral" BCP, which would remove the restrictions on the traffic of cargo trains bound for Finland and allow carrying a broader range of cargo through the RwBCP (with the exception of several cargo categories such as oil products, chemicals and hazardous cargo, animals, etc.);
- allow relocating to the RwBCP "Svetogorsk" some of the traffic that now goes to Finnish companies in North-West Finland via the RwBCP "Buslovskaya", which would shorten the travel distances by 200 km and reduce the delivery times;
- create the second electrified route for cargo trains operating between Russia and South-East Finland and provide a solution to problems with cargo traffic that arise during railway repairs;
- allow relieving the section *Vyborg – Buslovskaya – Vainikkala* by relocating some cargo traffic to the route *Saint Petersburg – Losevo – Kamennogorsk – Svetogorsk*, away from the main passenger route;
- improve the environment thanks to electrification of the railway section *Kamennogorsk – Svetogorsk*.

The second complete route for cargo trains between Russia and south-east Finland would foster international trade and improve reliability of international cargo transport operations.

The railway section *Helsinki – Kouvola - Vainikkala* is a part of the TEN-T core network and a part of the ScanMed Corridor, one of the main European transport corridors (running from Palermo to Oslo, Stockholm and Helsinki).

After the reconstruction, the railway section *Kamennogorsk – Svetogorsk* would become another link between Russian railways and the main railway network of the European Union – TEN-T.

Due to infrastructure development, namely at the Svetogorsk BCP and Imatra BCP, there are active incentives underway on both sides of the border to create a route to TEN-T Scandinavian-Mediterranean Core Network Corridor (Scan-Med) by the next round in 2023.

The north-western part of ScanMed is the only arterial corridor in the EU with a connection to the Russian railway network without the need to change gauge. This route has the advantage of a direct railway connection to Asian countries via Russia. On that route, trains going from Finland to China would run almost 5 000 km on the railway networks of Russia and Kazakhstan with the same gauge, without stopping for customs procedures, the checks and bogie change only necessary on the Chinese border. At the Kazakhstan-China border, goods could also be transferred from wagons for a 1520 mm gauge to wagons usable in China which has a standard railway gauge.

The traffic on the route *Kouvola – Xi'an* is expected to grow since the Government of Finland hope that North European companies will use the route to transport their containers to Asia.

Moreover, after the reconstruction of the railway section *Kamennogorsk – Svetogorsk*(tentatively in 2025), Russian regions would have a direct rapid connection to railways of European countries via TEN-T.

That calls for joint effort in cross-border planning for development of the railway networks of Finland and Russia, with further optimization of laws and regulations that apply to cross-border railway transport operations. Investment in reconstruction of railways and development of uniform regulations and standards would enable increased capacity of railway arterials and higher level of environmental safety.

Moreover, electrification of the railway section *Kamennogorsk – Svetogorsk* and reconstruction of Svetogorsk Railway Station would enable passenger train services on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*, which would:

- improve accessibility of the town of Svetogorsk (the only way to reach Svetogorsk now is by bus or by car);
- reduce the travel time between Saint Petersburg and Lappeenranta to less than three hours;
- allow redistribution of some passenger flows from roads to railways;
- relieve road traffic and improve traffic safety on roads through lower accident rates on the roads to the border-crossing points;
- reduce queues at road border-crossing points and time costs involved in the crossing of the Russian – Finnish border;
- reduce greenhouse gas and other emissions from road vehicles.

Saint Petersburg and Leningrad Region are at the top of the list among Russian regions in terms of emissions into the atmosphere from road vehicles. According to RozPrirodNadzor (Federal Service for Supervision of Natural Resource Usage), the emissions from road vehicles in 2017 were 470.8 thousand tons in Saint Petersburg and 196.3 thousand tons in Leningrad Region.

The partial redistribution of cargo and passenger traffic from roads to railways on the the route Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta would reduce emissions of greenhouse gases and other pollutants from road vehicles into the atmosphere in Saint Petersburg and Leningrad Region.

Availability of the passenger train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would improve the socio-economic and tourism potential of two neighboring border regions – Vyborgsky District of Leningrad Region and South Karelia of Finland.

Therefore, investment in development of the railway infrastructure would foster economic growth and social development of the border regions.

Investment in the upgrading of the RwBCP "Svetogorsk" would facilitate the creation of the international cross-border railway route to be used for a wider range of traded goods as well as for passenger services available to a larger number of regional travelers.

The development of the RwBCP "Svetogorsk" would reduce the carbon footprint of transport systems in the region, and lower emissions by creating a new, additional international fairway for railway transportation across the border.

More intense political cooperation is also needed to develop a cross-border investment plan for the railway sector and implement the project of reconstruction of

the railway *Kamennogorsk – Svetogorsk – Imatra – Lappeenranta* to allow both passenger and cargo traffic. It is essential that Russia and Finland coordinate the development of the railway artery in terms of both reaching the maximum efficiency of the infrastructure and optimizing costs.

Finding the investment necessary for the reconstruction of the railway *Kamennogorsk – Svetogorsk – Imatra – Lappeenranta* would allow implementation of modern cross-border infrastructure which would play an important role in the economic development and the competitiveness of the border regions.

Requirements for reconstruction and infrastructure of the RwBCP "Svetogorsk"

Reconstruction and improvement of the railway border-crossing point "Svetogorsk" should be carried out in compliance with the *Common Standard Requirements for Equipment and Infrastructure of Buildings, Spaces and Structures That Are Necessary for Government Control Procedures at Border-Crossing Points at the Customs Border of the Eurasian Economic Union*, as approved by Resolution of the Council of the Eurasian Economic Commission No. 23 dated 03.03.2017 "On amendments to individual resolutions of the Customs Union Commission and the Eurasian Economic Commission".

According to the Standard Requirements, the technical systems that should be provided at border-crossing points to enable government control procedures are as follows:

a) passport (border) control systems;

b) systems for contactless body temperature measurement;

c) systems for quarantine and phytosanitary monitoring (oversight) and disinfection of products that are subject to quarantine;

d) systems for cleaning and disinfection of vehicles;

e) systems for veterinary control (oversight);

f) systems for measuring weight and dimensions;

g) systems for inspection of persons, luggage and hand luggage;

h) systems for inspection of vehicles and goods;

i) radiation control systems;

j) systems for collection and destruction (disposal) of biological waste;

k) access monitoring, access control, and security alarm systems;

l) communications and IT systems

m) CCTV (video monitoring) systems;

n) fire alarm systems;

o) physical security systems;

p) information interaction systems;

q) backup power supply systems.

Roadmap

The requirements of the Russian regulations having been taken into account, a roadmap has been developed for implementation of the improvements at the RwBCP "Svetogorsk", the reconstruction of Svetogorsk Railway Station, and the electrification of the railway section *Kamennogorsk – Svetogorsk* (26 km).

The Roadmap was prepared on the basis of the "baseline" scenario for development of cargo and passenger traffic through the RwBCP "Svetogorsk" to the towns of Imatra and Lappeenranta, Finland.

The approximate amount of financing required for the activities listed in the Roadmap in current prices (2019) and the tentative time schedule for the activities were determined using similar projects such as: the project of the reconstruction of the RwBCP "Buslovskaya" developed in 2012 and the project of the electrification of the railway line "Vyborg – Svetogorsk" developed in 2000.

To estimate the cost of the improvements at the RwBCP "Svetogorsk", the reconstruction of Svetogorsk Railway Station, and the electrification of the railway section *Kamennogorsk – Svetogorsk,* the following cost items were taken into account:

1. Land preparation costs.
2. Land acquisition costs.
3. The costs of construction and reconstruction of main facilities of the RwBCP "Svetogorsk" as per the requirements of the RF Federal Customs Service, the Border Service of the FSB of Russia, RosPotrebNadzor, and RosSelKhozNadzor.
4. The costs of supporting and service facilities as per the requirements of the RF Federal Customs Service, the Border Service of the FSB of Russia, RosPotrebNadzor, and RosSelKhozNadzor.

5. Costs of developing the station infrastructure of the Svetogorsk Railway Station, which are determined by RZD (Russian Railways).

6. Costs of electrification of the railway branch "*Kamennogorsk – Svetogorsk"*, which are determined by RZD (Russian Railways).

7. Costs of building the overpass in the alignment of Zavodskaya St. in Svetogorsk.

8. Costs of supporting and service facilities of the RwBCP "Svetogorsk" as a comprehensive project.

9. Costs of energy infrastructure and equipment.

10. Costs of transport and communication infrastructure and equipment.

11. Costs of construction and reconstruction of outdoor water supply, sewage, and heat and gas supply structures.

12. Costs of area improvement and landscaping.

13. Costs of temporary buildings and structures.

14. Other activities and costs.

15. Maintenance costs of the Directorate of the Comprehensive Reconstruction Project "RwBCP Svetogorsk".

16. Costs of design work and site surveys.

The estimated cost of the improvements at the RwBCP "Svetogorsk", the reconstruction of Svetogorsk Railway Station, and the electrification of the railway section *Kamennogorsk – Svetogorsk,* which was calculated using similar projects is 105 936,12 thous. Euros VAT (20%) included. The activities listed above would take 74 months from the start of the preparation of the proposal on the reconstruction of the RwBCP "Svetogorsk" as a comprehensive project.

With the current status of the RwBCP "Svetogorsk" as a "temporary, simplified" border-crossing point, its reconstruction would have to be financed by Russian Railways.

As a "permanent, multilateral" border-crossing point, the RwBCP "Svetogorsk" would go under the control of the FGKU "Directorate for Construction and Operation of RosGranitsa Property". Then the costs of the reconstruction would have to be financed from the federal government budget and included in the Federal Targeted Program (FTP) "The National Border of the Russian Federation (2012 – 2020)". The receiver of funds from the federal budget under the FTP "The National Border of the Russian Federation (2012 – 2020)" is the Ministry of Transport of the Russian

Federation which sends the funds to its subordinate agency – FGKU "Directorate for Construction and Operation of RosGranitsa Property" which is the client for the reconstruction of border-crossing points.

The current infrastructure of the RwBCP "Svetogorsk" is 40% of what is required by applicable regulations. The RwBCP also has redundant capacity. There is redundant railway infrastructure capacity at the approaches to the RwBCP "Svetogorsk" on the side of Losevo, Vyborg and Hiitola. The current demand for freight transport via the RwBCP "Svetogorsk" is insignificant (3 to 4 pairs of cargo trains a day on average).

October Railway mentioned that the railway was prepared to handle the anticipated cargo and passenger flows between Russia and Finland and consider introducing passenger services on the route *Kamennogorsk – Svetogorsk – Imatra – Lappeenranta* if they were to receive such request.

Russian Railways would have to make the decision as to the expedience of financing the reconstruction of the RwBCP "Svetogorsk" and the railway approaches thereto on the basis of the business plan which should provide estimates for the amount of financing needed to cover capital and operation costs, the revenue from cargo and passenger transport operations, and the payback period and the profitability of the project.

If Russian Railways find the project profitable on the basis of the business plan, the project may be included in the Long-Term Development Program of Russian Railways for the Period Through 2025.

If Russian Railways do not find the project commercially attractive but find it socially significant and important for development of international trade, the project may be funded within the framework of the Government Program of the Russian Federation "Development of the transport system" and the *Comprehensive Plan for Modernization and Expansion of Arterial Infrastructure for the Period through 2024* which are developed, implemented and monitored by the Ministry of Transport of the Russian Federation.

In compliance with Article 12 of the Law of the Russian Federation "On the national border of the Russian Federation", the Government of the Russian Federation approved the Rules of Establishment, Opening, Operation, Reconstruction and Closure of National Border-Crossing Points of the Russian Federation (RF Government Decree No. 482 dated June 26, 2008, as subsequently amended).

According to the *Rules of Establishment, Opening, Operation, Reconstruction and Closure of National Border-Crossing Points of the Russian Federation*, the procedure for reconstruction of border-crossing points is as follows:

1. Deemed reconstruction of a border-crossing point is: reconstruction of existing and/or construction of new buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks performed at the border-crossing point; and other activities designed to change type, classification, category, capacity and/or boundaries of a border-crossing point.

2. A proposal on reconstruction of a border-crossing point can be submitted by a federal executive body, the top regional executive body of the RF region in which the border-crossing point is located, or the owner(s) of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks performed at the border-crossing point.

The Government of Leningrad Region is proposed as the initiator of changing the operation mode classification of the RwBCP "Svetogorsk" from a "temporary" BCP to a "permanent" one and the reconstruction of the RwBCP "Svetogorsk".

The proposal for the change in the classification and for the reconstruction of the railway border-crossing point "Svetogorsk" on behalf of the Government of Leningrad Region should be sent to the Ministry of Transport of the Russian Federation with the rationale of the classification change and the reconstruction attached thereto. The proposal should include:

- rationale for the reconstruction of the border-crossing point;
- information on the planned capacity and the dates for the opening of the border-crossing point after the reconstruction;
- information on the operation procedure of the border-crossing point for the reconstruction period, with the work process plan attached thereto, describing arrangements for traffic of vehicles, cargo, goods and animals across the national border of the Russian Federation (unless the operations of the border-crossing point are to be suspended for the reconstruction period);
- proposals on sources of financing for the reconstruction of the border-crossing point (the federal government budget, the South-East Finland – Russia Cross-Border Cooperation Program, etc.);

- calculation and justification of costs of the reconstruction of the border-crossing point and the maintenance of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks at the border-crossing point;
- calculation and justification of costs of maintenance of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks at the border-crossing point if those are subject to reconstruction.

A working group should be created at the Ministry of Transport of the Russian Federation with representatives of the Ministry of Transport and Communications of Finland which would coordinate plans for the change in classification and the reconstruction of the RwBCP "Svetogorsk".

Upon review of the proposal of the Governor of Leningrad Region, the Ministry of Transport of the Russian Federation would make decisions as to:

- the expedience of changing the operation mode classification of the cargo-and-passenger, temporary, simplified railway border-crossing point "Svetogorsk" from a temporary BCP to a permanent BCP;
- the need for reconstruction of the railway border-crossing point "Svetogorsk".

If the change in the classification is found expedient, the Ministry of Transport of the Russian Federation will send the relevant proposal to the Government of the Russian Federation for the appropriate RF Government Decree to be issued.

For an RF Government Decree changing the classification of the border-crossing point to be issued, the decision should be agreed upon with the federal executive bodies responsible for control procedures at border-crossing points, and the top executive body of the region of the Russian Federation in which the border-crossing point is located.

The approved RF Government directive "On changes to the classification of the railway border-crossing point "Svetogorsk" at the national border of the Russian Federation (in Leningrad Region)" should include the following text: "The operation mode classification of the railway border-crossing point "Svetogorsk" at the national border of the Russian Federation (in Leningrad Region) will change from a temporary to a permanent multilateral border-crossing point".

If the reconstruction of a border-crossing point is found expedient within the applicable procedure, the Ministry of Transport of the Russian Federation shall adopt a legal act on the reconstruction of the border-crossing point, which is to be approved by federal executive bodies responsible for control procedures at the border-crossing point under reconstruction, and the top executive body of the region of the Russian Federation in which the border-crossing point is located.

Then the RF Ministry of Transport would arrange for technical requirements to be obtained from the federal executive authorities responsible for border control, customs control and other checks at the RwBCP "Svetogorsk" as to the reconstruction, equipment and infrastructure of the BCP.

With those requirements, FGKU "RosGranStroi" would prepare the Terms of Reference for development of the design documentation for the reconstruction of the border-crossing point. The Terms of Reference for development of the design documentation should include the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section Kamennogorsk – Svetogorsk, and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.

One of the subordinate organizations listed below of the RF Ministry of Transport could be the client for to the design the documentation: FGKU "RosGranStroi" or FKU "RosTransModernizatsia".

The contractor to develop the design documentation would be selected in a competitive bid procedure.

The design documentation for the reconstruction would have to be endorsed by the federal executive bodies responsible for control procedures at the border-crossing point.

The next stage after the endorsements and the positive assessment report from the RF GlavGosExpertisa (project assessment agency) for the design documentation would be the preparation of the bid instruction document for construction and installation operations involved in the reconstruction of the border-crossing point in accordance with the approved design documentation.

After the tender, the winning company would start the reconstruction.

Upon completion of the construction, implementation/installation of equipment and infrastructure of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks, and the issue of the permissions

for the commissioning of said facilities within the procedure as provided by law of the Russian Federation, the Ministry of Transport of the Russian Federation jointly with stakeholder federal executive bodies shall create an interdepartmental commission to verify if the border-crossing points meets applicable requirements as to construction, reconstruction, equipment and infrastructure of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks performed at border-crossing points of the Russian Federation. The Commission is to include representatives of the Ministry of Transport of the Russian Federation and the federal executive bodies responsible for control procedures at border-crossing points.

On the basis of the report signed by all members of the Commission, the Ministry of Transport of the Russian Federation is to adopt a legal act on the opening of the reconstructed railway cargo-and-passenger permanent multilateral border-crossing point at Svetogorsk Railway Station (Leningrad Region), within 2 months (with the classification and the specialization of the BCP indicated therein).

Given the duration of the design and construction activities listed above, the RwBCP "Svetogorsk" could open after the reconstruction in the 1st Quarter of 2025.

LIST OF TABLES

TERMS AND ABBREVIATIONS

TERMS

The following terms in this report will have definitions as set forth below.

Terms	Definitions
Gross Regional Product (GRP)	a general indicator of economic activities which reflects the total new value created in the process of production of goods and services by industries of a region.
Border-crossing points of the Russian Federation	facilities designed for persons, vehicles, cargo, goods and animals to cross the national border of the Russian Federation. Border-crossing points are installed on railway terminals or stations, roads, at seaports and river (lake) ports, airports (aerodromes) that are open to international transport operations, in dedicated areas in immediate proximity to the national border of the Russian Federation. Border-crossing points are established under international agreements of the Russian Federation or legal acts of the RF Government. Proposals on establishment of border-crossing points can be submitted by federal executive authorities and top regional executive authorities of the Russian Federation (hereinafter – *the initiators*). There are international and simplified (temporary) border-crossing points. An international border-crossing point is a dedicated and properly equipped facility that is open for international transport movements and provides border and customs control procedures and, where necessary, other control procedures in respect of persons, vehicles and goods crossing the national border. A simplified (temporary) border-crossing point is a dedicated and properly equipped temporary facility that provides border and customs control procedures and, where necessary, other control procedures in a simplified manner in respect of persons, vehicles and goods crossing the national border. The classes of border-crossing points are: - maritime BCPs, river (lake) BCPs, air BPCs, road BCPs, railway BCPs, pedestrian BCPs, and mixed BCPs, depending on the type of transport movements involved; - passenger BCPs, cargo BCPs, cargo-and-passenger BCPs, depending of the nature of transport services; - permanent BCPs, temporary BCPs, seasonal BCPs, and ad-hoc BCPs, depending of the operation mode; - multilateral BCPs are BCPs used to cross the national border of the Russian Federation by persons irrespective of their citizenship including stateless

Terms	Definitions
	persons, and transport vehicles irrespective of their state of registration, as well as to transport cargo, goods and animals irrespective of their state of origin; - bilateral BCPs are BCPs used to cross the national border of the Russian Federation by citizens, including within the simplified procedure, and vehicles of the Russian Federation and the neighboring state, as well as for transport of cargo, goods and animals of the Russian Federation and the neighboring state only. Border-crossing points may specialize in particular types of cargo, goods and animals (hereinafter – specialized border-crossing points). Specialized border-crossing points are divided into: - BPCs with special equipment and infrastructure, which are used to import goods, chemical, biological and radioactive substances, waste and other cargo that are hazardous to humans, as well as food products, materials and articles to the Russian Federation; - BCPs with special equipment and infrastructure, which are used to import animals, animal husbandry products, fodder, and products that subject to quarantine.
Capacity of a road	the maximum number of vehicles that can use a given road section within particular time
Control bodies of a border-crossing point	government bodies of member states which are authorized under the law of their respective states to perform government control procedures
Control operations at a border-crossing point	actions performed by control bodies in order to provide the government control where persons, vehicles and goods enter or leave the customs area of the Eurasian Economic Union
Forecast of socio-economic development of the Russian Federation	a strategic planning document providing a description of external and internal conditions, goals, objectives, main activities and expected results of the socio-economic development of the Russian Federation in the medium and long-term
Freight flow	the amount of freight transport in a particular direction between various points of a transport network over a given period of time
Government control at a border-crossing point	activities of officials of control (supervisory) bodies that take place at border-crossing points, such as customs control, transport control, sanitary control, veterinary-and-sanitary control, quarantine-and-phytosanitary control (oversight) procedures in accordance with international agreements and acts which constitute the law of the Eurasian Economic Union, as well as border control procedures in accordance with legislation of member states of the Eurasian Economic Union

Terms	Definitions
Intermodal cargo transportation.	consecutive transport of cargo by two or more transport modes in the same cargo unit or road vehicle without transferring the cargo when the transport mode changes
International transport	the moving of passengers and cargo (goods) using various transport modes, where the origin point and/or the destination point are outside the Russian Federation
International transport corridors (ITC)	a group of arterial transport connections with appropriate infrastructure, which enable international traffic of passengers and cargo on the busiest routes connecting various countries
ITC infrastructure	railways and roads, seaports and river ports, airports, border-crossing points, customs stations, terminals, cargo stations and railway terminals, which support international passenger transport, cargo transport and handling
Local cross-border travel	a visa regime under an Agreement between the Government of the Russian Federation and the Government of a neighboring state on a simplified procedure for mutual travel of residents of border areas of the Russian Federation and the neighboring state. Russia has or had Local Cross-Border Travel Agreements (LCBTAs) with Norway, Latvia, Poland, and Estonia. The Agreements introduce the procedure for obtaining permits for local cross-border travel by residents of border areas of the neighboring states, which allows them multiple entries, exits and stay in the border area of the counterpart state on the terms specified in the Agreements. At present, Russia has valid LCBTAs with Norway and Latvia. Currently Poland and Estonia have suspended their LCBTAs with Russia. **Norway** Citizens of the Russian Federation may travel to Norway within the visa regime determined under the Agreement of November 2, 2010 between the Government of the Russian Federation and the Government of the Kingdom of Norway on simplification of the procedure for mutual travel of residents of the border areas of the Russian Federation and the Kingdom of Norway. The border area of Norway for the purposes of the Agreement is Sør-Varanger which is 30 km from the Norwegian-Russian border, and the settlement of Neiden. Russian citizens residing within 30 km of the Russian-Norwegian border can obtain the so called **"coastal visas"** at the Consulate General of Norway in Murmansk, to visit the Norwegian communities that border Murmansk Region. An applicant has to apply for such visa in person, no invitation from Norway required. With a Border-Area Resident ID, Russian citizens

Terms	Definitions
	residing within 30 km of the Norwegian border are allowed to stay in Sør-Varanger and/or Neiden for 15 days per entry. **Latvia** The Agreement on simplification of mutual travel of residents of border areas between the Russian Federation and the Republic of Latvia became effective in December 2018. Permits for local cross-border travel can be issued to citizens who have been legally permanent residents of the border areas for at least 3 years. Such permits are issued on the basis of mutually approved lists of residents of the border areas, which are made by the local authorities of the border areas. With such permit, a resident of a border area of either of the two states is allowed to enter and stay in the border area of the other state within the term of the permit. The total duration of stay in the border area cannot exceed 90 within 180 days following the first entry. Such permits do not allow their holders to work or do business in the other country. When crossing the Russian-Latvian border, residents of the border areas only need their international passports and their local cross-border travel permits. The permits allow staying in the border areas of the other country for up to 90 days within 180 days. Crossing the Russian-Latvian border within the local cross-border travel regime is only allowed at the following border-crossing points: Burachki, Brunischevo, Ludonka, and Ubylinka. **Estonia** Russia and Estonia used to have an intergovernmental Border Area Resident Travel Agreement (residents of Ivangorod and Narva could cross the Russian-Estonian border under a simplified procedure) but the agreement was suspended in January 2009. Russia and Estonia are discussing the renewal of their LCBT Agreement. **Poland** The Local Cross-Border Travel between the Government of the Republic of Poland and the Government of the Russian Federation came into effect on 27.07.2012. A LCBT permit allowed a resident of the border area to enter and stay in the border area of the other country for up to 30 days per entry from the date of the entry, but the total duration of stay could not exceed 90 days within any 6 month period following the first entry.

Terms	Definitions
	According to the conclusions made by Polish specialists under the study: "The impact of the agreement between the Government of the Republic of Poland and the Government of the Russian Federation on the procedure for local cross-border travel" *(www: sanktpetersburg.msz.gov.pl/resource/5d584f5b-f051-40aa-a6e3-55636297ab68:JCR)*: - the first year of the LCBT Agreement turned out to be a huge success, the direct impact thereof being the economic development of the border areas, and the growing frequency of travel and increased spending by visitors to Poland; - the main beneficiaries of the LCBT Agreement are the districts that are close to the border-crossing points; the application of the LCBT Agreement has had a positive impact on tourism and trade in the border areas; - the LCBT Agreement has primarily benefited companies in commerce, tourism and transport industries. Despite the positive effects, the LCBT Agreement between Russia and Poland was suspended in 2016. The LCBT Agreement with Kaliningrad Region of Russia was not renewed afterwards. The suspension of the LCBT Agreement reduced the road vehicle traffic and the travel of individuals across the Russian-Polish border by 25% and 21% respectively.
Own-account transport	transport that serves cargo and passenger transport needs of a particular company or organization (association, corporate group, etc.)
Public use transport	transportation services that meet the demand of all industries of the economy and the population for cargo and passenger transportation, carries various types of products between manufacturers and consumers, and provides common access transport services to the population
Region	a region ("subject") of the Russian Federation (this report covers two neighboring regions of the Russian Federation – Saint Petersburg and Leningrad Region)
Route network	all land-based public transport routes approved by the executive body of the local administration
Routine at a border-crossing point	the rules of entering, stay at and leaving a border-crossing point applicable to persons, vehicles and goods, as established by law of member states of the Eurasian Economic Union, exclusively for the purpose of creating conditions which are necessary for border and customs control procedures
Sanctions	Restrictions introduced in 2014 by the EU, the US and a number of other countries due to the Ukrainian Crisis and the annexation of Crimea and the city of Sevastopol to the Russian Federation. At present, there are several sets of EU sanctions against Russia.

Terms	Definitions
Special economic measures, the counter-sanctions in-troduced by Russia	In 2014, Decree of the President of the Russian Federation "On application of individual special economic measures to ensure security of the Russian Federation" banned import to Russia of "individual types of agricultural produce, raw materials and food where the country of origin thereof is a country that introduced economic sanctions against Russian legal entities and (or) individuals and joined such sanctions". At present, there are several sets of Russian sanctions against EU.
State program of the Russian Federation	a strategic planning document that describes a set of planned activities coordinated in terms of tasks, deadlines, responsible entities and resources, and designed to achieve the government objectives in the socio-economic development of the Russian Federation
Strategy of spatial development of the Russian Federation	a strategic planning document that determines priorities, goals and objectives of regional development of the Russian federation and is designed to support the sustainability of the population settlement system in the Russian Federation
Terminal	a complex of devices, buildings and structures designed to provide for interaction of various transport modes in the process of movement, receipt, accumulation, processing, shipment and release of cargo
Transport hub	a set of transport devices at the point of interaction of two or more transport modes that jointly provide passenger and (or) cargo transport services.
Transport Infrastructure	railways and roads, inland waterways, air transport paths, railway stations and hubs, sea and river ports and berths, airports, terminals, garages, depots, urban street and road networks, tram and trolleybus lines, and subway (metro) systems
Transport system of (transport complex)	a set of various transport modes and transport, terminal, logistics and storage infrastructure, which are interdependent and interact when providing transport, terminal, logistic and storage services in the process of movement of passengers and cargo (goods). Transport system (transport complex) includes: fleet for road, railway, maritime and inland waterway, air and pipeline transport, urban passenger transport (subway, trams, trolleybuses, buses, taxis, etc.), industrial transport; the road sector; and transport, terminal, logistics and storage infrastructure, with legal entities and individual entrepreneurs that are part of it.
Vehicular traffic	the number of vehicles crossing a certain cross-section of a road/railway within a given time (day/hour)

ABBREVIATIONS

Abbreviations used in this report are as follows:

CCZ – customs control zones;

EAEU – the Eurasian Economic Union;

EU – the European Union;

ENI - European Neighbourhood Instrument;

CBC - Cross Border Cooperation;

LIP - Large Infrastructure projects;

FCS of Russia – the Federal Customs Service of the Russian Federation;

FGUP – federal state-owned unitary enterprise;

FSB of Russia – the Federal Security Service of the Russian Federation;

FTP – federal targeted program;

GDP – gross domestic product;

GIBDD MVD RF – State Traffic Safety Inspectorate of the RF Ministry of Internal Affairs;

GRP – gross regional product;

ITC – international transport corridor;

RdBCP – road border-crossing point;

RF – Russian Federation;

RF FSB BS – the Border Service of the Federal Security Service of the Russian Federation;

RosStat – Federal Government Statistics Service;

RwBCP – railway border-crossing point;

RZD – Russian Railways JSC.

1 INTRODUCTION

The action plan for development of an International Railway connection at Imatra – Svetogorsk (hereinafter - the Action Plan) was prepared for the Regional Council of South Karelia.

The Regional Council of South Karelia is an association of governments of 9 municipalities of South-East Finland, which is responsible for territorial planning and land-use, and supports development of economic, transport and tourism related activities in border areas of Finland. The interest of the Regional Council of South Karelia in this study is due to the fact that the association considers the project of developing passenger and cargo traffic through the border-crossing points "Svetogorsk" and "Imatra" one of high-priority projects of the European Union for border areas of the Russian Federation and Finland.

In 2018, the Regional Council of South Karelia conducted a tender for development of the Action Plan, which was won by the International Consortium of four consulting companies, three Finnish companies (EP-Logistics Oy, VR Track Oy (known as NRC Group Finland Oy since 7th January 2019), and Proxion Plan Oy) and a Russian company Transport Integration Ltd. (TIG), specializing in preparation of strategic documents and programs for the transport sector of Russia. This report is one of the two Action plan reports. This is about Svetogorsk-Imatra BCP development, actions needed on Russian side and why they are necessary. The other report is looking the Imatra-Svetogorsk BCP development steps on Finnish side.

The action plan project was financed with the aid of the Northern Growth Zone. Managed by the Helsinki-Uusimaa regional council, this partnership aims to promote growth and competitiveness along the major Finnish regions and cities. The Northern

The objectives of the Northern Growth Zone include:
- increasing Finland's competitiveness on the export and transit market
- create sustainable, traditional and digital traffic and transport services
- commercialise innovations through international cooperation
- increase the functionality of a uniform labour market area and economic area
- enhance Finland's attractiveness as an operating environment of business sector.
  http://www.turku.fi/en/northern-growth-zone

Growth Zone covers the main ports, international airports, border crossing points, top universities, and +50 % of people, jobs, GDP and R & D & I in Finland.

The interest to the research project on the Russian side is due to the possibility of completing the tasks as follows:

- increasing export of transport services to handle the future growth in cargo traffic through the railway border-crossing point (hereinafter – RwBCP) "Svetogorsk";
- organizing international passenger services going through the RwBCP "Svetogorsk";
- providing regular train services to the town of Svetogorsk where now only bus services are available;
- shifting some cargo and passenger traffic between Russia and Finland from roads to railways in order to improve the comfort level and safety of travel, reduce transport/travel costs, and reduce emissions from road vehicles.

1.1 Project background

The railway border-crossing point "Svetogorsk" was established by the Agreement on Border-Crossing Points at the Russian – Finnish border dated 11.03.1994, between the Government of the Russian Federation and the Government of the Republic of Finland.

The Agreement (as amended as of October 11, 2010) has the main provisions of operations of border-crossing points as follows:

1. "An international border-crossing point is a dedicated and properly equipped facility that is open for international traffic and provides border and customs control procedures and where necessary other control procedures in respect of persons, vehicles and goods crossing the national border.

2. A simplified (temporary) border-crossing point is a dedicated and properly equipped temporary facility that provides border and customs control procedures and where necessary other control procedures in a simplified manner in respect of Russian and Finnish citizens, vehicles and goods crossing the national border.

3. The international border-crossing points established at the border between the Russian Federation and the Republic of Finland are as follows: Lotta –

Raja-Jooseppi; Lyttä – Vartius; Brusnichnoye – Nujamaa; Buslovskaya – Vainikkala; and Torfyanovka – Vaalimaa.

4. Establishment of new international border-crossing points, closure, suspension or restriction of traffic through operating border-crossing points, change in status thereof are subject to agreement between the Parties which shall be effected by exchange of diplomatic note or otherwise in a mutually acceptable manner.

5. The authorized bodies of the Parties shall inform each other of any terms of reference issued for design of border-crossing points and any projects for construction of border-crossing points with prospects thereof and/or increased traffic of persons, vehicles and goods across the border taken into account.

6. Border-crossing points shall be opened to traffic once they have proper infrastructure and conditions necessary for operations of government control bodies of the Parties.

7. To enable cross-border cooperation, traffic of wood and other business activities, simplified border-crossing points (temporary border-crossing points) for Russian and Finnish citizens and vehicles shall operate, the number of such border-crossing points being as necessary at the time.

8. Establishment and closure of simplified border-crossing points (temporary border-crossing points) are formalized in a protocol based on the agreement between the Commander-in-Chief of the Border Troops of the Russian Federation and the Head of the Border Guard Agency of the Republic of Finland, with prior approval of stakeholder government departments.

9. Simplified border-crossing points (temporary border-crossing points) shall be provided with equipment and infrastructure on the territory of the relevant Party by its government departments, local authorities, and stakeholder organizations. The implementation of such border-crossing points and the conditions for their operations shall be completed at least one month prior to the start of the traffic of Russian and Finnish citizens and vehicles via such border-crossing points.

10. Russian and Finnish citizens shall cross the border at simplified border-crossing points (temporary border-crossing points) in compliance with applicable law of each of the Parties.

In accordance with Decree of the Government of the Russian Federation No. 2665-r dated 29 November 2017, the railway border-crossing point “Svetogorsk” is cargo-and-passenger temporary multilateral simplified border-crossing point, but in

fact it operates as a bilateral BCP i.e. it is used to cross the national border of the Russian Federation by citizens, including within the simplified procedure, and by vehicles of the Russian Federation and the counterpart state, as well as for transport of cargo, goods and animals of the Russian Federation and the neighboring state only.

The Foreign Ministry of the Russian Federation and the Foreign Ministry of the Republic of Finland exchanged diplomatic notes dated May 12, 1997 which gave the simplified railway border-crossing point "Svetogorsk – Imatra" the status of an international BCP. However persons and vehicles from third countries will only be able to use it once the BCP is equipped appropriately and has the conditions necessary for operations of government control bodies. This can only be achieved through reconstruction of the border-crossing point.

1.2 Objectives

The Action Plan was prepared to forecast the demand for international cargo and passenger transport through the RwBCP "Svetogorsk", determine the amount of investment required for development of the RwBCP, and draft a plan of actions to enable the traffic of passengers and cargo in the area.

The main tasks involved in the preparation of the Action Plan are as follows:

- analysis of the dynamics and structure of cargo traffic through the RwBCP "Svetogorsk";
- evaluation of the existing capacity and state of infrastructure at the RwBCP "Svetogorsk";
- analysis of railway development projects that are ongoing or planned in the gravity zone of the RwBCP "Svetogorsk";
- a survey of Russian and Finnish companies (industrial companies, transport companies, etc.) regarding their interest in international cargo transportation through the RwBCP "Svetogorsk".
- forecasting international cargo traffic through the RwBCP "Svetogorsk" for the period through 2035, with the trade between Russia and Finland and the socio-economic development of the border areas taken into account;
- a survey of Russian and Finnish travel agencies aimed to find out if they are interested in a new train service going via the RwBCP "Svetogorsk";

- a public survey in Saint Petersburg and Leningrad Region aimed to find out if the public would be interested in train services going through the RwBCP "Svetogorsk";
- forecasting international passenger traffic via the RwBCP "Svetogorsk" for the period through 2035;
- analysis of Russian standards and regulations that provide requirements for reconstruction, equipment and infrastructure of border-crossing points;
- making the list and estimating the approximate cost of activities that are necessary to improve the capacity and infrastructure of the RwBCP "Svetogorsk" so that it can be used for cargo and passenger traffic.
- assessment of socio-economic and environmental impact of activities aimed to increase the capacity and improve the infrastructure of the RwBCP "Svetogorsk" so that some of the cargo and passenger flows between Russia and Finland could change from roads to railways;
- development of a roadmap for implementation of the actions aimed to improve the capacity and equipment of the RwBCP "Svetogorsk" so that it can accommodate future passenger and cargo traffic.

1.3 Method statement

The methods used to produce the Action Plan were as follows:

- methods of statistical processing of information;
- methods of system analysis and synthesis;
- methods of content analysis;
- methods of factor analysis;
- methods of generalization of socio-economic information;
- survey (polling) methods;
- methods of marketing research;
- methods of organizational and economic analysis;
- methods of socio-economic forecasting;
- methods of transport planning and modeling;
- methods of assessment of socio-economic and environmental performance;
- expert assessment methods;

- brainstorming methods, etc.

The software that was used in the study is listed below:

- a software package for collection, processing and visualization of data from traffic surveys, using GIS-technology;
- application software used to calculate the demand for freight transport and passenger services;
- models for forecasting and distribution of vehicular traffic flows;
- models for assessment of socio-economic and environmental performance of investment projects.

2 BORDER-CROSSING POINTS BETWEEN THE RUSSIAN FEDERATION AND FINLAND

2.1 General description

The current length of the Russia – Finland land border is 1 340 km. The list of border-crossing points between Russia and Finland was determined in an agreement by the governments of Russia and Finland on border-crossing points.

At present, international railway and road traffic between Russia and Finland goes through 16 BCPs, 13 of those being permanent multilateral BCPs and 3 – temporary BCPs, including:

- by railway. Through six railway border-crossing points, three of which are permanent cargo-and-passenger multilateral BCPs (including: RwBCP "Buslovskaya" in Leningrad Region, RwBCPs "Värtsilä" and "Lyttä" in the Republic of Karelia), two are permanent multilateral passenger BCPs (including: "Saint Petersburg Finlyandskiy" in Saint Petersburg and "Vyborg" in Leningrad Region), and one is a temporary cargo-and-passenger multilateral simplified BCP ("Svetogorsk" in Leningrad Region);
- by road.Through ten road border-crossing points, of which eight are permanent cargo-and-passenger multilateral BCPs (including: "Torfyanovka", "Brusnichnoye", "Svetogorsk" in Leningrad Region; "Värtsilä", "Lyttä" and "Suoperä" in the Republic of Karelia; "Salla" and "Lotta" in Murmansk Region) and two ("Syväoro" and "Inari" in the Republic of Karelia) are cargo-and-passenger bilateral simplified temporary BCPs.

The locations of the border-crossing points that are used for international railway and road traffic between Russia and Finland are shown in Figure 2.1.1, with the classification and operation schedules of the BCPs provided in Table 2.1.1.

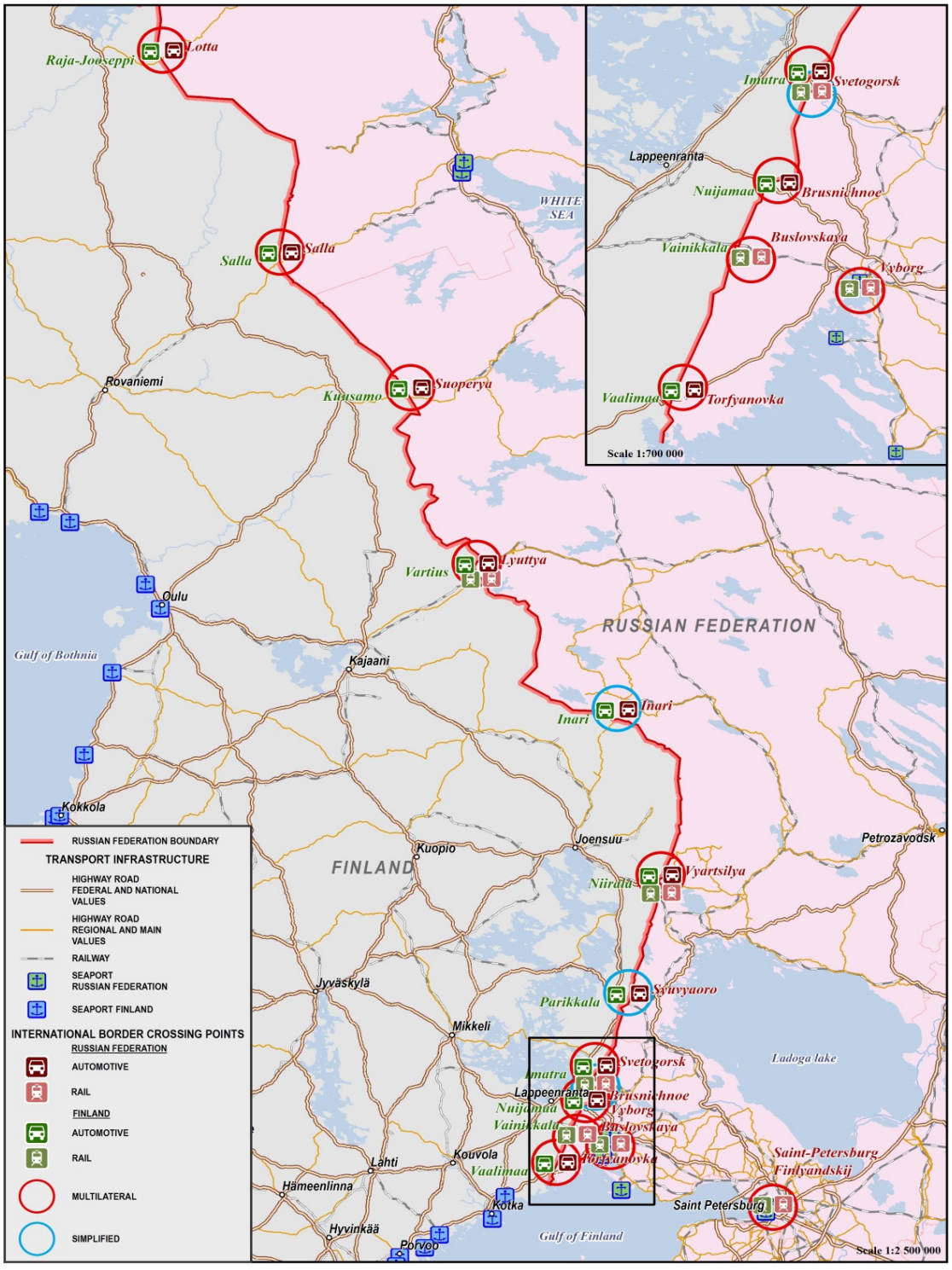


Figure 2.1.1 - The locations of the border-crossing points that are used for international railway and road traffic between Russia and Finland

Table 2.1.1 - The list of border-crossing points that are used for international railway and road traffic between Russia and Finland

BCP in Russia (counterpart BCP in Finland)	Location of the BCP in Russia	Classification of the BCP	Operation schedule of the BCP
Road border-crossing points			
Torfyanovka (Vaalimaa)	Leningrad Region, Vyborgsky District	Cargo-and-passenger permanent multilateral	24/7, with technical breaks
Brusnichnoye (Nujamaa)	Leningrad Region, Vyborgsky District	Cargo-and-passenger permanent multilateral	24/7, with technical breaks
Svetogorsk (Imatra)	Leningrad Region, Vyborgsky District	Cargo-and-passenger permanent multilateral	24/7 with technical breaks
Syväoro (Parikkala)	Republic of Karelia, Lakhdenpokhsky District, Syväoro homestead	Cargo-and-passenger temporary bilateral simplified	Monday – Friday from 09:00 to 20:00
Värtsilä (Niirala)	Republic of Karelia, Sortavala, settl. Värtsilä	Cargo-and-passenger permanent multilateral	24/7
Inari (Inari)	Republic of Karelia, Muezersky District	Cargo-and-passenger bilateral temporary simplified	Monday – Thursday from 08:00 to 19:00: Friday from 08:00 to 17:00
Lyttä (Vartius)	Republic of Karelia, 29 km from Kostomuksha	Cargo-and-passenger permanent multilateral	Winter: from 07:00 to 21:00; Summer: from 08:00 – 20:00
Suoperä (Kuusamo)	Republic of Karelia, Louhsky District	Cargo-and-passenger permanent multilateral	from 08:00 to 20:00 in summer, from 09:00 to 21:00 in winter
Salla (Salla)	Murmansk Region, Alakurtti of Kandalaksha Municipality	Cargo-and-passenger permanent multilateral	Winter: from 08:00 to 22:00, Summer: from 07:00 to 21:00

BCP in Russia (counterpart BCP in Finland)	Location of the BCP in Russia	Classification of the BCP	Operation schedule of the BCP
	of Murmansk Region		
Lotta (Raja-Jooseppi)	Murmansk Region, Kolsky District	Cargo-and-passenger permanent multilateral	Winter: from 08:00 to 22:00, Summer: from 07:00 to 21:00
Railway border-crossing points			
Saint Petersburg-Finlyandskiy	Saint Petersburg, Pl. Lenina 5, Finlyandskiy Railway Station	Passenger permanent multilateral	24/7
Vyborg	Leningrad Region, Vyborg, Ul. Zheleznodorozhnaya 8A, 1A	Passenger permanent multilateral	24/7
Buslovskaya (Vainikkala)	Leningrad Region, Vyborgsky District, railway station "Buslovskaya"	Cargo-and-passenger permanent multilateral	24/7
Svetogorsk (Imatra)	Leningrad Region, Vyborgsky District, Svetogorsk, Ul. Vokzalnaya 1, corp. 1, lit. A (Railway Station "Svetogorsk")	Cargo-and-passenger temporary multilateral simplified	Daily, from 08:00 to 24:00
Värtsilä (Niirala)	Republic of Karelia, Sortavala, railway station "Värtsilä"	Cargo-and-passenger permanent multilateral	24/7
Lyttä (Vartius)	Republic of Karelia, Kostomuksha, railway station "Kivijärvi"	Cargo-and-passenger permanent multilateral	Daily: from 07:00 to 21:00 in summer; from 08:00 – 20:00

BCP in Russia (counterpart BCP in Finland)	Location of the BCP in Russia	Classification of the BCP	Operation schedule of the BCP
			in winter

Source: RF Ministry of Transport

At present, the busiest border-crossing points are those on the border of Leningrad Region and Finland:

- the cargo traffic through the railway border-crossing points "Buslovskaya" and "Svetogorsk" in 2018 was 10.5 million tons (~ 61% of the total amount of cargo transported by railway between Finland and Russia);
- the cargo traffic through the multilateral road border-crossing points "Torfyanovka" and "Brusnichnoye" in 2018 was 4 million tons (~ 87% of the total amount of cargo transported by road between Finland and Russia);
- the passenger traffic through the railway border-crossing point "Buslovskaya" and in 2018 was 0.5 million passengers (~ 90% of the total passenger traffic on railways between Finland and Russia);
- the passenger traffic through the multilateral road border-crossing points "Torfyanovka" and "Brusnichnoye" in 2018 was 6.7 million passengers (~ 82% of the total passenger traffic on roads between Finland and Russia).

2.1.1 Cargo traffic

The dynamic of cargo traffic on roads and railways between Russia and Finland reflects changes in the amounts of trade between the two countries.

Over the period of 2010-2018, there was a major change in the trade turnover between Russia and Finland. The turnover peaked between 2011 and 2013 (reaching 17 to 19 billion USD), after which there was sharp decline in 2014-2016 (down to 9-12 billion USD) due to the mutual economic sanctions of Russia and Finland. The year 2017 showed some growth in the trade turnover. According to the Federal Customs Service of Russia, the turnover between Russia and Finland in 2018 amounted to 14 752 million USD (+ 19.6% vs. 2017 in real values) (Table 2.1.1.1).

Russian export to Finland in 2018 amounted to 11 372 million USD, having grown 31.6% on 2017. Russian import from Finland in 2018 amounted to 3 379 million USD, having declined 8.6% on 2017.

Russia's trade balance with Finland in 2018 was positive and amounted to 7 993 million USD. The trade balance has gone up 61.6% vs. 2017.

Finland's share in Russia's foreign trade turnover was 2.1% in 2018. In 2018, Finland was in the 14th place in Russia's foreign trade turnover (15th place in 2017).

Finland's share in Russia's exports was 2.5% in 2018. In 2018, Finland was in the 12th place in Russia's exports (13th place in 2017).

Finland's share in Russia's imports was 1.4% in 2018. In 2018, Finland was in the 18th place in Russia's imports (14th place in 2017).

It should be noted that there are some differences between Russian and Finnish statistics on the trade between the two countries. The comparison of the statistics on the trade turnover between Russia and Finland published by the Federal Customs Service of Russia (Table 2.1.1.1) and the Customs Department of Finland (Table 2.1.1.2) revealed that the disparities were the greatest in the data on export from Russia to Finland, both in physical and value terms.

The main reasons behind that are:

1. the use of different systems to account for foreign trade in goods;
2. Russia's use of the "contract country" to determine the end destination country where the "end destination country" is unknown, which leads to disparities in data on Russian exports and Finnish imports;
3. the EU goods trade accounting system which registers goods transported between EU countries on the basis of the origin (departure) country, which affects the comparability of the data where:
   - EU goods come to Russia via Finland;
   - Finnish goods come to Russia via other EU countries;
   - goods of third countries that circulate freely in Finland are subsequently exported to Russia;
4. differences in cost parameters due to the use of different delivery terms by the parties;
5. export-import operations not being registered at the same time (if goods produced by an exporter in a reporting period are imported in the next period there is a disparity in statistics).

However, the disparities in Russian and Finnish data on the trade turnover between the countries in 2018 are less significant.

Exports amounted to 77% of the foreign trade turnover of Russia and Finland in 2018. Russian exports to Finland in 2018 amounted to 11 372 million USD, which is 1.3 times the level of 2017 (Figure 2.1.1.1).

Imports amounted to 23% of the foreign trade turnover of Russia and Finland in 2018. Russian imports from Finland in 2018 declined 8.6% vs. 2017 and totaled 3 379 million USD (Figure 2.1.1.2).

Table 2.1.1.1 – The dynamics of trade between Russia and Finland in 2010-2018, according to the Federal Customs Service of Russia, in million USD

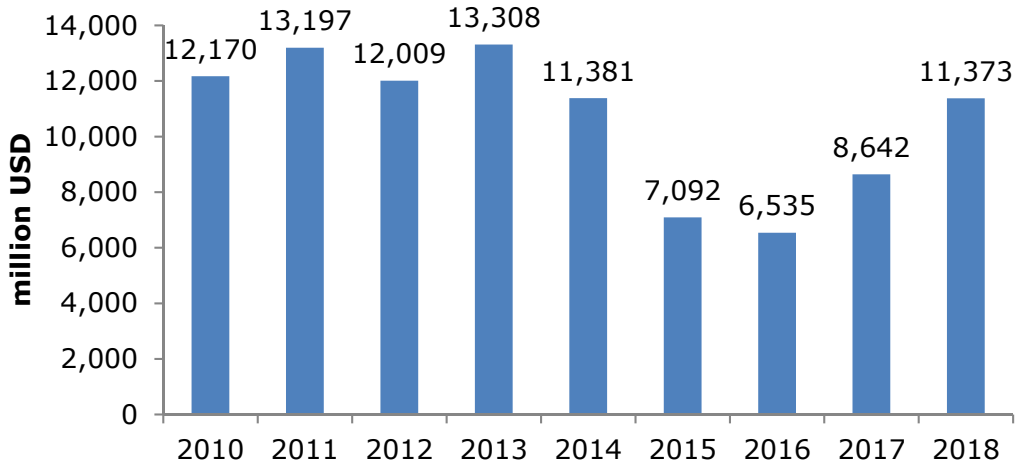
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Trade turnover	**16 754**	**18 869**	**17 013**	**18 704**	**15 952**	**9 762**	**9 013**	**12 338**	**14 752**
Export from Russia to Finland	12 170	13 197	12 009	13 308	11 381	7 092	6 535	8 642	11 373
Import to Russia from Finland	4 584	5 672	5 004	5 396	4 571	2 670	2 478	3 696	3 379
Balance	7 586	7 525	7 005	7 912	6 810	4 423	4 057	4 946	7 994

Source: the Federal Customs Service of Russia

Table 2.1.1.2 – The dynamics of trade between Russia and Finland in 2010-2018, according to the Customs Administration of Finland, in million USD

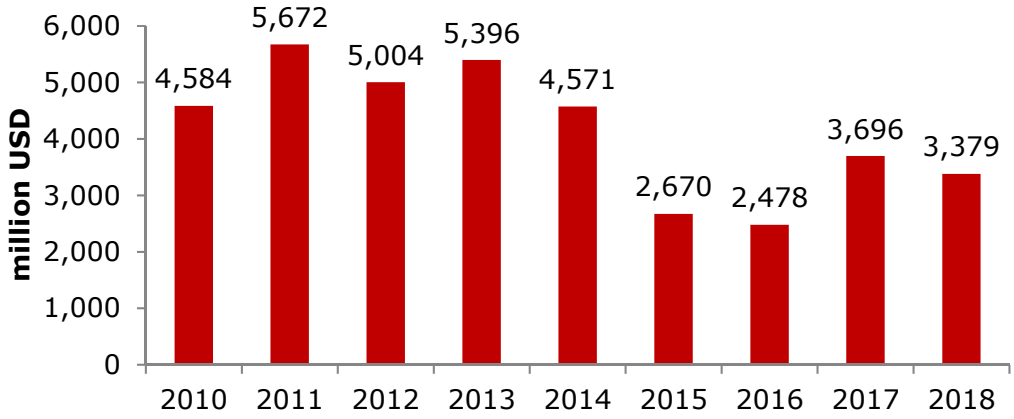
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Trade turnover	**18 364**	**23 074**	**20 407**	**21 115**	**17 612**	**10 139**	**10 087**	**13 122**	**14 118**
Export from Russia to Finland	12 147	15 654	13 524	13 973	11 448	6 636	6 795	9 265	10 377
Import to Russia from Finland	6 216	7 419	6 883	7 142	6 163	3 503	3 292	3 857	3 741
Balance	-5 931	-8 235	-6 641	-6 831	-5 285	-3 133	-3 503	-5 408	-6 643

Source: the Federal Customs Service of Russia



Source: the Federal Customs Service of Russia

Figure 2.1.1.1 – The dynamic of export from Russia to Finland, in million USD



Source: the Federal Customs Service of Russia

Figure 2.1.1.2 – The dynamic of import to Russia from Finland, in million USD

Table 2.1.1.3 presents the dynamic of goods exports from Russia to Finland, and Table 2.1.1.4 – the dynamic of goods imports from Finland to Russia over the period between 2010 and 2018, by main commodity group (with the amount of over 100 million USD).

Table 2.1.1.3 – Exports of goods from Russia to Finland in 2010 -2018, by major commodity group (with the amount of export over 100 million USD)

Customs commodity code (TN VED)	Commodity group	2010	2011	2012	2013	2014	2015	2016	2017	2018
27	Mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax	9348	9990	9300	10587	8786	5144	4242	5048	7146
28	Non-organic chemical products; inorganic compounds or organic compounds of precious metals, rear-earth metals, radioactive elements or isotopes	115	172	155	138	114	116	75	82	85
29	Organic chemical compounds	1076	1413	1254	1112	1047	671	547	648	945
40	Rubber resin, rubber and products	100	104	105	114	109	89	93	79	82
44	Wood and manufactured wood products; charcoal	520	519	460	569	556	415	409	453	536
72	Ferrous metal	108	151	125	57	50	55	57	69	92
73	Manufactured ferrous metal goods	180	191	25	30	15	18	229	812	625
75	Nickel and manufactured goods	111	65	0	1	21	12	265	626	795

Source: the Federal Customs Service of Russia

Table 2.1.1.4 – Imports to Russia from Finland in 2010 -2018, by major commodity group (with the amount of export over 100 million USD)

Customs commodity code (TN VED)	Commodity group	2010	2011	2012	2013	2014	2015	2016	2017	2018
04	Dairy products; eggs; natural honey; foods of animal origin not mentioned or included elsewhere	254	288	293	318	214	1	0	1	1.6
27	Mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax	239	288	326	316	272	151	131	169	196
32	Tanning or dye extracts; tannings and derivatives; coloring agents, pigments and other dyestaff; paint and varnish; sealers and other mastics; printing ink, drawing ink, ink	199	197	163	150	139	85	74	61	61
34	Soap, surfactant organic substances, detergents, lubricants, artificial and finished wax, cleaning or polishing compounds, candles and similar products, modeling paste, plasticine, "dentist's wax" and gypsum-based compounds used in dental care	149	169	176	179	150	76	73	75	73
39	Plastic materials and products	325	375	343	383	343	227	207	263	242
48	Paper and cardboard; products made of pulp, paper or cardboard	574	621	656	674	597	407	412	427	475
72	Ferrous metal	101	181	152	156	112	64	58	77	63
73	Manufactured ferrous metal goods	374	365	119	111	85	69	46	53	75
84	Nuclear reactors, boilers, equipment and mechanical devices; parts thereof	776	968	884	895	723	376	441	632	744
85	Electrical machines and equipment and parts thereof; audio recorders and audio players, equipment for recording and replaying of video and sound from TV, their parts and accessories	463	624	316	352	560	312	280	356	297
87	Land-based transport vehicles, except trains or trams, their parts and accessories	103	189	215	180	196	104	114	256	290
89	Vessels, boats and floating structures	110	126	22	293	99	165	17	660	168

Source: the Federal Customs Service of Russia

In 2018, goods exports from Russia to Finland declined vs. 2010 in monetary terms for most of the main commodity groups, with the exception of: "Wood and wood products; charcoal", "Manufactured ferrous metal goods", "Nickel and manufactured nickel goods".

In 2018, goods imports from Finland to Russia also declined vs. 2010 in monetary terms for most of the main commodity groups, with the exception of: "Land-based

transport vehicles, except trains or trams, their parts and accessories" (the import increased 2.8 times in current values), "Vessels, boats and floating structures" (the import increased 1.5 times in current values).

The greatest decline in imports from Finland to Russia between 2014 and 2018 was registered in the commodity group "Dairy products; eggs; natural honey; foods of animal origin" (Table 2.1.1.4).

The following types of goods were leading the Russian exports to Finland in 2018:

- mineral products (Customs Commodity Code (TN VED) 25-27) - 63.8% of all exports from Russia to Finland (in 2017 – 59.8%);
- metals and metal products (Customs Commodity Code (TN VED) 72-83) – 14.1% of all exports from Russia to Finland (in 2017 – 18.2%);
- chemical products (Customs Commodity Code (TN VED) 28-40) – 13.4% of all exports from Russia to Finland (in 2017 – 12.5%);
- wood and pulp-and-paper products (Customs Commodity Code (TN VED) 44-49) – 5.1% of all exports from Russia to Finland (in 2017 – 5.6%);
- machines, equipment and transport vehicles (Customs Commodity Code (TN VED) 84-90) – 2.0% of all exports from Russia to Finland (in 2017 – 2.4%).
- The growth in exports from Russia to Finland in 2018 vs. 2017 was mostly in the following commodity groups:
- mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax (Customs Commodity Code – 27);
- organic chemical compounds (Customs Commodity Code – 29);
- nickel and manufactured nickel goods (Customs Commodity Code – 75);
- fertilizers (Customs Commodity Code – 31);
- wood and manufactured wood products; charcoal (Customs Commodity Code – 44);
- vessels, boats and floating structures.

The following types of goods were the leaders in imports from Finland to Russia in 2018:

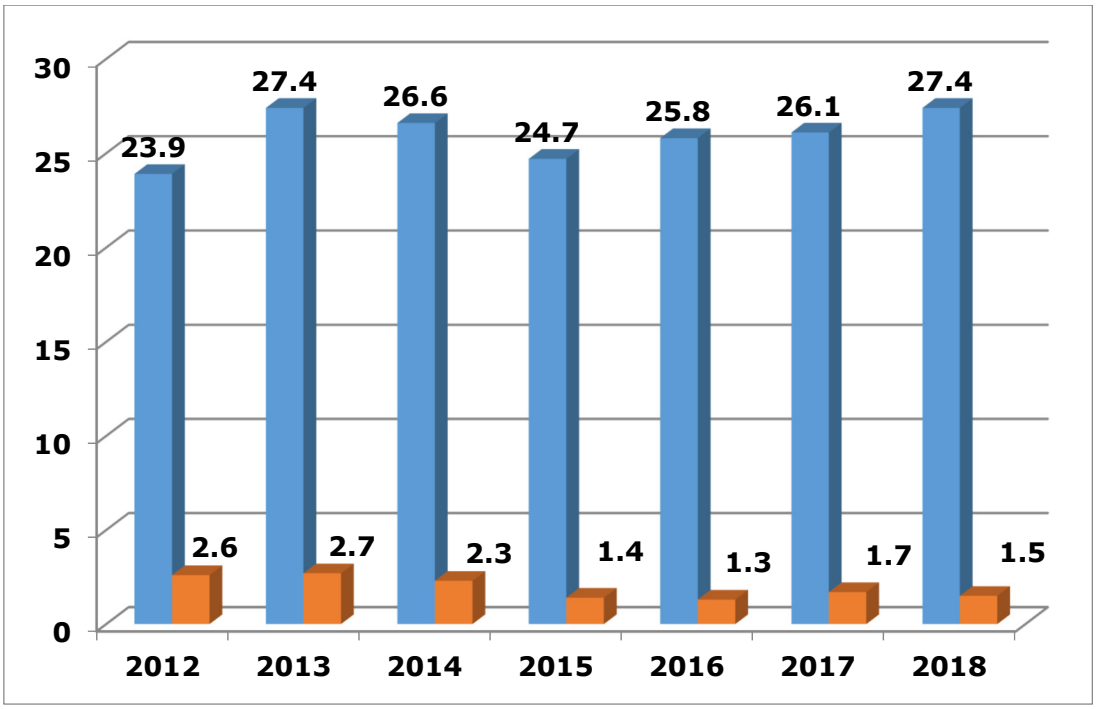
- machines, equipment and transport vehicles (Customs Commodity Code (TN VED) 84-90) – 46.4% of all imports to Russia from Finland (in 2017 – 53.0%);
- chemical products (Customs Commodity Code (TN VED) 28-40) – 18.9% of all imports to Russia from Finland (in 2017 – 17.2%);

- wood and pulp-and-paper products (Customs Commodity Code (TN VED) 44-49) – 15.1% of all imports to Russia from Finland (in 2017 – 12.7%);
- metals and metal products (Customs Commodity Code (TN VED) 72-83) – 6.5% of all imports to Russia from Finland (in 2017 – 5.7%);
- mineral products (Customs Commodity Code (TN VED) 25-27) – 6.0% of all imports to Russia from Finland (in 2017 – 4.8%);
- food products and agricultural raw materials (Customs Commodity Code (TN VED) 01-24) – 3.3% of all imports to Russia from Finland (in 2017 – 3.3%).

The growth in imports to Russia from Finland in 2018 vs. 2017 was mostly in the following commodity groups:

- nuclear reactors, boilers, equipment and mechanical devices; parts thereof (Customs Commodity Code (TN VED) 84);
- paper and cardboard; products made of pulp, paper or cardboard (Customs Commodity Code (TN VED) 48);
- land-based transport vehicles, except trains or trams, their parts and accessories (Customs Commodity Code (TN VED) 87).

The economic recession which started in 2014 led to a decline in the trade between Russia and Finland resulting in lower cargo traffic on roads and railways 2014-2017 vs. 2013 (Figure 2.1.1.3). In 2018, export cargo traffic from Russia to Finland reached its 2013 level and amounted to 27.4 million tons, while import traffic from Finland to Russia went down to 1.5 million tons (– 50% vs. 2013).



Source: the Federal Customs Service of Russia

- traffic of export goods from Russia to Finland
- traffic of import goods from Finland to Russia

Figure 2.1.1.3 - Dynamic of export and import cargo flows between Russia and Finland in 2010-2018, in million tons

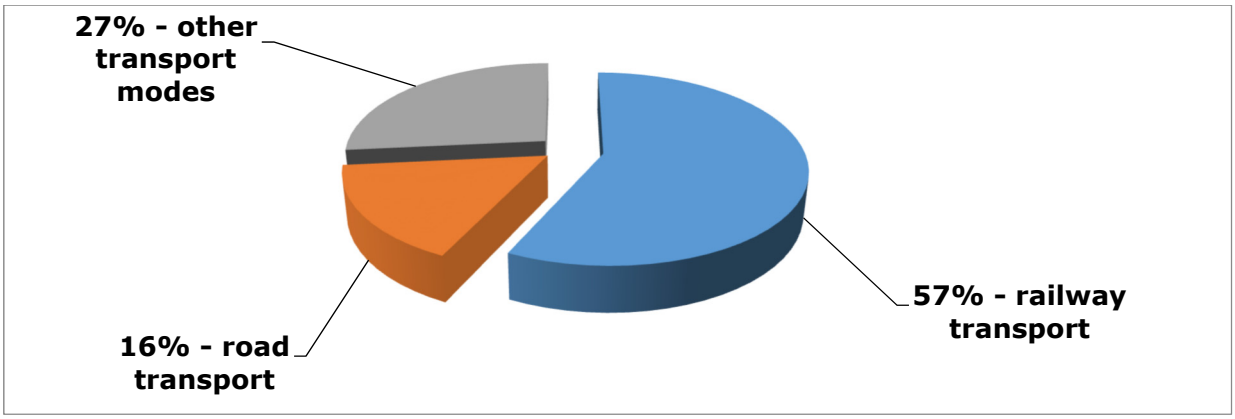
Between 2015 and 2018, export cargo flows from Russia to Finland were 17 to 20 times greater than import cargo traffic from Finland to Russia.

Railway transport is used to transport about 57% of cargo between Russia and Finland, with 16% of the cargo traffic going by road and 27% - by other transport modes (Figure 2.1.1.4).

Railway transport is used to transport 59.4% of export cargo from Russia to Finland, with 12.3% of the export cargo traffic going by road and 28.4% - by other transport modes (Figure 2.1.1.5).

Trucks are used to transport over 76% of import cargo from Finland to Russia, with 18% of the import cargo transported by train and 6% - by other transport modes (Figure 2.1.1.6).

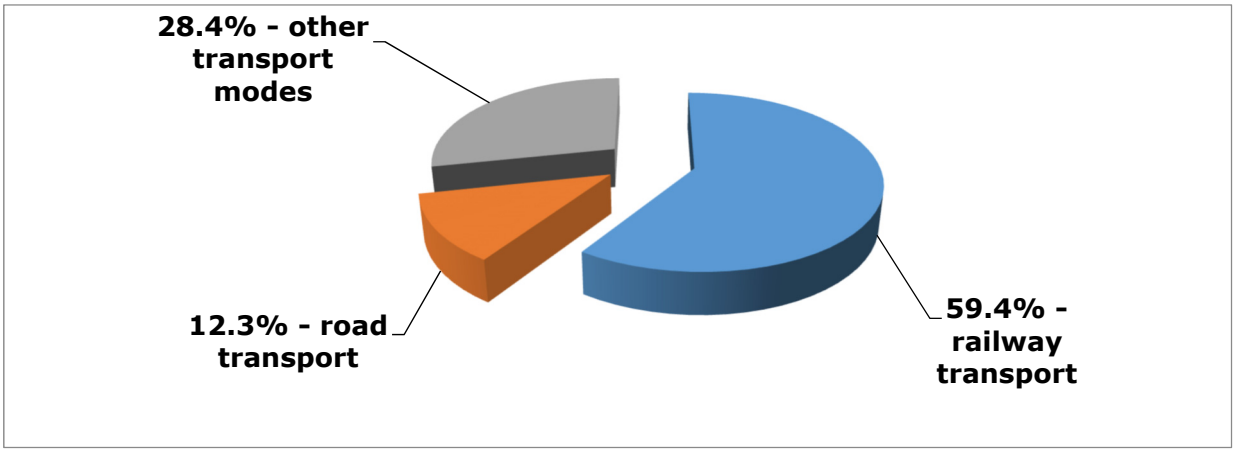
Total – 27.8 million tons in 2017



Source: the Federal Customs Service of Russia

Figure 2.1.1.4 - Modal split (all transport modes) in cargo traffic between Russia and Finland in 2017, %

Total – 26.1 million tons in 2017



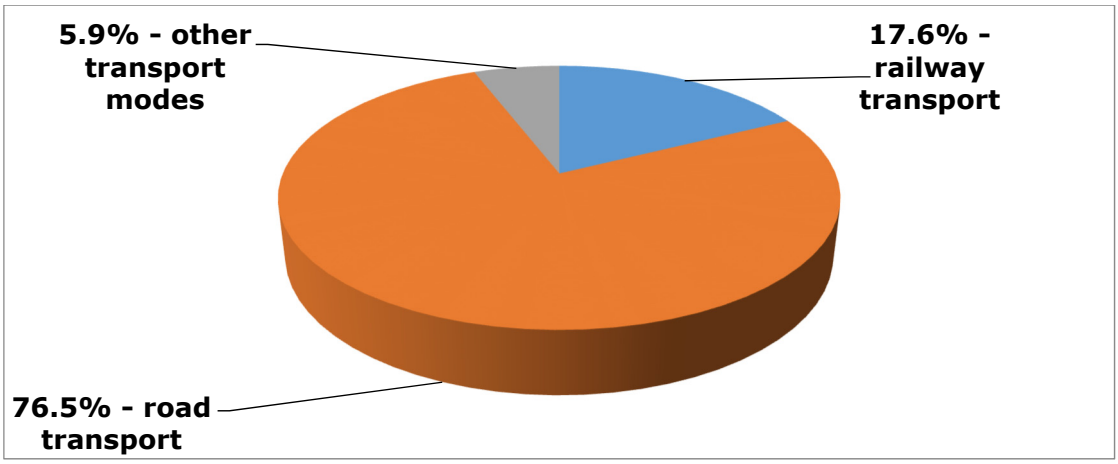
Source: the Federal Customs Service of Russia

Figure 2.1.1.5 - Modal split (all transport modes) in export cargo traffic from Russia to Finland in 2017, %

In 2017, the foreign trade cargo traffic via the Russia – Finland railway border-crossing points amounted to 15.8 million tons (+1.1 million tons (7.4%) on 2016), including:

- export – 15.5 million tons (+ 1.3 million tons or 9.1%);
- import – 293.7 million tons (– 7.7 million tons or 2.5%);

Total – 1.7 million tons in 2017



Source: the Federal Customs Service of Russia

Figure 2.1.1.6 - Modal split (all transport modes) of import cargo traffic from Finland to Russia in 2017, %

The most important types of cargo exported to Finland by train were: ore – 5.7 million tons, timber – 3.4 million tons, chemicals – 1.9 million tons, oil cargo – 1.6 million tons, fertilizers – 1.7 million tons, ferrous metal – 0.8 tons.

The distribution of export goods transported by railway transport from Russia for Finland via railway border-crossing points in 2017 is presented in Table 2.1.1.5.

The largest export cargo flows from Russia to Finland move through the railway border-crossing points "Buslovskaya / Vainikkala" – 46%, "Lyttä / Vartius" – 35%, and "Svetogorsk / Imatra" – 16%.

The largest exporters sending their cargo from Russia to Finland by train are as follows, OOO TTK, AO Karelskiy Okatysh, AO SUEK-Kuzbass, OOO GAZPROMTRANS, PAO METAFRAX, KAO Azot, OOO Stora Enso Forest West, AO UK KUZBASSRAZREZUGOL, AO SIBUR-TRANS, OOO Tatneft-Trans, AO Kola GMK, OOO LesTrade, PAO Babaevsky LPH, OOO KINEF, etc.

Table 2.1.1.5 - The distribution of export goods transported by railway transport from Russia for Finland via railway border-crossing points in 2017

	Traffic of export goods in 2017, in million tons	Share in the total traffic of export goods in 2017, %
Traffic of export goods on railways from Russia to Finland, total, including via RwBCPs:	**15.5**	**100**
Buslovskaya – Vainikkala	7.1	45.8
Värtsilä – Niirala	0.6	3.9
Svetogorsk – Imatra	2.4	15.5
Lyttä – Vartius	5.4	34.8

Source: the Federal Customs Service of Russia

Export traffic of coal to Finland is growing in 2019 (the coal traffic to Finland was 200 000 tons in 2017 and about 700 000 tons in 2018, the demand in 2019 being 2.5 million tons).

AO PGK (a major railway freight operator in Russia) is planning to carry much more export cargo to Finland in 2019. The company mostly transports nickel matte, cement and ferrous metals.

AO PGK will deliver nickel matte from Kola GMK (a mining company, a subsidiary of Nornickel) from Monchegorsk by train through the BCP "Buslovskaya – Vainikkala" to Norilsk Nickel Harjavalta Oy located in Harjavalta, Finland. Flat Racks with containers for bulk cargo will be used in those transport operations. AO PGK is planning to deliver about 140 000 tons of nickel matte to Finland in 2019.

Import cargo from Finland mostly comes to Russia through the RwBCP "Buslovskaya – Vainikkala".

About a half of all cargo traffic between Russia and Finland goes through border-crossing points of Leningrad Region. Table 2.1.1.6 shows the numbers for cargo traffic between Russia and Finland via RdBCPs and RwBCPs of Leningrad Region in 2017 and 2018.

Table 2.1.1.6 – The dynamic of cargo traffic between Russia and Finland via RdBCPs and RwBCPs of Leningrad Region in 2017 and 2018, in tons

	2017, tons	2018, tons	2018 vs. 2017, %
Road border-crossing points			
Torfyanovka road RdBCP	1 635 685.0	1 763 641.0	107.8
RdBCP "Brusnich-noye"	998 064.9	1 382 029.0	138.5
RdBCP "Sveto-gorsk"	943 202.0	886 278.0	94.0
Total	3 576 951.9	4 031 948.0	112.7
Railway border-crossing points			
RwBCP "Buslovskaya"	7 233 573.0	8 023 449.0	110.9
RwBCP "Sveto-gorsk"	2 351 361.0	2 461 692.0	104.7
Total	9 584 934.0	10 485 141.0	109.4
TOTAL for road and railway BCPs	13 161 885.9	14 517 089.0	110.3

Source: the Federal Customs Service of Russia

The growth in international trade led to increased cargo traffic between Russia and Finland through border-crossing points of Leningrad Region: The total cargo traffic increased from 13.2 to 14.5 million tons (+10.3%) over 2017-2018:

- cargo traffic through road border-crossing points increased from 3.6 million in 2017 to 4.0 million tons in 2018 (+12.7%);
- cargo traffic through railway border-crossing points increased from 9.6 million in 2017 to 10.5 million tons in 2018 (+9.4%).
- The road border-crossing points "Torfyanovka", "Brusnichnoye" and "Svetogorsk" are used to:
- export wood and wooden products, ferrous metal, rubber resin, rubber and products, and glass and glass products from Russia to Finland;
- import paper and cardboard, polyethylenes, oil products, and lime from Finland to Russia.

The railway border-crossing point "Buslovskaya" is used to:

- export chemical fertilizers, oil, wood, coal, ferrous metal, ore, grain, and bitumen from Russia to Finland;
- import paper and cardboard, oil products, and machines and equipment from Finland to Russia.

Container traffic between Finland and China via Russia has been growing over the last years.

The first container train of the Finnish logistics operator *Nurminen Logistics* of Kouvola where the largest container terminal in Finland is under construction started for China in November 2017.

At present, there is regular container train traffic between Finland and China. The container trains carry up to fifty 40-foot containers, going from Kouvola (Finland) through Russia and Kazakhstan to Xi'an (Central China). The route is about 8 000 km long (Figure 2.1.1.7). The delivery takes less than two weeks. The customs clearance between Finland and Russia takes the longest.

The containers are only transferred to another train once – at the border between China and Kazakhstan (at the dry port SEZ KORGHOS EASTERN GATES, at the border station Altynkol), the track gauge in Finland, Russia and Kazakhstan being the same.

The containers are used to export saw timber and pulp from Finland and equipment and consumer goods from China. Export of Finnish saw timber to China has been growing in recent years.

The potential for cargo traffic on the route *Kouvola – Xi'an* is forecast at 1 million tons a year. There is a plan to have a weekly container train on the route.

Figure 2.1.1.7 - Railway route *Kouvola (Finland) – Xi'an (China)* for container trains

In 2018, a new regular container route started operating between Helsinki (Finland) and Hefei (China) via Russia and Kazakhstan. The traffic on the new route is expected to be up to eight container trains a month.

The Government of Finland hope that North European companies will use the Kouvola – China route in the future to deliver their goods in containers to Asia.

Main conclusions

Analysis has revealed that after a certain decline in 2017 and 2018, there has been growth in cargo traffic between Russia and Finland on roads and railways. The total cargo traffic between Russia and Finland in 2018 reached 27.8 million tons. Railway transport is used to carry about 57% of cargo between Russia and Finland, with 16% of the cargo traffic going by road and 27% by other transport modes. Export cargo flows from Russia to Finland were 17 to 20 times greater than import cargo traffic from Finland to Russia in the last three years.

Railway transport is used to transport 59.4% of export cargo from Russia to Finland, with 12.3% of the export cargo traffic going by road and 28.4% by other transport modes.

Trucks are used to transport over 76% of import cargo from Finland to Russia, with 18% of the import cargo transported by train and 6% by other transport modes.

About a half of all cargo traffic between Russia and Finland goes through border-crossing points of Leningrad Region.

Overall, cargo flows between Russia and Finland via RdBCPs and RwBCPs in Leningrad Region increased from 13.2 to 14.5 million tons (+10.3%) over 2017-2018:

- cargo traffic through road border-crossing points increased from 3.6 million in 2017 to 4.0 million tons in 2018 (+12.7%);
- cargo traffic through railway border-crossing points increased from 9.6 million in 2017 to 10.5 million tons in 2018 (+9.4%).

The largest amount of international cargo in 2018 went through the RwBCP "Buslovskaya" – 8.0 million tons (55% of the total cargo traffic through RdBCPs and RwBCPs in Leningrad Region), and the RwBCP "Svetogorsk" – 2.5 million tons (17%). The total cargo traffic at the three RdBCPs in 2018 was 4.0 million tons (28% of the total cargo traffic through RwBCPs and RdBCPs in Leningrad Region).

The growth in trade between Russia and Finland and railway container traffic between Finland and China through Russia increases the workload on railway border-crossing points at the border between Russia and Finland. That calls for optimal redistribution of cargo flows between border-crossing point to balance the workload on the BCPs, and to transfer some cargo flows from roads to railways in order to relieve the road congestion and improve traffic safety and the environment.

2.1.2 Passenger transport

Most of the demand for cross-border travel between Russia and Finland is generated by the population residing in Saint Petersburg, Leningrad Region and the border areas of Finland including Southern Savonia, South Karelia and Kymenlaakso.

The combined population of Saint Petersburg, Leningrad Region and the border areas of Finland was 7632.8 thousand people in 2018, including:

- Saint Petersburg – 5351.9 thousand people (70% of the total);
- Leningrad Region Petersburg – 1813.8 thousand people (24% of the total);
- the border areas of Finland – 467.1 thousand people (6% of the total).

The geographical distribution of the population in the study area is shown in Figure 2.1.2.1.

Figure 2.1.2.2 shows that zone in the study area where most of the demand for cross-border travel between Russia and Finland originates.

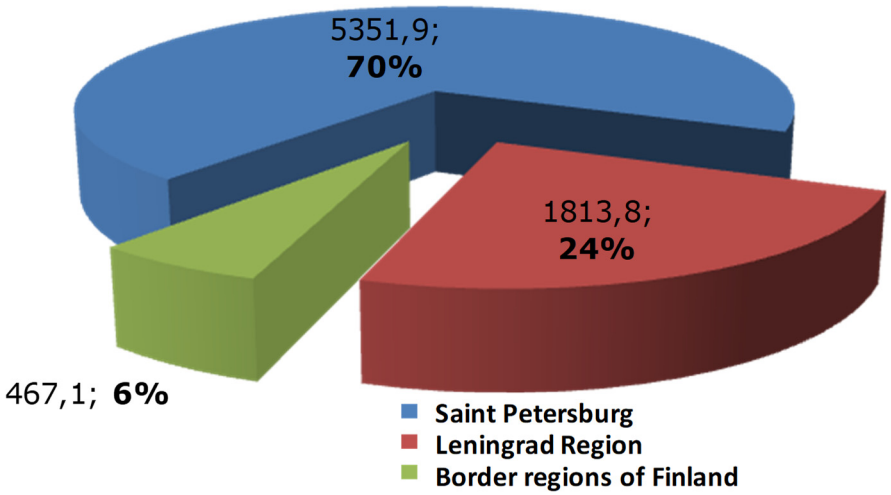


Figure 2.1.2.1 – Population of the study area (Saint Petersburg, Leningrad Region, the border areas of Finland – Southern Savonia, South Karelia, Kymenlaakso), in thous. people / %

Figure 2.1.2.2 – The zone in the study area where most of the demand for cross-border travel between Russia and Finland originates

All transport modes – railways, roads, air lines and water routes – are involved in international transport between Russia and Finland.

The total passenger traffic by land-based transport modes between Russia and Finland in 2017 was 8849.8 thous. pax, including:

- road transport – 8237.9 thous. pax (93%);
- railway transport – 611.9 thous. pax (7%).

About 82% of the total passenger traffic by land-based transport modes between Russia and Finland goes through border-crossing points of Leningrad Region. Table 2.1.2.1 shows the amount of international passenger traffic between Russia and Finland via road and railway BCPs of Leningrad Region in 2017 and 2018.

Table 2.1.2.1 – The dynamic of international passenger traffic between Russia and Finland via road and railway BCPs of Leningrad Region in 2017 and 2018, in thous. pax.

	2017, thous. pax	2018, thous. pax	2018 vs. 2017, %
Road border-crossing points			
RdBCP "Torfyanovka"	2469.7	2403.6	97.3
RdBCP "Brusnichnoye"	2677.0	2719.6	101.6
RdBCP "Svetogorsk"	1558.5	1543.0	99.0
Total	6705.2	6666.2	99.4
Railway border-crossing point			
RwBCP "Buslovskaya"	547.7	551.3	100.7
TOTAL for road and railway BCPs	7252.9	7217.5	99.5

Source: the Border Service of the FSB of Russia

In 2018, 6666.2 thousand (92.4%) out of 7217.5 thousand trips between Russia and Finland through road and railway BCPs located in Leningrad Region were made by road and only 551.3 thousand trips (7.6%) - by train.

The busiest road border-crossing points are *Brusnichnoye* with 2719.6 thous. trips in 2018 (41% of the total) and *Torfyanovka* with 2403.6 thous. trips (36%). The traffic through RdBCP "Svetogorsk" in 2018 was 1543 thous. trips (23% of the total).

Figure 2.1.2.3 shows the main passenger travel routes between Saint Petersburg, Leningrad Region and South-East Finland, with various transport modes involved.

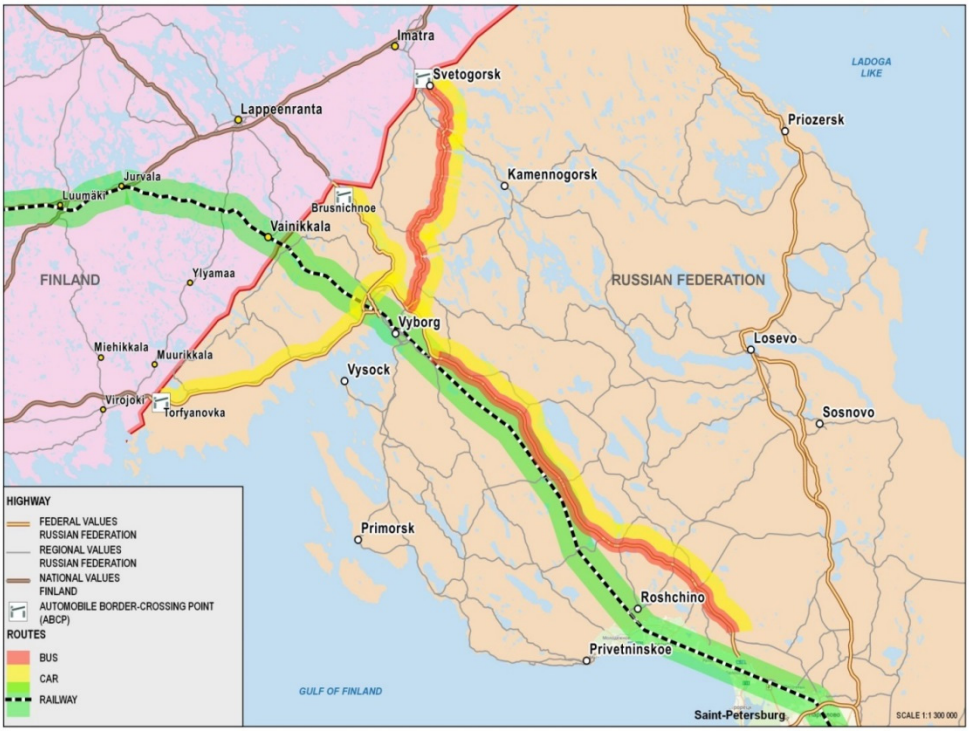


Figure 2.1.2.3 – Main passenger travel routes between Saint Petersburg, Leningrad Region and South-East Finland, with various transport modes involved

The passenger traffic between Russia and Finland is mostly trips made by Russian and Finnish citizens (in addition, there is travel by citizens of other countries who visit Russia or Finland with various purposes or travel through Russia and/or Finland).

Figure 2.1.2.4 shows the dynamic of Russian citizens visiting Finland between 2011 and 2018, including the travel purposes and the transport modes.

According to the Border Service of the FSB of Russia, the number of Russian citizens who visited Finland peaked in 2013 when it totaled 4986.5 thousand people. Between 2014 and 2016, the number of Russians' visits to Finland declined 26% due to worsening economic situation and depreciation of the Ruble in relation to Euro. However, the number of visits to Finland by Russian citizens has been growing since 2017. In 2018, this indicator reached 3335.0 thousand people, with 92.7% of the visitors traveling for private purposes, 6.9% – as tourists, and 0.4% – on business.

Figure 2.1.2.5 shows the dynamic of visits to Russia by Finnish citizens between 2011-2018, with the travel purposes and the transport modes.

According to the Border Service of the FSB of Russia, the number of Finnish citizens who visited Russia peaked in 2015 when it totaled 1416.0 thousand people. The number

of such visits then declined between 2016 and 2018 when it was 950.1 thousand people (– 33% vs. 2015). In 2018, 58.4% of all Finnish visitors to Russia went there on business, while 35.2% traveled with private purposes and 6.4% came as tourists.

The analysis of the dynamic of the number of Russians visiting Finland and Finnish citizens visiting Russia has revealed that in 2018:

- the total number of Russian and Finnish citizens who traveled between Finland and Russia was 4285 thousand people;
- most (88%) Russian and Finnish citizens travel between the two countries by road, while 6% take a train, 4% fly and 2% use ferries.

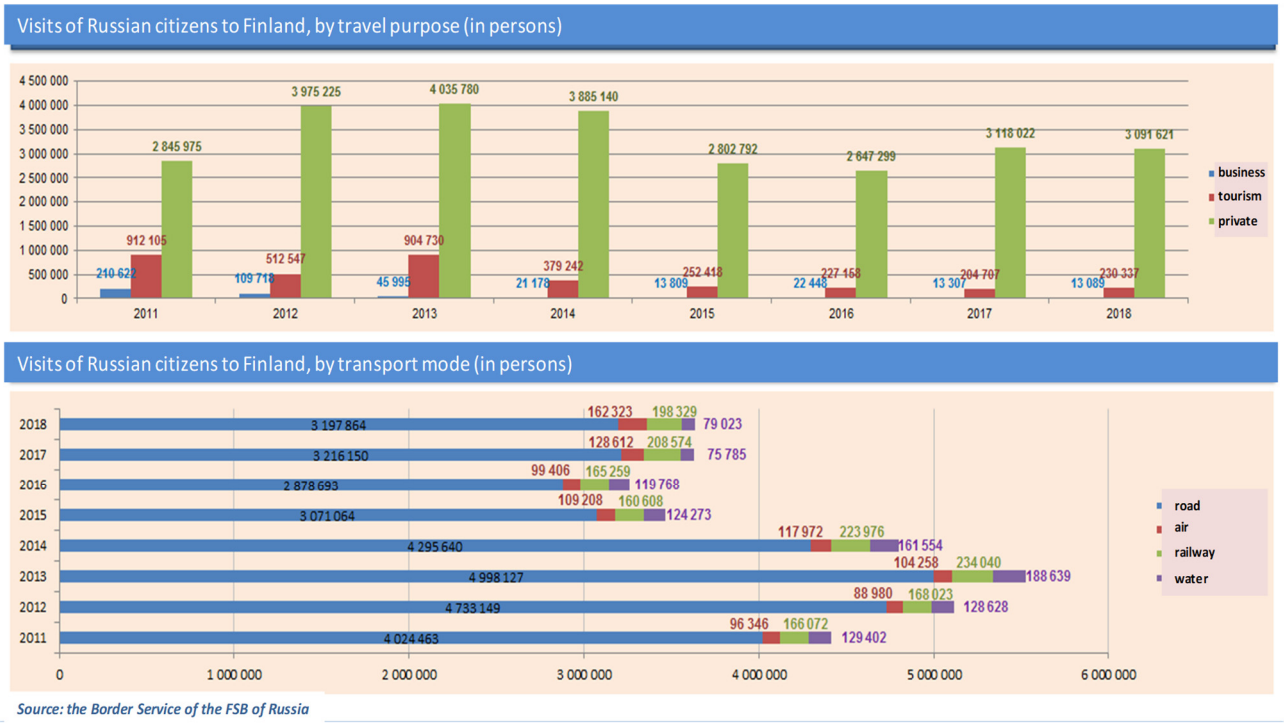
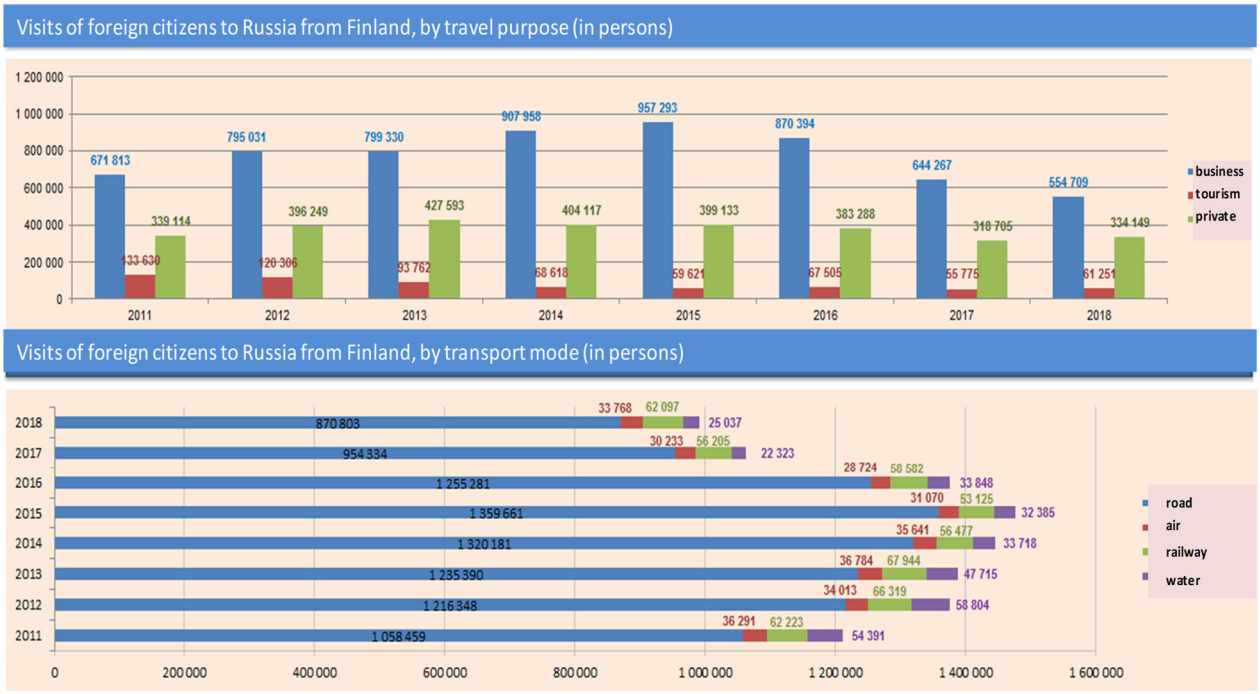


Figure 2.1.2.4 – The dynamic of the number of Russian citizens visiting Finland, with a breakdown by travel purpose and transport mode



Source: the Border Service of the FSB of Russia

Figure 2.1.2.5 – The dynamic of the number of Finnish citizens visiting Russia, with a breakdown by travel purpose and transport mode

At present, the passenger traffic between Russia and Finland by road through RdBCPs in Leningrad Region is 12 times the traffic by train (6666.2 thous. pax and 551.3 thous. pax respectively in 2018).

The popularity of road transport is due to the fact that:

- the cost of travel by train between Saint Petersburg and Helsinki per passenger is much higher when that of travel by road;
- there is no passenger train service from Saint Petersburg to Lappeenranta and Imatra (while 4262.6 thousand people traveled to those destinations by road in 2018).

Figure 2.1.2.6 shows the dynamic of the number of passenger cars that crossed the border between Russia and Finland at the multilateral road border-crossing points in Leningrad Region between 2016 and 2018.

In 2018, 2.8 million road vehicles (including 2.4 passenger cars) crossed the border in Leningrad Region, including:

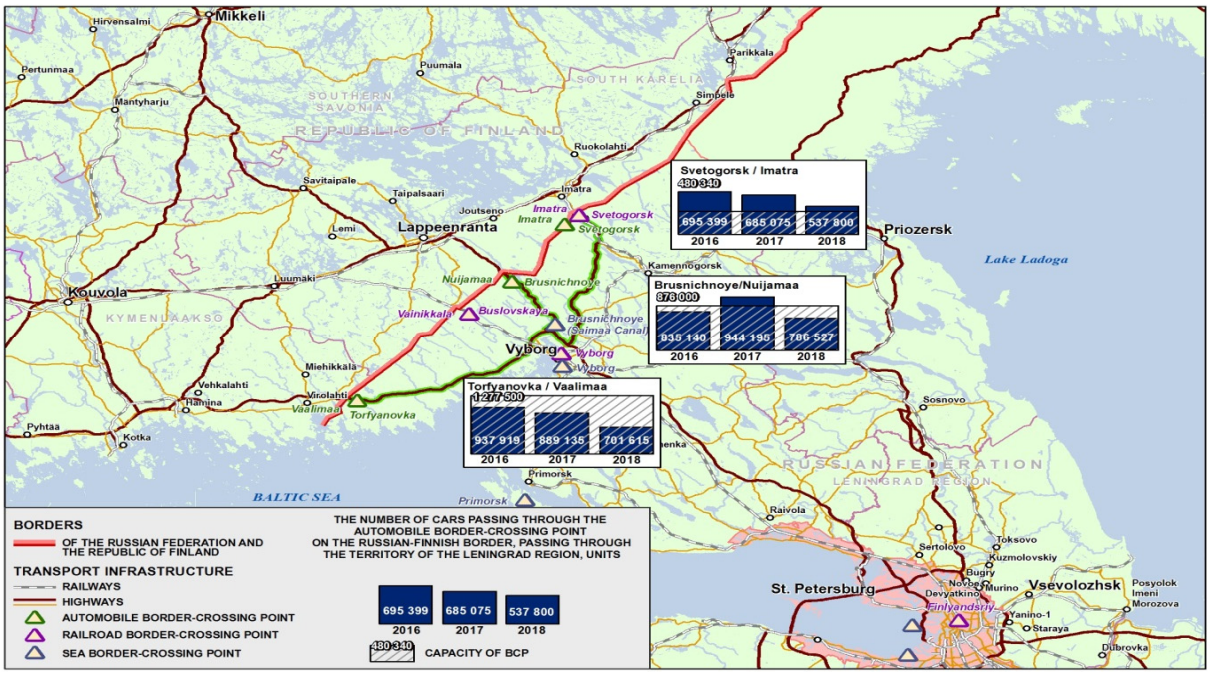
- vehicle traffic via RdBCP "Torfyanovka" – 1.0 million veh., including 0.8 million passenger cars;
- vehicle traffic via RdBCP "Brusnichnoye" – 1.1 million veh., including 0.9 million passenger cars;

- vehicle traffic via RdBCP "Svetogorsk" – 0.7 million veh., including 0.7 million passenger cars.

Figure 2.1.2.7 shows the dynamic of road vehicle traffic and passenger traffic between Russia and Finland at the multilateral road border-crossing points in Leningrad Region between 2016 and 2018.

In 2018, RdBCP "Brusnichnoye" had the highest vehicular and passenger traffic.

In 2018, the workload on the three RdBCPs in terms of the number of persons crossing the border exceeded the design capacities of the BCPs (Table 2.1.2.2).

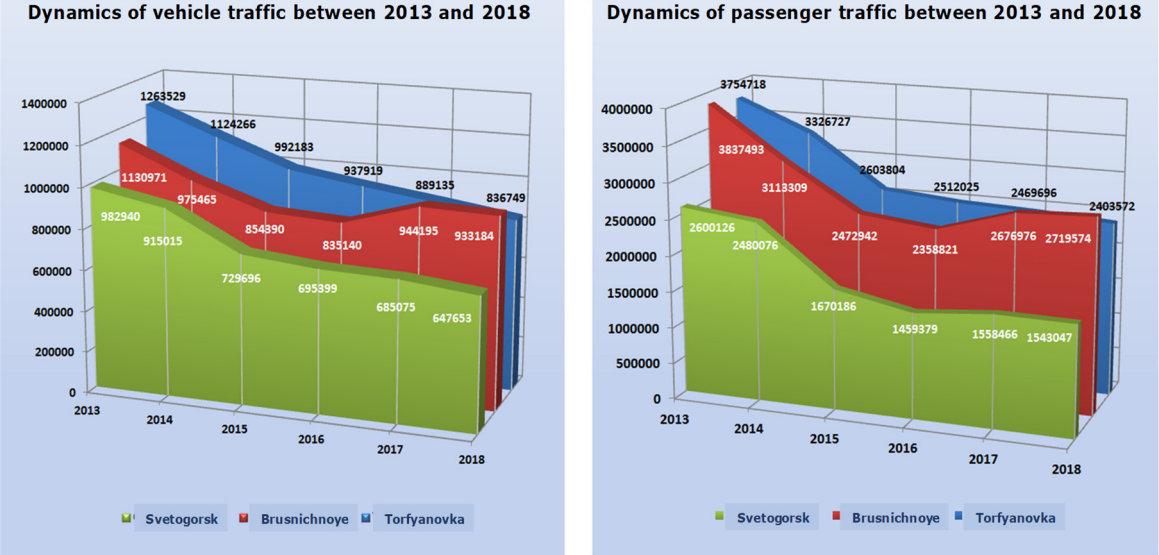


Source: the Border Service of the FSB of Russia

Figure 2.1.2.6 – The dynamic of the number of passenger cars that crossed the border between Russia and Finland at the multilateral road border-crossing points in Leningrad Region between 2016 and 2018.

The workload on RdBCP "Torfyanovka" and RdBCP "Brusnichnoye" in terms of persons who crossed the border there in 2018 was about 125%, while at RdBCP "Svetogorsk" it was 169%. The workload on RdBCP "Svetogorsk" and RdBCP "Brusnichnoye" in terms of vehicles that crossed the border there in 2018 was about 149% and 121% respectively.

The demand beyond the capacity of the border-crossing points in Leningrad Region increases the waiting times at the BCPs.



Source: the Border Service of the FSB of Russia

Figure 2.1.2.7 – The dynamic of vehicular and passenger traffic between Russia and Finland at the border-crossing points in Leningrad Region

On average, it takes 1 to 2 hours to go through the Russian and the Finnish BCPs by car on a weekday and 3 to 4 hours during weekends and holidays. The average border-crossing time for trucks going through the Russian and the Finnish BCPs is hours to days.

Table 2.1.2.2 – Workload on the multilateral road border-crossing points of Leningrad Region

Indicators	Traffic through the BCP in 2018, vehicles / persons	Design capacity of the BCP, vehicles per annum / persons per annum	Workload level, in %
Torfyanovka road RdBCP			
Traffic of road vehicles, in veh./year	1 018 404	1 277 500	79.7 %
Passenger traffic, pax/year	2 403 572	1 916 250	125.4 %
RdBCP "Brusnichnoye"			
Traffic of road vehicles, in veh./year	1 063 846	876 000	121.4 %
Passenger traffic, pax/year	2 719 574	2 190 000	124.2 %
RdBCP "Svetogorsk"			

Indicators	Traffic through the BCP in 2018, vehicles / persons	Design capacity of the BCP, vehicles per annum / persons per annum	Workload level, in %
Traffic of road vehicles, in veh./year	714,011	480,340	148.6 %
Passenger traffic, pax/year	1 543 047	912 500	169.1 %

Source: RF Ministry of Transport

In addition to private passenger cars, there are over 10 daily regular bus services from Saint Petersburg to Finland. Buses go from the central bus terminal in Saint Petersburg, the *Rossiya Hotel, the Pulkovskaya Hotel, the Moscow Hotel* and other locations to Helsinki, Lappeenranta, Kotka, Turku, Jyväskylä, Tampere, Joensuu, Kuopio, and Virolahti. Moreover, many transport companies provide minibus services, picking up passengers from their homes and taking them to various cities of Finland. The average occupancy of buses going to Finland is 70%. The main advantage of such bus services is that buses do not have to queue to cross the border.

The road traffic between Russia and Finland being significant, there is a lot of traffic on roads leading to the multilateral road border-crossing points of Leningrad Region.

The existing roads leading to the multilateral RdBCPs mostly have one lane in each direction (with the exception of the section of A-181 *Scandinavia* from the border of Saint Petersburg up to Ogonki (65 km), which has six lanes after reconstruction). The road accident rate is significant due to heavy traffic, exhausted capacity on a number of road sections and their poor condition.

Figures 2.1.2.8-2.1.2.10 show road accident "black spots" for the period between 2016 and 2018; Figure 2.1.2.11 shows the overall situation in the three years. The color red is used to mark the locations where road accidents resulted in deaths.

Table 2.1.2.3 shows the dynamic of road accidents on the roads that support international traffic between Russia and Finland between 2016 and 2018.

During that period, there were 383 road accidents on the roads *A-181 Scandinavia, Vyborg – Brusnichnoye, Vyborg – Svetogorsk*, and *Kamennogorsk – Lesogorsky*, with 85 people killed and 440 injured. The number of road accidents has

declined in recent years, but the severity of consequences has increased: the number of people killed in road accidents went up from 21 persons in 2016 to 33 in 2018, while the number of injured persons went up from 106 to 183 persons.

Figure 2.1.2.8 – Road accident "black spots" on the roads that support international traffic between Russia and Finland, in 2016.

Figure 2.1.2.9 – Road accident "black spots" on the roads that support international traffic between Russia and Finland, in 2017.

Figure 2.1.2.10 – Road accident "black spots" on the roads that support international traffic between Russia and Finland, in 2018.

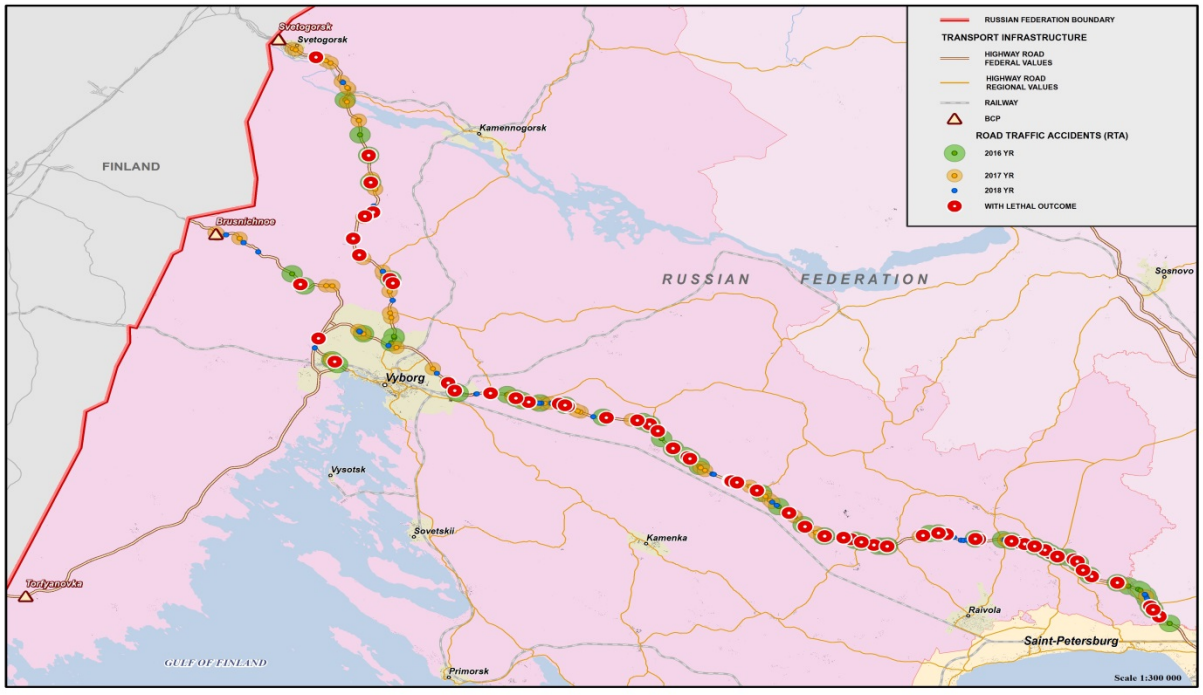


Figure 2.1.2.11 – Road accident "black spots" on the roads that support international traffic between Russia and Finland, between 2016 and 2018.

Table 2.1.2.3 – The dynamic of road accidents on the roads that support international traffic between Russia and Finland between 2016 and 2018.

Road	2016			2017			2018			Total for the period between 2016 and 2018		
	Number of road accidents	Persons killed	Persons injured	Number of road accidents	Persons killed	Persons injured	Number of road accidents	Persons killed	Persons injured	Number of road accidents	Persons killed	Persons injured
A-181 *Scandinavia*	166	19	82	64	25	95	92	25	162	322	69	339
Vyborg – Brusnichnoye	4	-	8	6	3	22	6	3	13	16	6	43
Vyborg – Svetogorsk	9	1	14	27	3	34	8	5	8	44	9	56
Kamennogorsk – Lesogorsky	1	1	2	-	-	-	-	-	-	1	1	2
Total	180	21	106	97	31	151	106	33	183	383	85	440

Source: GIBDD (State Traffic Safety Inspectorate) RF

Traveling between Finland and Russia by train is safer and more comfortable compared to traveling by road. At present, the trains operating between Russia and Finland are the high-speed *Allegro* trains (Saint Petersburg – Helsinki) and the standard *Lev Tolstoy* trains (Moscow – Helsinki), which go via the railway BCP "Buslovskaya" – "Vainikkala".

It takes 3.5 hours to travel from Saint Petersburg to Helsinki by an *Allegro* train.

The current process for railway passenger transport is as follows.

Allegro trains

1. *Allegro* trains start from the Finlyandskiy Railway Station. Tickets and passports are checked at the terminal of the railway station prior to boarding. The luggage is X-rayed at the terminal as well. After the inspection, passengers take their seats on the train.

2. The Russian Customs and the Border Service conduct their checks immediately after the departure between Saint Petersburg and Vyborg, the passengers having to stay in their seats.

3. Passengers boarding in Vyborg, are checked in the building of Vyborg railway station, prior to the boarding.

4. Passengers alighting at Vainikkala (Finland) are checked at the arrival hall of Vainikkala railway station.

5. The other passengers go through border control and customs procedures onboard with the train moving. The passengers wait for the checks in their seats.

6. Once checked, they are free to move around the train.

7. A passenger who is to leave the train at the next station but has not been through the border control procedure should introduce himself/herself to the border control officers himself/herself.

8. As an Allegro train leaves Helsinki, train attendants check tickets and process passports using portable scanners.

9. The border control and the customs inspection procedures in Finland are performed on a moving train between Helsinki and Vainikkala.

10. The border control and the customs inspection procedures in respect of passengers boarding at Vainikkala are performed at Vainikkala Station, at the desks for departing passengers. There are signs showing where the departure hall is.

11. Once the train has crossed the border, passengers should wait for the Russian border and customs control procedures in their seats. The border and customs control procedures are performed on *Allegro* trains immediately after the train leaves Vyborg.

Lev Tolstoy trains

1. Passengers board *Lev Tolstoy* trains at Ladozhsky Railway Station. The train attendants check tickets and passports on the train.

2. The border control and customs inspection are performed during the stop in Vyborg.

3. Passengers boarding in Vyborg are checked in the building of Vyborg railway station, prior to the boarding.

4. Passengers traveling from Finland and alighting in at Vyborg Station go through border control in the building of the Vyborg railway station. The onboard checks are conducted during the stop in Vyborg (passengers are not allowed to leave the train during the checks).

The appeal of the trains is growing due to:

- shorter travel times, better comfort level and safety on trains compared to cars and buses;

- border control and customs checks being performed onboard with the train moving, which saves hours of waiting at international border-crossing points;
- flexible pricing system, marketing initiatives, more trains during peak periods – holidays and weekends;
- currency exchange and tax free services provided on the train.

The route of *Allegro* and *Lev Tolstoy* trains is shown in Figure 2.1.2.12.

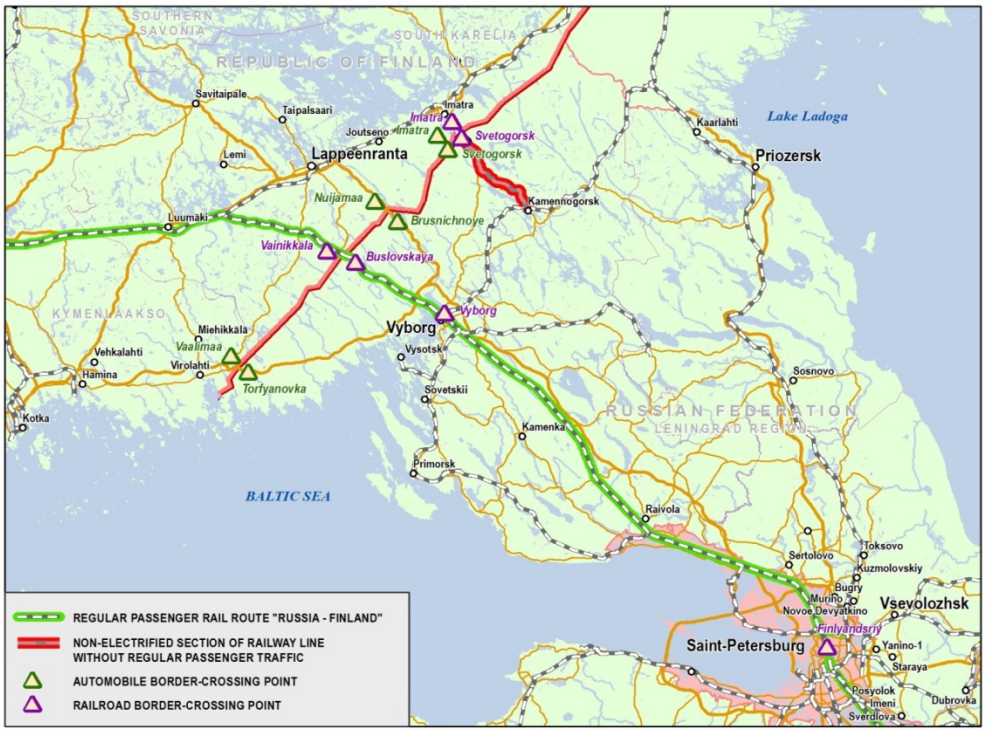


Figure 2.1.2.12 - The route of *Allegro* and *Lev Tolstoy* trains between Saint Petersburg and Helsinki

The passenger traffic on trains operating between Russia and Finland and going via the railway BCP "Buslovskaya" – "Vainikkala" in 2018 totaled 551.3 thousand people, including 481.8 thousand passengers of the *Allegro* trains and 69.5 thousand passengers of the *Lev Tolstoy* trains (Figure 2.1.2.13). The traffic between Russia and Finland makes up over 70% of the total passenger traffic of Russian Railways (RZD) between Russia and the farther abroad.

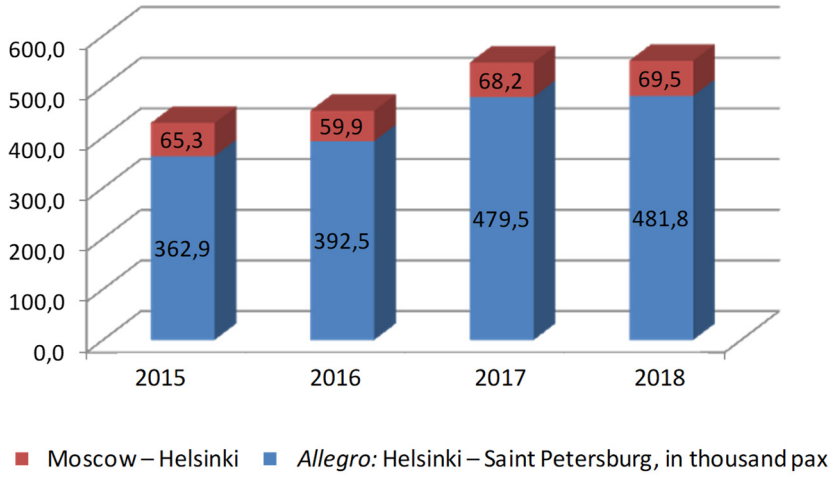


Figure 2.1.2.13 – The dynamic of passenger traffic by train between Russia and Finland through the RwBCP "Buslovskaya – "Vainikkala", in thous. pax

No passenger trains have been going via the railway BCP "Svetogorsk" since 1914 (save for one-time trips organized on particular initiatives an account of various events), though the BCP has all the railway infrastructure that is necessary. The 26 km railway section from Kamennogorsk to Svetogorsk is not electrified.

The fastest way to travel between Russia and Finland is by plane. There are daily flights from Pulkovo Airport to Helsinki Vantaa Airport which is 19 km away from downtown Helsinki. Travel time: ~ 1 hour. The air passenger traffic between Russia and Finland in 2018 was about 280 thous. pax, including a significant number of people who changed planes at Vantaa Airport to go to various European and Asian destinations. Flights from Finland to European and Asian countries being cheaper, the passenger traffic from Pulkovo Airport to Finland is growing 10% per annum on average.

Water transport between Russia and Finland is also popular. The current water transport services include:

- the *Princess Anastasia* ferry line operating on the route *Saint Petersburg – Helsinki – Stockholm – Tallinn – Saint Petersburg*. There are 2 to 3 ferry services a week. Operator: St. Peter Line. The traffic on the ferry is about 200 000 pax per annum;
- a cruise motor ship operating in summer, from Lappeenranta to Vyborg on the Saimaa Canal. Travel time: 6 hours 30 minutes. Operator: Saimaatravel.

The comparison of time and price parameters of various passenger services between Russia and Finland is provided in Table 2.1.2.4.

Table 2.1.2.4 – Time and price parameters of various passenger services between Russia and Finland

##	Transport modes	Travel times on the route Saint Petersburg – Helsinki	Fare (single ticket), in rubles
1	Air transport	50 minutes + 2 hours for passport control, customs inspection and other procedures at the airport	6 500 to 12 500 rubles per passenger
2	Railway transport	3 hours 27 minutes.	2 500 to 7 800 rubles per passenger
3	Bus	6 hours + 1 to 2 hours for passport control, customs inspection and other procedures at the border-crossing point	700 to 1 500 rubles per passenger
4	Cars	6 hours + 1.5 to 2.5 hours on weekdays and 3 to 4 hours on weekends and holidays for passport control, customs inspection and other procedures at the border-crossing point	4 000 to 6 000 rubles per vehicle
5	Water transport	13 hours + 1 to 2 hours for passport control, customs inspection and other procedures at the border-crossing point	14 400 to 58 600 rubles per passenger

The comparison of the time and price parameters of various passenger transport services available between Russia and Finland has revealed that trains are the most attractive option in terms of speed, comfort level and safety for passengers. Bus services are the most affordable. Flying is the fastest but it is expensive and involves significant waiting time at the airport which lowers its appeal. Ferries are mostly used for tourist trips.

Traveling by car takes significant time and is more expensive than traveling by bus, but can be quite cost-effective where several people travel in one car. Another advantage of car trips is the fact that one travels “from door to door”.

Since train services have a number of advantages over traveling by road, it can be assumed that there is potential demand for international train services, which could be met by introducing new train services to attractive destinations if border and customs control procedures are conducted on a moving train and the pricing policy is flexible.

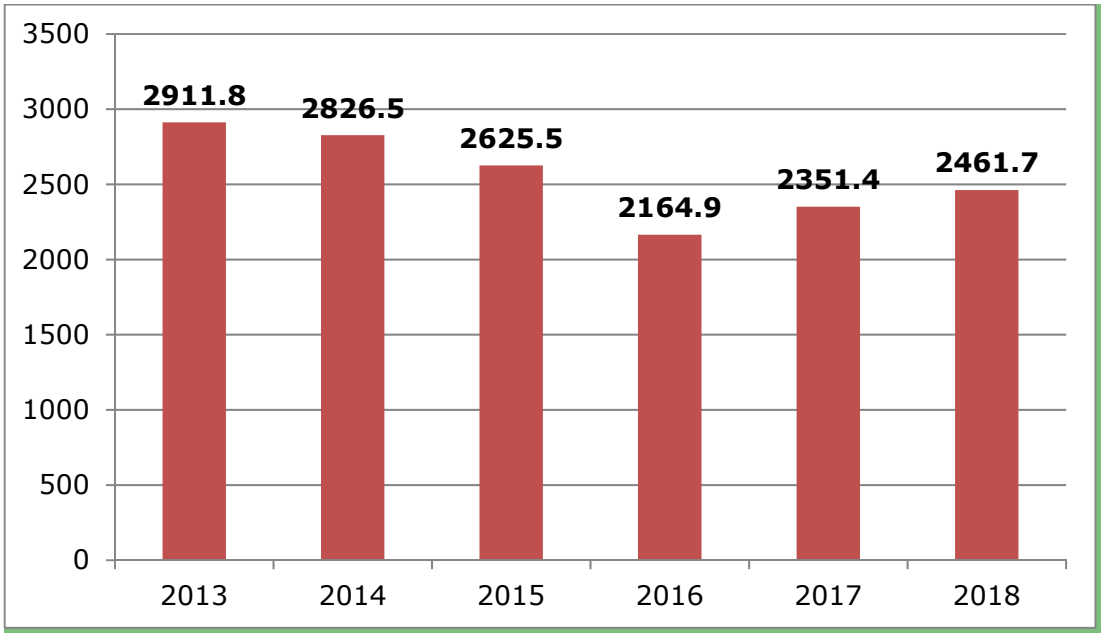
3 RAILWAY BORDER-CROSSING POINT "SVETOGORSK"

3.1. General description

3.1.1. Cargo traffic through the RwBCP "Svetogorsk"

The dynamic of cargo traffic through the railway BCP "Svetogorsk" has been analyzed using the database on railway traffic and foreign trade operations (customs declarations).

Between 2013 and 2018, the cargo traffic through RwBCP "Svetogorsk" declined from 2.9 million tons to 2.5 million tons (– 14%). The decline in the trade between Russia and Finland lowered the export cargo traffic through RwBCP "Svetogorsk" during the period between 2014 and 2016. However, in recent years the cargo traffic went up from 2.2 million tons in 2016 to 2.5 million tons in 2018 (+ 14%) (Figure 3.1.1.1).



Source: the Federal Customs Service of Russia

Figure 3.1.1.1 – The dynamic of export cargo traffic through the RwBCP "Svetogorsk" between 2013 and 2018, in thousand tons

The RwBCP "Svetogorsk" is only used for exports. The main types of export cargo are: wood (birch tree, whitewood, and pinewood), chips, bitumen and coal. No import cargo goes through RwBCP "Svetogorsk".

The customs declarations database provided the information needed to identify the major routes via Svetogorsk Station (Table 3.1.1.1), which involve reloading onto trucks. The exception is the route "Petrozavodsk – Tampere" where such reloading does not occur.

Table 3.1.1.1 – Major routes via RwBCP "Svetogorsk"

Departure station	Arrival station
Pskov	Imatra
Saint Petersburg	Imatra
Saint Petersburg	Espoo
Saint Petersburg	Varkaus
urb. settl. Dedovichi	Imatra
urb. settl. Dedovichi	Tampere
urb. settl. Dedovichi	Espoo
settl. Lesnoy (Tver Region)	Tampere
settl. Lesnoy (Tver Region)	Imatra
Neya	Imatra
Moscow	Imatra
Borisovichi (Pskov Region)	Imatra
Petrozavodsk	Tampere
Pryazha (Republic of Karelia)	Tampere
Kostroma Region Gulyaevka (Kostroma Region)	Tampere
Porkhov	Imatra

Source: the Federal Customs Service of Russia

It should be noted that a customs declaration shows the address of the consignor which may not be the same as the location the cargo was sent from.

The analysis of the database on cargo traffic by railway, which contains data on the origin stations but not on destination stations in Finland, identified the main departure stations for cargo going through RwBCP "Svetogorsk" (Table 3.1.1.2).

Table 3.1.1.2 – Major departure stations for cargo transported via RwBCP "Svetogorsk"

Departure station	Departure station	Departure station
Andreapol	Kotelnich 2	Pytalovo
Antsiferovo - Mologskoye	Ladva	Rybkino
Babaevo	Ledmozero	Svir
Bagulnaya	Lodeynoye Pole	Selizharovo
Bologoye - Polotskoye	Loyga	Slobodskoye
Borovenka	Lomovatka	Star. Toropa
Bui	Luga 1	Staraya Russa
Vaga	Lychkovo	Strugi Krasnyje
Velikiye Luki	Lyubim	Sudislavl
Velsk	Maksatikha	Suojarvi 2
Verkhnevolsk	Mal. Vishera	Sukhona
Vesyegonsk	Nebolchi	Tikhvin
Vichka	Nevel 2	Tokari
Vologda 2	Novgorod-on-Volkhov	Torbino
Vologda-pier	Novoselye	Toropets
Vokhtoga	Nyandoma	Uglovka
Vyshn. Volochek	Ogarevo	Utorgosh
Galich	Okulovka	Falenki
Gryazovets	Olenino	Firovo
Dedovichi	Olonets	Kharovskaya
Yedrovo	Orichi	Khvoinaya
Yelenski	Ostashkov	Chagoda
Yefimovskaya	Ostovskoye	Chudovo-Mosk.
Zapad. Dvina	Peninga	Shabalino
Idritsa	Pestovo	Sheksna
Kabozha	Pes'	Shuiskaya
Kadnikovsky	Petrozavodsk	Essoila
Kadui	Podporozhye	Yurya
Kalashnikovo	Polkovaya	Yavenga
Koli	Puksa	Yanichkino
Kostylevo	Pchevzha	

Source: RZD (Russian Railways)

According to the customs declarations database, the main exporters of goods using RwBCP "Svetogorsk" are as follows:

- OOO Kupechesky Dom;
- OOO Batalinsky LPK;
- OOO InterLesTrans;
- OOO NeyaTrade;

- OOO Sovex;
- OOO Ekologicheskiye Resursy;
- OOO Neva Forest Logistics;
- OOO Pinocchio;
- OOO TPG Capital;
- OOO SV Stroi;
- OOO Veles;
- OOO BPS Logistic;
- OOO LesCom;
- OOO Pragmatika;
- OOO TechnoLes;
- OOO Forest Line;
- OOO Sever-Trust;
- OOO Zevs.

Cargo exported to Finland via the RwBCP "Svetogorsk" originates from many regions of Russia located in the Central, North-West and Volga federal districts. The main points of origin for export cargo transported by railway through the RwBCP "Svetogorsk" are shown in Figure 3.1.1.2.

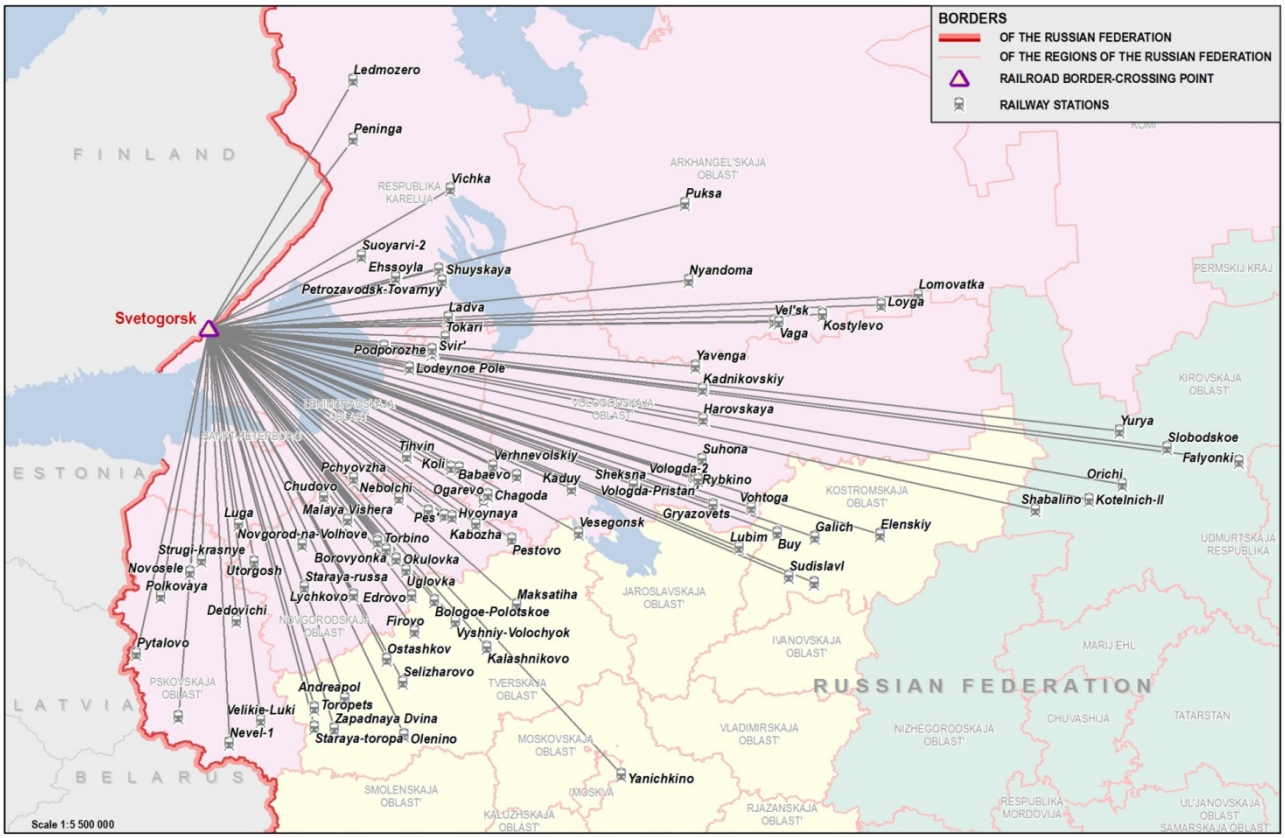


Figure 3.1.1.2 - The main points of origin for export cargo transported by railway through the RwBCP "Svetogorsk”

Figure 3.1.1.3 shows the locations in Russia from which goods are exported to Finland by railway via the RwBCP “Svetogorsk”, and the corresponding destinations in Finland.

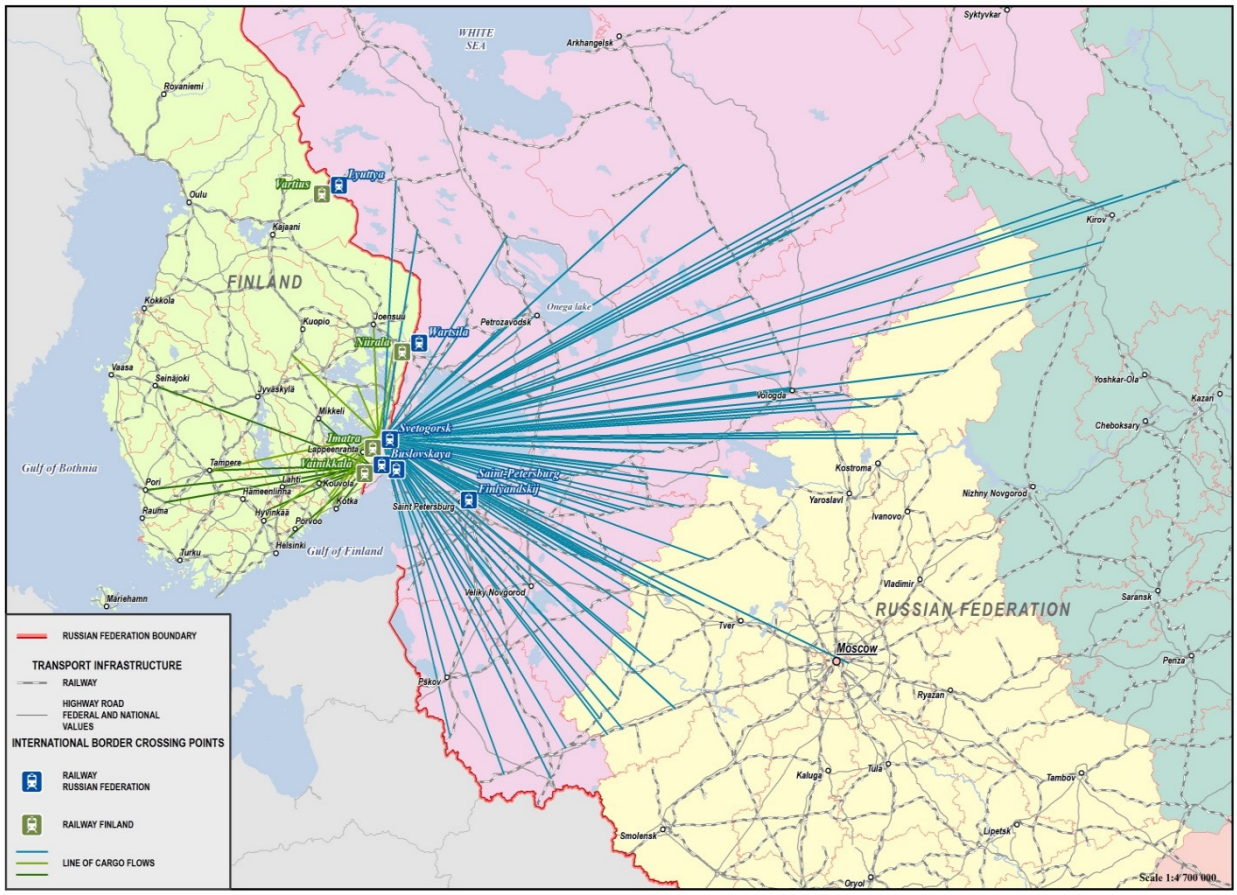


Figure 3.1.1.3 – Locations in Russia from which goods are exported to Finland by railway via the RwBCP "Svetogorsk", and the corresponding destinations in Finland

3.1.2 Passenger traffic through the multilateral road border-crossing point "Svetogorsk"

At present, there is no regular train services going through the RwBCP "Svetogorsk".

Passengers crossing the border at Svetogorsk use the RdBCP "Svetogorsk" and travel in private cars, hired buses and tourist coaches. The number of cyclists crossing the border at RdBCP "Svetogorsk" is insignificant.

The dynamic of passenger traffic through RdBCP "Svetogorsk" between 2013 and 2017 is provided in Table 3.1.2.1.

During said period, the highest passenger traffic was in 2013 (2.6 million pax), the lowest year being 2016 – 1.4 million pax. In 2018, about 1.5 million persons

went through the RdBCP "Svetogorsk": 0.77 million persons bound for Finland, and 0.77 million persons bound for Russia.

Table 3.1.2.1 - The dynamic of passenger traffic through RdBCP "Svetogorsk" between 2013 and 2017.

Year	Passenger traffic, in thousand pax		
	From Russia	To Russia	**TOTAL**
2013	1301572	1298554	**2600126**
2014	1242080	1237996	**2480076**
2015	832954	837232	**1670186**
2016	747595	711784	**1459379**
2017	766399	792067	**1558466**
2018	774030	769017	**1543047**

Source: the Border Service of the FSB of Russia

Passenger cars carry the greatest number of persons through RdBCP "Svetogorsk. The car traffic through RdBCP "Svetogorsk" in 2018 was about 670 thous. cars. The average monthly traffic at the RdBCP is about 56 thous. cars. The car traffic peaks in summer months and during holidays.

The bus traffic through RdBCP "Svetogorsk" in 2018 was about 6 000 vehicles. The bus traffic across the border was the highest (up to 600 veh.) in December, March and June.

The statistics from the Finnish Customs on the traffic of cars and buses through RdBCP "Svetogorsk" in 2018 are provided in Figure 3.1.2.1.

The average daily traffic of cyclists through RdBCP "Svetogorsk" is 74 persons, i.e. about 27 thousand cyclists a year. According to the statistics, the busiest month in terms of cycle traffic is August (19%), followed by July (16-17%).

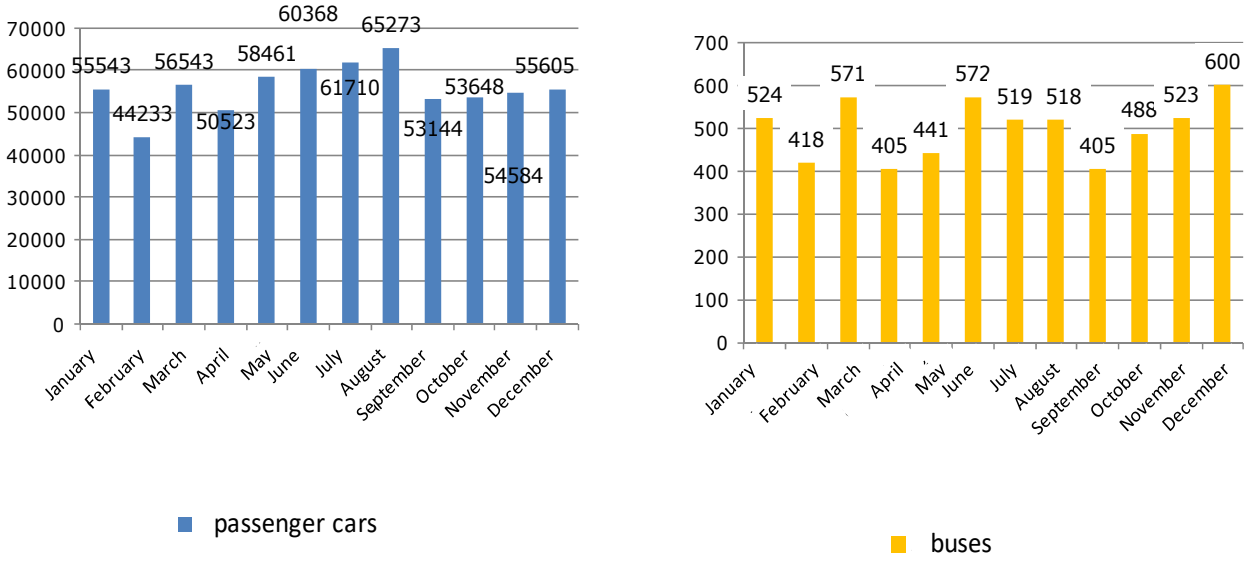


Figure3.1.2.1 – The statistics from the Finnish Customs on the traffic of cars and buses through RdBCP "Svetogorsk" in 2018

73 to 74% of the annual number of cyclists crossing the border at the RdBCP "Svetogorsk" do it from May to September. The month-by-month cycle traffic diagram for RdBCP Svetogorsk is provided in Figure 3.1.2.2.

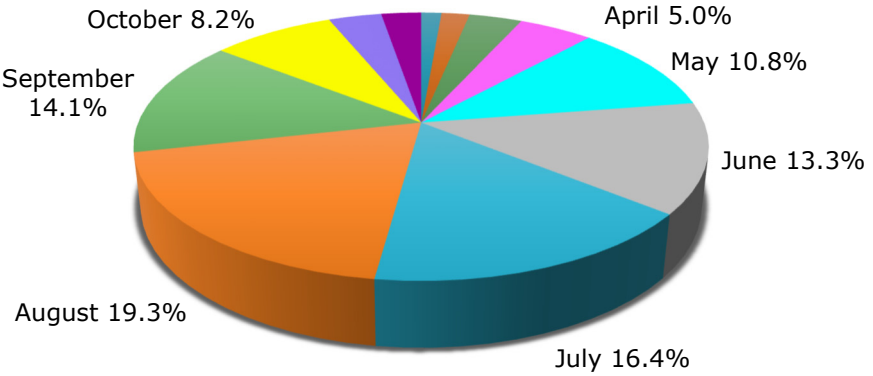


Figure 3.1.2.2 – Breakdown of cycle traffic through RdBCP "Svetogorsk" by month

According to the Russian Ministry of Transport, the RdBCP "Svetogorsk" is 60% to 70% overloaded in terms of both passenger and vehicular traffic.

3.2 Results of the interviews with the owners of the infrastructure of the RwBCP "Svetogorsk"

By law of the Russian Federation, the source of financing for the reconstruction of a BCP depends on its status. At present, the RwBCP "Svetogorsk" is formally a "temporary simplified" BCP controlled by Russian Railways (RZD), therefore the source of financing for its reconstruction would be Russian Railways.

Russian Railways represented by the administration of Svetogorsk Railway Station and divisions that are directly involved in the processing of trains used in international transport services, organize operations of the station and are responsible for safety at railway transport facilities. Russian Railways and the relevant government control bodies are obligated to take all measures necessary to minimize the duration of the government control procedures and prevent delays in the traffic of trains operating on international routes.

As a "permanent, multilateral" border-crossing point, the RwBCP "Svetogorsk" would go under the control of the FGKU "Directorate for Construction and Operation of RosGranitsa Property" which reports to the Ministry of Transport of the Russian Federation. Then the costs of the reconstruction of the RwBCP "Svetogorsk" would have to be financed from the federal government budget and included in the Federal Targeted Program (FTP) "The National Border of the Russian Federation (2012 – 2020)". The receiver of funds from the federal budget under the FTP "The National Border of the Russian Federation (2012 – 2020)" is the Ministry of Transport of the Russian Federation which sends the funds to its subordinate agency – FGKU "Directorate for Construction and Operation of RosGranitsa Property" which is the client for the reconstruction of border-crossing points.

No funding is allocated to the reconstruction of the RwBCP "Svetogorsk" under the Federal Targeted Program "The National Border of the Russian Federation (2012 – 2020)" for two reasons: the status of the RwBCP as a "temporary, simplified" BCP and the redundant capacity it has.

The current infrastructure of the RwBCP "Svetogorsk" is 40% of what is required by applicable regulations. The current technical condition and infrastructure of the RwBCP are not good enough for its current status, and even less so for a permanent

multilateral border-crossing point. There can be no passenger train services at the RwBCP "Svetogorsk" in its current status.

There have been several meetings within this project with representatives of October Railway which is branch of Russian Railways that controls the RwBCP "Svetogorsk". October Railway confirmed during the meetings that the railway was ready to handle the anticipated cargo and passenger flows between Russia and Finland. At present, the RwBCP "Buslovskaya" and the RwBCP "Svetogorsk" have redundant capacities.

The October Railway representatives mentioned that there were prospects for the development of the railway connection *Svetogorsk – Imatra* but the current demand for cargo transport on the route was insignificant (on average, 3 to 4 pairs of cargo trains a day). The railway approaches to the RwBCP "Svetogorsk" from Losevo, Vyborg and Hiitola have redundant capacities.

The October Railway representatives said that there were no orders for passenger services on the route *Kamennogorsk – Svetogorsk – Imatra*. Should such a request be received, Russian Railways are willing to consider it, including the electrification of the railway section *Kamennogorsk – Svetogorsk*.

All projects of construction, reconstruction and electrification of railways that are financed by Russian Railways, were included in the Long-Term Development Program of Russian Railways for the period through 2025, as approved by RF Government Directive No. 466-r dated 19.03.2019. At present, this document does not provide funding for the reconstruction of the RwBCP "Svetogorsk" or electrification of the railway approaches thereto.

According to October Railway, for the decision to perform the reconstruction of the RwBCP "Svetogorsk" and the railway approaches thereto to be made, there should be a forecast of cargo and passenger flows, a calculation of the future capacity of the border-crossing point, and a list of measures (activities) needed to improve the border-crossing point in compliance with requirements of all relevant government control bodies. Russian Railways will make the decision as to the expedience of financing the project on the basis of the business plan which should provide estimates for the amount of financing needed to cover capital and operation costs, the revenue from cargo and passenger transport operations, and the payback period and the profitability of the project.

If Russian Railways find the reconstruction of the RwBCP "Svetogorsk" and the railway approaches thereto profitable on the basis of the business plan, the project may be included in the Long-Term Development Program of Russian Railways for the Period Through 2025.

If Russian Railways do not find the project commercially attractive but find it socially significant and important for development of international trade, the project may be funded within the framework of the Government Program of the Russian Federation "Development of the transport system" and the *Comprehensive Plan for Modernization and Expansion of Arterial Infrastructure for the Period through 2024*, which are developed, implemented and monitored by the Ministry of Transport of the Russian Federation.

All in all, Russian Railways are willing to cooperate with all parties to the project.

3.3. Infrastructure, current condition, and development needs

Equipment for special monitoring, security and departmental communication for border-crossing points on the Russian national border for passenger and cargo trains, cargo and goods, as well as equipment for BCP security services are regulated in accordance with the following fundamental regulations and requirements:

- RF Ministry of Transport Decree No. 142 dated 31.05.2012 "On the approval of the standard requirements for construction, equipment and infrastructure of buildings, spaces and structures that are necessary for customs control at national border-crossing points of the Russian Federation";
- RF Ministry of Transport Decree No. 31 dated 09.02.2010 "On approval of the Standard Scheme for traffic of persons, transport vehicles, cargo, goods and animals across the border of the Russian Federation through railway border-crossing points";
- RF Government Decree No. 872 dated 20.11.2008 "On approval of the control regulations for persons, transport vehicles, cargo, goods and animals crossing the national border of the Russian Federation";
- Decree of the FSB of Russia No. 231 dated 08.05.2008 "On the approval of the standard requirements for construction, equipment and infrastructure of

buildings, spaces and structures that are necessary for border control at national border-crossing points of the Russian Federation";

- RF Law "On the state border of the Russian Federation" No. 4730-I dated 01.04.1993. (as amended on 10.08.1994, 29.10.1996, 19.07.1997, 24.07.1998, 31.07.1998, 31.05.1999, 05.08.200, 07.11.2000, 24.03.2001, 30.12.2001, 24.12.2002, 30.06.2003, 29.06.2004, 22.08.2004, 07.03.2005, 20.04.2006, and 15.06.2006);
- "Rules of Establishment, Opening, Operation, Operation and Closure of national border-crossing points of the Russian Federation", as approved by RF Government Decree No. 482 of 26.06.2008;
- "Rules for listing border-crossing points at the national border of the Russian Federation, which are especially equipped and intended for import of goods, chemical, biological and radioactive substances, waste and other goods hazardous to humans; food products, material and articles", as approved by RF Government Decree No. 110 dated 21.02.2008;
- RF Government Directive of 19.05.2009 No.671-r (Appendix B);
- "Standard scheme for traffic of persons, transport vehicles, cargo, goods and animals across the national border of the Russian Federation by railway", approved by Decree of the Railway Ministry of Russia No. 26 dated 29.05.2002;
- "Standard technical requirements for comprehensive equipment and border control equipment for border-crossing points at the national border of the Russian Federation", approved by the Director of the RF Federal Border Service on 25.10.2001;
- "Standard Requirements for construction, equipment and infrastructure of buildings, spaces and structures that are necessary for customs control at national border-crossing points of the Russian Federation" – Appendix to the Directive of the Federal Customs Service of Russia No. 1349 dated October 31, 2008;
- "Regulation on operations of sanitary-and-quarantine stations at border railway stations and terminals", approved by the Railway Ministry of Russia on 15.12.1999 No. ЦУВС – 717;
- "Standard Requirements for construction, equipment and infrastructure of buildings, spaces and structures that are necessary for sanitary-and-

quarantine control at railway border-crossing points at the national border of the Russian Federation" – Appendix 2 to the Directive of the Ministry of Health and Social Development of the Russian Federation No. 701н dated 09.12.2008;

- Letter No.397-12 dated 18.05.2007 of the Saint Petersburg&Leningrad Region Office of the Federal Service for Veterinary and Insanitary Oversight (RosSelKhozNadzor);
- РД78.36.003-2002 of the RF Ministry of Internal Affairs. Engineering and technical security systems. Security equipment. Design requirements and standards for protection of facilities from criminal attempts;
- Code of Regulations issued by the Ministry of Emergency SP (СП) 3.13130.2009 "Alarm and evacuation management system in case of fire";
- Code of Regulations issued by the Ministry of Emergency SP (СП) 5.13130.2009 "Automatic fire alarm and fire-fighting installations";
- Resolution of the Customs Union Commissions No. 688 dated 22.06.2011 "On the common standard requirements for equipment and infrastructure of buildings, indoor facilities and structures that are necessary for organizing border control, customs control, sanitary-and-quarantine control, veterinary, quarantine-and-phytosanitary control and transport control procedures at border-crossing points at the customs border of the Eurasian Economic Union, and the Classification of Border-Crossing Points at the Customs Border of the Eurasian Economic Union";
- Resolution of the Council of the Eurasian Economic Union No. 34 dated 03.03.2017 "On amendments to certain resolutions of the Customs Union Commission and the Eurasian Economic Commission".

3.3.1 Technical description of Svetogorsk Railway Station

The train traffic at Svetogorsk Station is provided in Table 3.3.1.1.

Table 3.3.1.1 - Train traffic through Svetogorsk Station (in pairs of cargo trains a day)

Railway section	Actual traffic (according to the BCP certificate)
Imatrankoski – Svetogorsk	
- cargo trains	3 (9)
- passenger trains	-
- suburban (regional) trains	-
Svetogorsk – Kamennogorsk	
- cargo trains	3 (9)
- passenger trains	-
- suburban (regional) trains	-

Svetogorsk Station is located in Vyborgsky District of Leningrad Region. Geographic coordinates of the station: 61°7'4"N 28°50'43"E.

The railway section *Imatrankoski – Svetogorsk – Kamennogorsk* reaches the *Vyborg – Losevo* railway line which is a part of the international transport corridor "Moscow – Saint Petersburg – Helsinki".

The railway section *Imatrankoski – Svetogorsk – Kamennogorsk* is used for transport of export and import goods between Russia and Finland.

There are administrative and non-dwelling capital buildings at Svetogorsk Station as well as power lines and underground cable lines. There is no housing at Svetogorsk Station.

The existing railway tracks (No. 1 - 6) of Svetogorsk Station allow placing at least 56 standard wagons between semaphore signal posts (the distance between axles – 15 m).

Track No.7 is outside the restricted access zone and is used to deliver rolling stock to the Svetogorsk pulp-and-paper factory.

Track No. 10 is not a spur track and has a second switch.

Turnout track No. 12 and track No.10 have the capacity for up to 25 standard wagons.

The spur track No. 11 was intended for passenger trains but is not in use now.

The passenger platform is low and not fit for disabled passengers.

By nature of its operations, Svetogorsk Station is a unique (off-class) sectional station functioning as a border transfer station used by direct cargo trains going without reloading to Imatrankoski Station of the Finnish Railways.

There are two single-track links connected to Svetogorsk Station.

Svetogorsk Station is used to receive, dispatch, form and take apart sectional and transfer cargo trains, and performs operations listed below:

- receiving and dispatching cargo trains, with border and customs control procedures;
- commercial inspection of trains, and toubleshooting;
- technical inspection of trains, and repair of detached wagons;
- changing locomotive and locomotive crews;
- full processing of shipping documents and documents relevant to direct railway transport from Russia to Finland.

3.3.2 Zoning of RwBCP "Svetogorsk"

According to laws and regulations on arrangements for border-crossing points, the Svetogorsk Railway Station is divided into two main zones:

- the BCP area where routine restrictions apply that determine the rules of entering, staying at, and leaving the BCP for persons and vehicles; and the rules of bringing in to, keeping at and taking out of the BCP for cargo, goods and animals, which are established so as to create the conditions necessary for border and customs control procedures and other checks. The head of the administration of the transport infrastructure is responsible for compliance of individuals and legal entities with the routine at the border-crossing point. The border control division enforces the routine of the border-crossing point with individuals and legal entities;

- the remaining part of the railway station where access is only limited by access control and internal staff regulations determined by Russian Railways (RZD).

Access of vehicles and individuals to the border-crossing point is restricted. The area within the border-crossing point has a mesh fence around it, with climb-over protection.

A special access route applies in the BCP area. Individuals who are not employees of the railway station, and road vehicles can only access the area with a written permission from the border control authorities by agreement with the customs authority.

The entire area of the border-crossing point is a customs control zone; establishment and maintenance of the routine of a permanent customs control zone are regulated by Art. 97 of the Customs Code of the Customs Union, Art. 163 of Federal Law No. 311-FZ dated 27.11.2010 "On customs regulation in the Russian Federation", the requirements of RF Government Decree No. 26 dated 25.01.2008 "On the procedure for establishing customs control zones at national border-crossing points of the Russian Federation".

There is no dedicated and fenced customs control area inside the station area.

3.3.3 Types of government control performed at RwBCP "Svetogorsk"

Traffic of persons, transport vehicles, cargo, goods and animals across the national border by railway is subject to the following types of government control procedures:

- border control;
- customs control;
- phytosanitary quarantine control.

At present, Svetogorsk Station does not process regional, long-distance or rapid passenger trains.

Government control bodies at the border-crossing point interact through the head of the BCP administration, including by holding BCP Coordination Council meetings.

3.3.4 Processing of cargo trains at RwBCP "Svetogorsk"

The administration of Svetogorsk Railway Station shall send the train schedule to the supervisory bodies operating at the border-crossing point in advance. Should the train schedule change, the station administration shall inform the supervisory bodies at the border-crossing point at least 24 hours before the changes come into effect.

The overall duration of control procedures and checks in respect of a cargo train and persons thereon should be within the limits set by the regulations for border control and customs control procedures and other checks of documents and information.

The time of waiting for government control procedures from the arrival of the train at the border-crossing point till the submission of the relevant documents to the shift leader of the RwBCP customs station is 50 minutes for exports and 10 minutes for imports (except for the time of any emergencies which may increase the duration of customs operations).

Government control of loaded cargo trains leaving the Russian Federation

The assistant station master of Svetogorsk Station and the authorized employee of the carrier shall inform the government control bodies of the number and type of wagons in the train going across the national border one hour in advance.

Monitoring of the train is to start including with the use of a video-monitoring system. The border-control division is to apply additional restrictions in the control zone (on the track) in respect of the arriving train.

Upon the arrival of the train, the authorized employee of the carrier is to process transport and shipping documents received from the locomotive team and then pass the documents to the shift leader of the RwBCP customs station.

Where goods subject to quarantine arrive at the border-crossing point, the authorized official of the RwBCP customs station is to supervise the export of such products from the Russian Federation by checking the relevant documentation and

then making the decision to allow or prevent the export in accordance with applicable law of the Russian Federation.

The authorized official of the RwBCP customs station is to verify the completeness and reliability of information provided in the documentation (including electronic documents) relevant to the goods being exported and the rolling stock.

If wagons are detached from the train, the carrier is to file an application for the wagons to be placed in the customs control zone (CCZ).

Once the customs have processed the transport documents, customs and border control procedures in respect of the train are to take place.

The assistant station master is to provide the shift leader of the border control teams with the list of the train team before the cargo train is provided for inspection. Representatives of the government control bodies are to start the inspection of the train jointly with the staff of the railway station. Wagons can be inspected by several groups.

In each group, customs officers are to inform the border control divisions as to which wagons are to be opened and inspected, as determined by the results of the verification of the shipping documents.

The border control division is responsible for coordination of the work. If there are both loaded and empty box cars in the train, the wagons are opened at the request of the customs and border control bodies. The wagons are opened (seals, etc. removed) by the acceptance/delivery agent of the station.

If illegal infiltrators or signs of possible violations are found during the course of the border control of a cargo train leaving the EAEU, the government control officers are to suspend their work, and the border control divisions are to detain the illegal infiltrators or conduct a search for them, inspect the entire train once again, after which the joint inspection is to be resumed.

A train to be dispatched is inspected from the trail end to the locomotive and the locomotive team. The engine driver is to turn off the engine of the locomotive for the time of the inspection. The border control divisions who finish inspecting the train at the head end thereof are to check the documents of the locomotive team members and inspect the inside of the locomotive.

The shift leaders of the border control and customs control divisions are to inform the assistant station master of the completion of their inspection procedures.

Access to the train for unauthorized persons is to be restricted (banned) till the train leaves the border-crossing point.

The assistant station master can only dispatch a train with the permission of the border control and customs control bodies.

The assistant station master is to dispatch the train upon the receipt of the report on completion of the inspection from the shift leader of the border control team, when the train is ready to be dispatched and the consent of the Finnish railway has been received.

As the train leaves the border-crossing point, the border control team is to monitor the train from the outside, including with the use of a CCTV system. If such inspection detects illegal infiltrators, the border control team is to promptly inform the assistant station master accordingly so that the train is stopped and the violation can be prevented.

Government control of cargo trains arriving in the Russian Federation

The government control procedures in respect of arriving cargo trains are performed by officers of the relevant government control bodies and by employees of Svetogorsk Station.

The border control divisions are responsible for coordination of the commission's work.

The assistant station master of Svetogorsk Station and the authorized employee of the Russian Railways are to inform the commission of the number and type of wagons in the train, the nature of cargo and goods carried across the national border as per the train transfer slip received from the railway administration of the counterpart Finnish station, one hour prior to the arrival of the train.

Based on the information received, the government control bodies shall plan their control/inspection procedures.

All unauthorized persons are to leave the control zone (inspection area) before the train arrives at the border-crossing point. The border-control division apply additional restrictions in the control zone (on the track) in respect of the arriving train. The border control teams start monitoring the train including with the use of a video-monitoring system till the train has left the border-crossing point.

The carrier's representative is to pass the documentation necessary for the processing of wagons in the train to the shift leader of the RwBCP customs station.

Once the train has stopped, a railway station employee is to apply brake blocks. Officials of border control and customs control bodies shall inspect the locomotive, after which they shall start inspecting wagons of the train with participation of railway station staff. Wagons can be inspected by several groups.

The border control divisions who start inspecting the train at the head end thereof are to check the documents of the locomotive team members and inspect the inside of the locomotive.

Individual wagons can be opened and inspected at the request of officers of the government control bodies. The facts of wagon opening and the inspection results are to appear on the inspection report which is to be signed by the officers of the government control bodies and the railway station staff.

If illegal infiltrators or objects that cannot be imported in the Russian Federation or signs of planned or ongoing law violations are found during the course of the inspection, the train can be inspected again by decision of the border control division, and such infiltrators are detained or searched for.

Upon completion of the train wagon inspection by all groups involved, the shift leader of the border control teams is to inform the assistant station mater accordingly. The border-control division lifts the additional restrictions in the control zone (on the track) in respect of the train inspected.

The border control division is responsible for coordination of the groups.

During the course of customs operations and customs control procedures, the authorized official of the RwBCP customs station:

- receives documentation (including electronic documents) from the carrier through the shift leader;
- verifies information provided in the documents.
- where necessary, takes the decision to perform a customs inspection of wagons in the train;
- processes wagons of the train for dispatching, or return (at the carrier’s request).

If wagons have to be detached from the train, the carrier is to file an application for the wagons to be placed in the customs control zone.

Proper government bodies shall inform the assistance station master of

completion of the government control procedures in respect of the train.

Government control of empty cargo trains leaving the Russian Federation

The assistant station master of Svetogorsk Station and the authorized employee of the carrier shall inform the government control bodies of the number and type of wagons in the train going across the national border, one hour in advance.

Upon the arrival of the train at the border-crossing point, border control teams are to perform an outside inspection of the train. Monitoring of the train is to start including with the use of a video-monitoring system. All unauthorized persons are to leave the control zone (inspection area) before the train arrives at the border-crossing point. The border-control division is to apply additional restrictions in the control zone (on the track) in respect of the arriving train.

Once the train has stopped, the head guard is to apply brake blocks, and the assistant station master is to give the order to detach and take away the locomotive.

The authorized employee of the carrier is to process the shipping documents received from the locomotive team and then pass the documents to the shift leader of the RwBCP customs station.

The authorized official of the RwBCP customs station is to verify the completeness and reliability of information provided in the documents and perform the customs inspection of goods and rolling stock.

The shift leader of the RwBCP determines which wagons are to be inspected and put in the CCZ, including at the request of the carrier, after which the shift leader passes the processed documents to RZD representatives for the dispatching of the train to be prepared.

The assistant station master is to provide the shift leader of the border control teams with the list of the train team via the authorized station employee, before the train is provided for inspection. Representatives of the government control bodies are to start the inspection of the train jointly with the staff of the railway station. Wagons can be inspected by several groups.

The border control divisions are responsible for coordination of the groups.

In each group, customs officers are to inform the border control divisions as to which wagons are to be opened and inspected, as determined by the results of the

verification of the shipping documents.

If illegal infiltrators or signs of possible violations are found during the course of the border control of a cargo train leaving the Russian Federation, the government control officers are to suspend their work, and the border control divisions are to detain the illegal infiltrator or conduct a search for them, inspect the entire train once again, after which the joint inspection is to be resumed.

Based on the results of the inspection, the government control bodies are to inform the administration (assistant station master) of the railway station in a timely manner of the need to detach individual wagons that are not allowed to cross the national border, and decide on further actions in respect of such wagons.

The border control divisions who finish inspecting the train at the head end thereof are to check the documents of the locomotive team members and inspect the inside of the locomotive.

The shift leaders of border control or customs control divisions are to inform the assistant station master of the completion of their inspection procedures.

As the train leaves the border-crossing point, the border control team is to monitor the train from the outside, including with the use of a CCTV system. If such inspection detects illegal infiltrators, the border control team is to promptly inform the assistant station master accordingly so that the train is stopped and the violation can be prevented.

Access to the train for unauthorized persons is to be restricted (banned) till the train has left the border-crossing point.

The assistant station master can only dispatch a train by agreement with the divisions of the border control and customs control bodies.

3.3.5 Main structures of RwBCP "Svetogorsk"

RBCP "Svetogorsk" is located at the 3-storey administrative building (Figure 3.3.5.1) at Lit. A, 1 Ul. Vokzalnaya, Svetogorsk, Vyborgsky District, Leningrad Region. The railway station building is adjacent to the administrative building and is not used (with only the boiler room and several technical rooms operating).

Figure 3.3.5.1 – Railway station building and the administrative building. View from the town of Svetogorsk.

Rooms on the ground floor of the administrative building are used by employees of October Railway (a branch of Russian Railways) who are directly involved in the paperwork for export and import trains. The goods office, rooms for acceptance-and-delivery officers, the transfer agent and shunting masters, the office of the station master, three technical rooms for communication equipment, process equipment, and video monitoring posts are also on the ground floor.

In addition, there is a cafeteria and three isolated rooms for staff and equipment of phyto-control, veterinary and sanitary control services, which is clearly insufficient for their normal operation.

The plan of the ground floor of the administrative building is provided in Figure 3.3.5.2.

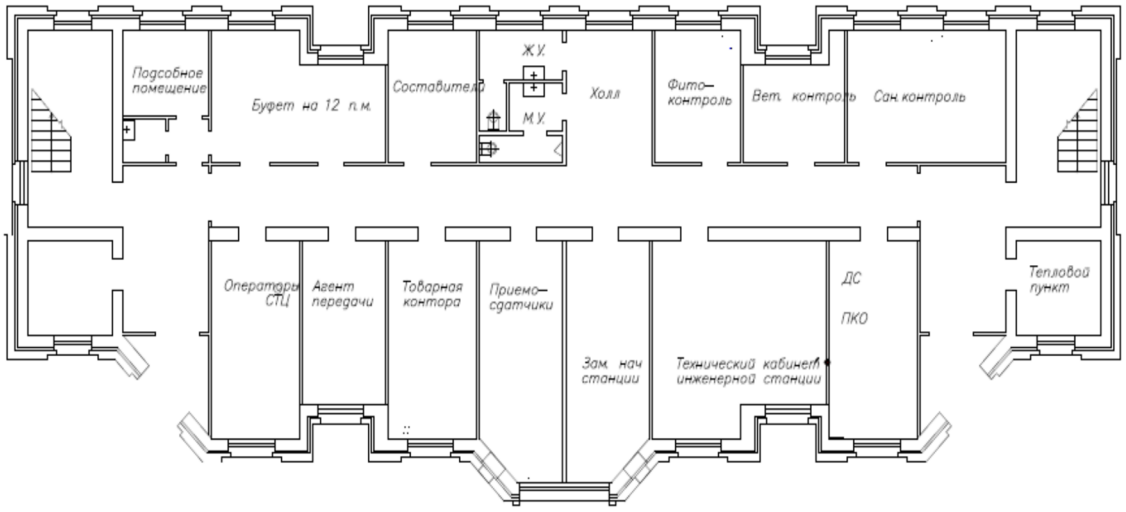


Figure 3.3.5.2 - Plan of the ground floor of the administrative building.

The 1st floor, which has 19 rooms with the total floor space of 260 m^2, is used by staff and for equipment of the Federal Customs Service of Russia. The layout of the first floor is almost identical to that of the ground floor.

The 2nd floor (Figure 3.3.5.3), which has 18 rooms with the total floor space of 233 m^2, is used by staff of the Border Service of the FSB of Russia. The rooms and their functions are indicated on the plan. Where required by law, employees of the migration service are to be summoned. There are no separate rooms in the administrative building for the migration service staff.

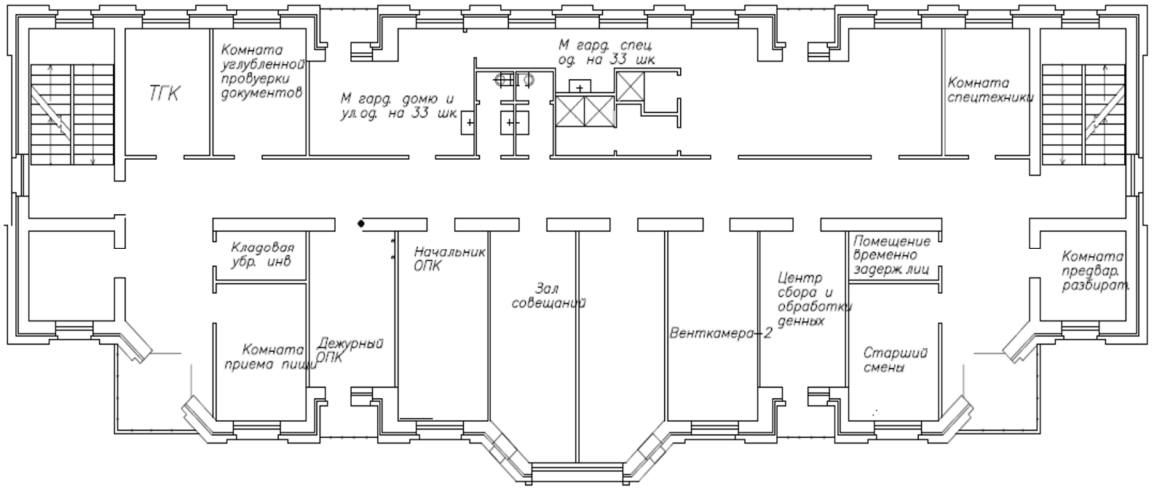


Figure 3.3.5.3 - Plan of the second floor of the administrative building.

3.3.6 Workplace arrangements in the administrative building and auxiliary structures at Svetogorsk Station

All rooms of the administrative building are equipped with a fire alarm system and locks.

Rooms for storage of special machines and weapons, server rooms and strong rooms have security alarms with physical protection elements (metal doors, barred windows, etc.).

Behind the administrative building, as one goes towards Finland, there are two dwelling buildings (formerly dwelling buildings owned by Russian Railways) which are not part of the restricted access zone.

Behind the dwelling buildings, the restricted access zone expands again. There is an enclosure for service dogs, the building of the heat supply station, the mast of the RZD service communication antenna, the old dispatch control center building (which is not used now) and the new dispatch control center (Figure 3.3.6.1).

There is a small building of the warming facility next to the neck yard of the station, on the Finland side (Figure 3.3.6.2).

There is a passenger platform in front of the railway station building, with spur track No. 11 connected to it (Figure 3.3.6.3), which was used to receive regional passenger trains from Vyborg till 2015.

There is a paved road with asphalt zones going from the enclosure of the canine service along the auxiliary track No. 10, the asphalt paved areas are used, where necessary, for detailed inspection of cargo and wagons. There is an inspection ramp next to the building of the operating dispatch control post, with a booth for visual inspection of trains and individual wagons.

There are 13 U-shaped supports in the restricted access zone, for service flood lights, and a separate light mast.

Figure 3.3.6.1 – Tracks No. 1 and No.10, light posts, inspection rams, antenna, service radio communication antenna, the old unused and the new building of RZD dispatch control service, paved area (view from the Russian side)

Figure 3.3.6.2 - Yard neck from the Finnish side. Tracks No. 2, No. 12 and No. 7 (they extend beyond the restricted zone), the warming facility, the dispatch control center

Figure 3.3.6.3 - Svetogorsk railway station, passenger platform and spur track No. 11. View from the Russian side

3.3.7 Technical systems supporting control functions

Radiation control system

The yard neck of the railway station is equipped with Yantar-1Z radiation control system. Control and signaling equipment is on the first floor of the administrative building, in the room for process equipment of the RF Federal Customs Service.

CCTV (video monitoring) system

Equipment of the single system of security CCTV is designed for:

- inspection of the rolling stock of the station;
- inspection of trains arriving at (leaving) the station;
- video monitoring of the perimeter of the entire restricted access zone.

The single system operates in the interest of the RF FSB Border Service as well as employees of the Federal Customs Service and Russian Railways. Active equipment of the system save for cameras is located in technical rooms of the second floor of the administrative building. The general control of the system is provided by operators of the RF FSB Border Service.

There are 27 fixed cameras installed on six U-shaped lighting supports along the entire Svetogorsk station, to monitor rolling stock of the station. The focal lengths of the cameras are designed to cover the entire border control and process control zone.

For detailed viewing of alarming events recorded by the fixed CCTV cameras installed in the park and around the perimeter of the station, there are 4 pan-tilt cameras with 48x zoom. The cameras are controlled by operators of the border service.

Yard necks of the station (boundaries of the border inspection zone) are separate monitoring zones controlled by a dedicated operator. There are 5 additional cameras installed on the lighting supports that are closest to the yard necks on both sides (towards both Russia and Finland), to complement cameras that provide the general view of trains entering or leaving the station. The additional cameras allow rapid inspection from above, from the sides of wagons, and from wheel bogies and the space under wagons. LED lights are used for illumination of the cameras.

Svetogorsk Station has a perimeter steel mesh fence around the border-crossing point. A video monitoring system was added to the physical fence, which consists of 16 CCTV cameras installed on stand-alone supports and provided with IR illumination.

Four (4) internal CCTV cameras are installed to close the perimeter, which are focused on the entrances to the station building and the administrative building.

All CCTV cameras are black-and-white and are part of a single system based on *Intellect* software.

There is a polyscreen made of industrial grade TV monitors in the room for operators from the Border Service of the FSB of Russia (Figure 3.3.7.1). The pan-tilt cameras and monitors are controlled from one control panel installed on the operator's desk.

Figure 3.3.7.1 - The workstation of the video monitoring operator of the Border Service of the FSB of Russia in the administrative building

Apart from the workstations of operators from the Border Service of the FSB of Russia, the workstations of the BCP director (BCPD WS), the station master (SM WS), the train commercial inspection station (TCIS WS), and the stationary process center (SPC WS).

The workstation of the BCP director displays video from all CCTV cameras installed at the border-crossing point. Video images are displayed on the monitor of the PC of the workstation. Signals come from the server installed in the FSB BS operators' room.

The SM WS which is on the ground floor of the administrative building is similar to the work station of the BCP director.

The TCIS WS has two PCs with monitors displaying videos that enable detailed inspection of arriving and departing trains using four CCTV cameras (two views from the sides, a top view, and a general view following the train).

The SPC WS has one PC with a monitor displaying images from CCTV cameras focused on the sides of trains (two for each yard neck).

In combination, all the workstations listed above enable:

- monitoring for presence of persons on top of the rolling stock;
- monitoring for safety of staff working in the hazard zone;

- monitoring persons present in the station area and at the approaches thereto;
- saving (on PC) information from CCTV cameras for further processing, storage, transmission and delivery, with the possibility of copying;
- monitoring the technical condition of wagons and the integrity of the cargo;
- other tasks performed for the benefit of Russian Railways.

Weight and dimension measuring system

The thermal observation system (TOS) for remote monitoring of rolling-stock loading level developed at PK NPK Avtomatizatsia was originally designed for viewing and analysis of thermal fields on outside surfaces of moving rolling stock for remote monitoring of the amount of liquid and bulk cargo. To meet the needs of Svetogorsk Station, in the interest of the Border Service, an Astrone analysis unit was added to TOS. There is a TOS installed at both neck yards of the station.

With the analysis unit, TOS has capabilities such as:

- recording of information from the thermal observation system and CCTV cameras as the train moves on the track monitored. The recording is accompanied with information as follows: CURRENT TIME, DATE, TRAIN NO., WAGON NO.;
- slow-motion playback for detailed assessment of the load level of the rolling stock;
- detection of trespassers on rolling stock with any types of wagons, platforms, locomotives or cisterns;
- taking snapshots from the video during playback to print out an image of the wagon with the load level that does not meet the standard or with trespassers on the rolling stock;
- scaling selected areas of CCTV or thermal images;
- automatic detection of a train moving on a monitored section of railway tracks;
- automatic start of recording of CCTV and thermal data on a passing train;
- automatic counting of moving units within a train;
- automatic stopping of recording when the train stops moving on the monitored section;
- automatic maintenance of the database on trains passing;

- the capability to connect to the data transmission system of Russian Railways or other departmental networks;
- protection from unauthorized access to equipment by detecting and recording such attempts.

The TOS program blocks any possible user influence on the performance of the PC. A user of the PC wherein the program is working, cannot change data or programs (or their modes). A user can only view the current monitored situation or request and view archive data, print out thermal and CCTV images of rolling stock units of interest.

Thermal observation system for remote monitoring of rolling-stock loading level has:

- monitoring tools;
- station equipment;
- a lighting system;

The monitoring tools include:

- an equipment set for wagon counting;
- a thermal observation device;
- an equipment set for signal transmission;
- an analysis unit.

The station equipment includes the workstation of the operator of the thermal observation system for remote monitoring of rolling-stock loading level (TOS WS) which is installed in the operator room of the Border Service of the FSB of Russia.

The analysis unit is designed to calibrate the thermal observation device and adjust it to monitor specific targets. At Svetogorsk Station, the analysis unit is used to exclude information that border service operators do not need (such as information relevant to monitoring of the commercial condition of cargo) and apply the software resources to detect trespassers who attempt to enter/get on the rolling stock.

Vehicle and goods inspection system

There is no equipment for axle-based or wagon-based weighing of rolling stock.

Inspection complex

There is no railway inspection-and-screening complex. Nor is there a specialized area and/or platform for a mobile system.

Vehicle cleaning and disinfection system

There is neither equipment for cleaning and disinfection of transport vehicles, nor equipment for collection and destruction (disposal) of biological waste.

There are no places (specialized spur tracks) for storage of chemical and radioactive cargo.

There is no sanitary spur track.

Passport (border) control system

The passport (border) control system includes stationary equipment for checking the passports of individuals.

System for inspection of persons, luggage, hand luggage, etc.

There is no warehouse for temporary storage of cargo, no canopied area for wagon inspection, no area for reloading from one wagon onto another, no area for storage of detained containers and oversized cargo, and not area for inspection of containers.

There are no specialized machines or mechanisms for loading-unloading operations.

There are no rooms for the loading team.

Equipment complex of the canine service

There is an enclosure for temporary placement of service dogs within the restricted access zone of the station.

Backup power supply system

The means necessary to provide backup (emergency) power supply to equipment (UPS 220V, 50Hz with an in-built battery) are included in the main elements of the relevant systems.

There is no autonomous diesel generator set.

Equipment complex for communication and automation of workstations

There are segments of the local area network (LAN) of the customs service, the border service and the railway service in the administrative building, which are designed for automation of technical processes and document and document circulation execution, control and implementation.

The LAN consists of:

- a structured cable system;
- active network equipment;
- servers, workstations, network printers, UPS;
- network equipment for integration of the LAN into the regional departmental network and data transmission;
- general system software;
- special software.

Channeling equipment and data transmission equipment are installed in the technical room of the customs and connected to the optical trunk cable of RZD (Russian Railways).

The types and technical characteristics of the equipment allow increasing the number of subscribers of the data transmission network and the telephone network manyfold by installing expansion modules on the main equipment.

Border control equipment

The border control equipment (BCE) available at the station includes:

- equipment for detailed verification of documents, designed for examination of documents that permit the crossing of the national border for conformity with standards;
- equipment for inspection of transport vehicles and cargo;
- photo, video and audio recording equipment and viewing and audio record playback equipment;
- office and computer equipment with general and special software.

Staff of federal services.

The number of staff in workshifts at Svetogorsk RWBCP is minimal, optimized to fit the current traffic and the reduced operation hours. The rooms available allow increasing workshifts up to 3 times the current size while complying with all applicable rules and regulations.

3.3.8 Assessment of the current capacity of RwBCP "Svetogorsk" and the connecting rail infrastructure at the approaches thereto

The railway line "Kamennogorsk – Svetogorsk" runs close to the RwBCP and Svetogorsk Station from the Russian side. This is a single-track non-electrified line. Its total length is 26 km. The plan of Svetogorsk Station is provided in Figure 3.3.8.1, the layout of rail tracks – in Figure 3.3.8.2.

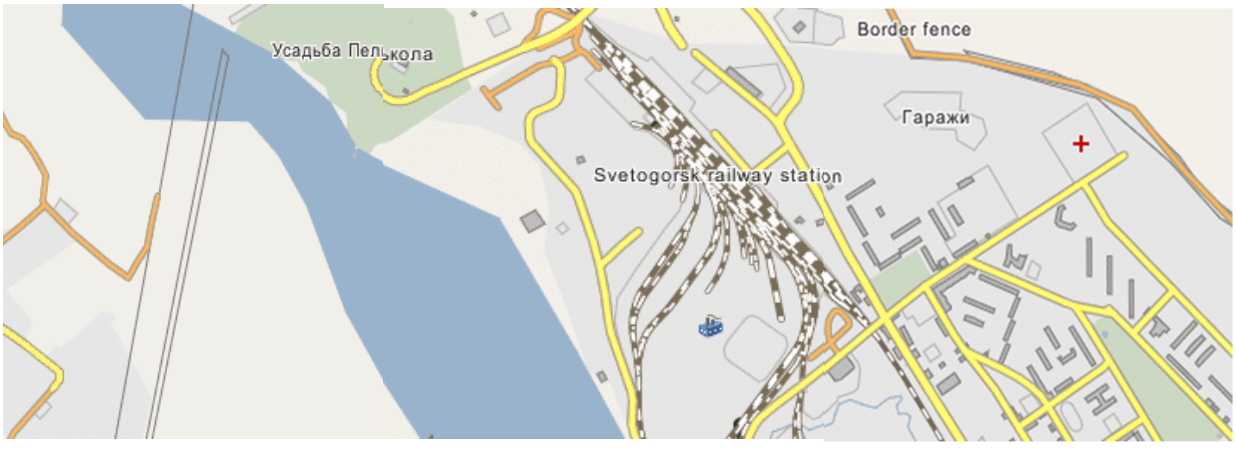


Figure 3.3.8.1 – Plan of Svetogorsk Station.

There are two railway stations on the *Kamennogorsk – Svetogorsk* railway line (Lesogorsk Station and Svetogorsk Station) and two stops – *Kivioja* and *Platforma 24 km*. Svetogorsk Station is the end Russian station at the border with Finland. The station has 13 tracks. The passenger platform is low, placed at the ground level.

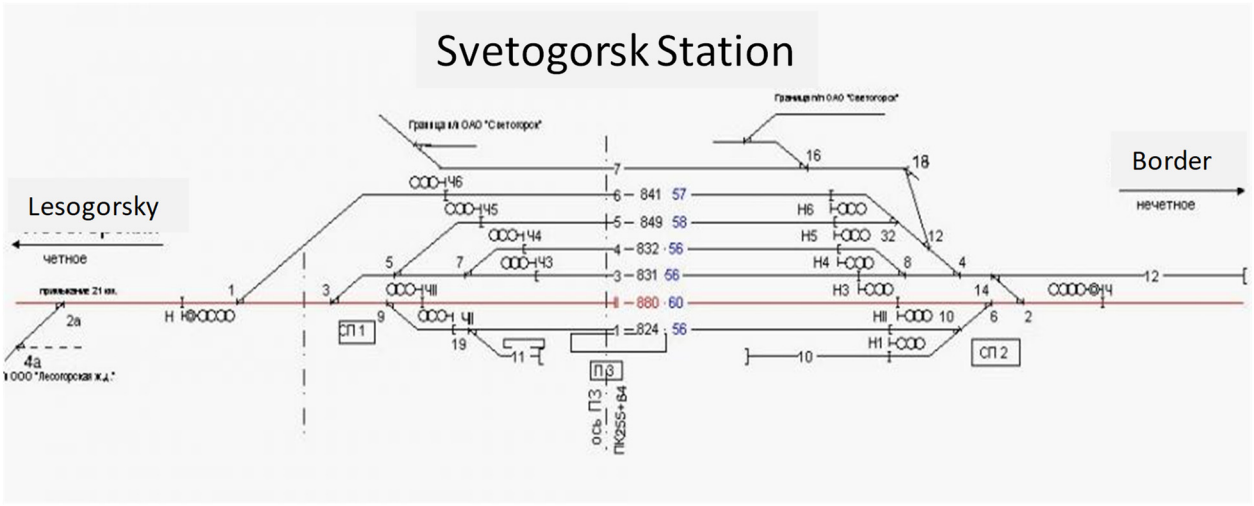


Figure 3.3.8.2 – Layout of railway tracks of Svetogorsk Station.

The route of the *Kamennogorsk – Svetogorsk* railway almost entirely runs near the channel of river Vuoksa and therefore has no significant gradients. However, there are many short ups and downs due to rocky terrain. The railway tracks were built almost without any profile straightening and have a large number of curves, especially on the section between km 5 and km 16. A typical view is provided in Figure 3.3.8.3.

The speed limit is 60 km/h, with one section having the speed limit of 40 km/h. The axle load limit is 22.5 tons.

A complete track overhaul on links of the *Kamennogorsk – Svetogorsk* line took place between 2002 and 2007.

In 2005 and 2006, the border-crossing point and Svetogorsk Station went through reconstruction, with the receiving-and-departure track extended. After the reconstruction, the maximal capacity of the railway branch is 12 pairs of trains a day.

Figure 3.3.8.3 – Typical view of a section of the *Kamennogorsk – Svetogorsk* railway

At present, the railway border-crossing point "Svetogorsk" is classified as a cargo-and-passenger, temporary, bilateral, simplified BCP.

The RwBCP "Svetogorsk" processes cargo daily, from 8:00 to 24:00.

Passenger traffic through Svetogorsk Station has been one-time and event-related operations. Mostly, there were special tourist trains. At present, there is no passenger traffic through RwBCP "Svetogorsk".

Initially, the RwBCP "Svetogorsk" was created to support deliveries to and exports from the Svetogorsk pulp-and-paper factory. At present, the technical level of Svetogorsk Station and the RBCP "Svetogorsk" allows processing mostly trains carrying roundwood from Russia to pulp-and-paper factories of Finland.

The amount of cargo traffic through RwBCP "Svetogorsk" was increasing gradually, reaching 3 to 4 pairs of trains a day by early 2000s.

With a view to further growth of the traffic, improvements were made for the Vyborg Customs in 2003-2005, namely – the construction of the administrative building and the yes fence of the border-crossing point. The paths in intertrack spaces were paved with asphalt; areas were equipped for loading/unloading and inspection of cargo; an optic fiber cable was installed and connected to the departmental automatic telephone exchange system of the October Railway and customs authorities; computers, communication and office equipment was purchased.

Within the framework of the *South-East Finland – Russia CBC 2014-2020* program, the operations monitoring CCTV system was upgraded and the border-crossing point was equipped with thermal observation units and a technically sophisticated CCTV system which enables:

- complete monitoring of the entire border-crossing point with not "blind" zones;
- monitoring of the border control zone;
- inspection of trains from all sides from a distance of 150 m, and provide the general view of moving trains.

Thermal observation devices are used to detect illegal infiltrators hiding on arriving trains, the detection being possible where a train is moved at a speed up to 60 km/h.

The design capacity which reached 9 pairs of trains a day after the reconstruction, allowed increased cargo train traffic which reached on average 5.2 pairs of trains a day in 2006 and 6.5 pairs of trains a day in 2009.

In 2010, the train traffic went down to 2.8 pairs of trains a day due to worsening economy and the decline in trade between Russia and Finland.

At present, the daily traffic through RwBCP "Svetogorsk" is within 3 pairs of trains.

According to the Ministry of Transport of the Russian Federation, the design capacity of the RwBCP "Svetogorsk" is 18 trains a day or 6 570 trains a year. The actual capacity was:

- 2 704 trains in 2016;
- 2 517 trains in 2017;
- 2 560 trains in 2018.

Therefore, the average actual workload on the RBCP "Svetogorsk" is about 40% of the planned capacity.

A project was developed in 2012-2014 aimed at complete modernization of the RwBCP "Svetogorsk" and its transformation into a permanent, multilateral cargo-and-passenger BCP operating 24/4, but it was never implemented.

4 ANALYSIS OF IMPLEMENTED AND PLANNED RAILWAY DEVELOPMENT PROJECTS FOR DEVELOPMENT OF RAILWAYS IN LENINGRAD REGION WITHIN THE GRAVITY ZONE OF THE RWBCP "SVETOGORSK".

Construction of the new railway branch Losevo – Kamennogorsk – Vyborg

Saint Petersburg and Leningrad Region form one of the major railway hubs in the Russian Federation, which supports most of the cargo and passenger traffic in the North-West Federal District of Russia.

Railways running in Saint Petersburg and Leningrad Regions are heavily used to transport large amounts of cargo within Russia, via Russia, as well as for traffic of export and import goods between Russia and other countries. Railway transport accounts for a significant part of regional passenger traffic as well as long-distance traffic to other cities of Russia and other countries. Saint Petersburg and Leningrad Region are the second largest railway hub in Russia after the Moscow railway hub in terms of cargo and passenger traffic, with ten radial railway lines, including the Vyborg line connecting Russia to Finland (Figure 4.1), and three border railway stations: Buslovskaya, Svetogorsk, and Ivangorod-Narvsky.

October Railway (a branch of Russian Railways JSC) is the operator of public railways and the owner of the locomotive fleet.

Branches of Russian Railways JSC (Federalnaya Gruzovaya Kompania, TransContainer, RefServis, RailTransAvto, etc.) are rolling stock operators specializing in various cargo categories.

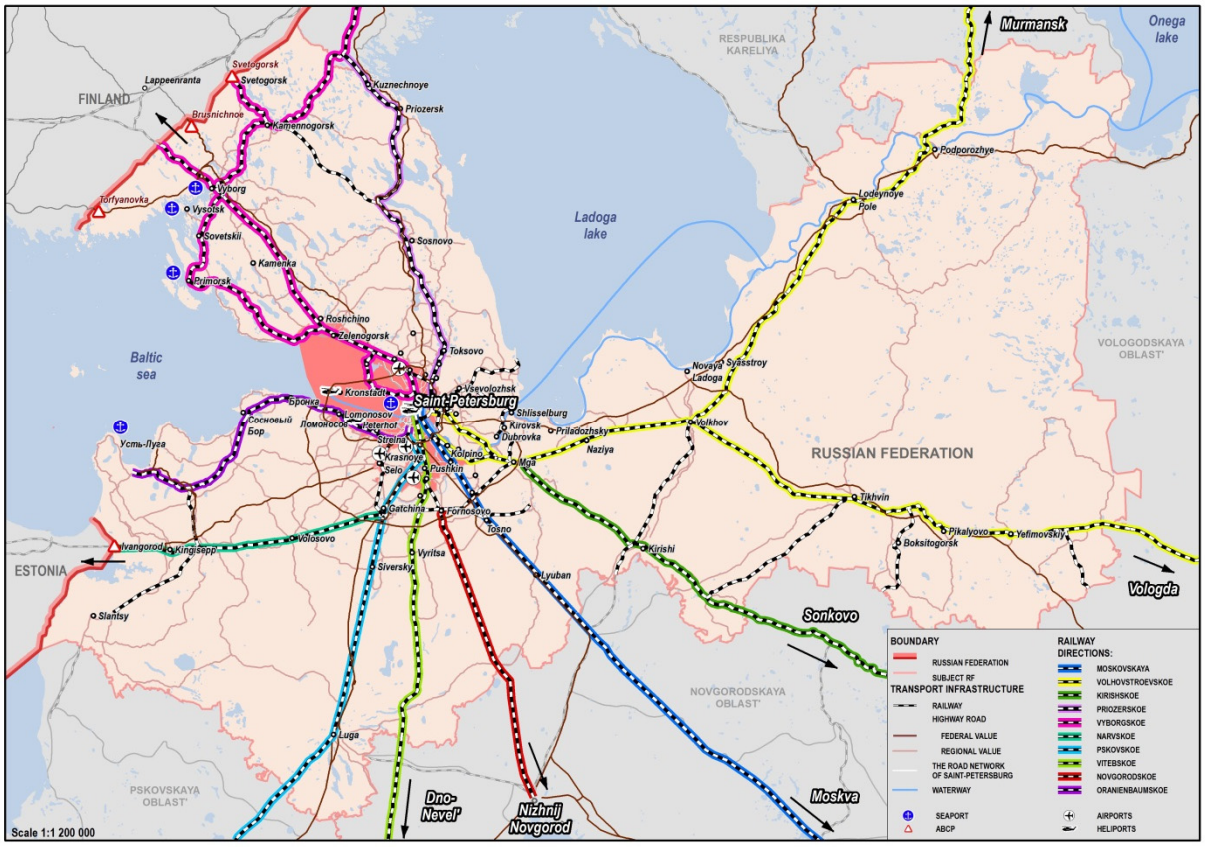


Figure 4.1.1 – Main railway lines in Saint Petersburg and Leningrad Region

Cargo transport services in the region are also provided by:

- private rolling stock operators that own private locomotive and mostly specialize in a narrow range of goods which the operators carry on particular routes of public railways (e.g. BaltTransServis carries petcoke and diesel fuel for export via the Port of Ust-Luga; and TransOil carries oil products to the Port of Ust-Luga, etc.);
- industrial railway transport companies that own non-public railway tracks, locomotives and cargo wagons and provide loading/unloading and transportation of industrial and construction cargo from one industrial facility or construction site to another or to railway stations of Russian Railways JSC.

The October Railway plays in important role in cargo transport to seaports of Saint Petersburg and Leningrad Region.

There are three seaports north of Saint Petersburg, on the coast of the Gulf of Finland – the Port of Primorsk, the Port of Vyborg and the Port of Vysotsk (Figure 4.1.2). The combined cargo turnover of those seaports totaled 74.2 million tons in

2018 (the Port of Primorsk – 53.5 million tons, the Port of Vysotsk – 18.8 million tons, and the Port of Vyborg – 1.9 million tons).

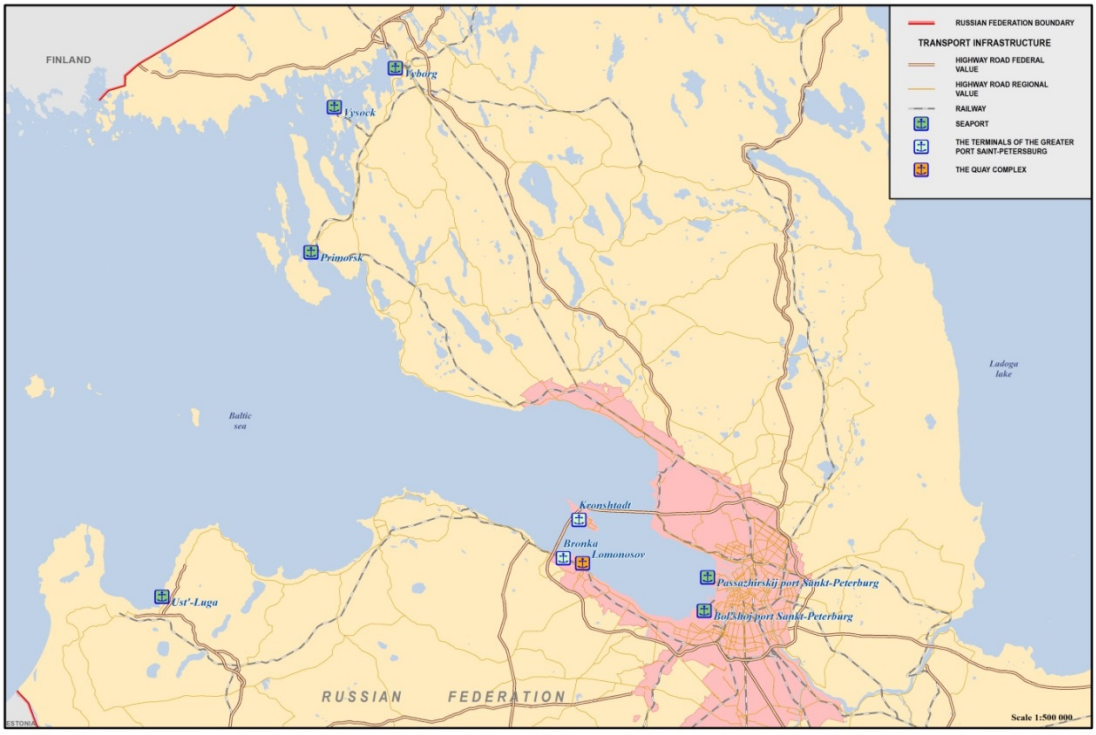


Figure 4.1.2 – Seaports in Saint Petersburg and Leningrad Region

Nearly 90% of the export cargo delivered to the Port of Vysotsk (coal, coke, and oil products) are carried by railway. About 73% of export cargo delivered to the Port of Vyborg, mostly coal, coke, and mineral fertilizers, are carried by railway.

Pipelines are used to deliver export oil and oil products to the Port of Primorsk.

New terminals in seaports are to be built on the northern coast of the Gulf of Finland. Multipurpose Reloading Complex LLC is investing in construction of new terminals for handling coal, grain, mineral fertilizers, and containers at the Port of Primorsk, which are to be completed by 2025, with introduction of Stage 1 scheduled for 2022. The multi-functional port complex at the Port of Primorsk will be able to handle up to 70 million tons of cargo per annum, including 20 to 25 million tons of coal, 5 to 7 million tons of mineral fertilizers, 2 to 3 million 20-foot containers, 1.2 to 2 million tons of general cargo, and 5 to 7 million tons of grain.

A terminal for production, storage and shipment of liquefied natural gas is under construction at the Port of Vysotsk, near the compressor station “Portovaya”. The capacity of the terminal will be 1,8 million tons of LNG per annum.

A terminal for handling timber and general cargo with the capacity of 2.6 million tons is to be built at the Port of Vysotsk. Moreover, there are plans for further development of the coal terminal handling coal for export.

Between 2011 and 2019, Russian Railways JSC built the new railway branch *Losevo — Kamennogorsk — Vyborg* in order to:

- relocate cargo traffic from the Vyborg branch of the October Railway to the new railway branch *Losevo — Kamennogorsk — Vyborg* (railway *Ruchyi – Petäjärvi – Kamennogorsk – Vyborg*) in order to accommodate the growing traffic of export cargo to Finland and the seaports of the northern coast of the Gulf of Finland (30 to 40 pairs of trains a day, carrying coal, oil and oil products, mineral fertilizers, etc.);
- relieve the Vyborg branch from cargo trains, thus enabling the high-speed passenger services (*Allegro)* on the *Saint Petersburg – Buslovskaya* section and improving the safety of passenger transport (Figure 4.1.3).

Figure 4.1.3 – The new railway branch *Losevo — Kamennogorsk — Vyborg*

In addition to the *Allegro* trains, the Vyborg branch of the October Railway is also used by the *Lev Tolstoy* trains (Moscow – Helsinki), the *Lastochka* regional rapid passenger trains (Saint Petersburg – Vyborg), and standard regional electric trains.

The project of the new railway branch *Losevo – Kamennogorsk – Vyborg* involved:

- the construction of the new 62 km electrified double-track section of the *Losevo – Kamennogorsk* (category – "extra heavy-duty" section);
- the reconstruction and expansion of the sections *Kamennogorsk – Vyborg* and *Sosnovo — Losevo-1*;
- the electrification of the sections *Ruchyi – Losevo* and *Kamennogorsk – Vyborg*;
- the construction of several new railway stations, including the stations at Losevo, Sapyornoye, etc.;
- the construction of 17 overpasses to ensure road traffic safety;
- the construction of traction substations and the installation of the catenary system;
- the construction of passenger platforms;
- area improvement and landscaping.

The following was done on the railway section *Vyborg – Kamennogorsk* in the course of the reconstruction:

- implementation of the second main track – 54 km;
- construction or reconstruction of 75 structures;
- reconstruction of four railway stations;
- electrification of the entire railway section;
- construction of 28 passenger platforms;
- reconstruction of 12 railway crossings;
- the entire railway section was provided with an automatic interlocking system on links and electrical interlocking and signaling at stations;
- construction of three overpasses: at km 3, km 11 and km 23 of the railway section *Vyborg – Svetogorsk*.

The total cost of the construction of the railway branch *Losevo – Kamennogorsk – Vyborg* was about 122 billion rubles.

The capacity of the new branch is 60 million tons per annum, which can be increased to 100 million tons (~ 60 pairs of trains a day).

The first test cargo train traveled from Losevo-1 station to Kamennogorsk-1 station in June 2017. Regular traffic of electrically-driven cargo trains started in August 2017 (the use of diesel locomotives with cargo trains has been banned on the

railway section since September 2017). The daily schedule has 7 electrical locomotive shifts ("threads") in the odd-numbered direction (from Kamennogorsk) as well as in the even numbered direction (from Losevo-1).

With electrically driven cargo trains operating on the new railway line, the existing operation schedules for diesel locomotives on the Svetogorsk line had to be reviewed. Now there are three 2ТЭ116 diesel locomotives available in Kamennogorsk to pull cargo trains bound for Svetogorsk Station. Such trains used to start from Vyborg-Tovarny station or Tammisuo station, to which trains were delivered by electric locomotives from Zelenogorsk line. The construction of the new railway line *Losevo – Kamennogorsk – Vyborg* reduced the distance traveled by cargo trains with diesel locomotives of the Svetogorsk branch almost by two thirds. Once the construction of Kamennogorsk-1 railway station is finished, the locomotives of trains of the Svetogorsk line will be changed at Kamennogorsk-1.

Kamennogorsk Station is a major node station situated at the intersection of the single-track railway lines to Svetogorsk, Hiitola and the newly built *Vyborg – Losevo* railway line. The general view of Kamennogorsk Station after the reconstruction is provided in Figure 4.1.4.

Figure 4.1.4 – Kamennogorsk Station after the reconstruction

The capacity of the railway section *Vyborg – Kamennogorsk* would allow the traffic of tens of millions of tons of cargo every year. The time interval between trains on the line can be 8 minutes.

Rationale for electrification of the railway section Kamennogorsk – Svetogorsk and the reconstruction of Svetogorsk Railway Station

The construction of the new railway branch *Losevo – Kamennogorsk – Vyborg* provided electrification of over 80 km of railways used in cargo transport operations in the north-west of Leningrad Region. There is one non-electrified section of the *Kamennogorsk – Svetogorsk* railway left – a 26 km section that is used to export cargo to Finland.

After completion of the *Losevo – Kamennogorsk – Vyborg*, electrically driven trains bound for Svetogorsk Railway Station arrive at Kamennogorsk where electrical locomotives are changed to diesel locomotives. Diesel locomotives take cargo wagons from Kamennogorsk Station to Svetogorsk Railway Station from where the wagons are forwarded to Finland.

On the Finnish side, there is the ongoing ENI financed (5.2 Million EUR) equipment work (e.g. X-Ray's for both wagons and passenger personal items), to be completed by 2025. Moreover, the first phase of the Imatra infrastructure investments involves the construction of facilities to enable passenger and cargo traffic in the new international status situation by 2025.

ENI Finance has previously funded Large Infrastructure Projects (LIP) such as:

- LIP 1602 Imatra BCP;
- LIP 1604 Parikkala BCP;
- LIP 1608 Vaalimaa BCP;
- LIP 1612 Kotka Cruise terminal.

In all, in Finland projects 24,6 Million €, ENI Funding 80 %.

On the Russian side this EU Funding has supported projects:

- LIP 1601 Agricultural project;
- LIP 1605 Border Checkpoint for seaport Passenger in St.P.;
- LIP 1606 Russian Finnish Life Science Park;
- LIP 1610 Vyborg Petrovsky district water supply system;
- LIP 1611 Reconstruction of BCP Torfyanofka.

In all, in Russia projects 18 Million €, ENI Funding 80 %.

Selected railway projects on Finnish side 2015-2029 are presented in table 4.1.

Table 4.1 - Selected railway projects on Finnish side 2015-2029

PROJECT	LEAD	NOTES	STATUS	TIME PERIOD	BUDGET
KOUVOLA RRT PLANNING	City of Kouvola	Intermodal terminal	Done	2016-2018	3,5 Million €
KOUVOLA RRT CONSTRUCTION	City of Kouvola	OBOR project, cargoes between Finland and Russia, Kazakhstan, PRC and Far East Destinations	Under construction	2019-2022	40 Million €
IMATRA ROAD AND RAIL BCP **(KS1402)**	Finnish Transport Infrastructure Agency, with Finnish Customs (FIN), Finnish Border Guard (FIN), Centre for Economic Development, Transport and Environment for Southewast Finland (FIN), Ministry of Transport of the Russian Federation (RUS)	ENI (EU) Finance, Large Infrastructure Project LIP	Granted, Underway	2019-2022	5,2 Million €
LUUMÄKI– IMATRA R BCP DOUBLE TRACK	Luumäki-Joutseno section: two new 1100 m long track yards (Törölä & Muukko) Joutseno-Imatra tavara double track sectio	Improves the functionality, and increases capacity both cross the border but also when the border crossing traffic comes to busy SE railway network of Finland	Approved by Goverment	2017-2023	189 Million €
IMATRAIMATRANKOSKI BORDER PREENGINEERING DEVELOPMENT ACTIONS	Agency for Transportation Infrastructure	Imatra triangle track from Luumäki to Imantrankoski border Double track, 10 km Imatra-Pelkola Electrification and signalling system Pelkola international cross-border and development of the Pelkola track yard 11 side tracks, 8 of 11 side tracks have over 1100 m usable train length Passenger platform in	In active development phase by the Agency	2019-2029 With two Phase P1 2025 and P2 2029	85 Million €

PROJECT	LEAD	NOTES	STATUS	TIME PERIOD	BUDGET
		current Imatrankoski			
VAINIKKALA TRACK YARD DEVELOPMENT ACTIONS	Agency for Transportation Infrastructure	phase 1, Vainikkala track yard, three 1100m long side tracks (one new and lengthen of two tracks)	Approved Underwa		13 Million €

Since funding has been allocated in Finland to infrastructure/improvement of the RwBCP "Imatra" and electrification of the railway approaches thereto, reconstruction of the RwBCP "Svetogorsk" and electrification of the railway section *Kamennogorsk – Svetogorsk* in Russia would be expedient as well.

Such project would:

- increase the capacity of the *Kamennogorsk – Svetogorsk* railway section, and allow more efficient use of Svetogorsk Railway Station and the RwBCP "Svetogorsk";
- allow the RwBCP "Svetogorsk" to change its status from a "simplified, temporary, bilateral" BCP to a "permanent, multilateral" BCP, which would remove the restrictions on the traffic of cargo trains bound for Finland and allow carrying a broader range of cargo through the RwBCP (with the exception of several cargo categories such as oil products, chemicals and hazardous cargo, animals, etc.);
- allow relocating some of the traffic that now goes to Finnish companies in North-West Finland via the RwBCP "Buslovskaya" to the RwBCP

"Svetogorsk", which would shorten the travel distances by 200 km and reduce the delivery times as well;

- enable a second electrified route for cargo trains operating between Russia and South-East Finland and provide a solution to problems with cargo traffic that arise during railway repairs;
- allow relieving the cargo train traffic on the section *Vyborg – Buslovskaya – Vainikkala*, by relocating it to the route *Saint Petersburg – Losevo – Kamennogorsk – Svetogorsk*, away from the main passenger route;
- improve the environment thanks to electrification of the railway section *Kamennogorsk – Svetogorsk*.

The second complete route for cargo trains between Russia and south-east Finland would foster international trade and improve reliability of international cargo transport operations (Figure 4.1.5).

Moreover, electrification of the railway section *Kamennogorsk – Svetogorsk* and reconstruction of Svetogorsk Railway Station would enable passenger train services on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*, which would:

- improve accessibility of the town of Svetogorsk (the only way to reach Svetogorsk now is by bus or by car);
- allow redistribution of some passenger flows from cars and buses to trains;
- relieve road traffic and improve traffic safety on roads through lower accident rates on the roads to the border-crossing points;
- reduce queues at road border-crossing points and time costs involved in the crossing of the Russian – Finnish border;
- reduce greenhouse gas and other emissions from road vehicles.

At present, road transport is a major contributor to air pollution. The total amount of emissions from road vehicles in the Russian Federation is over 14 million tons a year. Road transport accounts for 76.7% of the total aggregated GHG emissions from the transport industry in the Russian Federation. Saint Petersburg and Leningrad Region are at the top of the list among Russian regions in terms of emissions into the atmosphere from road vehicles. According to RozPrirodNadzor (Federal Service for Supervision of Natural Resource Usage), the emissions from road vehicles in 2017 were 470.8 thousand tons in Saint Petersburg and 196.3 thousand tons in Leningrad Region.

The partial redistribution of cargo and passenger traffic from roads to railways on the the route Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta would reduce emissions of greenhouse gases and other pollutants from road vehicles into the atmosphere in Saint Petersburg and Leningrad Region.

At present, towns in border areas of Finland and Russia have small populations and cannot compete on the global market. New jobs are primarily created in metropolitan areas of Saint Petersburg and Helsinki since there is a direct relationship between the size of the population and availability of skilled labor.

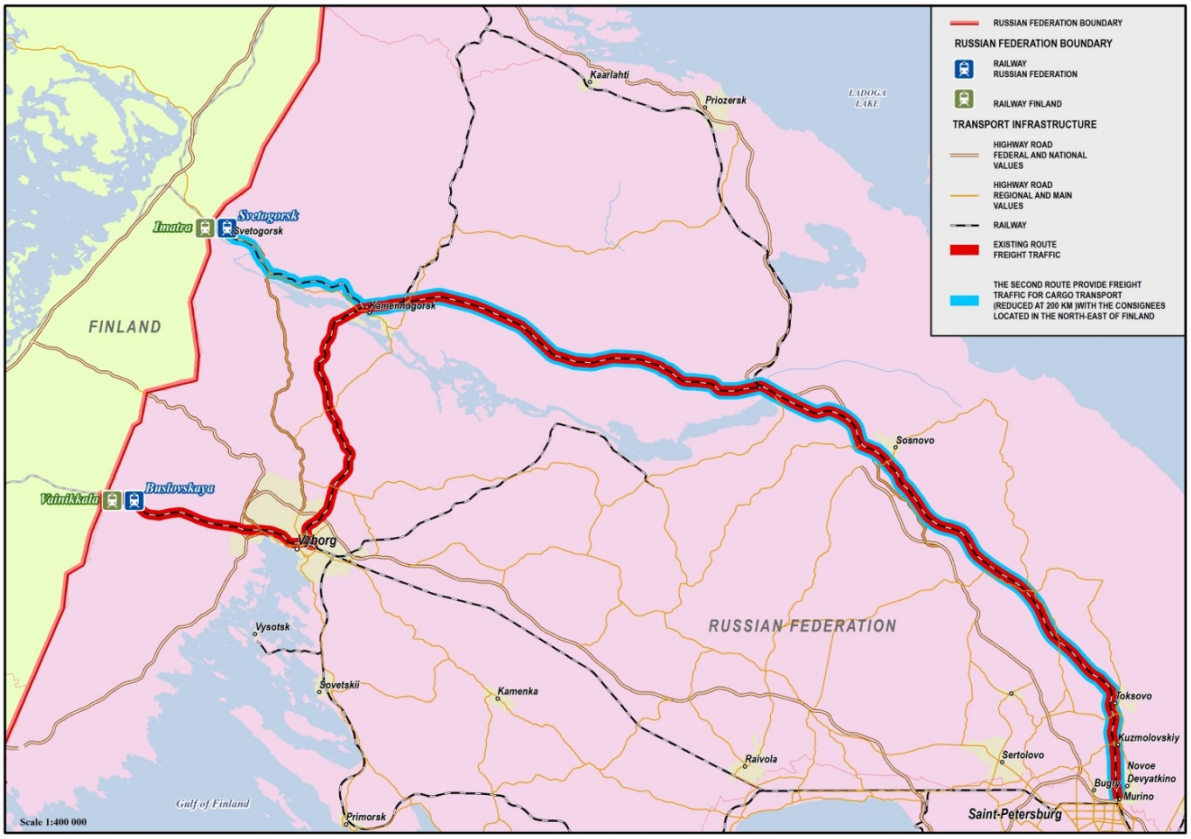


Figure 4.1.5 – The second complete route for cargo trains between Russia and south-east Finland would foster international trade and improve reliability of international cargo transport operations

Implementation of the new cross-border passenger railway route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would:

- reduce the travel time between Saint Petersburg and Lappeenranta to less than three hours;

- enable using the railway network to the maximum in order to increase traffic, which would benefit the environment;
- enable implementation of the InterCity concept involving creation of reliable transport connections between towns with small population and large cities in order to make all the advantages of metropolitan cities (developed labor market, new jobs, higher education opportunities, broader range of social and healthcare services, access to research and innovation centers, a wide range of cultural events, etc.) accessible to everyone irrespective of their place of residence.

Availability of the passenger train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would improve the socio-economic and tourism potential of two neighboring border regions – Vyborgsky District of Leningrad Region and South Karelia of Finland.

Therefore, investment in development of the railway infrastructure would foster economic growth and social development of the border regions.

The future role of the railway section Kamennogorsk – Svetogorsk as a link between Russian railways and the main railway network of the European Union – TEN-T

In Finland, the railway section from Helsinki, via Kouvola to Vainikkala is part of the TEN-T core network and part of the ScanMed Corridor, one of the main European transport corridors (running from Palermo to Oslo, Stockholm and Helsinki). The railway section Luumäki – Imatra - Parikkala and further is subject to reconstruction.

After the reconstruction, the railway section *Kamennogorsk – Svetogorsk* would become another link between Russian railways and the main railway network of the European Union – TEN-T.

Due to infrastructure development, namely at the Svetogorsk BCP and Imatra BCP, there are active incentives underway on both sides of the border to create a route to TEN-T Scandinavian-Mediterranean Core Network Corridor (Scan-Med) by the next round in 2023.

The north-western part of ScanMed is the only arterial corridor in the EU with a connection to the Russian railway network without the need to change gauge. This route has the advantage of a direct connection to Asian countries via Russia by

railway. On that route, trains going from Finland to China would run almost 5 000 km on the railway networks of Russia and Kazakhstan with the same gauge, without stopping for customs procedures, the checks and bogie change only necessary on the Chinese border. At the Kazakhstan-China border, goods could also be transferred from wagons for a 1520 mm gauge to wagons usable in China which has a standard railway gauge.

Kouvola has the major marshalling station in Finland, with a large railway container terminal under construction which is a part of the Trans-European Transport Network. The new terminal will make ScanMed more effective and allow more cargo traffic between Europe, Russia and the growing markets of Asia. Container trains run from Kouvola (Finland) via Russia and Kazakhstan to Xi'an (Central China) on a regular basis. The containers are only transferred to another train once – at the border between China and Kazakhstan, the track gauge in Finland, Russia and Kazakhstan being the same.

The traffic on the route *Kouvola – Xi'an* is expected to grow since the Government of Finland hope that North European companies will use the route to transport their containers to Asia.

Moreover, after the reconstruction of the railway section *Kamennogorsk – Svetogorsk*(tentatively in 2025), Russian regions would have a direct rapid connection to railways of European countries via TEN-T.

That calls for a joint effort in cross-border planning for development of the railway networks of Finland and Russia, with further optimization of laws and regulations that apply to cross-border railway transport operations. Investment in reconstruction of railways and development of uniform regulations and standards would enable increased capacity of railway arterials and higher level of environmental safety.

More intense political cooperation is also needed to develop a cross-border investment plan for the railways sector and implement the project of reconstruction of the railway *Kamennogorsk – Svetogorsk – Imatra – Lappeenranta* to allow both passenger and cargo traffic. It is essential that Russia and Finland coordinate the development of the railway artery in terms of both reaching the maximum efficiency of the infrastructure and optimizing costs.

Finding the investment necessary for the reconstruction of the railway *Kamennogorsk – Svetogorsk – Imatra – Lappeenranta* would allow implementation of

modern cross-border infrastructure which would play an important role in economic development and competitiveness of the border regions.

Other projects for development of railways in Leningrad Region within the gravity zone of the RwBCP "Svetogorsk"

According to the *Program of Comprehensive Development of Transport Infrastructure of the Svetogorsk Municipal Area, Vyborg District, Leningrad Region,* a number of activities are planned to develop the railway infrastructure which include:

- reconstruction of railway platforms at Lesogorsky and Svetogorsk railway stations;
- reconstruction of existing and implementation of new railway crossings with automatic signaling devices, automatic lift gates and barriers at the crossing between the *Kamennogorsk – Svetogorsk* railway line and the urban road network of MA "Svetogorsk urban settlement";
- construction of an overpass across the *Kamennogorsk – Svetogorsk* railway line at the intersection with the *Vyborg – Svetogorsk* road;
- construction of an overpass across the *Kamennogorsk – Svetogorsk* railway line at the intersection with the road link to the production zone of the south-west Svetogorsk.

5 RESULTS OF THE SURVEY OF THE PUBLIC AND COMPANIES REGARDING THE NECESSITY OF DEVELOPING OF THE RBCP SVETOGORSK

5.1 Results of the survey of Russian companies on their interest in transporting cargo through RwBCP "Svetogorsk"

In January-February 2019, Transport Integration Ltd. conducted a survey of product exporting companies and transport companies in order to find out if Russian companies were interested in transporting international cargo traffic through RwBCP "Svetogorsk".

The target groups for the survey were: industrial and (freight) transport companies.

The objectives of the survey of Russian companies included:

- finding out if the companies are interested in transporting international cargo via the RwBCP "Svetogorsk";
- estimating the potential demand for railway freight via the RwBCP "Svetogorsk".

The survey program featured groups of questions as follows:

- company profile (company name; address; main line business; main products);
- company's operations (the amount of export and import of products; cargo traffic; transport modes; border-crossing points used; problems when transporting cargo from Russia to Finland; changes in the amounts of export and import of products and cargo traffic expected during the period till 2035);
- prospects of using RBCP "Svetogorsk" (willingness to use the RBCP in future; suggestions as to infrastructure of the RBCP).

The specialization of companies was taken into account in the survey programs. For example, the survey program for transport companies included questions on through cargo traffic across the national border of the Russian Federation with the Republic of Finland, and the amount of cargo traffic. The survey program for industrial companies included questions on the amounts of export and import of products.

The questionnaire forms that were used in the survey of industrial and freight transport companies are provided in Annex A.

The lists of the industrial and freight transport companies were produced on the basis of the following sources:

- RZD (Russian Railways) data on cargo traffic by train between Russia and Finland;
- data from the Federal Customs Service of Russia on foreign trade operations of Russian companies;
- open sources.

The companies listed included, first of all, major companies responsible for a large share of export and import of goods, and cargo traffic between Russia and Finland.

A total of 236 questionnaire forms were sent to potential respondents, including: 45 questionnaire forms were sent to freight transport companies and 191 to industrial companies (Figure 5.1.1).

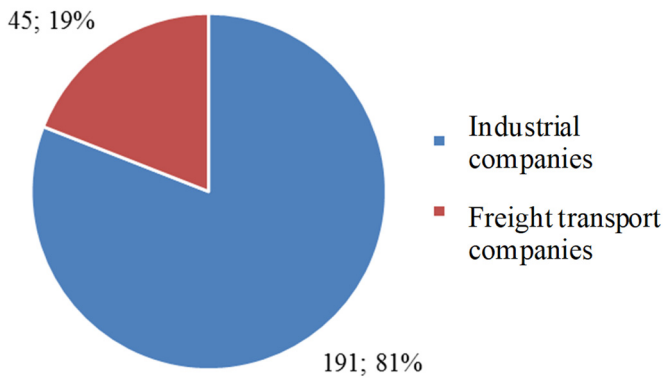


Figure 5.1.1 – Russian companies that took part in the survey, by business line (comp.; %)

The survey of industrial companies covered forty four regions of the Russian Federation: from Pskov Region to Krasnoyarsk Krai. The largest number of companies covered by the survey are based in Saint Petersburg (Figure 5.1.2).

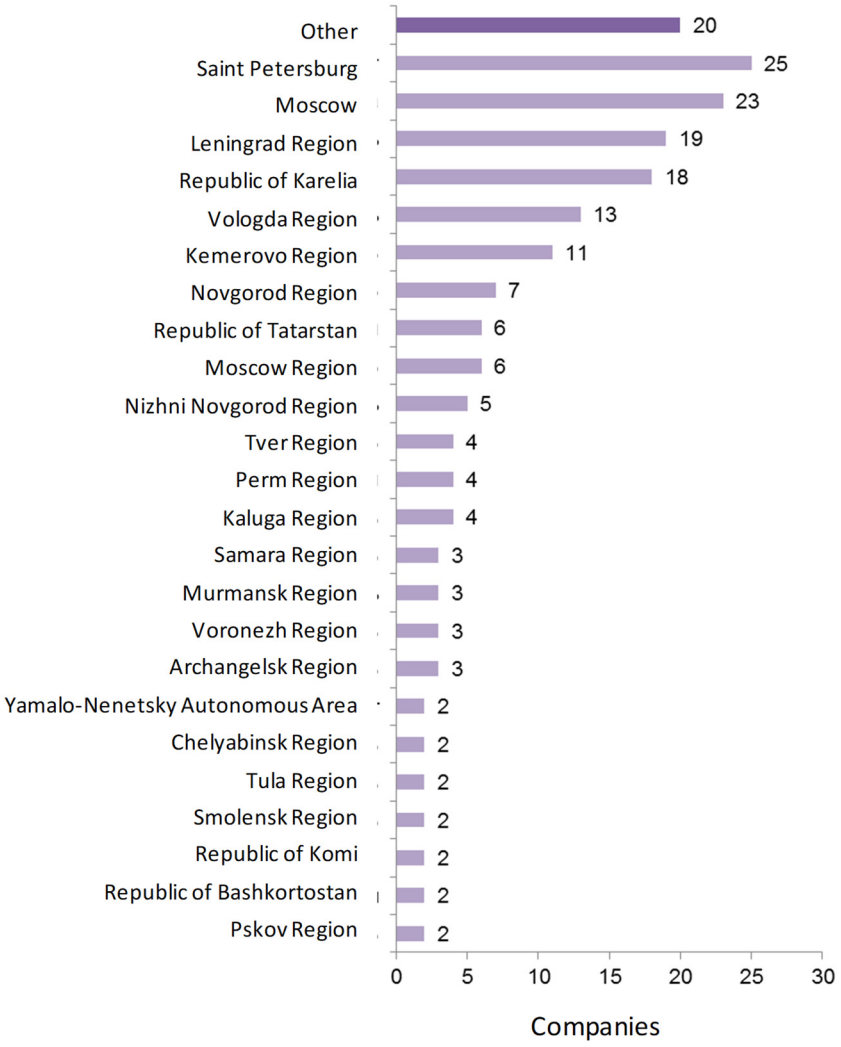


Figure 5.1.2 – Survey geography of industrial companies, by region of the Russian Federation

The questionnaire forms were sent to the following major industrial companies: International Paper (Svetogorsk), JSC Babaevsky LPH, OOO BATALINSKY LPK (Tver Region), OOO KHAROVSKLESPROM, AO LPK KIPELOVO (Vologda Region), OOO SvirLes (Leningrad Region), etc.

The survey of freight transport companies covered four regions of the Russian Federation (Figure 5.1.3). Most companies that were sent the questionnaire forms are based in Saint Petersburg.

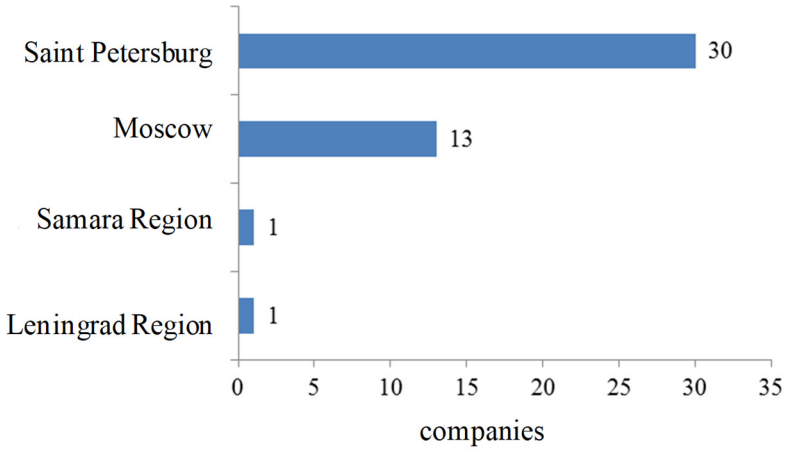


Figure 5.1.3 – Survey geography of freight transport companies, by region

The questionnaire forms were sent to freight transport companies such as OOO Lukoil-Trans, OOO 1-ya Transportno-Logisticheskaya Kompania "Multitransport", JSC RZD Logistics, etc.

The response to the company survey is shown in Figure 5.1.4.

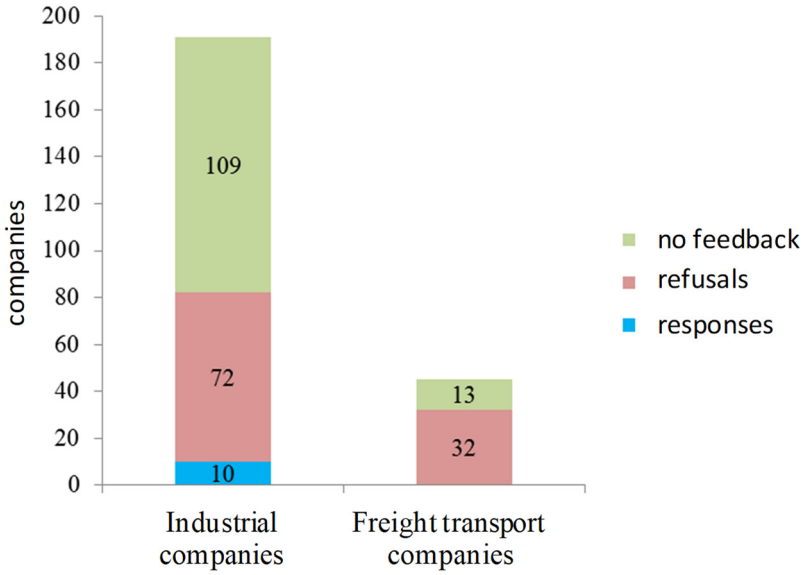


Figure 5.1.4 – Response to the survey of Russian industrial and freight transport companies

Over a half (109 companies or 57%) of the industrial companies that were sent the questionnaire forms did not respond. 13 (29%) freight transport companies that were sent the questionnaire surveys did not respond either.

The main reasons for rejecting the survey were:

- for industrial companies: irrelevance of the survey topic and/or the transport route;
- for freight transport companies: non-participation in surveys in general or irrelevance of the topic (Figure 5.1.5).

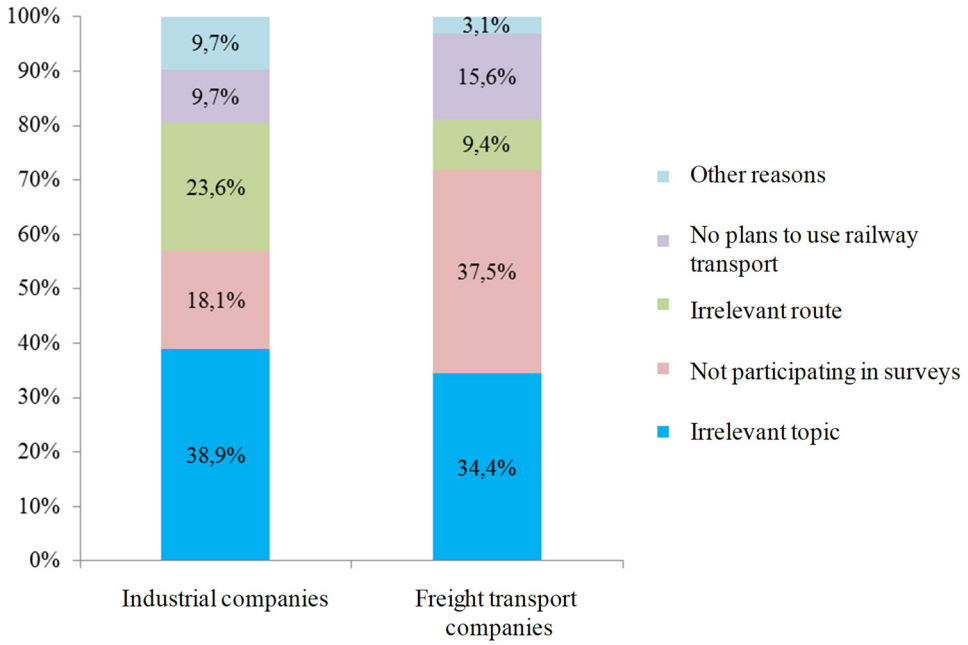


Figure 5.1.5 – Industrial and freight transport companies that refused to take part in the survey, by reason (in %)

The breakdown of industrial companies that participated in the survey by line of business and region is provided in Figure 5.1.6.

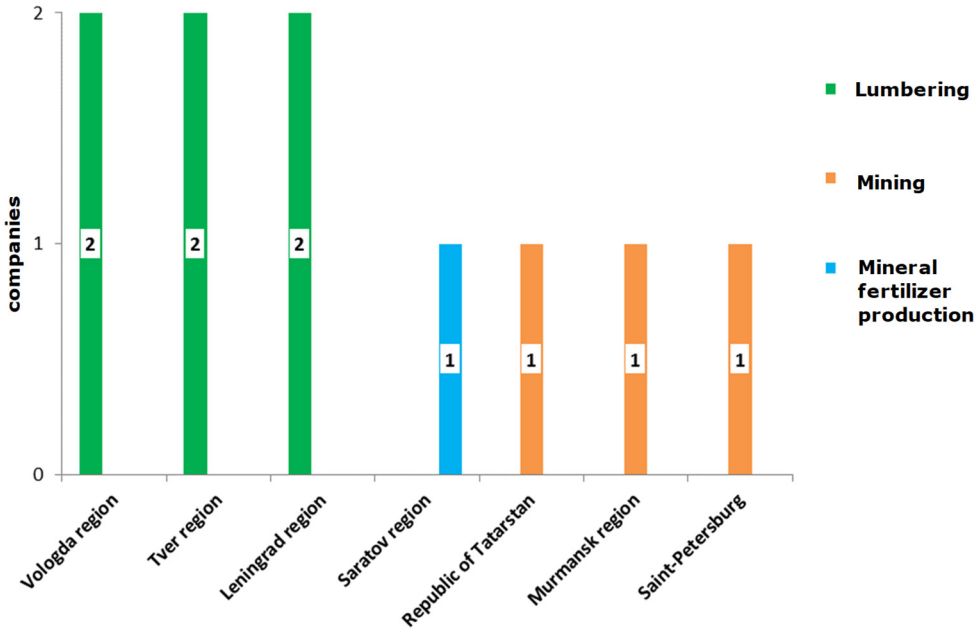
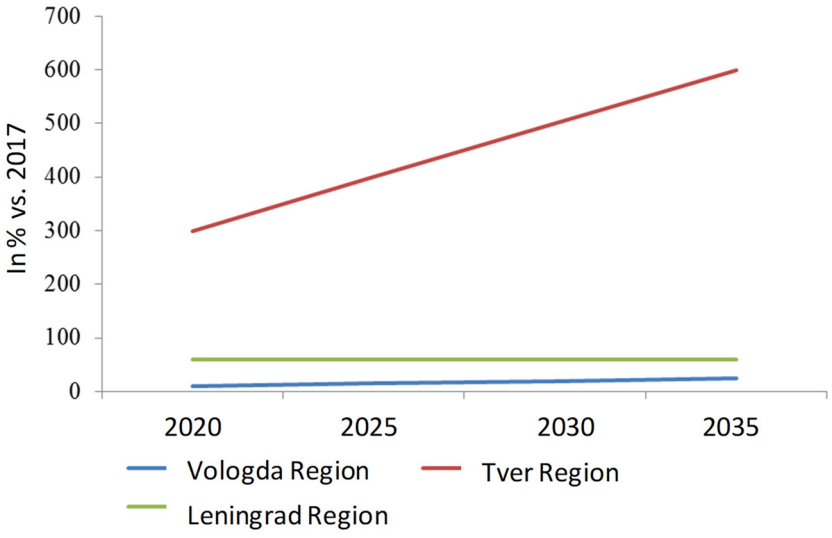


Figure 5.1.6 – Survey geography of industrial companies, by region of the Russian Federation

Three timber industry companies from three regions (Figure 5.1.7) mentioned plans to increase export of their products to Finland.



Source: the companies' answers

Figure 5.1.7 – Forecast of exports to Finland by industrial companies for the period through 2035

Main results of the survey of Russian companies:

1. Ten (10) industrial companies (5% of the sample) took part in the survey including: 6 companies engaged in lumbering and wood processing (from Tver Region, Vologda Region and Leningrad Region), 1 mineral fertilizer company (from Saratov Region); 3 mining companies (from the Republic of Tatarstan, Murmansk Region, and Saint Petersburg).

2. The percentage of companies that refused to participate in the survey was 38% for industrial companies and 71% for freight transport companies.

3. The main type of goods exported by the industrial companies that took part in the survey was saw timber.

4. All industrial companies that took part in the survey transport export goods by train (10 companies). Moreover, there are 2 companies that also use trucks and 2 companies using freight ships.

5. Four companies use RwBCP "Svetogorsk" to get export goods across the border. Five *companies* are considering the use of RwBCP "Svetogorsk" to export their products to Finland. Three companies could not give a definite answer. According to one of the completed questionnaires, the possibility of using the railway BCP will depend on its capacity and infrastructure development.

6. The amount of exports by the industrial companies in 2017 varied from 2 000 to 346 000 tons. The average amount of exports by companies that took part in the survey was 78 000 in 2017.

7. Three timber industry companies mentioned plans to increase export of their products to Finland. The export growth expected by the companies in 2020 vs. 2017 is 10% to 300%, the expectation for 2035 being 25% to 600%.

8. The respondents mentioned the following issues relevant to cargo transport between Russia and Finland: uncertainty as to the time of delivery to Finland (7 companies or 70% of all respondents); long customs and border control times (1 company); rolling stock with oil products having to wait due to delays on the Finnish railway (1 company). Two companies did not mention any issues.

One company mentioned the uncertainty regarding delivery times for goods bound for Finland, which is due to certain practices of RZD (Russian Railways). In 2017, the company exported over 89 000 tons of oil processing products. Another company that mentioned the delivery time uncertainty attributed the problem to weather conditions and/or ongoing repair work on the October Railway and Finnish railways.

The suggestions of the industrial companies as to the infrastructure of RwBCP "Svetogorsk" require using the maximum static load per wagon axle allowed, i.e. over 22.5 tons.

10. One of the Russian companies exporting timber to Finland offered a suggestion on improving the operations of the October Railway in order to reduce wagon downtime (When the railway is busy, *October Railway* company orders the exporter not to execute such documents, in which case loaded wagons may stay on the company's facility for days before they can be dispatched).

5.2 Results of the survey of Russian companies and population as to their interest in a regular passenger service going through RwBCP "Svetogorsk"

In January-February 2019, Transport Integration Ltd. conducted a survey in order to find out if Russian companies were interested in regular passenger train services going through RwBCP "Svetogorsk". The survey procedure was as follows:

- preparation of the survey program with companies' specialization taken into account;
- development of questionnaires;
- making the list of companies for the survey;
- conducting the survey;
- analysis of the survey results.

The target groups for the survey were: travel agencies and (passenger) transport companies.

The objectives of the survey of Russian companies:

- finding out if the companies are interested in regular train services going via Svetogorsk RwBCP;
- estimating the potential demand for railway passenger services via Svetogorsk RWBCP.

The survey program featured groups of questions as follows:

- company profile (company name; address; main line of business);
- company's operations (the number of passengers carried; transport modes; border-crossing points used; problems when transporting passengers on the

Russia – Finland route; forecast of passenger traffic for the period through 2035);

- prospects of using the RwBCP "Svetogorsk" (willingness to use the RwBCP in future; suggestions as to infrastructure of the RwBCP; train schedule).

The questionnaire forms that were used in the survey of travel agencies and passenger transport companies are provided in Annex B.

A total of 140 questionnaire forms were sent to potential respondents, including: 27 questionnaire forms sent to passenger transport companies and 113 forms sent to travel agencies (Figure 5.2.1).

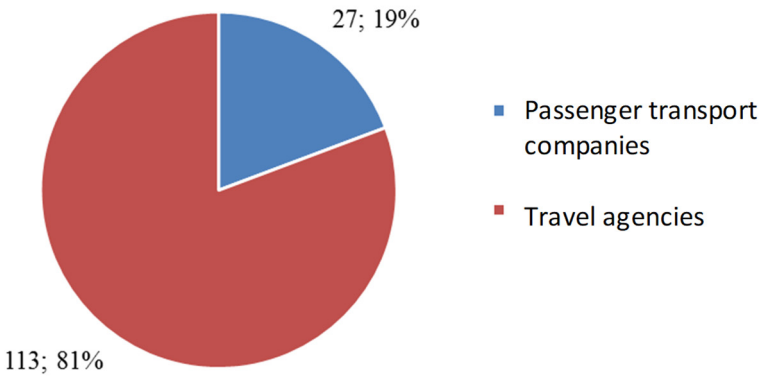


Figure 5.2.1 –Russian companies that took part in the survey, by business line (comp.; %)

The geography of the survey of travel agencies and passenger transport companies by region is presented in Figures 5.2.2–5.2.3.

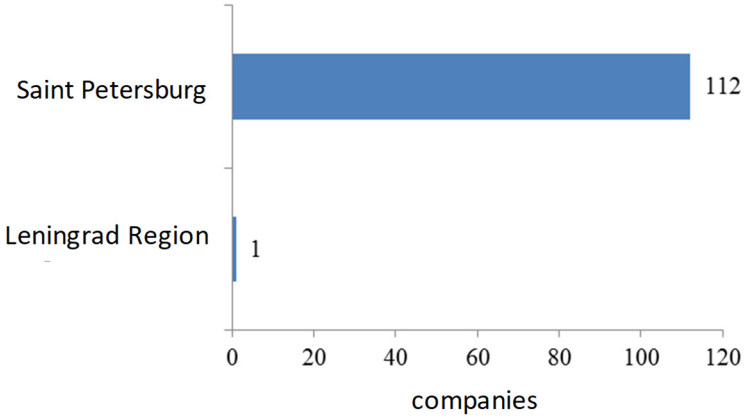


Figure 5.2.2 – Survey geography of travel agencies, by region

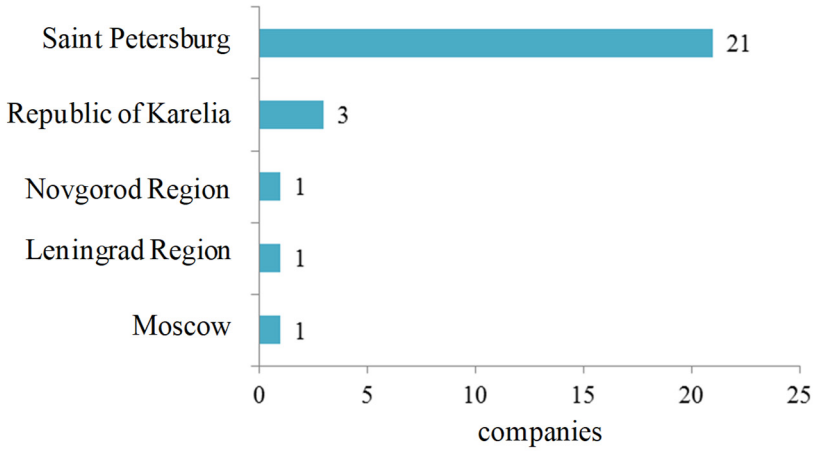


Figure 5.2.3 – Survey geography of passenger transport companies, by region

Three companies filled in the questionnaire: two passenger transport companies and one travel agency. Two of the companies (one passenger transport company and one travel agency) are based in Saint Petersburg, and one (passenger transport company) – in Moscow.

The passenger transport company from Saint Petersburg is a small business. In 2018, the company transported 5.9 thousand passengers by road from Russia to Finland and back. They crossed the border at RdBCP "Brusnichnoye". Their passenger traffic peaks in summer. The company is not interested in trains from Russia to Finland.

The passenger transport company from Moscow provides railway passenger transport services between Russia and Finland. In 2018, the company transported 221.6 thousand passengers from Russia to Finland (in 2017 – 216.0 thous. pax) and 260.2 thousand passengers from Finland to Russia. (in 2017 – 263.5 thousand pax). Thus, the company transported 481.8 thousand passengers by rail in 2018 (+2% vs. 2017).

The company has the most passengers in summer (32%), the traffic in other seasons being even.

The railway passenger transport company plans to increase their passenger traffic between Russia and Finland as follows (in % vs. 2017):

- from Russia to Finland: 3% in 2020; 5%; 5% in 2025; 10% in 2030; and 10% in 2035;

- from Finland to Russia: 1% in 2020; 2%; 5% in 2025; 7% in 2030; and 7% in 2035.
- according to the representative of the railway passenger transport company, the following services should be available on the route *Russia* ↔ *Finland*:
- tax-free;
- onboard Wi-Fi ;
- onboard passport control and customs control procedures (with the train moving).

The travel agency sold tours from Russia to Finland to 6.8 thousand people in 2018. Tourists went Finland via the BCPs: "Torfyanovka", "Brusnichnoye" and "Svetogorsk".

The company is interested in organizing tours from Russia to Finland and from Finland to Russia via the railway border-crossing point "Svetogorsk". By 2025, the company is planning to increase the number of organized tourists by 10% vs. 2017. According to respondents, the following services should be available on the route between *Russia and Finland*:

- currency exchange;
- tax-free;
- onboard Wi-Fi ;
- onboard passport control and customs control procedures (with the train moving).

Moreover, the following suggestions were obtained as to the schedule for passenger trains that would go via the RwBCP Svetogorsk:

- from Russia to Finland: 10:00 (border-crossing time);
- from Finland to Russia: 17:00 (border-crossing time).

In addition to the survey of Russian travel agencies and passenger transport companies, a public survey was conducted in Saint Petersburg to find out if the people were interested in a train service going via the RwBCP "Svetogorsk".

The survey was mostly focused on university students.

The survey program had questions as follows:

- gender;
- age;
- "Do you travel to Finland?";
- "How often do you travel to Finland?";

- average duration of a trip to Finland in 2017-2018;
- main purposes in visiting Finland in 2017–2018;
- "In which season do you visit Finland more often?";
- "How long does it take you on average to cross into Finland from Russia?";
- "How long does it take you on average to cross into Russia from Finland?";
- "If a train service to Imatra and Lappeenranta were to become available, would you travel from Russia to Finland and from Finland to Russia by train?";
- "How many trips to Imatra and Lappeenranta would you make in case the new train service is introduced?";
- "What services should be provided at the railway border-crossing point "Svetogorsk" or on the railway route from Russia to Finland and from Finland to Russia?";
- "How much would you pay for a single ticket for a high-speed train service to Imatra and Lappeenranta (in rubles)?";
- suggestions as to the train schedule for the high-speed service to Imatra and Lappeenranta.

Therefore, the program for the public survey was similar to that for the survey of companies.

129 persons took part in the survey, most of them (70%) female.

The average age of the respondents was 24. Most respondents (70%) were 20 to 25 years old (Figure 5.2.4).

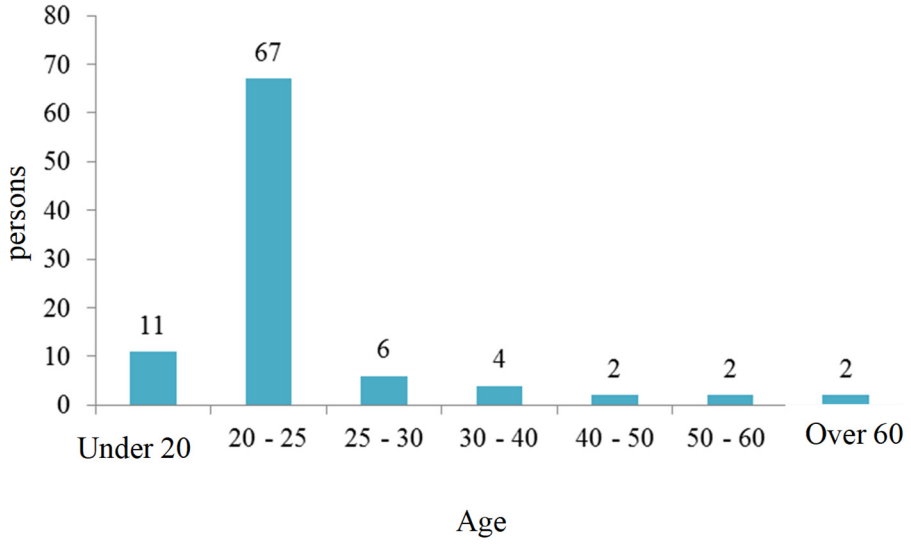


Figure 5.2.4 – Respondents by age (in persons)

Over 62% of the respondents have traveled to Finland, and 26% have not but are planning to. 66% of female respondents have traveled to Finland, 8% have not, and 26% have not traveled to Finland but are planning to. The answers of male respondents were more evenly distributed: 54%, 21% and 26% respectively (Figure 5.2.5).

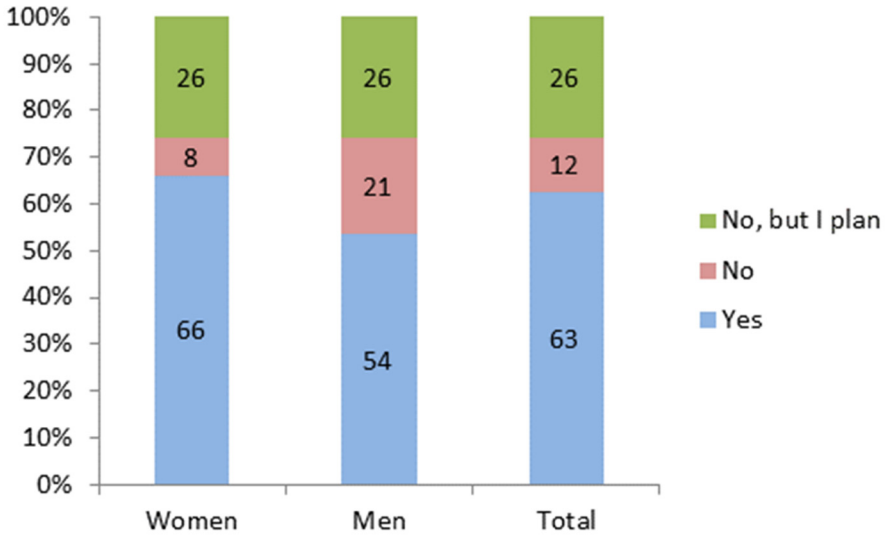


Figure 5.2.5 – Survey results as to question: "Do travel to Finland?"

Answers to the question: "How often do you travel to Finland?" were obtained from 68% of respondents who took part in the survey.

About a half of those respondents travel to Finland once a year at most, 37% – once or twice a year, and 14% – several times a quarter (Figure 5.2.6).

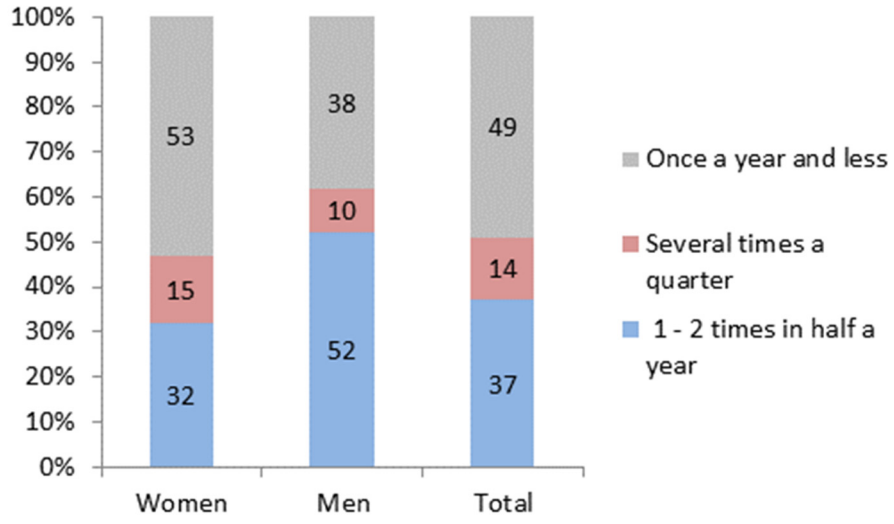


Figure 5.2.6 – Survey results as to question: "How often do you travel to Finland?"

Answers to the question on the duration of a visit to Finland in 2017–2018 were obtained from 65% of the respondents. Residents of Saint Petersburg mostly went to Finland for 1 or 2 days. One third of the respondents did not stay in Finland longer than 24 hours (Figure 5.2.7).

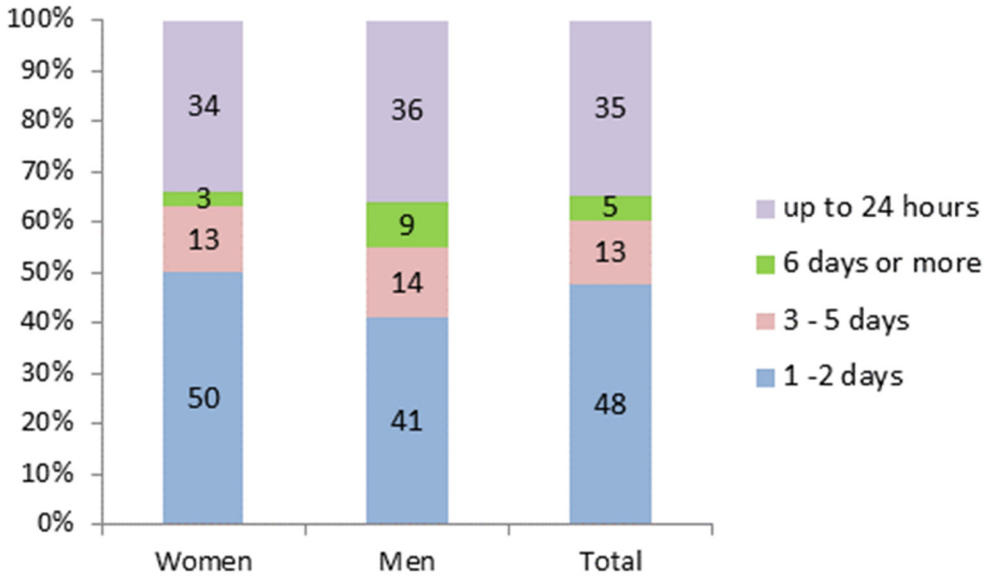


Figure 5.2.7 – Survey results as to question: "How long did your average trip to Finland take in 2017-2018?"

Answers to the question about the purpose of visiting Finland were obtained from 67% of the respondents. Most respondents indicated more than one purpose of travel. Shopping and tourism are the most common (Figure 5.2.8).

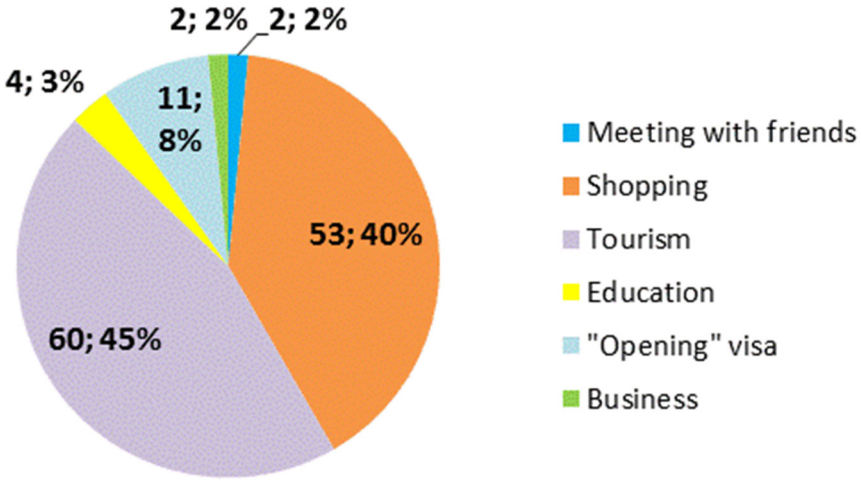


Figure 5.2.8 – Trips to Finland by purpose (persons; %)

Answers to the question about the season of visiting Finland were obtained from 67% of the respondents. The most popular season is winter Spring(Figure 5.2.9).

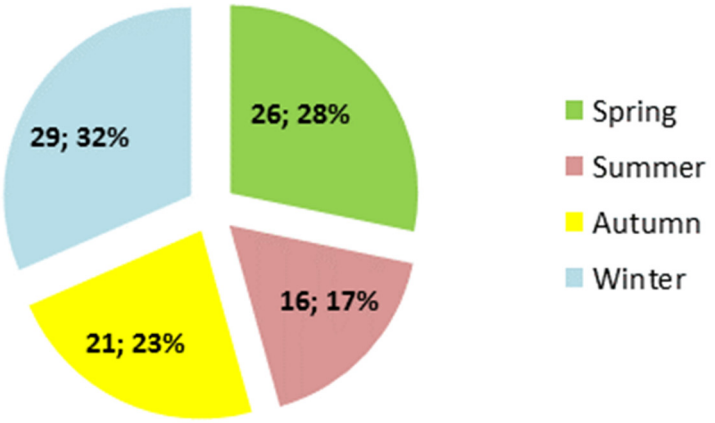


Figure 5.2.9 – Trips to Finland by season (persons;%)

The survey revealed that the respondents used RdBCP "Brusnichnoye" the most often (34%), with slightly fewer people using RdBCP "Torfyanovka" (32%). RwBCP "Buslovskaya" is used less than other BCPs. 24% of the respondents who answered the question have traveled via BCP "Svetogorsk" (Figure 5.2.10).

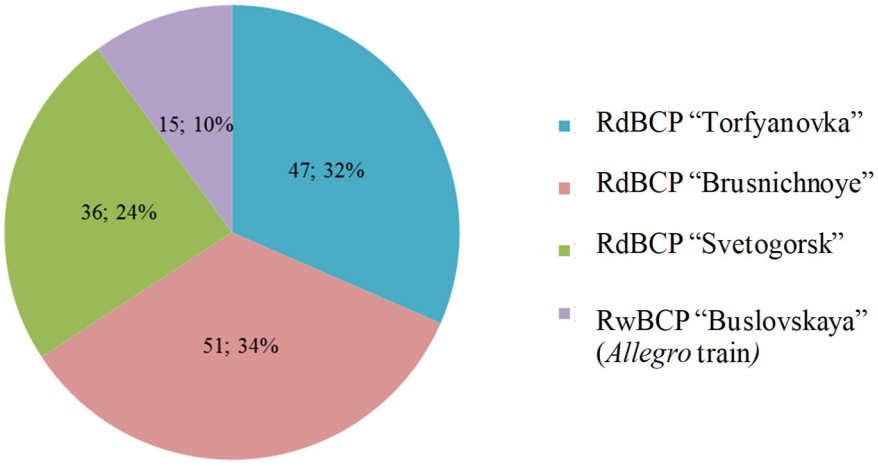


Figure 5.2.10 – Survey results as to question: "Through which Russia – Finland border-crossing point do you travel?", persons;%

If a train service to Imatra and Lappeenranta were to become available 64% would travel between Russia and Finland train, and 10% would not. 25% were not sure (Figure 5.2.11).

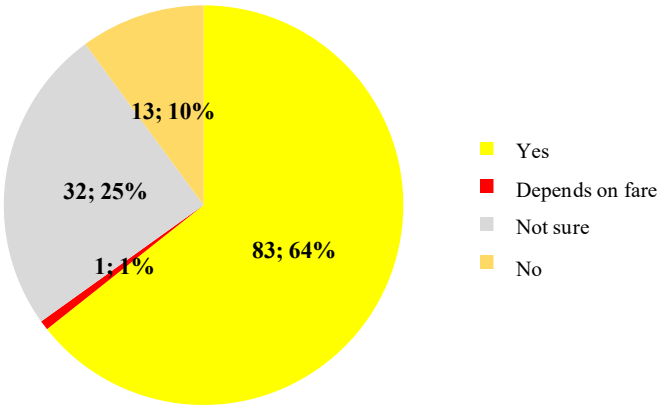


Figure 5.2.11 – Survey results as to question: "If a train service to Imatra and Lappeenranta were to become available, would you travel from Russia to Finland and from Finland to Russia by train?" (respondents;%)

The intended frequency of visits to Finland with a train service to Imatra and Lappeenranta varied from 1 to 20. Less than 5% of the respondents did not plan to use the new train service.

Half (50%) of the respondents would travel to Finland with the new train service to Imatra and Lappeenranta once or twice a year. Over 11% would use the train service 3 to 5 times a year (Figure 5.2.12).

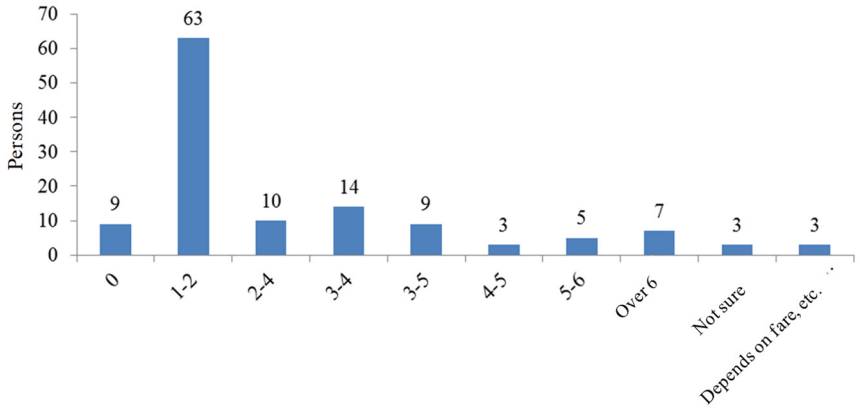


Figure 5.2.12 – Survey results as to question: "How many trips to Imatra and Lappeenranta would you make in case the new train service is introduced?"

Over 64% of the respondents would use the new train service to Imatra and Lappeenranta to travel between Russia and Finland. It was the most typical answer for respondents who normally travel via RwBCP "Buslovskaya" (Figure 5.2.13).

The respondents would spend 1 530 rubles on average on a single ticket for the new train service. The most common answer was 1 500 rubles (15% of all respondents). About 50% of the respondents would pay up to 1 300 rubles per trip.

Therefore, the public survey in Saint Petersburg and Leningrad Region and the survey of passenger transport companies and travel agencies identified interest in the new regular train service to Imatra and Lappeenranta via the RwBCP "Svetogorsk". 64% of the respondents who took part in the survey would use the train service to Imatra and Lappeenranta.

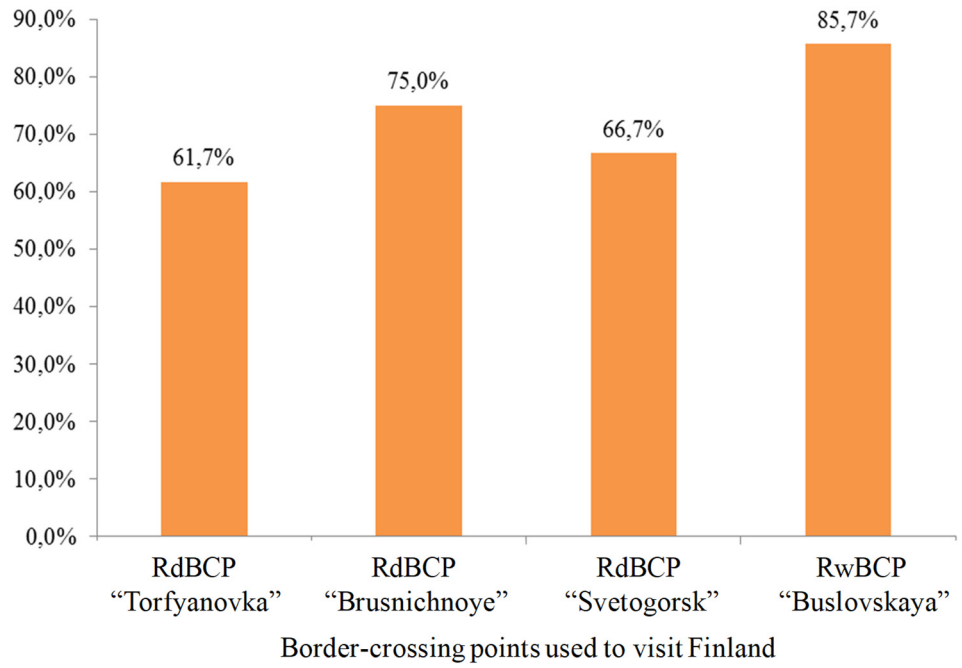


Figure 5.2.13 – Over 64% of the respondents would use the new train service to Imatra and Lappeenranta to travel between Russia and Finland (% of all respondents who travel to Finland via the corresponding BCP)

To assess the interest of the population of Saint Petersburg and Leningrad Region in the new train service going through RBCP "Svetogorsk", a survey was conducted on open web-sites, on the web-site *Фонтанка.ру* which publishes the main news of Saint Petersburg, with two questions asked (Figures 5.2.14 – 5.2.15):

- "How often would you travel to Imatra and Lappeenranta if there were a train service?";

- "Would you take a train to Imatra/Lappeenranta if there were a train service?".

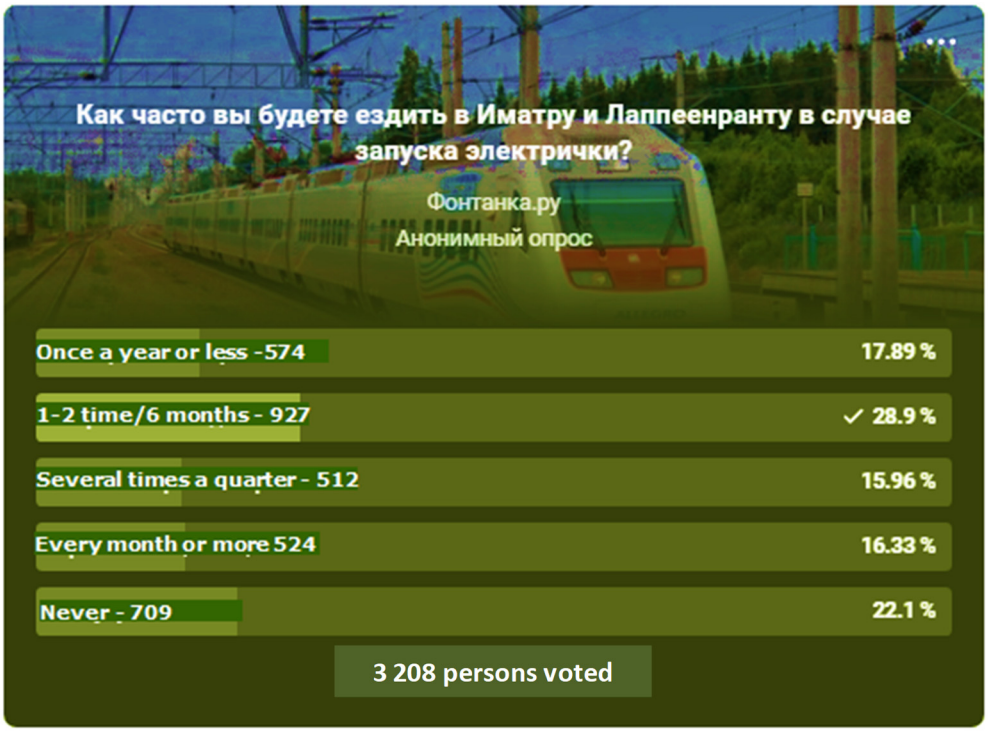


Figure 5.2.14 – How often would you travel to Imatra and Lappeenranta if there were a train service?

3208 votes were received, with 78% of the respondents willing to use the new train service to Finland. They believe that the new train service to Imatra and Lappeenranta would be the safest and the most comfortable option. However, the respondents expect an adequate fare comparable to the cost of traveling by road. The respondents thought it important to have document checks onboard of a moving train in order to minimize the time involved in passport control and customs inspection. In addition, the respondents believe that the arrival time(s) of the new train should provide a convenient connection with trains in Finland.

Figure 5.2.15 – Would you take a train to Imatra/Lappeenranta if there were a train service?

650 people voted. 92% would use the train if the fare were 600 to 1000 rubles (€8 – €13). A 40% increase in the price would reduce the demand by 40%.

The survey has identified that the population of Saint Petersburg and Leningrad Region is interested in a regular passenger service that would go through the RwBCP "Svetogorsk".

6 FACTORS IN THE DEMAND FOR CARGO AND PASSENGER TRANSPORT THROUGH THE RWBCP "SVETOGORSK"

The main factors in the demand for cargo and passenger transport through the RwBCP "Svetogorsk" are as follows:

- the forecast of the socio-economic development of the gravity zone of RwBCP "Svetogorsk";
- the forecast of international trade between Russia and Finland;
- the forecast of tourism in border areas of Russia and Finland.

The main trends and indicators characteristic of the forecasts listed above are provided below.

6.1 Forecast of the socio-economic development of the gravity zone of RwBCP "Svetogorsk"

The forecast of the socio-economic development of the gravity zone of RwBCP "Imatra – Svetogorsk" was developed with the following documents taken into account:

- The forecast of the socio-economic development of Russia for the period through 2036, approved at the session of the RF Government on 22.11.2018;
- The strategy of spatial development of the Russian Federation through 2025 (RF Government Directive No.207-p dated February 13, 2019);
- The forecast of socio-economic development of Leningrad Region through 2035 (Decree of the Leningrad Region Government No. 100 dated 18.03.2019);
- The forecast of socio-economic development of Saint Petersburg through 2035 (Decree of the Saint Petersburg Government No. 90 dated 14.02.2017);

The *forecast of the socio-economic development of Russia for the period through 2036* features two scenarios: the *baseline* scenario and the *conservative* scenario.

Under the *baseline scenario,* the growth rates stabilize at 3% with the inflation rate remaining at the target level. The share of investments in the GDP is forecast at

26% to 27%. After the more dynamic average growth of 5.7% in real values between 2018 and 2024, the growth in investment in equity would gradually go down to 3% to stabilize at that level.

The trade in services is forecast to grow during the horizon period: the share of export of services in the GDP would increase from 3.7% in 2017 to 5.3% in 2036, with the share of the import of services growing 5.6% in 2017 to 8.6% in 2036.

According to the *baseline* scenario, the GDP growth would be 2.7% between 2019 and 2024, 3.2% between 2025 and 2030, and 3.0% between 2031 and 2036. In 2036, the GDP of Russia would be 1.7 times the level of 2018.

The average growth rate of Russia's industrial production would be 3% between 2019 and 2030 to go down to 2.8% between 2031 and 2036.

The retail turnover would grow 2.4% in 2019 – 2024, 2.9% in 2025 – 2030, and 3.1% in 2031 – 2036.

The real disposable personal income would grow 2.0% in 2019 – 2024, 2.5% in 2025 – 2030, and 2.7% in 2031 – 2036 on average.

The *baseline* scenario of the socio-economic development of the Russian Federation through 2036 involves structural changes in the GDP production resulting from a set of measures aimed to achieve the national targets. The input of processing industries, transport, construction, real estate operations as well as research and engineering activities to the GDP is forecast to increase.

For example, the share of processing industries in the GDP would increase from 12.3% in 2018 to 13.4% in 2031 – 2036, the shares of the construction industry and transport growing from 5.6% to 8.2% and from 6.2% to 6.3% respectively. The share of the transport industry in the GDP between 2019 and 2030 would be 6.4%.

The *conservative scenario* involves slow GDP growth in 2019 – 2024 (average annual growth at 2.4%). The average annual GDP growth is forecast to reach 3.2% in 2025 – 2030 and then go down to 2.9% in 2031 – 2036.

Under the *conservative* scenario, investment in equity would grow 2.1 times between 2019 and 2036. The average annual growth in investment in equity would be 4.9% in 2019–2024 and 3.3% in 2025–2036.

The industrial production in 2036 would be 1.6 times the level of 2018. The average annual growth in industrial production would be 2.7% in 2019 – 2024, 2.9% in 2025 – 2030, and 2.7% in 2031 – 2036.

The real disposable personal cash income in 2036 would be 1.5 times the level of 2018. The average annual growth in the real disposable personal cash income would be 1.7% between 2019 and 2024, 2.4% between 2025 and 2030, and 2.5% between 2031 and 2036.

The *Strategy of Spatial Development of the Russian Federation through 2025 was* developed to ensure sustainable and balanced development of Russian regions, reduce disparities between regions in the living standards and quality of life, and accelerate economic growth and technological development.

According to the *Strategy of Spatial Development of the Russian Federation through* 2025, the disparity between regions in their levels of socio-economic development as well as intraregional disparities are to be reduced by means of:

- enhanced cooperation between regions in their socio-economic development within the macro-regions, i.e: the Central Region, the Central-Black Earth Region, the North-West Region, the Northern Region, the Southern Region, the North Caucasus, the Volga-Kama Region, the Volga-Ural Region, the Ural-Siberian Region, the South Siberian Region, the Angara - Yenisei Region, and the Far East;
- expanded geography and faster economic growth and development of science, technology and innovations in Russia to be effected through socio-economic development of promising centers of economic growth which include Saint Petersburg and Leningrad Region.

One of the main tasks involved in the spatial development of the Russian Federation is elimination of infrastructure related limitations on the federal level and improvement of availability and quality of the backbone transport, energy and IT&telecommunication infrastructure.

The Russian part of the gravity zone of the RwBCP "Svetogorsk" has advantageous features in terms of the socio-economic development.

Saint Petersburg and Leningrad Region are in the second place after the Moscow Region (Moscow city + Moscow Oblast) in terms of geopolitical position and socio-economic significance. They have high quality human capital, strong and diversified economy and a strong impact on key trends in development of the country.

Saint Petersburg and Leningrad Region have an advantageous geographic position – in the north-west of the Russian Federation, on the coast of the Gulf of Finland of the Baltic Sea.

7.1 million people live in Saint Petersburg and Leningrad Region, which is 4.8% of Russia's population. The population of the two regions increased by 6% over the last 5 years.

Saint Petersburg is the second most populated city in the Russian Federation, and an important center in terms of economy, science, education, culture and tourism. The city has a developed and diversified economy and a strong transport-and-logistics complex.

The city has competitive advantages such as a vast domestic market, access to foreign sales markets, developed transport infrastructure, innovation and technology clusters, high education level, rich tourism potential, and a good level of housing availability.

The current population of Saint Petersburg is 5.3 million.

The *Forecast of Socio-Economic Development of Saint Petersburg Through 2035* features three scenarios: *the baseline scenario, the baseline + scenario, and the target scenario*;

The *baseline* scenario involves inertial development of Saint Petersburg with the negative trend in macroeconomic indicators remaining. Under the scenario, the economic growth of Saint Petersburg would be restored on a moderate level (~ 3% a year). The industrial sector would still provide a significant input to the GRP, mostly from the processing industries that are traditional for Saint Petersburg.

The *baseline+* scenario is viewed as the most probable and involves inertial development with a significant improvement of the macro-economic situation, strengthening of the national currency, faster growth in export activities and higher labor productivity resulting from technology transfer and implementation of the import replacement policy. The average annual GRP growth in Saint Petersburg forecast for the horizon period under the scenario is 4%.

The *target* scenario in the long-term forecast is based on the assumption that competitive advantages of Saint Petersburg will be utilized to the maximum. Under the target scenario, the stable growth in investment in equity (reaching 25% of the GRP by 2035) would produce the maximal effect from development of high-priority sectors of the economy, reduce the share of Saint Petersburg's traditional industries, and bring the share of products by high-tech and science intensive industries in the GRP to 45% by the end of the horizon period. Effective implementation of measures designed to support high value-added industries (high-tech manufacturing, IT sector,

research and development, and tourism) would ensure stable and rapid economic growth during the entire horizon period (3.2% to 4% in 2018-2020 and then 5% annually) and increased labor productivity (to reach 4.4% by 2035).

Under the *target* scenario, the average annual production growth in processing industries would be 104.5%, with the highest growth rates shown by the chemical and pharmaceutical industries (with average annual growth rates forecast to be 107.5% and 109.7% respectively), machine and equipment manufacturing industries (106.3%), manufacturers of computers, electronic and optical products (105.6%) and transport vehicles and equipment (105.4%).

According to the *baseline* scenario, the population of Saint Petersburg would be 5 351.9 thousand people in 2030. (7.0% vs. 2018), 5 818.9 thousand people in 2035 (+ 10% vs. 2018), while under the *baseline*+ scenario the population in said years would be 5 948.9 thousand people (+12.2%) and 6 079.3 thousand people (+14.7%). The *target* scenario involves the population reaching 6 355.3 thousand people by 2035 (+20% vs. 2018).

Thanks to its well-developed industrial potential and advantageous geopolitical position, *Leningrad Region* holds leading positions Russia in a number of socio-economic parameters.

The population of Leningrad Region was 1.8 million in 2018: urban population – 63.8 %; rural population — 36.2%. The Region borders Finland, Estonia, and five regions of Russia: Novgorod Region, Pskov Region, Vologda Region, the Republic of Karelia, and Saint Petersburg.

Leningrad Region is of the most important centers of the automobile industry in Russia, with over 20 companies producing parts and components for cars. Development of the industrial cluster of car assembly and automobile part production facilities is a priority in economic development according to the Strategy for Socio-Economic Development of Leningrad Region. The region also has some objective advantages such as access Russian and European markets and well developed logistics infrastructure. These factors create investment potential for the region and ensure its competitiveness by providing the basis for development of major enterprises and manufacturers.

The *forecast of socio-economic development of Leningrad Region through 2035* features two scenarios:

- *scenario 1* that assumes that the economy will develop within the existing inertial dynamics and the government policy to support investment will be implemented; and
- *scenario 2* that involves implementation of a set of measures to accelerate the economic growth and improve the demographic situation and living standards.

According to the 1st scenario, the population of Leningrad Region would be 1 918.5 thousand people in 2030. (6.5% vs. 2018) and 1 952.3 thousand people (+8.4% vs. 2018) and 1 958.1 thousand people (+8.8%), and 2011.5 thousand people (+11.8%).

In the long term, the important factors in the GRP growth in Leningrad Region would be: implementation of projects in the industrial sector, the transport sector and the logistics industry (development of commercial seaports and construction of logistics terminal centers); production growth in individual processing industries (chemical and petrochemical industries and the manufacturing of transport vehicles and equipment); and a positive dynamic in housing construction.

Under the 1st scenario, the GRP in 2035 would be 1.5 times the level of 2018 (average annual growth – 2.5%); under the 2nd scenario it would be 1.66 greater than GRP 2018 (average annual growth – 3.0%).

Under the 1st scenario, the manufacturing sector output in Leningrad Region would grow 1.6 times (average annual growth – 2.8%); under the 2nd scenario – 1.76 times (average annual growth – 3.4%).

The positive dynamic in the manufacturing sector of Leningrad Region during the period through 2035 is to be provided by implementing investment projects such as new construction and expansion or modernization of production facilities.

6.2 Forecast of trade between the Russian Federation and Finland

The significance of Finland in Russia's foreign trade is determined by the position and the share of Finland in the foreign trade turnover of Russia. Finland was in the 14th place in the Russia's foreign trade turnover in 2018, accounting for 2.14% thereof: 2.53% of exports and 1.42% of imports (Table 6.2.1).

Table 6.2.1 – Finland's significance of Russia's foreign trade between 2010 and 2018

	2010	2011	2012	2013	2014	2015	2016	2017	2018
The position of Finland in Russia's trade turnover	13	15	15	15	15	15	15	15	14
The share of Finland in Russia's trade turnover, %	2.68	2.29	2.02	2.22	2.04	1.85	1.93	2.11	2.14
The position of Finland in Russia's exports	12	15	14	13	14	14	13	13	12
The share of Finland in Russia's exports, %	3.06	2.55	2.29	2.52	2.29	2.06	2.29	2.42	2.53
The position of Finland in Russia's imports	12	15	16	15	16	18	16	14	18
The share of Finland in Russia's imports, %	2.00	1.86	1.58	1.71	1.60	1.46	1.36	1.63	1.42

Source: the Federal Customs Service of Russia

Finland's share in the import of goods to Russia in 2018 went down 0.58 percent points vs. 2010, the share in Russia's exports declining by 0.53 percent points.

The growth in trade between Russia and Finland resumed in 2016 due to increased export of goods from Russia to Finland.

The amount of trade between Russia and Finland was 28.9 million tons in 2018 surpassing the level of 2012 by 9% and almost reaching the record level of 2013. However, imports dropped 42% while exports went up 15%. The export of goods from Russia to Finland in 2018 totaled 27.4 million tons or 105% of the 2017 level.

Fuel and wood jointly account for over 80% of the export goods (Figure 6.2.1).

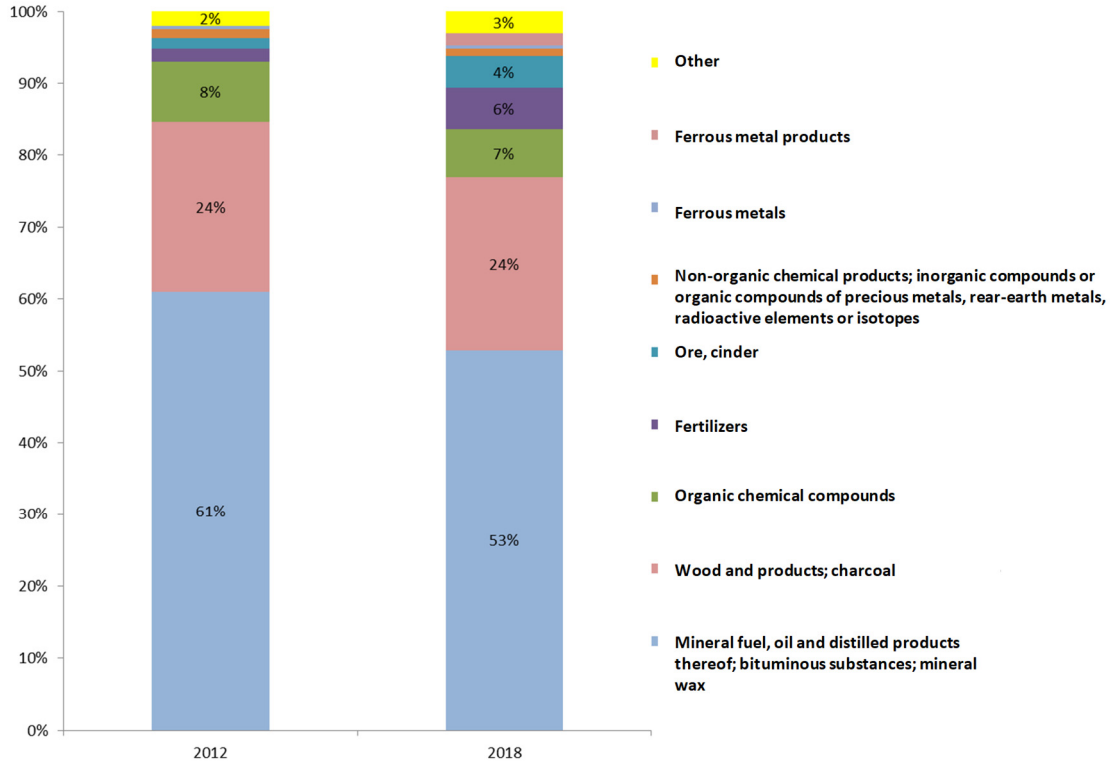
In 2018, the commodity group "Mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax" made up 53% (14.5 million tons) of Russian exports to Finland, with the commodity group "Wood and wood products; charcoal" accounting for 24% thereof (6.7 million tons).

The share of fuel in Russian exports declined between 2013 and 2018 while that of chemical cargo and ore increased.

The commodity groups which increased their share in the export from Russia to Finland in 2018 on 2017 are as follows: "Mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax" (+0.8 million tons/6.2%); "Wood and

wood products; charcoal" (+ 0.1 million tons/1.7%); "Organic chemical compounds" (+0.2 million tons/ 9.6%); and "Fertilizers" (+0.5 million tons/50%).

The most significant imports were paper, building materials, and chemical products. However, the import structure was fairly diverse. The shares of paper and chemical products in imports increased. In 2018, the import of goods from Finland to Russia was 36% "Paper and cardboard; products made of pulp, paper or cardboard", and 12% "Non-organic chemical products; inorganic compounds or organic compounds of precious metals, rear-earth metals, radioactive elements or isotopes".



Source: the Federal Customs Service of Russia

Figure 6.2.1 – The structure of goods export from Russia to Finland in 2012 and 2018, by cargo type (in %)

According to the *baseline scenario* of the long-term socio-economic development of the Russian Federation, Russia will increase its involvement in the global economic system (including international trade). Russian goods export in 2036 is forecast to be 2.3 times the level of 2017 in real terms.

The share of export of fuel and energy resources would decline by more than 50% by 2036: from 54.1% in 2017 to 26.5% in 2036, while the export of chemical and food products and products of machine building industry are forecast to increase. The physical volume of the export of food and agricultural raw materials (other than textiles) by 2036 would be 4.3 times the level of 2017, while the export of chemical products would grow by the factor of 3.8, and the export of raw skin, fur and their products, textiles and textile products and footwear would increase 3.6 times.

Under the *conservative scenario* of the socio-economic development of the Russian Federation, Russian goods export in 2036 would be 2.2 times the level of 2017 in real terms. The highest growth in exports is expected in the following commodity groups; food and agricultural raw materials (other than textiles) – 4.1 times; chemical products – 3.7 times; raw skin, fur and products – 3.5 times; textiles and textile products and footwear – 3.4 times.

Import of goods to Russia in 2036 would be 1.8 times the level of 2017 in real terms under *the baseline scenario* and 1.6 times the level of 2017 under *the conservative scenario*.

The *baseline scenario* involves a significant increase in imports by 2036 in the following commodity groups: metals and metal products – 7.1 times the level of 2017 (in real terms); precious stones and products – 6.9 times the level of 2017.

Mineral product import to Russia between 2018 and 2036 would fall 82.2% under the baseline scenario and 83.8% – under the conservative scenario.

With regards to the structure of imports, the share of food and agricultural raw materials (other than textile materials) is expected to shrink (from 12.1% in 2017 to 9.1% in 2036), while the import of chemical products would go down from 16.9% in 2017 to 13.0% in 2036, and the share of metals, precious stones and products is forecast to increase (from 6.8% in 2017 to 16.2% in 2036).

The *Strategy for Providing Conditions to Foster Development of Export Activities in Leningrad Region During the Period Through 2025* forecasts an increase in exports in the "oil products" commodity group due to an increase in the physical volume of deliveries, which would result from increased capacities of the oil terminals of the seaports in Leningrad Region, and expanding production capacities of the oil-processing company KirishiEnergoSintez. Another promising sector for export of non-raw material by regional companies is deliveries of cement and clinker to external markets.

Other promising goods for export from Leningrad Region could be ammonia and methanol which are in high demand on the global market.

Three investment projects related to production of methanol in Leningrad Region are to be implemented by 2022 (the Baltic Methanol Factory, the projects of PAO Sibur and Ekozon (Poland), which would produce up to 9.2 million tons of methanol per annum, making Leningrad Region one of Russia's leaders in methanol production. The projects being export oriented, Leningrad Region would become the leading Russian exporter of methanol.

In future, LNG (liquefied natural gas) production may increase considerably as well as there are plans to start LNG production at several plants in Leningrad Region.

Gazprom is to launch a complex for production, storage and shipment of LNG in 2019, near the compressor station "Portovaya" – the starting point of the sea part of the North Stream pipeline (Dalnyaya Bay in Vyborgsky District, Leningrad Region). The capacity of the new complex will be up to 1.5 million tons of LNG per annum. LNG will be used as motor and bunker fuel for transport, and for autonomous gasification.

Gazprom is planning to build an LNG plant (Baltiyskiy LNG) near the Ust-Luga Port, with the capacity of 10 million tons per annum and the possibility of capacity expansion up to 15 million tons per annum.

At present, NOVATEK is building a small-tonnage terminal for production and handling of LNG in the town of Vysotsk, Leningrad Region. NOVATEK is to launch the first line of the terminal with the capacity of 660 thousand tons per annum in 2019. The terminal will work with vessels that have capacity under 170 000 m^3. The capacity of the second line of the terminal could be 600 000 to 1 000 000 tons per annum. LNG will be supplied for bunkering of sea vessels and also delivered to European consumers.

New sea vessels are to be launched in the coming years, which will use LNG as bunker fuel for navigation in the Baltic Basin which is a part of the NOx Emission Control Area (NECA) and the SOx Emission Control Area (SECA). Introduction of tough environmental regulations motivates the use of LNG as fuel for sea vessels.

In addition to the maritime transport sector, LNG can also be used as gas motor fuel for trucks and buses, as well as for autonomous gasification.

Further increase in the export of wood from Russia results from the following global trends observed on the pulp-and-paper market:

- growing consumption of pulp due to the growing demand in many sectors of the economy (production of textiles, plastic, etc.);
- growing demand for packaging materials and cardboard, as well as for cigarette paper due to population growth and growing prosperity in many countries.

On the other hand, the demand for newsprint paper, writing paper and coated paper is falling as fewer people use paper-based information media.

Finland is the world's 6th largest producer and the 2nd largest exporter of paper and cardboard, as well as the 6th largest producer and exporter of pulp, and the 8th largest producer and the 4th largest exporter of coniferous timber.

The export of timber products from Finland in 2018 rose 5%, with timber imports going up 34%. Finland's timber exports in 2018 amounted to 13.20 billion Euro (+5% vs. 2017). The export of pulp and paper went up 8%, amounting to 10.31 billion Euros.

Timber imports to Finland in 2018 totaled 11.55 million m^3 (+34% vs. 2017). The balance of the share was 63%, shavings – 27%, bold timber and veneer – 6%, firewood – 4%.

Timber procurement from Russia made up 71% (8.2 million m^3) in 2018.

The degree of wood processing is forecast as well as a greater share of saw timber and products of deep wood processing in the total amount of exports.

Pellets (wood granules) are promising goods for export. Leningrad Region has significant pellet production capacities. OOO MM Yefimovsky commissioned a pellet shop in Boksitogorsky District of Leningrad Region in 2017. Moreover, Vyborg Forestry Development Corporation LLC is planning to expand its presence on the external market.

Finland has plans to build new pulp-and-paper factories to produce goods for export. Raw materials for wood processing industry of Finland are partly imported including from Russia. The forecast of the export of Russian timber industry products features increased percentage of saw timber and products of deep wood processing.

According to the *Forecast of the Socio-Economic Development of Saint Petersburg through 2035,* the average annual export growth in Saint Petersburg between 2020 and 2035 will be 103% under the *baseline*+ scenario, and 104% under the *target scenario*.

The *target scenario* features changes in the structure of export from Saint Petersburg: an increase in the relative weight of the commodity groups "machines, equipment, transport vehicles" and "chemical products" (up to 26% and 6% respectively by 2035).

According to the *baseline scenario,* imports will have reached the pre-crisis levels by 2030, with the average annual growth rate of 104%. The *target scenario* involves a stable dynamic of imports at the rate of 102% per annum (103% under the *baseline* + *scenario*).

The *baseline* and *baseline*+ scenarios do not involve significant changes in the structure of goods imports to Saint Petersburg.

Under the *target scenario,* the decline in the share of food products in imports by about 5 percent points will remain a trend by 2035. The share of the commodity group "machines, equipment, transport vehicles" in imports is forecast to increase during the horizon period (3 percent points on average over the entire horizon period).

Under the *baseline* scenario of the socio-economic development of the Russian Federation, the foreign trade turnover between Russia and Finland in 2035 will total 60 million tons, with the export from Russia to Finland being 57 million tons, and the import from Finland to Russia – 3 million tons (Table 6.2.2).

Table 6.2.2 – Forecast of trade between Russia and Finland during the period through 2035, in million tons (baseline scenario)

	2018	2020	2025	2030	2035	2035 vs. 2018, times
Foreign trade turnover	28.9	32.6	41.9	51.8	60.0	2.1
Export from Russia to Finland	27.4	31.0	40.0	49.3	57.0	2.1
Import to Russia from Finland	1.5	1.6	1.9	2.5	3.0	2.0

The average annual growth in goods export from Russia to Finland between 2019 and 2035 would be 104.2%, which is consistent with the goods export forecast for Russia.

Further growth in the export of Russian products of wood processing and chemical industries is expected. The traditional close cooperation between Russia and Finland will continue in metallurgy, energy and food sectors.

The fastest growth in exports is forecast for the commodity groups "Organic chemical compounds" and "Fertilizers", which is consistent with current trends.

The growth in export of chemical industry products would be due to development of industrial production of ammonia and methanol in Leningrad Region, both substances being in high demand on the global market.

Export of fertilizers from Russia to Finland increased by the factor of 2.9 in 2017 and 2018 alone, showing that Finnish companies are interested in fertilizers from Russia.

The goods export from Russia to Finland in the commodity group "Mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax" is expected to grow slower in 2019-2035 than in other commodity groups, which is in line with the general trend for export of fuel and energy from Russia.

According to the forecast produced by the RF Ministry of Economic Development, the export of oil products and raw oil from Russia would decrease by 2.3% and 1.5% respectively in 2036 vs. 2018, with the export of liquefied natural gas and natural gas growing 4.6 and 1.5 times respectively (*baseline scenario)*.

The long-term forecast of export from Russia to Finland for the main commodity groups is provided in Table 6.2.3.

Table 6.2.3 – Export forecast for main groups of commodities exported from Russia to Finland, for the period through 2035, in million tons (baseline scenario)

	2018	2020	2025	2030	2035	2035 vs. 2018, times
Mineral fuel, oil and distilled products thereof; bituminous substances; mineral wax	14.5	15.5	17.2	19.2	20.0	1.4
Wood and manufactured wood products; charcoal	6.7	7.4	10.4	12.9	15.9	2.4
Organic chemical compounds	1.8	2	2.9	4.2	6.1	3.3
Fertilizers	1.6	1.8	2.6	3.8	5.5	3.4
Ore, cinder	1.2	1.4	1.5	1.7	1.8	1.5
Manufactured ferrous metal goods	0.5	0.7	0.9	1.1	1.3	2.7

The export of goods from Russia to Finland is forecast at 27.91 million USD in 2035, while the goods import from Finland to Russia is expected to amount to 7.83 million USD (Table 6.2.4).

Table 6.2.4 – Forecast of trade between Russia and Finland during the period through 2035, in million USD (baseline scenario)

	2018	2020	2025	2030	2035	2035 vs. 2018, times
Foreign trade turnover	14.752	16.880	22.370	28.840	35.720	2.4
Export from Russia to Finland	11.373	13.300	17.800	22.720	27.910	2.5
Import to Russia from Finland	3.379	3.580	4.570	6.120	7.830	2.3
Balance	7.994	9.720	13.230	16.600	20.210	2.5

The goods export from Russia to Finland in value terms is forecast to grow 2.5 times by 2035 vs. 2018, with the import from Finland to Russia growing 2.3 times.

6.3 Forecast of tourism in border areas of Russia and Finland

In 2018, 8.2 million people visited Saint Petersburg, 3.9 million being foreign tourists and 4.3 million – Russian tourists. Saint Petersburg received 9.3% more tourists in 2018 than in 2017.

The tourist flow to Leningrad Region in 2018 was over 5.1 million people (~ 70% growth on 2017), including 3 million registered tourists who spent a night in the region, and 2 million people who came from Saint Petersburg on a short tour.

Saint Petersburg

Historically, Saint Petersburg has been one of the major tourist attractions in Russia. Development of tourism is named an important goal in the Strategy of Socio-Economic Development of Saint Petersburg through 2035. The Strategy set the following priority tasks in relation to tourism development:

- fostering creation and development of tourism infrastructure;
- development of sea and river cruise tourism, as well as private yacht tourism;
- expansion of services available to tourists;
- improvement of quality and competitiveness of services offered to tourists;
- active promotion of Saint Petersburg as a tourist attraction on target markets and segments.

- The targets for 2035:
- the average annual growth in tourist arrivals in Saint Petersburg – 102.4%;
- the average annual growth in the amount of fee-based services offered by hotels, hostels, etc. – 103.8%.

The Government Program "Development of culture and tourism in Saint Petersburg" for 2015-2020 approved by Resolution of the Saint Petersburg Government No. 488 dated 17 June 2014 determined the main activities aimed to develop tourism resources of the city.

The Government Program consists of four subprograms:

- Subprogram "Heritage", designed to provide "Preservation, development and popularization of the cultural and historical heritage of Saint Petersburg". The subprogram has several objectives, two of those fostering development of tourism: preservation of the historic environment of Saint Petersburg and development of museum industry in Saint Petersburg;
- Subprogram "Art", aimed at "Preservation and development of professional arts, and supporting the diversity of creative activities in Saint Petersburg". Subprogram "Art" has several objectives, two of those fostering development of tourism: providing support to culture related contests, festivals, projects and other creative initiatives of the population and organizations in Saint Petersburg, and providing support to arts and crafts and development of local traditional folk art and artisanship;
- Subprogram "Image of Saint Petersburg", aimed at "Building the image of culture as a major competitive advantage of Saint Petersburg". Subprogram "Image" has several objectives, with one fostering development of tourism: development of tourism in Saint Petersburg;
- Subprogram "Education", aimed at "Preservation and development of the system of public education institutions of Saint Petersburg providing art education programs for children other than vocational education programs".

The Government Program "Development of culture and tourism sector in Saint Petersburg" for 2015-2020" involves a number of projects that will indirectly foster development of the tourism sector, including exhibitions, concerts, mass cultural and sports events; design and construction of buildings for exhibition centers in Saint Petersburg, etc.

Those activities would result in:

- more Russian and foreign tourists coming to Saint Petersburg;
- increased number of exhibition projects, festivals and contests, and participants thereof;
- greater patronage of all types of culture related institutions (theaters, concert organizations, museums and natural museums, leisure and amusement parks, the zoo, movie theaters, etc.);
- increased amount of fee-based services offered to tourists.

Leningrad Region

One of the main goals of the *Strategy of Socio-Economic Development of Leningrad Region through 2030* is to attract more tourists and develop inbound and domestic tourism. To achieve this goal, the tourism sector will be developed by means of:

- creation and promotion of new tourist routes;
- creation of tourism and recreation clusters and centers of cultural and tourism development;
- promotion of Leningrad Region as a tourist destination on global and domestic markets.

These objectives in development of the tourism sector taken into account, the *Strategy of Socio-Economic Development of Leningrad Region through 2030* provides for a number of relevant projects. The list of the projects is presented in Table 6.2.5.

Table 6.2.5 – Projects for development of the tourism sector in Leningrad Region during the period through 2030

No.	Project	Implementation period
1	Implementation of the interregional tourism project "Silver Necklace"	2020-2030
2	Development of the interregional tourism project "Red Route"	2020-2030
3	Creation of the tourism and recreation cluster "Old Ladoga"	2020-2030
4	Creation of a center of cultural and tourism development – a historical settlement based on a fragment of the urban structure of Vyborg, within the framework of the project "Preservation and development of small historic towns and settlements"	2020-2030

No.	Project	Implementation period
5	Implementation of the cultural and tourism development concept for Novaya Ladoga (New Ladoga)	2020-2030
6	Creation of a cultural and tourism development center in Tikhvin	2020-2030
7	Creation of theme parks in Leningrad Region, including theme parks based on cultural heritage, natural and technology sites	2020-2030
8	Creation and promotion of major events in Leningrad Region	2020-2030
9	Development of a network of tourism information centers	2020-2030
10	Building a positive image of the region as a tourist attraction at international, interregional and regional tourist events, in the media and online; marketing and branding of Leningrad Region	2020-2030

The Government Program of Leningrad Region "Development of culture in Leningrad Region" as approved by Decree of the Government of Leningrad Region No. 404 dated 14.11.2013, includes the Subprogram "Development of domestic and inbound tourism in Leningrad Region".

Leningrad Region plays an important role in development of tourism; more tourists visit the region every year, with the amount of tourism related services provided growing annually.

At present, Leningrad Region has 770 mass accommodation facilities including 297 recreational compounds, 159 hotels, 27 health resorts and resort hotels, 92 children summer camps, 88 guest houses, 50 hostels, 39 hotel cottages, and 18 camping facilities (in total 64 040 beds).

There are 1 456 restaurant business establishments including 130 restaurants, 1 082 cafés and 244 canteens in Leningrad Region, as well as 187 travel agencies of which 13 are on the Single Federal Register of Travel Agencies.

A network of tourism information centers provides a comfortable information environment for tourists in various districts of Leningrad Region. There are 10 tourism information centers operating in Vyborg District, Gatchina District, Kingisepp District (Ivangorod Tourism Information Center), Lodeynoye Pole District, Priozersk District, Luga District, and Tikhvin District.

Road based, railway and river transport services are available to tourists.

There are regional rapid passenger trains "Lastochka" on the routes: Saint Petersburg – Vyborg, Saint Petersburg – Luga, Saint Petersburg – Vsevolozhsk, Saint Petersburg – Lyuban, Saint Petersburg – Vokhov, Saint Petersburg – Lodeynoye Pole, Saint Petersburg – Svir, Saint Petersburg – Tosno, Veliki Novgorod – Vokhov, Lodeynoye Pole, Svir, and Petrozavodsk – Vokhov, Lodeynoye Pole.

The most popular river cruise destinations are tours to the village Mandrogi, the town of Lodeynoye Pole, the settlement of Svirstroi, and Vyborg.

Leningrad Region has rich potential for development of domestic and inbound tourism:

- there are over 5 200 monuments of historic and cultural heritage in the region (three palace-and-park complexes, 186 former manors and memorable sites, and 6 medieval fortresses);
- there is folk artisanship and unique culture of songs, music and dance of small indigenous peoples of Leningrad Region, which forms the potential for development of ethnographic tourism;
- there are over 750 war monuments, which facilitates development of war patriotic tourism;
- religious tourism and pilgrimage develop fast in the region, there being 12 monasteries as well as spiritual centers in Tikhvin, Staraya Ladoga, on Konevets island and in Lodeynopolsky District which are unique monuments of Russian Orthodox Christianity and traditional architecture. There are Russian wooden architecture museums (Prisvirye) in the east of Leningrad Region;
- there is a number of tourist routes: "Silver necklace of Russia", "Russian manors", "Living lessons", "Red route", "Lives of remarkable people", etc;
- there are over 120 rural tourism locations;
- industrial tourism is a developing sector in the region (there are over 60 major manufacturing enterprises), with organized tours to many industrial facilities;
- tourism for children is developing as well, there being 92 summer camps as well as petting zoos, family parks for outdoor activities, a rafting school, yacht clubs and riding clubs;
- with a rich calendar of events and holidays, event tourism is developing, with over 200 cultural, sports, military-patriotic and other events held annually,

such as historic reconstructions of various epochs, film and music festivals, cycle parades, spectator sports events, contests, and boat races;

- the diversity of flora and fauna offers unique opportunities for environmental tourism (natural reserves, natural parks, and natural monuments). Leningrad Region has 52 natural areas under special protection, 17 natural monuments, and three protected natural landscapes. The Nizhnesvirsky Natural Reserve founded in 1980 and extending over 42.4 thousand hectares is of a great place of interest for environmental tourism.

Leningrad Region has seven ski resorts that meet international standards of the tourism industry. Luzhsky (Luga) District, Volosovsky (Volosovo) District and other districts develop horse breeding and riding activities including riding tours and riding events. Rope courses in Vyborgsky, Priozersky and Vsevolozhsky districts attract a lot of tourists.

Subprogram "Development of domestic and inbound tourism in Leningrad Region" includes the following main activities scheduled for 2018 – 2024:

- creation of tourism and recreation clusters and tourism infrastructure, using extra-budgetary funds;
- reconstruction of the Konevsky Nativity-of-the-Blessed-Virgin Monastery as part of tourism infrastructure;
- participation of Leningrad Region in interregional tourism projects such as "Silver Necklace of Russia", "Red Route", "Russian Manors", "Living Lessons", "Lives of Remarkable People", etc.;
- participation of Leningrad Region in international tourism projects such cross-border cooperation programs;
- building a common tourism information base on tourism in Leningrad Region;
- providing training events for tour guides and tourism specialists;
- building a comfortable environment for tourists in Leningrad Region through development of tourism information centers and introduction of a tourist navigation system;
- development and production of information material on the tourism potential of Leningrad Region: maps, brochures, reference books, guide books, etc. including in foreign languages;
- promotion of the tourism potential of Leningrad Region in the media;

- holding conferences and exhibitions; participation of the tourism sector of Leningrad Region in congresses, exhibitions, etc. outside the region;
- outdoor advertising of the tourism potential and major events of Leningrad Region, and promotion on transport on the domestic and global tourism markets;
- info-tours and press-tours to promote the tourism potential of Leningrad Region and the tourism industry of Leningrad Region, North-West Russia, and border regions of Finland, Estonia, etc.;
- promotion of the tourism potential of Leningrad Region on the Internet; introduction of multimedia technology; development of the official tourism web-portal of Leningrad Region – expansion of information published and adding versions of the web-site in foreign languages;
- holding specialized and other events to promote the tourism potential of Leningrad Region so as to attract tourists to the region.

By 2024, implementation of the subprogram would increase:

- the amount of domestic and inbound tourism services provided to the population up to 2 billion rubles;
- the number of new tourist routes up to 15;
- the number of guests at mass accommodation facilities (hotels, etc.) up to 1.6 million;
- the number of tourists visiting the region up to 1.8 million people.

Vyborgsky District, Leningrad Region

According to the *Strategy for Socio-Economic Development of Vyborgsky District Through 2025* the goal of development of the tourism sector in Vyborgsky District is to create conditions for high quality tourism products and development of a market of diverse recreational services that would meet modern quality standards and create a recreational environment for the local population, guests from Saint Petersburg and Leningrad Region and other tourists including those from abroad.

The following measures are planned to achieve this goal:

- building of a joint tourism product with Saint Petersburg; including Vyborg in interregional tours; creation of a common tourism and recreation system integrated in interregional tourism business;

- popularization of the rich cultural heritage of the historic settlement of federal significance in Vyborg and the area around it among Russian citizens and foreign guests;
- creating conditions for rapid development of hospitality infrastructure, first of all hotel infrastructure by building new modern hotels for at least 3 000 beds in total, mostly in Vyborg and its neighboring areas;
- fostering the development of hospitality infrastructure including existing and planned local tourism centers and core route centers of Vyborsky Municipal District (Primorsk, Kamennogorsk, Ilyichyovo, Pobeda, the ski resort Korobitsino, transit tourism centers in border areas, etc.), primarily by providing "green parking" i.e. well-equipped parking areas for tourist coaches, and related infrastructure;
- assisting in implementation of multi-functional information service centers on main touring routes, and adequate information navigation for tourists;
- improvement of established outdoor mass recreation sites; improvement of water-front mass recreation infrastructure; installation of waste bins and including those in garbage truck itineraries; implementation of organized beaches; monitoring the condition of river/lake banks and the quality of water in bathing locations;
- fostering implementation of international projects in tourism and mass recreation, and attracting a large flow of foreign tourists to Vyborgsky District;
- implementation of projects aimed to develop the tourism and recreation complex in cooperation with the relevant government authorities of Leningrad Region, including assistance to repair and restoration work on architectural monuments – potential tourist attractions;
- development of mass cultural and sports events, and expanding the "event calendar" which should also target holiday makers and tourists.

Moreover, the Strategy envisages development of tourism and recreation facilities, cycle tourism and walking tourism with implementation of appropriate infrastructure in Vyborg and neighboring areas, the Roschino-Pervomaisk-Polyana macro-zone and the Svetogorsk-Kamennogorsk macro-zone. Besides, a multi-functional tourism and recreational center with a water park (in Vyborg, Smolyanoy Cape) is to be implemented by 2020.

According to the Strategy for Socio-Economic Development of Vyborgsky District Through 2025, these activities would allow increasing:

- the number of tourists from 300 000 in 2015 to 650 000 in 2025;
- the total number of visitors to the district (tourists, holiday makers, sightseers) from 829 000 in 2015 to 1 800 000 in 2025;
- the number of beds in hotels, etc. from 7 500 units in 2015 to 12 000 units in 2025.

Vsevolozhsky District, Leningrad Region

The tourism sector in Vsevolozhsky District of Leningrad Region develops within the framework of the approved municipal program "Development of fitness, mass sports and tourism activities in Vsevolozhsky Municipal District of Leningrad Region in 2017–2019", and the Subprogram "Development of the tourism and recreation sector in Vsevolozhsky Municipal District in 2017–2019".

1.1 million tourists and sightseers visited Vsevolozhsky District in 2018 including 86.3 thousand tourists and 1 033.3 thousand sightseers.

Vsevolozhsky District has 258 tourism sector companies including 95 mass accommodation facilities, 135 restaurant sector establishments and 20 private travel agencies.

The main tourist routes in Vsevolozhsky District are the Lifeline Route, the Lifeline Route Museum, the Forgotten Manors of Vsevolozhsky District, the Nevsky Bridge-Head museum, the Zubrovnic family and environmental tourism park (Toksovo urban settlement), the Bogoslovka Manor park complex(Sverdlovskoye urban settlement), the Cats Museum (Vsevolozhsk), the ski resorts "Okhta Park" (Bugry rural settlement) and "Severny Sklon" (Toksovo u.s.).

Priozersky District, Leningrad Region

The Strategy for Socio-Economic Development of Priozersky District through 2030 provides for development of tourism and recreation zones: Losevskaya, Igorskaya, Zaporozhskaya, Konevskaya, Priozerskaya-1, and Korobitsinskaya.

A set of activities planned to develop the tourism and recreation sector of Priozersky District is presented in Table 6.2.6 below.

Table 6.2.6 – Measures aimed to develop tourism and recreational activities in Priozersky District of Leningrad Region

No.	Activity	Implementation period
1	Creation of tourist routes with eating establishments/areas, special signs, and first aid facilities provided, and such routes put on the list of official tourist routes	2022-2024
2	Creation of tourism programs focusing on connections between Russian and Finnish cultures	2025-2030
3	Making senior citizens (the retired) part of the economy by including more areas including remote ones in tourist routes	2022-2024
4	Building a network of cycle routes to connect cultural as well as natural attractions	2022-2024
5	Development of "full cycle" tourist programs to offer comprehensive solutions to potential tourists	2025-2030
6	Promotion of rural tourism. With more tourists interested and coming to the area, the tourism sector would have to develop. The main steps to popularize rural tourism: Development of the municipal program "Development of rural tourism in Priozersky District"; selecting pilot farms within the program, and offering tax benefits and subsidies to support building and marketing of the tourist product;	2025-2030
7	Organizing experience sharing seminars with representatives of Finland and the Baltic States for participants of the pilot projects	2022-2024
8	Creation of the local Agro-Tourism Fostering Association; building contacts with existing tourist attractions	2019-2022

The plan for development of tourism sector facilities and attractions in Priozersky District of Leningrad Region is presented in Table 6.2.7.

Table 6.2.7 – The plan for development of tourism sector facilities and attractions in Priozersky District of Leningrad Region

No.	Activity	Implementation period
1	Implementation of a water stadium for 2 000 places at Losevo	2019-2030

No.	Activity	Implementation period
2	Implementation of a hippodrome with a riding sports base at Krutaya Gora	2019-2030
3	Implementation of yacht clubs at Pyatirechye, Solovyovo, Cheryomukhino, Motornoye, Storozhevoye, Burnevo, Beryozovo and near the cargo pier at Kuznechnoye; construction of piers and berths at the Ladoga Lake and inland water bodies	2019-2030
4	Implementation of sports and health centers operating on a year-round basis (at Plodovoye, Pochinok, Melnikovo, Novaya Derevnya, etc.)	2019-2030
5	Construction of an aviation village (at Sapyornoye); development of aviation sports on the basis of existing and planned general purpose aviation facilities and aerodromes	2019-2030
6	Implementation of motorcycle racing tracks, car racing routes, a diving center, and hang gliding sports centers; construction of a water park	2019-2030
7	Construction of additional recreational facilities with the total capacity of 500 to 700 places	2019-2030
8	Construction of three hotels with a total of 330 beds: at Melnikovo (50 beds), Beryozovo (80 beds), and Vasilievo (200 beds)	2019-2030
9	Implementation of at least 4 "green parking lots", roadside rest facilities for tourist coach buses on the *Saint Petersburg – Sortavala* road (currently under construction)	2019-2030
10	Implementation of 3 camping sites for 100 places each (at Sinevo, Plodovoye, Vasilievo (Melnikovskoye rural settlement)	2019-2030
11	Implementation of 2 "artisan villages", facilities for cultural and recreational events, an "ethnographic settlement", guest houses (including using existing homesteads) at Plodovoye and Vasilievo (Melnikovskoye rural settlement)	2019-2030
12	Construction of hotel infrastructure at the golfing center (Zaporozhskoye rural settlement) for 200 beds	2019-2030
13	Construction of other recreational facilities at existing and developing tourism and recreational centers, for up to 3 500 guests	2019-2030

No.	Activity	Implementation period
14	Restoration of the historic Ampiala manor as a hotel	2019-2030
15	Construction of major yacht clubs including with accommodation and recreational facilities at Priozersk (for 100 places), Vladimirovka (200 places), Losevo, near the Kolokoltsevsky Creek on the Vuoksa lake	2019-2030

Analysis of tourism sector indicators of Saint Petersburg and Leningrad Region revealed a recent increase in tourist flows as well as high potential for attracting more tourists through further development of tourism infrastructure.

According to the forecast, in 2035:

- Saint Petersburg will receive 15 to 17 million visitors (depending on the scenario), half of which will be foreign tourists and the other half – Russian tourists (1.8 to 2.1 times as many as in 2018);
- Leningrad Region will receive 9 to 11 million visitors (depending on the scenario), 40% of them being foreign tourists and 60% – Russian tourists (1.7 to 2 times as many as in 2018).

The key activities fostering development of tourism in Saint Petersburg and Leningrad Region are: building and promotion of new tourist routes; creation of tourism and recreation clusters and centers of cultural and tourism development; improvement of quality and competitiveness of tourist-oriented services; active promotion of Saint Petersburg and Leningrad Region as tourist destinations on the target markets in Russia and abroad.

7 SCENARIOS FOR DEVELOPMENT OF CARGO AND PASSENGER TRANSPORT THROUGH THE RWBCP "SVETOGORSK"

7.1 General description of forecast scenarios for cargo and passenger traffic through the RwBCP "Svetogorsk"

This report covers three scenarios of development of cargo and passenger services going through the RwBCP "Svetogorsk":

- the "zero scenario". In which the RwBCP "Svetogorsk" keeps the status of a "temporary, simplified BCP" and continues to be only used for cargo traffic (mostly, to export wood from Russia to Finland);
- the "conservative scenario". In which Svetogorsk Railway Station and the RwBCP "Svetogorsk" will go through reconstruction by 2025, with the railway approaches to the RwBCP electrified, and the RwBCP will change its status to that of a "multilateral, permanent" BCP and will be used by:
    - cargo trains carrying various types of goods, with some cargo traffic changing from the RwBCP "Buslovskaya" to the RwBCP "Svetogorsk";
    - passenger trains operating on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*, which would also be used by some passengers who previously traveled to Finland by road (by car and by bus);
- this scenario corresponds to the conservative scenario developed within the Forecast of the Socio-Economic Development of the Russian Federation through 2036, which envisages slow growth in the economy and foreign trade of the Russian Federation;
- the "baseline scenario". In which Svetogorsk Railway Station and the RwBCP "Svetogorsk" will go through reconstruction by 2025, with the railway approaches to the RwBCP electrified, and the RwBCP will change its status to that of a "multilateral, permanent" BCP and will be used by:
    - cargo trains carrying various types of goods, with some cargo traffic changing from the RwBCP "Buslovskaya" to the RwBCP "Svetogorsk";

  - - passenger trains operating on the route Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta, which would also be used by some passengers who previously traveled to Finland by road (by car and by bus);
- this scenario corresponds to the baseline scenario developed within the Forecast of the Socio-Economic Development of the Russian Federation through 2036, which envisages moderate growth in the economy and foreign trade of the Russian Federation.

7.2 Forecast scenarios for cargo traffic through the RwBCP "Svetogorsk"

The cargo traffic forecast for the RwBCP "Svetogorsk" was developed using:

- the forecast of the socio-economic development of the gravity zone of RwBCP "Svetogorsk"; and
- the forecast of trade between Russia and Finland.
- section 6.2 of this report presents a forecast of trade between Russia and Finland, according to which:
  - the export of goods from Russia to Finland will amount to 27.91 million USD in 2035, while the goods import from Finland to Russia is expected to amount to 7.83 million USD (Table 6.2.4);
  - the goods export from Russia to Finland in value terms is forecast to grow 2.5 times by 2035 vs. 2018, with the import from Finland to Russia growing 2.3 times;
- the fastest growth in exports from Russia to Finland for the period through 2035 is expected in the following commodity groups: fertilizers, organic chemical compounds, ferrous metal products, wood and wood products (Table 6.2.3);
- under the baseline scenario of the socio-economic development of the Russian Federation, the trade turnover between Russia and Finland in 2035 will total 60 million tons, with the export from Russia to Finland being 57 million tons, and the import from Finland to Russia – 3 million tons (Table 6.2.2);

- the average annual growth in goods export from Russia to Finland between 2019 and 2035 would be 104.2%, which is consistent with the forecast for Russia's goods exports.

The forecast for trade between Russia and Finland was the basis for the forecast of distribution of export and import cargo traffic by transport mode, which is presented in Table 7.2.1 below.

Table 7.2.1 – Forecast of distribution of export and import cargo traffic by transport mode, in million tons

	2018	2020	2025	2030	2035	2035 vs. 2018
Traffic of export goods from Russia to Finland, total, including:	27.4	31.0	40.0	49.3	57.0	2.1
- by railway	16.0	17.6	24.2	31.6	37.0	2.3
- by road	3.4	3.7	4.8	5.7	6.8	2.0
- by other transport modes	8.0	9.7	11.0	12.0	13.2	1.7
Traffic of import goods from Finland to Russia, total, including:	1.5	1.6	1.9	2.5	3.0	2.0
- by railway	0.2	0.2	0.3	0.4	0.5	2.5
- by road	1.2	1.3	1.5	2.0	2.4	2.0
- by other transport modes	0.1	0.1	0.1	0.1	0.1	1.0

According to the forecast provided in Table 7.2.1, the export cargo traffic on railways will increase from 16 million tons in 2018 to 37 million tons in 2035 (2.3 times), with import cargo traffic going up from 0.2 to 0.5 million tons (doubling). The share of railway transport in export cargo traffic is expected to increase from 58% in 2018 up to 65% in 2035 thanks to new cargo transport routes, new services and improved quality of services. Another factor to foster the redistribution of cargo traffic from roads to railways will be the increased fees within the *Platon* system which collects road use fees from trucks with the total mass over 12 tons that use federal roads.

The forecast of export cargo traffic on railways between Russia and Finland was used to forecast the cargo traffic through the RwBCP "Svetogorsk" with three scenarios, as provided in Table 7.2.2 below.

Table 7.2.2 – The forecast of export cargo traffic between Russia and Finland through the RwBCP "Svetogorsk", under three scenarios, in million tons

	2018	2020	2025	2030	2035	2035 vs 2018
Export cargo traffic on railways from Russia to Finland, in million tons, total, including:	16.0	17.6	24.2	31.6	37.0	2.3
- via the RwBCP "Svetogorsk":						
- SCENARIO 0	2.4	2.8	3.3	3.5	3.0	1.3
- SCENARIO 1	2.4	2.8	5.7	6.3	7.0	2.6
- SCENARIO 2	2.4	2.8	6.4	7.5	9.0	3.7
Loading level of RwBCP "Sveto-gorsk", in %						
- SCENARIO 0	38.3 %	44.7 %	52.7 %	55.9 %	47.9%	
- SCENARIO 1	38.3 %	44.7 %	91.0%	100.5 %	111.7 %	
- SCENARIO 2	38.3 %	44.7 %	102.1%	119.7%	143.6 %	

According to the forecast presented in Table 7.2.2 above, the export cargo traffic through the RwBCP "Svetogorsk" in 2035 will be as follows:

- under the "zero" scenario – 3 million tons (1.3 times as much as in 2018);
- under the "conservative" scenario – 7 million tons (2.6 times as much as in 2018);
- under the "baseline" scenario – 9 million tons (3.7 times as much as in 2018).

According to the forecast, the share of the RwBCP "Svetogorsk" in the total cargo traffic on railways between Russia and Finland will increase as follows:

- under the "conservative" scenario – from 15% in 2018 up to 19% in 2035;
- under the "baseline" scenario – from 15% in 2018 up to 24% in 2035.

The workload on the RwBCP "Svetogorsk", calculated using the cargo traffic forecast would be:

- in 2025: 91% under the "conservative scenario" and 102.1% under the "baseline scenario";
- in 2030: 100.5 % under the "conservative scenario" and 119.7% under the "baseline scenario";
- in 2035: 111.7% under the "conservative scenario" and 143.6% under the "baseline scenario".

The workload on the RwBCP "Svetogorsk" is forecast to exceed the capacity of the RwBCP by 2025 under both scenarios, which proves that the reconstruction is needed.

7.3 Forecast scenarios for passenger traffic through the RwBCP "Svetogorsk"

The passenger traffic forecast for the RwBCP "Svetogorsk" was developed using:

- the forecast of the socio-economic development of the gravity zone of RwBCP "Svetogorsk";
- the forecast for tourism in border areas of Russia and Finland.

The "zero scenario" involves no passenger trains going through the RwBCP "Svetogorsk".

The "conservative scenario" involves introduction of regular passenger services via the RwBCP "Svetogorsk" in 2025, on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*. This scenario is based on the conservative scenario of the socio-economic development of Saint Petersburg and Leningrad Region with slow economic growth, and slow growth of personal income and international tourism.

The "baseline scenario" involves introduction of regular passenger services via the RwBCP "Svetogorsk" in 2025, on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*. This scenario is based on the *baseline* scenario of the socio-economic development of Saint Petersburg and Leningrad Region with moderate economic growth, and moderate growth of personal income and international tourism.

The route for the proposed passenger train service would go from Saint Petersburg via Vyborg, Svetogorsk, Imatra and Joutseno ending at Lappeenranta (Figure 7.3.1). The route would be about 240 km long. Seven stops are proposed on the new route:

- 4 stops in Russia: in Saint Petersburg, Vyborg, Kamennogorsk, and Svetogorsk; and
- 3 stops in Finland: in Imatra, Joutseno, and Lappeenranta.

Lappeenranta was chosen as the end station on the new route since most people who travel to Finland by car go through the RdBCP "Brusnichnoye" to Lappeenranta;

the passenger traffic to Lappeenranta through RdBCP "Brusnichnoye" was 2 719.6 thousand people in 2018 (for comparison; 2 403.6 thousand people went through the RdBCP "Torfyanovka" and 1 543.0 thousand people traveled through the RdBCP "Svetogorsk").

There are many points of interest, shops and recreation zones in Lappeenranta and its neighboring areas, which attract Russian tourists. Moreover, there is the Lappeenranta Airport, which is popular with residents of Saint Petersburg and Leningrad Region due to low-cost flights to European destinations. The flights from Lappeenranta Airport are provided by a major European low-coster Ryanair (Ireland) and the Finnish low-coster Matkavekka. At present, there are direct passenger flights from Lappeenranta to Milan, Berlin, Athens, Budapest and Thessaloniki. There are also charter flights to popular European resorts such as Dubrovnik, Malta, Crete, Tenerife and Pathos.

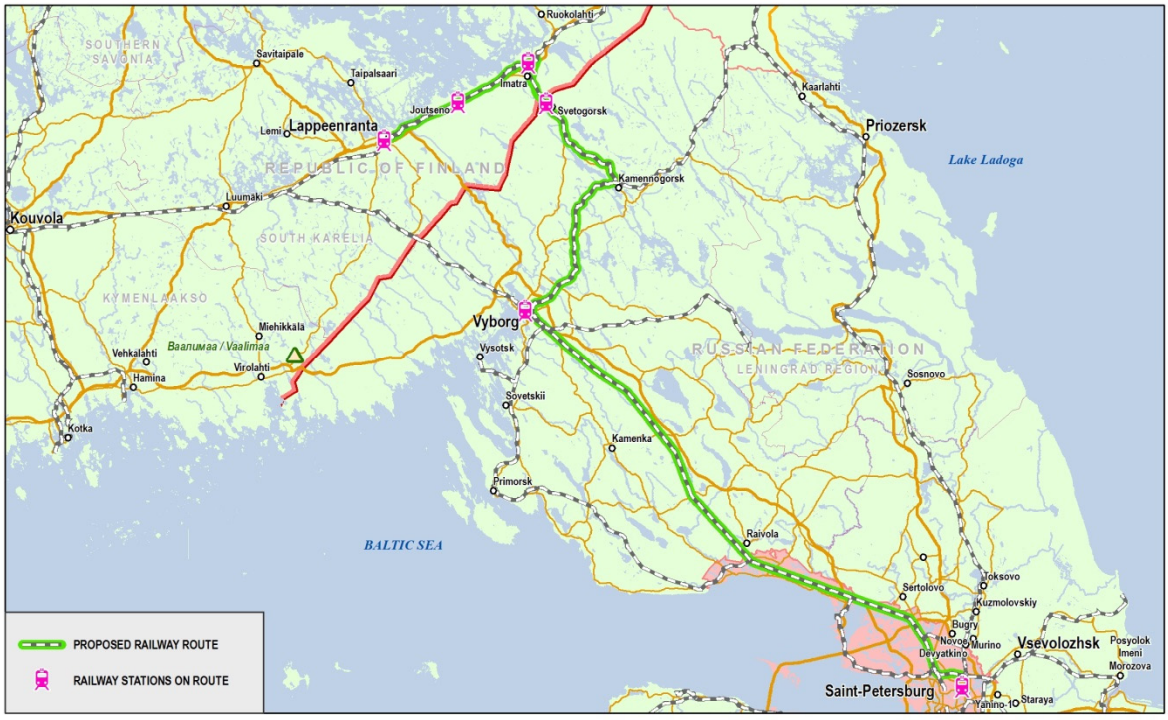


Figure 7.3.1 - The proposed international railway route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*

The Finnish low-coster Matkavekka provides flights from Lappeenranta to Spain, Athens, Palma de Majorca, Pathos and other European destinations.

According to statistics, there was a significant fall in traffic at Lappeenranta Airport between 2011 and 2015 (Figure 7.3.2) due to termination of Ryanair flights. In

2018, Rynair resumed regular flights from Lappeenranta including to attract passengers from Saint Petersburg during the 2018 World Cup.

New flights to Central Europe are being discussed between the administration of the airport and other airlines. The departures from Lappeenranta Airport are forecast to exceed 100 000 pax/year by 2020.

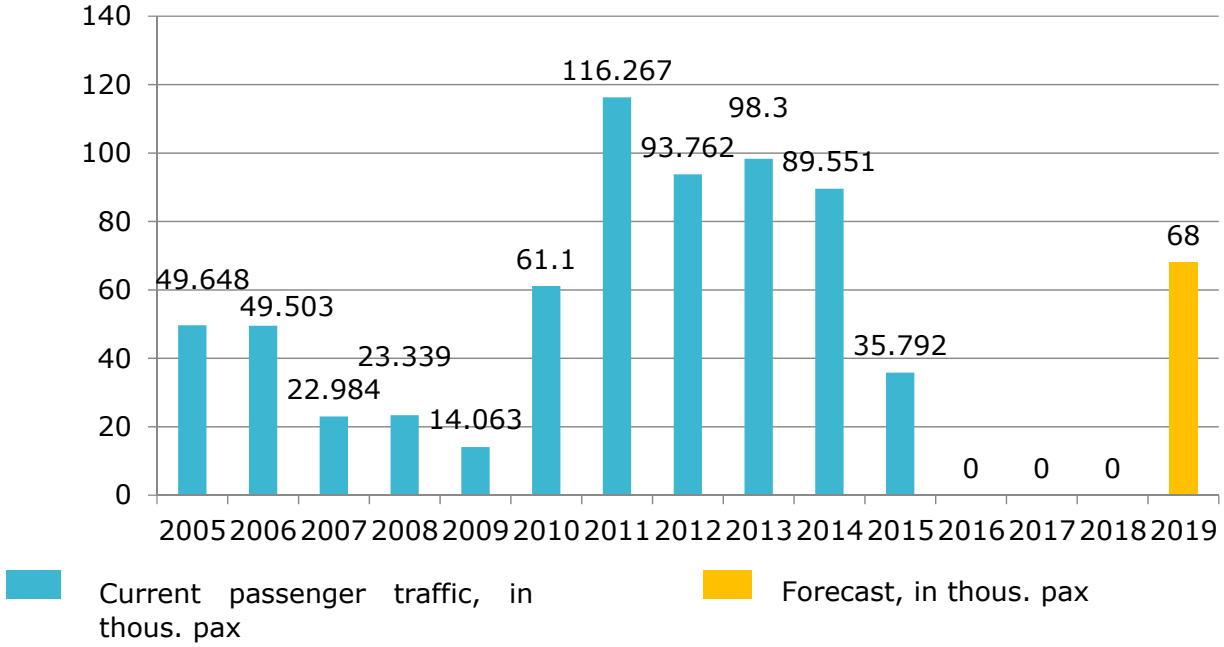


Figure 7.3.2 – Dynamics of passenger traffic at Lappeenranta Airport

Lappeenranta Airport is 2 km from Lappeenranta Railway Station, which calls for a feeder transport service between the railway station and the airport (Figure 7.3.3).

The forecast of the overall demand for the railway route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* is based on analysis of factors affecting passenger flows and mobility. The main factors in mobility are the economy, personal income and demographics. Mobility between Russia and Finland also largely depends on the duration of border and customs control procedures at the national border. Delays at the border slow down the growth in passenger traffic even with high personal income levels.

Figure 7.3.3 – Proposed route for the feeder passenger service from Lappeenranta Railway Station to Lappeenranta Airport

The study included analysis of factors in passenger flow changes, including on the basis of the public survey regarding the proposed new train service. The results of the public survey revealed the following relevant factors: population size and dynamics; affordability and travel times of the train services; level of comfort, safety and environmental sustainability; travel speeds and availability of a well-developed route network of land-based passenger transport.

The most important factor is the price. The survey results show that 92% (out of 650 persons) would use the new train service if the fare were 600 to 1 000 rubles. With a 40% higher fare, the demand would go down 40% (Figure 7.3.4).

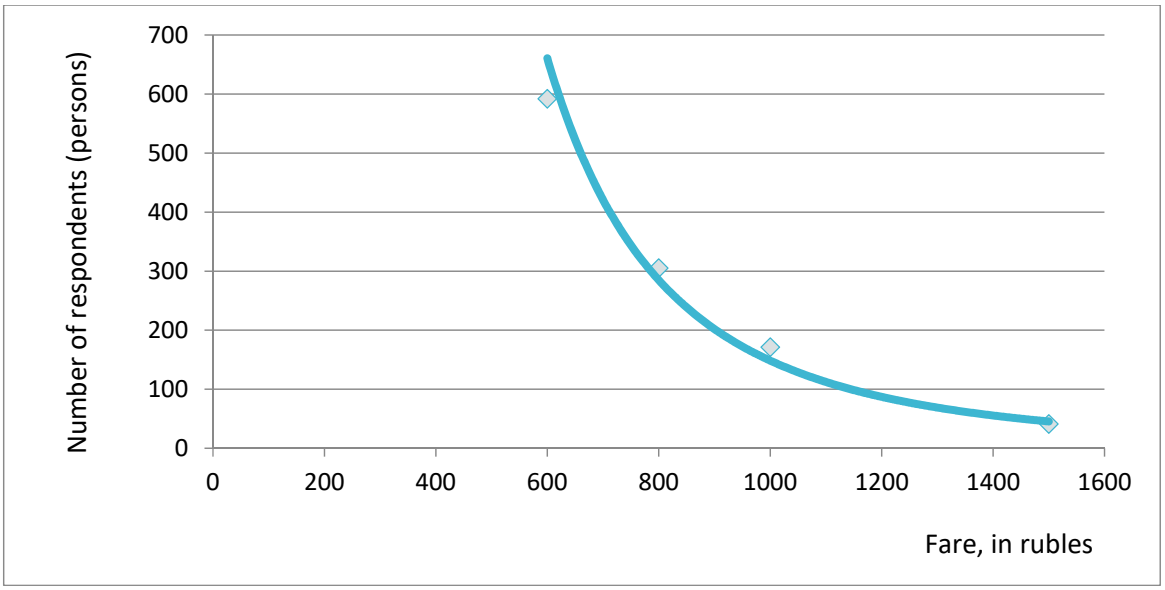


Figure 7.3.4 - Sensitivity of demand for the train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* to the price (according to the survey results)

The demand forecast for the train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* for the period through 2035 was produced using:

- the Forecast of Socio-Economic Development of Saint Petersburg and Leningrad Region through 2035;
- the statistics on the number of foreign citizens visiting Russia and the number of Russian citizens going abroad, according to the Federal Security Service (FSB) of the Russian Federation;
- analysis of the current vehicle traffic through the RdBCP "Svetogorsk" and the RdBCP "Brusnichnoye", and assessment of the workload on the RdBCPs and their development prospects;
- analysis of statistics on the traffic at Lappeenranta Airport, and its development prospects.

The assumptions used in the calculations were as follows:

- the price of the train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would be comparable to the cost of traveling by car;
- the border and customs control procedures would take place on a moving train (similar to *Allegro* trains).

Lastochka regional rapid passenger trains could be used as rolling stock on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*. *Lastochka* trains were designed on the basis Siemens Desiro for Russian Railways JSC. ЭС1 and ЭС1П electric trains are double-system rolling stock (3 kV DC and 25 kV AC) which could operate both in Russia and Finland. The relevant EU certificates would have to be obtained for *Lastochka* trains to be used in Finland.

Mobility dynamics analysis is the basis of the forecast of the general travel demand in border areas of Russia and Finland. The size of the population in the study area, the population dynamics and the demographic structure of the border areas are major factors in the potential demand for the new train service *Saint Petersburg – Lappeenranta*.

According to the *baseline* scenario of the socio-economic development of Saint Petersburg and Leningrad Region, their combined population would grow from 7.2 to 7.9 million by 2030 (+10%) (Figure 7.3.5).

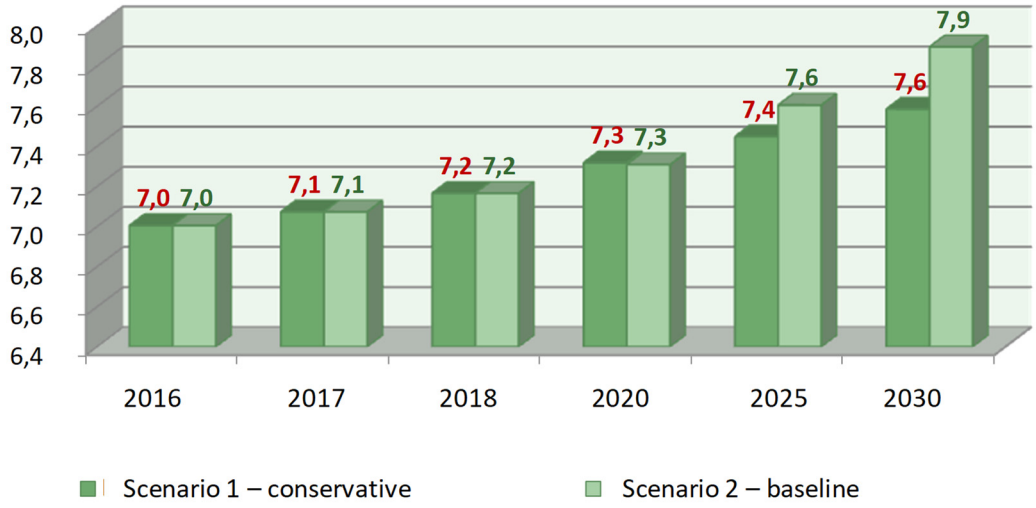


Figure 7.3.5 – Population forecast for Saint Petersburg and Leningrad Region for the period through 2030

According to the FSB of Russia, 3 637.5 thous. Russian citizens traveled to Finland in 2018 on business, as tourists or for private purposes, and 950.1 thous. foreign citizens visited Russia.

The data on passenger traffic between Russia and Finland by travel purpose allow forecasting how many Russian citizens will travel to Finland and how many

foreign citizens will come to Russia depending on the main factors (economic growth and person income growth).

With the real personal income in Russia growing as forecast, the number of Russians visiting Finland for private purposes would grow 1.5 times by 2035. The tourist flow from Russia to Finland between 2019 and 2035 is expected to grow faster (2.9 times).

The number of business travelers going to Finland in 2035 would be 5.2 times the level of 2018 due to expansion of the economic cooperation between the two countries.

The forecast of the number of Russian citizens visiting Finland during the period through 2035 is presented in Figure 7.3.6.

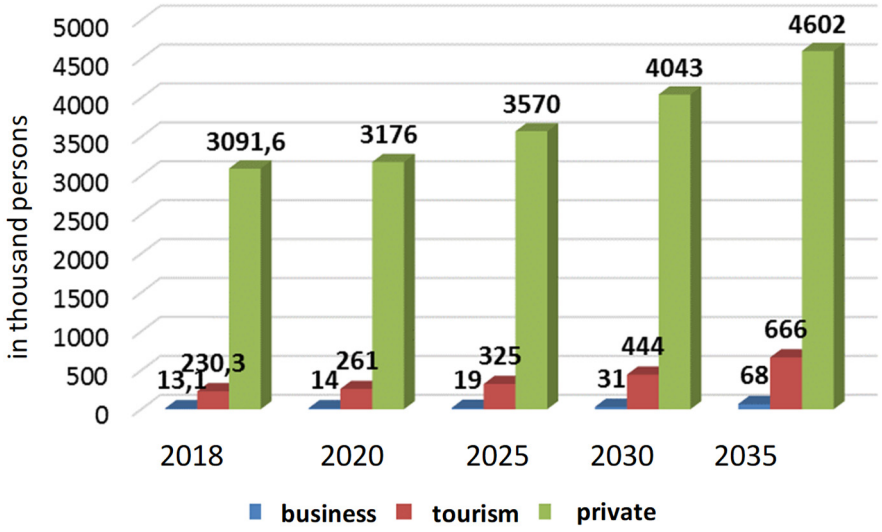


Figure 7.3.6 – Forecast of the number of Russian citizens visiting Finland during the period through 2035, in thous. persons

The number of foreign citizens coming from Finland to Russia on business in 2035 is forecast at 823 000 which is 1.5 times the level of 2018. The tourist flow from Finland to Russia is expected to grow faster – by the factor of 3.1. The number of foreign citizens traveling from Finland to Russia with private purposes in 2035 is forecast to grow 2.3 times vs. 2018 reaching 776 000 (Figure 7.3.7). The forecast takes into account the passenger traffic dynamics between 2011 and 2018 and prospects for cooperation between Russia and Finland in various areas.

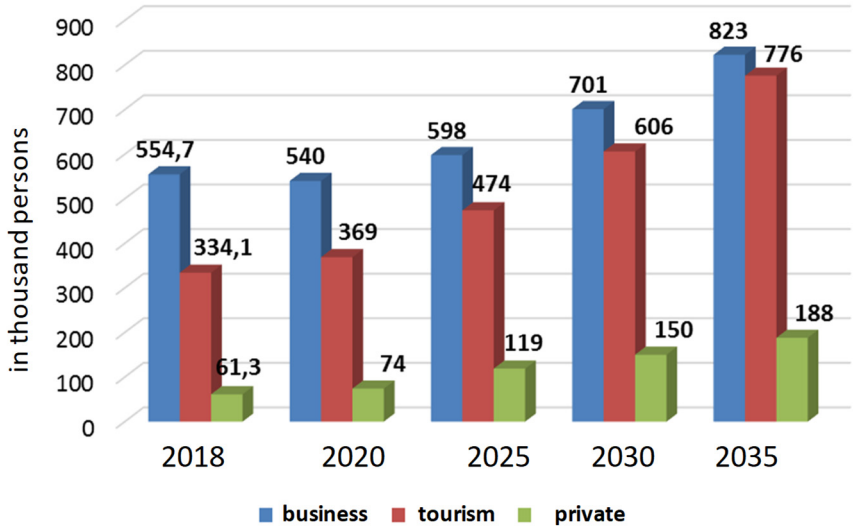


Figure 7.3.7 – Forecast of the number of foreign citizens traveling from Finland to Russia during the period through 2035, in thous. persons

Therefore, according to the forecast over 7 million foreign citizens will come to Russia from Finland in 2035 (1.7 times as many as in 2018). The traffic is expected grow faster between 2031 and 2035 (Figure 7.3.8).

The forecast of passenger flows between Russia and Finland was based on the forecast of foreign citizens' visits to Russia from Finland and Russian citizens' visits to Finland from Russia. The passenger traffic between Finland and Russia is forecast to grow 1.7 times between 2019 and 2035.

International traffic via border-crossing points in Leningrad Region is forecast at 11 997.3 thous. persons in 2035 (1.7 times the level of 2018).

Passenger traffic via the border-crossing points of Leningrad Region is forecast to grow at the highest rate between 2025 and 2035. The new passenger train service could become a contributing factor.

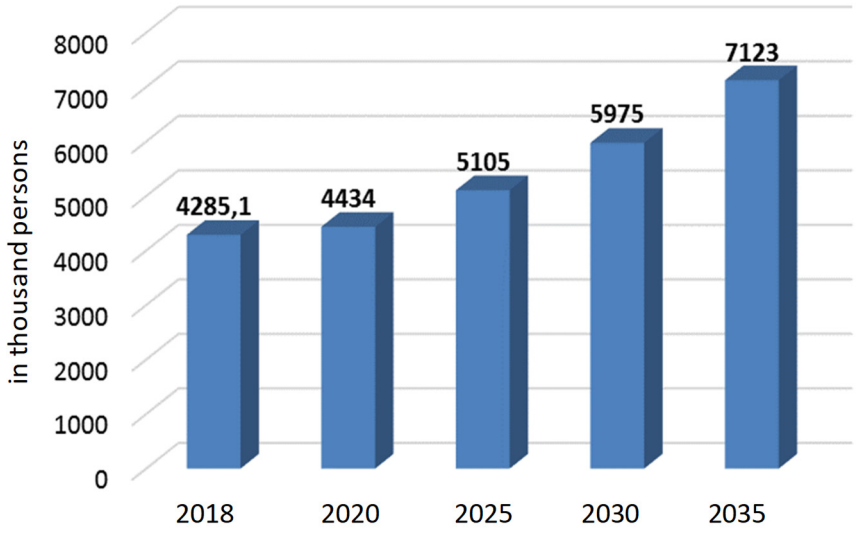


Figure 7.3.8 – Forecast of the number of foreign citizens traveling from Finland to Russia and Russian citizens traveling from Russia to Finland during the period through 2035, in thous. persons

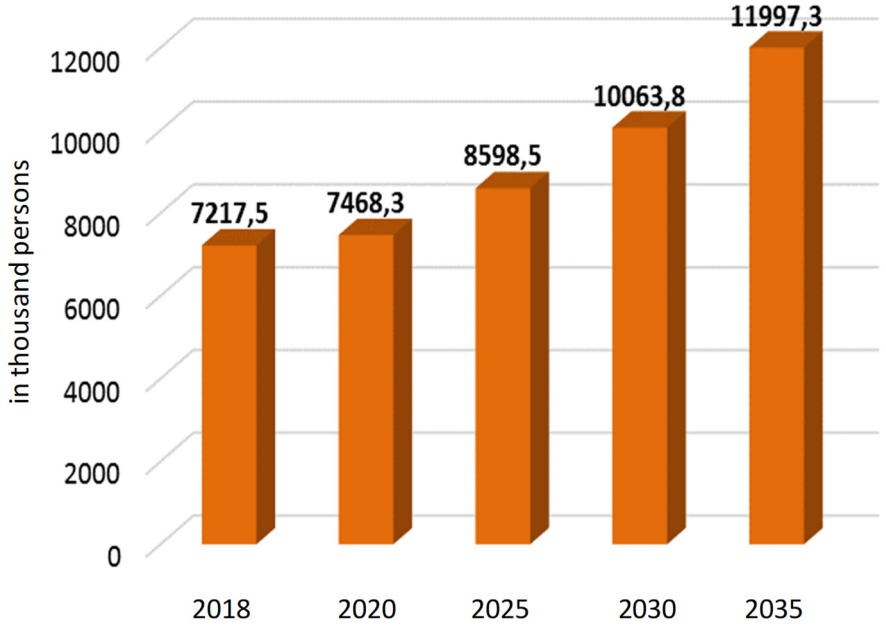


Figure 7.3.9 – Forecast of international passenger traffic through border-crossing points in Leningrad Region for the period through 2035, in thous. persons.

The forecasts presented in Figures 7.3.6 to 7.3.9 were produced using the *base-line* scenario of the socio-economic development of the Russian Federation, Leningrad Region, and Saint Petersburg.

The demand for the proposed train service would be partly generated by people who now travel between Russia and Finland by road via the RdBCP "Svetogorsk" and the RdBCP "Brusnichnoye). According to the calculations, 15% to 25% of passengers expected to use the RdBCP "Svetogorsk" and the RdBCP "Brusnichnoye" would travel by train instead.

The demand forecast for the proposed train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* for the period through 2035 is presented in Table 7.3.1 below.

Table 7.3.1 - Demand forecast for the proposed train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* for the period through 2035, in million pax

Years	"Zero scenario"	"Conservative scenario"	"Baseline cenario"
2018	-	-	-
2020	-	-	-
2025	-	0.9	1.1
2030	-	1.1	1.4
2035	-	1.3	1.6

Development of railway passenger connections to other regions of Finland would also increase the demand for the proposed train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*.

If the governments of Russia and Finland sign a Local Cross-Border Travel Agreement, the demand for the proposed train service *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would go up 20% to 25%.

Russia has such agreements with Norway and Latvia. Another one is expected with Estonia. The Agreements introduce the procedure for obtaining permits for local cross-border travel by residents of border areas of the neighboring states, which allows them multiple entries, exits and stay in the border area of the counterpart state on the terms specified in the Agreements.

8 ASSESSMENT OF SCENARIOS

Considering the requirements of the government control bodies, implementation of the "conservative" and the "baseline" scenarios of the forecast of cargo and passenger traffic would involve the same range of activities for the reconstruction and improvement of the RwBCP "Svetogorsk", the reconstruction of Svetogorsk Railway Station, the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.

The differences in cargo and passenger traffic in different scenarios would only impact the operation schedules for cargo and passenger trains, while the costs involved in the development of the transport infrastructure and improvement of the RwBCP "Svetogorsk" would be practically the same.

The "baseline scenario" that suggests average rate of socio-economic development of Saint Petersburg and Leningrad Region is considered to be the preferable scenario.

The reconstruction of the border-crossing point within the "baseline scenario" for cargo and passenger traffic would:

- provide the necessary redundant capacities at the RwBCP "Svetogorsk" and the railway approaches thereto;
- enable accommodation of the future cargo traffic, with the possible increase in container transport between Finland and China taken into account;
- provide conditions for the transfer of passenger travel demand from roads to railways.

9 COST ESTIMATES FOR ACTIVITIES; PROJECT PHASES; AND DEVELOPMENT OF THE ROADMAP

9.1. Rules of reconstruction of national border-crossing points of the Russian Federation

In compliance with Article 12 of the Law of the Russian Federation "On the national border of the Russian Federation", the Government of the Russian Federation approved the Rules of Establishment, Opening, Operation, Reconstruction and Closure of National Border-Crossing Points of the Russian Federation (RF Government Decree No. 482 dated June 26, 2008, as subsequently amended).

According to the *Rules of Establishment, Opening, Operation, Reconstruction and Closure of National Border-Crossing Points of the Russian Federation*, the procedure for reconstruction of border-crossing points is as follows:

1. Deemed reconstruction of a border-crossing point is: reconstruction of existing and/or construction of new buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks performed at the border-crossing point; and other activities designed to change type, classification, category, capacity and/or boundaries of a border-crossing point.

2. A proposal on reconstruction of a border-crossing point can be submitted by a federal executive body, the top regional executive body of the RF region in which the border-crossing point is located, or the owner(s) of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks performed at the border-crossing point.

3. A proposal on reconstruction of a border-crossing point is to be submitted to the Ministry of Transport of the Russian Federation (unless the Ministry is the initiator) with the following documents attached thereto:

- justification for the reconstruction of the border-crossing point;
- information on the planned capacity and the dates for the opening of the border-crossing point after the reconstruction;
- information on the operation procedure of the border-crossing point for the reconstruction period, with the work process plan attached thereto, describing arrangements for vehicles, cargo, goods and animals to cross the national

border of the Russian Federation (unless the operations of the border-crossing point are to be suspended for the reconstruction period);

- calculation and justification of federal expenses to be allocated to the reconstruction of the border-crossing point and maintenance of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks at the border-crossing point, where such reconstruction is to be funded by the federal government budget;
- calculation and justification of federal expenses to be allocated to maintenance of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks at the border-crossing point, where their reconstruction is to be funded from other sources.

4. If the reconstruction of a border-crossing point is found expedient within the applicable procedure, the Ministry of Transport of the Russian Federation shall adopt a legal act on the reconstruction of the border-crossing point, which is to be approved by federal executive bodies responsible for control procedures at the border-crossing point under reconstruction, and the top executive body of the region of the Russian Federation in which the border-crossing point is located.

5. The border-crossing point is to open for operation after the comprehensive completion of the construction (reconstruction), implementation and installation of all equipment necessary, and the commissioning within the applicable procedure of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks at the border-crossing point.

If the legal act of the Government of the Russian Federation on establishment of the border-crossing point or the legal act of the Ministry of Transport of the Russian Federation on the reconstruction of the border-crossing point provides for phased acceptance of the border-crossing point, the BCP opening procedure is to take place upon completion of each phase of the construction (reconstruction) and/or implementation/installation of equipment and infrastructure.

6. The design documentation for construction of the border-crossing point and implementation/installation of equipment for buildings, indoor facilities and structures that are necessary for border control, customs control and other checks, is subject to the approval by the federal executive bodies responsible for control procedures at border-crossing points.

7. Upon completion of the construction, implementation/installation of equipment and infrastructure of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks, and the issue of the permissions for the commissioning of said facilities within the procedure as provided by law of the Russian Federation, the Ministry of Transport of the Russian Federation jointly with stakeholder federal executive bodies shall create an interdepartmental commission to verify if the border-crossing points meets applicable requirements as to construction, reconstruction, equipment and infrastructure of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks performed at border-crossing points of the Russian Federation (hereinafter – the Commission).

The Commission is to include representatives of the Ministry of Transport of the Russian Federation, the Federal Government Agency "Directorate for Construction and Operation of RosGranitsa Property", and the federal executive bodies responsible for control procedures at border-crossing points.

8. The results of the Commission's work are formalized in a report signed by members of the Commission to confirm the compliance of the border-crossing point with the applicable requirements.

On the basis of said report signed by all members of the Commission, the Ministry of Transport of the Russian Federation is to adopt a legal act on the opening of the border-crossing point, within 2 months (with the classification and the specialization of the BCP indicated therein).

The proposed initiator of the reconstruction of the railway border-crossing point "Svetogorsk" is the Government of Leningrad Region.

The proposal on the reconstruction of the railway border-crossing point "Svetogorsk" on behalf of the Government of Leningrad Region should be sent to the Ministry of Transport of the Russian Federation with the justification for the expedience of the reconstruction of the BCP, the planned capacity thereof, and the schedule for the opening of the BCP upon completion of the reconstruction attached to the proposal.

If the proposal of the Government of Leningrad Region on the reconstruction of the railway border-crossing point "Svetogorsk" gains support, a working group is to be created at the Ministry of Transport of the Russian Federation to address issues

related to preparation and approval of documents necessary for reconstruction of border-crossing points.

The working group of the Ministry of Transport of the Russian Federation is to determine which entity will be responsible for preparation of the following documents:

- justification for the reconstruction of the border-crossing point;
- information on the planned capacity and the dates for the opening of the border-crossing point after the reconstruction;
- information on the operation procedure of the border-crossing point for the reconstruction period, with the work process plan attached thereto, describing arrangements for vehicles, cargo, goods and animals to cross the national border of the Russian Federation (unless the operations of the border-crossing point are to be suspended for the reconstruction period);
- calculation and justification of federal expenses to be allocated to the reconstruction of the border-crossing point and maintenance of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks at the border-crossing point, where such reconstruction is to be funded by the federal government budget;
- calculation and justification of federal expenses to be allocated to maintenance of buildings, indoor facilities, and structures that are necessary for border control, customs control and other checks at the border-crossing point, where their reconstruction is to be funded from other sources.

The entity responsible for preparation of the documents listed above could be the Saint Petersburg Office of RosGranStroi.

After the preparation and review of all documents listed above, the working group of the Ministry of Transport of the Russian Federation may formally find the reconstruction of the border-crossing point expedient.

If the reconstruction of the railway border-crossing point “Svetogorsk” is found expedient, the Ministry of Transport of the Russian Federation will adopt the legal act on the reconstruction of the BCP, agreed upon with the federal executive bodies responsible for control procedures at border-crossing points under reconstruction, and the top executive body of the region of the Russian Federation in which the border-crossing point is located.

9.2. General requirements as to reconstruction and infrastructure of the RwBCP "Svetogorsk"

Reconstruction and improvement of the railway border-crossing point "Svetogorsk" should be carried out in compliance with the *Common Standard Requirements for Equipment and Infrastructure of Buildings, Spaces and Structures That Are Necessary for Government Control Procedures at Border-Crossing Points at the Customs Border of the Eurasian Economic Union*, as approved by Resolution of the Council of the Eurasian Economic Commission No. 23 dated 03.03.2017 "On amendments to individual resolutions of the Customs Union Commission and the Eurasian Economic Commission".

Standard requirements for equipment and infrastructure of border-crossing point

1. According to the Standard Requirements, the technical systems that should be provided at border-crossing points to enable government control procedures are as follows:

a) passport (border) control systems;

b) systems for contactless body temperature measurement;

c) systems for quarantine and phytosanitary monitoring (oversight) and disinfection of products that are subject to quarantine;

d) systems for cleaning and disinfection of vehicles;

e) systems for veterinary control (oversight);

f) systems for measuring weight and dimensions;

g) systems for inspection of persons, luggage and hand luggage;

h) systems for inspection of vehicles and goods;

i) radiation control systems;

j) systems for collection and destruction (disposal) of biological waste;

k) access monitoring, access control, and security alarm systems;

l) communications and IT systems

m) CCTV (video monitoring) systems;

n) fire alarm systems;

o) physical security systems;

p) information interaction systems;

q) backup power supply systems.

2. A passport (border) control system is designed for officials of border authorities to perform required procedures of checking the legal basis allowing persons to cross the national border, and is built on the basis of the use of information systems and technical means for border control procedures. A passport (border) control system should allow:

a) the possibility of modifying equipment, hardware and software for automatic processing of passports and other passport and visa related documents, including those with biometric information;

b) automatic and manual entering of information; building databases with data from passport and visa related documents, with the use of software and equipment for reading graphic information, machine readable zones, bar codes and microchips in passport and visa related documents;

c) verification of passport and visa documents for conformity with applicable templates, validity dates, and verification against the limits of passport and visa related documents issued;

d) verification against checklists of attributes of passport and visa related documents;

e) ensuring information security;

f) producing statistics reports based on results of border control operations, covering specific time periods.

3. A system for contactless measuring of body temperature in persons is designed for remote detection of individuals with high body temperature. The number of devices for remote detection of individuals with high body temperature depends on the density of passenger flows and the technical characteristics of the equipment.

4. A system for quarantine and phytosanitary monitoring (oversight) and disinfection of products subject to quarantine consists of equipment and indoor facilities implemented in compliance with the requirements for equipment and infrastructure of plant quarantine stations (phytosanitary control points) as approved by Resolution of the Council of the Eurasian Economic Commission No.

5. A system for cleaning and disinfection of vehicles consists of equipment for mechanical cleaning, washing and decontamination of vehicles, and collection of surface runoff of special solutions for subsequent disinfection thereof.

6. A system for veterinary control (oversight) is designed for officials of veterinary executive bodies of member states to exercise their authority by performing veterinary monitoring (oversight).

According to applicable legislation of member states, to enable veterinary monitoring (oversight) at border-crossings points are to have equipment:

- for inspection of goods that are subject to veterinary monitoring (oversight);
- for collection, storage and destruction of goods that fail to meet the *Common Veterinary (veterinary and sanitary) Requirements for Goods Subject to Veterinary Monitoring (Oversight)* as approved by Resolution of the Customs Union Commission No. 317 dated June 18, 2010.

7. A system for measuring weight and dimension parameters consists of a set of equipment that allows measuring weight parameters of goods transported, weight and dimension parameters of trucks, including automatically with the possibility of integration with IT-systems used by supervisory authorities at border-crossing points.

8. A system for inspection of persons, luggage and hand luggage is designed to check passengers and vehicle staff for banned goods (goods subject to transport restrictions) as well as goods that should be declared in writing, and should have X-ray and other special equipment.

9. A system for inspection of vehicles and goods is designed to monitor (check and identify) such vehicles and goods, and to detect banned goods (goods subject to transport restrictions) and (or) goods that are not mentioned in transport and shipping documents, detect individuals hidden in vehicles, luggage and goods, and may include equipment of various modifications including X-ray and inspection systems.

10. A radiation control system is designed to prevent illegal circulation of fissionable and radioactive materials by detecting objects (including individuals) with high radiation levels.

A radiation control system consists of a stationary and (or) portable equipment with gamma neutron radiation detectors, radiometers-spectrometers and dosimeters to detect and locate radiation sources, detect increased natural background radiation, identify a detected source of radiation and assess its hazard level.

Stationary equipment for detection of fissionable and radioactive materials should enable round-the-clock operation with registration and transmission of a video of a monitoring target at the moment of alarm (increased level of natural gamma- and neutron background radiation); displaying current and archive information on the location and time of actuation, data on changes in the metering speed of gamma- and neutron channels, and operator's actions when making the decision on the monitoring target that caused the alarm.

11. A system for collection and destruction (disposal) of biological waste enables collection, temporary storage (where storage is not possible – transportation to the site of destruction (disposal)) and destruction (disposal) of goods of animal and plant origin found in luggage and hand luggage of individuals, in the mail and/or in batches of goods.

12. A system of access control and management and a security alarm system should have jointly operating equipment and are designed to detect trespassing (trespassing attempts) in the area and restricted zones of the border-crossing point, and to collect and process information and transmit it in a given form to workstations of officials of supervisory bodies.

13. A communication and IT system includes information-and-telecommunication infrastructure and is designed to provide officials of supervisory bodies with: information necessary; open (intercom and long-distance) and special communication channels that guarantee the required level of information security in interactions with supervisory bodies of member states and third-party organizations; and workstations with Internet access.

14. A CCTV (video monitoring) system is designed to enable visual monitoring of facilities (area) of the border-crossing point using electronic surveillance means.

A CCTV (video monitoring) system is implemented with the use of various types of video monitoring systems and should allow realtime monitoring of facilities (area) of the border-crossing point, and data saving.

Where necessary, a CCTV (video monitoring) system enables detection of potentially dangerous and illegal actions at the border-crossing point, and notification of the supervisory bodies regarding such actions.

Supervisory authorities at a border-crossing point can use separate video monitoring systems or one common video monitoring system.

15. A fire alarm system consists of fire alarm and fire-fighting equipment installed on facilities of a border-crossing point, and uses smoke detectors, temperature sensors and other means that are installed on indoor facilities, in buildings and on structures of the border-crossing point.

A fire alarm system should ensure: automatic detection of fire; processing of a fire alarm notice, and transmission thereof in a given form over a time required to actuate fire alarm systems and fire-fighting systems, in order to liquidate the fire and ensure safe evacuation from a particular border-crossing point (with the permissible fire risk level taken into account).

16. A system of physical security systems consists of security fences and security posts, and where necessary should have wire fences, artificial obstacles to restrict the speed and stop vehicles, and watch towers.

17. An information interaction system is a set of information technology means and is designed to support functions and interactions of supervisory bodies, ensure their access to information necessary for government control activities.

18. A backup power supply system is designed to ensure that buildings, indoor facilities, structures and equipment of a border-crossing point have power supply in case of emergency failure/cutoff of the main power supply system, and consists of redundant power sources.

19. The types of systems necessary for a border-crossing point and the quantity of equipment in such systems are determined by supervisory bodies as the border-crossing point is designed, with the following parameters taken into account:

a) the type of international transport movements;

b) the specialization of the border-crossing point;

c) the border-crossing process scheme (plan) for persons, vehicles and goods;

d) the capacity (daily and/or hourly traffic of persons and vehicles);

e) the operation mode at the border-crossing point;

f) the surface area and the capacity for inspection of persons, vehicles and goods, etc.

20. The list of spaces and indoor facilities of the border-crossing point is made by supervisory bodies as the BCP is designed. In accordance with national regulations for spaces and indoor facilities to be provided to the supervisory bodies, a border-crossing point should have:

a) workplaces for the relevant type of government control procedures;

b) service (special) indoor facilities for officials of the supervisory bodies;

c) special areas (parks, zones, dead-end sidings, etc.) for government control procedures and sanitary-and-epidemiological activities;

d) indoor spaces for personal inspection of individuals;

e) government control halls (locations) for passengers (individuals), which should meet applicable sanitary and hygiene requirements;

f) indoor facilities for temporary isolation of persons with suspected infectious diseases;

g) rooms for storage of weapons and ammunition, with places for loading, unloading and cleaning of weapons;

h) rooms for detained persons;

i) indoor spaces for persons who are temporarily detained;

g) indoor spaces for server rooms and communication centers;

k) rooms for storage of checking equipment;

l) rooms for cooking, eating, and rest;

m) sanitary rooms;

n) enclosures for service dogs;

o) indoor spaces for the power supply system and the backup power supply system;

p) a hall for official meetings;

q) indoor spaces for inspection of goods that are subject to veterinary monitoring (oversight);

r) indoor spaces (areas) for quarantine and temporary boarding of animals.

21. Border-crossing points should have modern equipment and infrastructure so that supervisory bodies can perform their tasks.

22. The area of a border-crossing point should have a fence and lighting around the perimeter.

Places provided for various checks at a border-crossing point should have lighting to enable such checks.

Standard requirements for equipment and infrastructure of railway border-crossing points

1. Railway border-crossing points (hereinafter – RwBCP) should have the systems indicated in par. 1 above, as well as spaces and indoor facilities indicated in par. 20.

2. Spaces and structures of an RwBCP, which are necessary for inspection of rolling stock include:

a) areas for inspection of cargo and passenger trains (cargo and passenger parks);

b) railway tracks which whenever possible should be built on a straight strip of land with zero gradients to accommodate a train of the maximum length;

c) crossing bridges at the entrance and exit from the areas, with a fence, floodlights and booths for monitoring and inspection of trains from above, with the possibility of going down to the intertrack space;

d) bridges for inspection of cargo wagons (a CCTV (video monitoring) system may be used instead of such bridges);

e) high platforms (supervisory bodies should be able to access battery boxes and inspect the space under the wagons of the train);

f) inspection wells for inspection of trains from below (to be provided next to the crossing bridges, on both sides of the tracks) (sheltered interrail cameras with backlight may be used instead of inspection wells).

3. An RwBCP may have customs inspection systems for inspection of goods and railway wagons (trains). The necessity of customs inspection systems at RwBCP is decided by member states.

4. Indoor facilities and structures of a RwBCP, which are necessary for government control of passengers and goods that they carry include halls for government control procedures, stabling locations for passenger trains, underground and (or) surface railway crossings for people to move from the passenger train to the government control halls, a luggage area, and service and special rooms.

5. Government control rooms should be provided in the railway station building and consist of rooms for government control procedures for passengers and their goods entering the customs area of the Union (leaving the customs area of the Union). Government control halls should have the required number of workplaces for officials of the supervisory bodies.

One government control hall may be used both for incoming and outgoing passengers and their goods.

6. A canopied area for the unloading of luggage should be provided next to luggage wagons.

7. The luggage area should be provided in the railway station building or in the immediate proximity thereto. The luggage area space should have separate inspection halls for luggage released to passengers and luggage accepted for transportation, and a luggage storage room.

8. Indoor spaces and structures of a RwBCP that are necessary to inspect goods and vehicles traveling by rail should include indoor facilities and inspection areas, bridges, warehouses for accommodation, storage and inspection of goods and vehicles crossing the customs border of the Union by rail, and rooms for officials of the supervisory bodies.

Stabling locations for train wagons (inspection areas) should have platforms that can be used by loading/unloading mechanisms involved in inspection of wagons.

9. Areas for inspection of cargo trains (cargo park) should be arranged so that all types of government control procedures could be performed directly on the railway tracks, and that individual wagons can be separated from cargo trains and taken away where checking individual wagons is necessary.

10. The amount of train traffic through and the specialization of the RwBCP should be taken into account so that the cargo park and the passenger park have the capacity for checking several cargo and passenger trains at the same time.

11. Border-crossing points should provide conditions to accommodate disabled persons.

Meeting the requirements listed above with regards to reconstruction and infrastructure of the RwBCP "Svetogorsk" would make it possible for the RwBCP to change its status from a "bilateral, simplified, temporary" BCP to a "multilateral, permanent, cargo-and-passenger" BCP.

9.3. Roadmap for the reconstruction of the RwBCP "Svetogorsk"; the list of activities; entities responsible for the activities; tentative time schedule and costs

The cost of activities and the work phases and sequence are provided in the Roadmap (Table 9.3.1) developed on the basis of the RF Government Decree No. 482

dated June 26, 2008 "On the approval the Rules of Establishment, Opening, Operation, Reconstruction and Closure of National Border-Crossing Points of the Russian Federation".

The Roadmap was prepared on the basis of the selected "baseline" scenario for development of cargo and passenger traffic through the RwBCP "Svetogorsk" to the towns of Imatra and Lappeenranta, Finland.

The tentative amount of financing required for the activities listed in the Roadmap in current prices (2019) and the tentative time schedule for the activities were determined using similar projects such as:

- the project of reconstruction of the RwBCP "Buslovskaya", developed in 2012; and
- the project of electrification of the railway line "Vyborg – Svetogorsk", developed in 2000.

According to the RF Government Decree No. 482 dated 26.06.2008, the proposal on the reconstruction of the RwBCP "Svetogorsk" can be submitted to the Ministry of Transport of the Russian Federation by the Government of Leningrad Region.

As indicated in Activity No. 1 (Table 9.3.1), the necessary condition for consideration of the reconstruction of the RwBCP "Svetogorsk" is justification of the economic expediency of the reconstruction based on which the future capacity of the border-crossing point is to be determined.

The justification of the economic expedience of the reconstruction of the RwBCP "Svetogorsk" is to be prepared in accordance with applicable requirements of the RF Federal Customs Service, the Border Service of the FSB of Russia and RZD JSC (Russian Railways), and applicable laws and regulations of the Russian Federation. Following the requirements at the proposal submission stage allows determining the scope and the amount of work involved in the reconstruction of Svetogorsk Railway Station, the RwBCP "Svetogorsk" and the railway links thereto.

The cost items that should be taken into account in order to produce a tentative cost estimate for the reconstruction of the facilities listed above are as follows:

1. Land preparation costs.
2. Land acquisition costs.
3. The costs of construction and reconstruction of main facilities of the RwBCP "Svetogorsk" as per the requirements of the RF Federal Customs Service, the Border Service of the FSB of Russia, RosPotrebNadzor, and RosSelKhozNadzor.

4. The costs of support and service facilities as per the requirements of the RF Federal Customs Service, the Border Service of the FSB of Russia, RosPotrebNadzor, and RosSelKhozNadzor.

5. Costs of developing the station infrastructure of the Svetogorsk Railway Station, which are determined by RZD (Russian Railways).

6. Costs of electrification of the railway branch "*Kamennogorsk – Svetogorsk"*, which are determined by RZD (Russian Railways).

7. Costs of building the overpass in the alignment of Zavodskaya Str.

8. Costs of supporting and service facilities of the RwBCP "Svetogorsk" as a comprehensive project.

9. Costs of energy infrastructure and equipment.

10. Costs of transport and communications infrastructure and equipment.

11. Costs of construction and reconstruction of outdoor water supply, sewage, and heat and gas supply structures.

12. Costs of area improvement and landscaping.

13. Costs of temporary buildings and structures.

14. Other activities and costs.

15. Maintenance costs of the Directorate of the Comprehensive Reconstruction Project "RwBCP Svetogorsk".

16. Costs of design work and site surveys.

In addition to the scope and the amount of activities involved in the reconstruction of Svetogorsk Railway Station, the RWBCP "Svetogorsk" and the railway links thereto, a procedure should be developed for the operation of the border-crossing point during the reconstruction period, which will also be an integral part of the proposal on the reconstruction.

Once approved by the Ministry of Transport of the Russian Federation, the federal executive bodies responsible for control procedures at border-crossing point, and the top regional executive authority of the region of the Russian Federation is which the BCP is located, the proposal should be submitted to the Government of the Russian Federation which is to issue a relevant decree.

The process of adopting the decree (legal act) involves the approval of the proposal by a number of federal executive bodies and federal services, which requires project support to the application for the reconstruction of the RwBCP "Svetogorsk"

as a comprehensive project provided that the project is approved by Level 1 authorities (Activity No. 2, Table 9.3.1).

The RF Government Decree (legal act) will form the basis for site surveys, design and survey work, construction, installation and hook-up and start-up services under the comprehensive project "RwBCP "Svetogorsk" (Activities No. 3 to No.7, Table 9.3.1).

The border-crossing point is to open for operation after the comprehensive completion of the reconstruction (Activity No. 9, Table 9.3.1) and equipment, and acceptance for operation by RosGranStroi of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks performed at the border-crossing point.

The design documentation for the reconstruction of the border-crossing point and implementation/installation of equipment of buildings, indoor facilities and structures that are necessary for border control, customs control and other checks, is subject to the approval by the federal executive bodies responsible for control procedures at border-crossing points (Activity No. 6, Table 9.3.1).

Field supervision and technical supervision (Activity No. 8, Table 9.3.1) are to be provided during the course of construction, installation and hook-up and start-up operations at the RwBCP "Svetogorsk" and cover the entire locations in which such operations take place.

Table 9.3.1 – Roadmap for the reconstruction of Svetogorsk Railway Station, the RwBCP "Svetogorsk" and the railway links thereto

##	Activity	Tentative cost of activity (in '000 Ero)*	Tentative duration of activity (in months)*	Entity in charge
Preparatory and organizational activities				
1	Preparation of the proposal on the reconstruction of the RwBCP "Svetogorsk" as a comprehensive project (reconstruction of the RwBCP "Svetogorsk"; development of Svetogorsk Railway Station; electrification of the single-track railway line "Kamennogorsk – Svetogorsk"; and construction of an overpass in the alignment of Zavodskaya St.), the proposal including: – justification of the economic expedience of the proposed reconstruction; – information of the planned capacity of the BCP; – calculation of federal expenses required for design, construction, equipment, infrastructure and maintenance of buildings, indoor facilities, and structures that are necessary to enable government control functions at the border-crossing point;	600.00	6.00	Ministry of Transport of the Russian Federation; Government of Leningrad Region, FGKU "Directorate for Construction and Operation of RosGranitsa Property"; Russian Railways JSC

##	Activity	Tentative cost of activity (in '000 Ero)*	Tentative duration of activity (in months)*	Entity in charge
	– layout of the area where the necessary buildings and structures are to be placed; – information on the procedure for operation of the border-crossing point during the reconstruction period.			
2	Project support to the application for the reconstruction of the RwBCP as a comprehensive project, provided that the project is approved by Level 1 authorities.	190.89	6.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
Design and survey work				
3	Site surveys for the reconstruction of the RwBCP "Svetogorsk" as a comprehensive project.	171.23	3.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
4	Design and surveys at the "design" stage of the reconstruction of the comprehensive project "RwBCP "Svetogorsk".	495.09	8.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
5	Development of the working (detailed design) documentation for the reconstruction of the RwBCP "Svetogorsk" as a comprehensive project.	732.69	12.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
6	Obtaining the approval of design and survey work at the state project assessment authority.	36.80	3.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
Construction, installation and hook-up and start-up operations involved in the reconstruction				
7	Comprehensive construction, installation and hook-up and start-up operations	84 445.75	36.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
8	Field supervision and technical supervision	1 014.94	For the entire work period (par. 7 and 9)	FGKU "Directorate for Construction and Operation of RosGranitsa Property"
9	Opening the border-crossing point after the reconstruction, and launching the electrified railway line for traffic.	1 192.72	6.00	FGKU "Directorate for Construction and Operation of RosGranitsa Property" Russian Railways JSC
	Total:	**88 280.10**	**74.00**	
	VAT 20%	17 656.02		
	Total:	**105 936.12**		

*) The tentative cost and duration of the activities were calculated on the basis of similar projects.

The tentative cost of the reconstruction of the RwBCP "Svetogorsk" calculated using data on similar projects is 105 936.12 thousand Euro, VAT included (20%). The duration of the reconstruction of the RwBCP "Svetogorsk" would be about 74 months from the start of the preparation of the proposal on the reconstruction of the RwBCP "Svetogorsk" as a comprehensive project.

10 ASSESSMENT OF THE SOCIO-ECONOMIC IMPACT OF MEASURES AIMED TO INCREASE THE CAPACITY AND IMPROVE THE RWBCP "SVETOGORSK" FOR PASSENGER TRAFFIC AND EXPECTED FREIGHT TRAFFIC

The reconstruction of the railway border-crossing point "Svetogorsk" would help achieving the objectives set in Decree of the President of the Russian Federation No. 204 dated 07.05.2018 "On national goals and strategic objectives in development of the Russian Federation for the period through 2024":

- elimination of logistic limitations to export of goods by railway, and building (modernization) national border-crossing points in the Russian Federation;
- increasing the amount of Russian exports by 50% by 2024 vs.2017;
- reduction of road traffic emissions and air pollution;
- development of cargo transport corridors including by reducing container travel times on railways and quadrupling the through traffic of containers by railway;
- improvement of the economic connectivity of the Russian Federation through expansion and modernization of the railway infrastructure, including phased development of transport connections between the administrative centers of Russian regions and other cities that are centers of economic growth, including elimination of infrastructural limitations in promising areas near such transport connections.

Reconstruction of the railway border-crossing point "Svetogorsk" and the railway approaches thereto is required to form reliable connections between railways of Russia and the TEN-T core railway network in the EU.

In Finland, the railway section from Helsinki, via Kouvola to Vainikkala is a part of the TEN-T core network and part of the ScanMed Corridor, one of the main European transport corridors (running from Palermo to Oslo, Stockholm and Helsinki). There are plans for reconstruction of the railway section Luumäki – Imatra - Parikkala and further.

After the reconstruction, the railway section *Kamennogorsk – Svetogorsk* would become another link between Russian railways and the main railway network of the European Union – TEN-T.

Due to infrastructure development, namely at the Svetogorsk BCP and Imatra BCP, there are active incentives underway on both sides of the border to create a route to TEN-T Scandinavian-Mediterranean Core Network Corridor (Scan-Med) by the next round in 2023.

The north-western part of ScanMed is the only arterial corridor in the EU with a connection to the Russian railway network without the need to change gauge. This route has the advantage of a direct railway connection to Asian countries via Russia. On that route, trains going from Finland to China would cover over 5 000 km on the railway networks of Finland, Russia and Kazakhstan with the same gauge, without stopping for customs procedures, the checks and bogie change only necessary on the Chinese border. At the Kazakhstan-China border, goods could also be transferred from wagons for a 1520 mm gauge to wagons usable in China which has a standard railway gauge.

Container trains run from Kouvola (Finland) via Russia and Kazakhstan to Xi'an (Central China) on a regular basis. The railway cargo traffic from Finland to China through the Russian Federation is expected to grow considerably since the Government of Finland hope that North European companies will use the route to transport their containers to Asia.

After the reconstruction of the railway section *Kamennogorsk – Svetogorsk* (tentatively in 2025), Russian regions would have a direct rapid connection to railways of European countries via TEN-T.

The reconstruction of the RwBCP "Svetogorsk" and the railway approaches thereto to create the second complete railway route for cargo trains between Russia and south-east Finland would foster the trade between the two countries and make the railway route via Svetogorsk and Imatra more appealing to cargo carriers.

This route would be a logical extension of the recently built railway branch *Losevo – Kamennogorsk* which supports freight transport in the north-west of Leningrad Region.

The reconstruction of the RwBCP "Svetogorsk" and the railway approaches thereto would be useful in achieving international, national and regional objectives, such as:

1) on the international level – the creation of a cross-border transport corridor to support Eurasian connections and make international trade more efficient;

increasing the export of transport services; elimination of logistic limitations to the export of goods by railway;

2) on the federal level – integration of Russia into the global transport system; increasing international and interregional cargo and passenger traffic; and increasing the through traffic of containers by railway;

3) on the regional level:

- supporting development of the transport system of Leningrad Region through modernization of the railway infrastructure;
- optimization of routes for freight and traffic flows; improving effectiveness of rail freight transport by reducing the travel distances;
- improving the economic connectivity in the region through development of transport connections between Saint Petersburg and cities of Leningrad Region;
- relieving the workload on roads through partial transfer of traffic to railways, which would improve the road traffic conditions and reduce emissions from road vehicles;
- creating new jobs;
- increasing tax revenue on all levels through reconstruction of transport infrastructure and expansion of cargo and passenger transport services.

The change in the classification of the RwBCP "Svetogorsk" from a "simplified, temporary" BCP to a "permanent, multilateral" BCP would allow broader range of goods to be transported via the RwBCP.

The electrification of the railway line *Kamennogorsk – Svetogorsk* would increase the capacity of the railway section, allow more efficient use of Svetogorsk Railway Station and the RwBCP "Svetogorsk" and greater workload thereon, and improve the environmental situation along the railway by reducing emissions from diesel locomotives. The second electrified route for cargo trains operating between Russia and South-East Finland would provide a solution to problems with cargo traffic that arise during railway repairs.

Partial transfer to the RwBCP "Svetogorsk" of the current traffic to Finnish companies in North-West Finland via the RwBCP "Buslovskaya", would shorten the travel distances by 200 km, lower transport costs, and reduce the delivery times. Lower traffic of cargo trains on the railway section *Vyborg – Buslovskaya – Vainikkala* resulting from the traffic redistribution to the route *Losevo – Kamennogorsk –*

Svetogorsk would improve the availability of the Vyborg railway branch for passenger trains.

The electrification of the railway section *Kamennogorsk – Svetogorsk* and the reconstruction of Svetogorsk Railway Station would enable passenger train services on the route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta*, which would:

- improve accessibility of the town of Svetogorsk (the only way to reach Svetogorsk now is by bus or by car);
- allow redistribution of some passenger flows from cars and buses to trains;
- relieve road traffic and improve traffic safety on roads through lower accident rates on the roads to the border-crossing points;
- reduce queues at road border-crossing points and time costs involved in the crossing of the Russian – Finnish border; and
- reduce greenhouse gas and other emissions from road vehicles.

Saint Petersburg and Leningrad Region are at the top of the list among Russian regions in terms of emissions into the atmosphere from road vehicles. According to RozPrirodNadzor (Federal Service for Supervision of Natural Resource Usage), the emissions from road vehicles in 2017 were 470.8 thousand tons in Saint Petersburg and 196.3 thousand tons in Leningrad Region.

The partial redistribution of cargo and passenger traffic from roads to railways on the the route Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta would reduce emissions of greenhouse gases and other pollutants from road vehicles into the atmosphere in Saint Petersburg and Leningrad Region.

Implementation of the new cross-border passenger railway route *Saint Petersburg – Vyborg – Svetogorsk – Imatra – Lappeenranta* would:

- reduce the travel time between Saint Petersburg and Lappeenranta to less than three hours;
- enable using the railway network to the maximum in order to increase traffic, which would benefit the environment;
- improve the socio-economic and tourism potential of two neighboring border regions – Vyborgsky District of Leningrad Region and South Karelia of Finland.

Therefore, investment in development of the railway infrastructure would foster economic growth and social development of the border regions and improve the region's resources for competition.

Investment in the upgrading of the RwBCP "Svetogorsk" would facilitate the creation of the international cross-border railway route to be used for a wider range of traded goods as well as for passenger services available to a larger number of regional travelers.

The development of the RwBCP "Svetogorsk" would reduce the carbon footprint of transport systems in the region, and lower emissions by creating a new, additional international fairway for railway transportation across the border.

At present, coordinated effort is required in planning for development of the railway networks in Finland and Russia in order to attract investment in development of arterial railways supporting cross-border transport, optimize construction costs and harmonize plans for such construction.

11 PROPOSALS AND RECOMMENDATIONS OF THE WORKING GROUP

Table 11.1 the action plan (the Roadmap) for the change in the classification and the reconstruction of the railway border-crossing point "Svetogorsk".

Table 11.1 - Action plan (Roadmap) for the change in the classification and the reconstruction of the railway border-crossing point "Svetogorsk"

No.	Activity	Expected outcome	Responsible entity
1.	Discussions between the representative of the Regional Council of South Karelia with the Governor of Leningrad Region regarding the Governor's becoming the initiator of: - the changes in the classification of the RwBCP "Svetogorsk" in terms of the operation mode – from a "temporary simplified" BCP to a "permanent" BCP; - the reconstruction of the RwBCP "Svetogorsk"	Preparation of the letter of the Governor of Leningrad Region and sending it to the Ministry of Transport of the Russian Federation, with the rationale for changing the classification (for a "temporary simplified" BCP to a "permanent" BCP) and the reconstruction of the RwBCP "Svetogorsk".	The Regional Council of South Karelia, The Chancery of the Governor of Leningrad Region
2.	Discussions between the representative of the Regional Council of South Karelia and the Ministry of Transport and Communications of Finland, regarding the Ministry's support to the project and contacting the Ministry of Transport of the Russian Federation about the creation of the working group for activities connected to: - changing the classification of the border-crossing point (from a "permanent simplified" BCP to a "permanent" BCP); - the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk";	Creation of the working group at the Ministry of Transport of the Russian Federation for activities connected to: - changing the classification of the border-crossing point (from a "permanent simplified" BCP to a "permanent" BCP); - the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk"; - the electrification of the railway section *Kamennogorsk – Svetogorsk*; and - the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	The Regional Council of South Karelia, The Ministry of Transport and Communications of Finland and the Ministry of Transport of the Russian Federation

	- the electrification of the railway section *Kamennogorsk – Svetogorsk*; and - the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.		
3.	The Ministry of Transport of the Russian Federation making the decision on: - the expedience of changing the operation mode classification of the cargo-and-passenger, temporary, multilateral, simplified railway border-crossing point "Svetogorsk" from a temporary BCP to a permanent multilateral BCP; - the need for reconstruction of the railway border-crossing point "Svetogorsk".	The minutes of the meeting of the working group of the Ministry of Transport of the Russian Federation, with the decision on: - the expedience of changing the operation mode classification of the cargo-and-passenger, temporary, multilateral, simplified railway border-crossing point "Svetogorsk" from a temporary BCP to a permanent multilateral BCP; - the need for reconstruction of the railway border-crossing point "Svetogorsk".	Ministry of Transport of the Russian Federation
4.	Endorsements of the decision of the Ministry of Transport of the Russian Federation on: - the expedience of changing the operation mode classification of the cargo-and-passenger, temporary, multilateral, simplified railway border-crossing point "Svetogorsk" from a temporary BCP to a permanent multilateral BCP, and - the need for reconstruction of the railway border-crossing point "Svetogorsk", from the federal executive bodies responsible for control procedures at border-crossing points, and the top executive body of the region of the Russian Federation in which the border-crossing point is located.	Obtaining endorsements for the decision of the Ministry of Transport of the Russian Federation on: - the expedience of changing the operation mode classification of the cargo-and-passenger, temporary, multilateral, simplified railway border-crossing point "Svetogorsk" from a temporary BCP to a permanent multilateral BCP; - the need for reconstruction of the railway border-crossing point "Svetogorsk", from the federal executive bodies responsible for control procedures at border-crossing points, and the top executive body of the region of the Russian Federation in which the border-crossing point is located.	Ministry of Transport of the Russian Federation

5.	Sending the proposal of the Ministry of Transport of the Russian Federation on: - the expedience of changing the operation mode classification of the cargo-and-passenger, temporary, multilateral, simplified railway border-crossing point "Svetogorsk" from a temporary BCP to a permanent multilateral BCP, to the Government of the Russian Federation for the RF Government Decree to be issued.	The adoption of the RF Government Decree "On changes to the classification of the railway border-crossing point "Svetogorsk" at the national border of the Russian Federation (in Leningrad Region)"	Ministry of Transport of the Russian Federation
6.	Preparation and issue of the Directive "On the reconstruction of the railway cargo-and-passenger, multilateral border-crossing point "Svetogorsk" at the national border of the Russian Federation (in Leningrad Region)".	Directive "On the reconstruction of the railway cargo-and-passenger, multilateral border-crossing point "Svetogorsk" at the national border of the Russian Federation (in Leningrad Region)".	Ministry of Transport of the Russian Federation
7.	Preparation and sending of requests for requirements of relevant federal executive authorities as to additional infrastructure and equipment (refurbishment) for the existing buildings, indoor facilities, and structures of the railway border-crossing point "Svetogorsk" as part of the reconstruction thereof	Obtaining the requirements (terms of reference and specifications) from relevant federal executive authorities as to additional infrastructure and equipment (refurbishment) for the existing buildings, indoor facilities, and structures of the railway border-crossing point "Svetogorsk" as part of the reconstruction thereof	Ministry of Transport of the Russian Federation
8.	Preparation and issue of the Directive of the Ministry of Transport of the Russian Federation on the appointment of a subordinate organization the client for the design documentation and the reconstruction of the railway border-crossing point "Svetogorsk".	Directive of the Ministry of Transport of the Russian Federation on the appointment of a subordinate organization the client for the design documentation and the reconstruction of the railway border-crossing point "Svetogorsk"	Ministry of Transport of the Russian Federation
9.	Preparation of the Terms of Reference for development of	Approval of the Terms of Reference for development of the	Ministry of Transport of the

	the design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	Russian Federation, FGKU "RosGranStroi" or FKU "RosTransModernizatsia"
10.	The tender for development of the design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.; the signing of the contract with the preferred bidder.	Entering into the contract with the preferred bidder for development of the design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	FGKU "RosGranStroi" or FKU "RosTransModernizatsia"
11.	Obtaining endorsements for the design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk, from the authorized territorial offices of relevant government control bodies and federal executive authorities	Obtaining endorsements of the design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk, from the authorized territorial offices of relevant government control bodies and federal executive authorities	FGKU "RosGranStroi" or FKU "RosTransModernizatsia"
12.	Assessment of the project of the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in	Positive assessment report (approval) on (of) the design documentation for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of	FGKU "RosGranStroi" or FKU "RosTransModernizatsia"

	the alignment of Zavodskaya St. in Svetogorsk.	the overpass in the alignment of Zavodskaya St. in Svetogorsk, to confirm the reliability of the cost estimates for the project activities	
13.	Preparation of the bid instruction document and holding the tender for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk, based on the approved design documentation. Contract award to the preferred bidder.	Entering into the contract with the preferred bidder for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	FGKU "RosGranStroi" or FKU "RosTransModernizatsia"
14.	Construction and installation work within the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	Implementation of the design solutions for the reconstruction of Svetogorsk Railway Station and the RwBCP "Svetogorsk", the electrification of the railway section *Kamennogorsk – Svetogorsk,* and the construction of the overpass in the alignment of Zavodskaya St. in Svetogorsk.	FGKU "RosGranStroi" or FKU "RosTransModernizatsia", and the contractor
15.	The interdepartmental commission (procedure) to make sure the border-crossing point meets the requirements for construction, reconstruction, equipment and infrastructure of buildings, indoor facilities, and structures	Interdepartmental Commission Report on the conformity of the border-crossing point with the requirements for construction, equipment and infrastructure of buildings, indoor facilities, and structures	FGKU "RosGranStroi" or FKU "RosTransModernizatsia"
16.	Preparation and issue of the Directive of the RF Ministry of Transport "On the opening of the cargo-and-passenger, permanent, multilateral border-crossing point "Svetogorsk" at the national border of the Russian Federation (in	Directive of the RF Ministry of Transport "On the opening of the cargo-and-passenger, permanent, multilateral border-crossing point "Svetogorsk" at the national border of the Russian Federation (in Leningrad Region) after reconstruction".	Ministry of Transport of the Russian Federation, FGKU "RosGranStroi" or FKU RosTransModernizatsia

	Leningrad Region) after re-construction”.		

The time required for the activities listed above being taken into account, the RwBCP "Svetogorsk” could open after the reconstruction in the 1st Quarter of 2025.

INFORMATION SOURCES

The documents used to produce the Action Plan were as follows:

1. Federal Law No. 172-FZ dated 28.06.2014 "On strategic planning in the Russian Federation";
2. Federal Law No. N 4730-I dated 01.04.1993 "On the national border of the Russian Federation (as amended);
3. Federal Law No. 270-FZ dated 29.07.2018 "On amendments to the Law of the Russian Federation "On the national border of the Russian Federation" and individual legal acts of the Russian Federation";
4. Federal Law No. 16-FZ dated 09.02.2007 "On security of transport";
5. Federal Law No. 270 FZ dated 29.07.2018 "On amendments to the Law of the Russian Federation "On the National Border of the Russian Federation" and individual legislative acts of the Russian Federation"
6. Decree of the President of the Russian Federation No. 204 dated 07.05.2018 "On national goals and strategic objectives in development of the Russian Federation for the period through 2024;
7. Decree of the President of the Russian Federation No. 596 dated 07.05.2012 "On long-term government economic policies";
8. Decree of the President of the Russian Federation No. 13 dated 16.01.2017 "On establishment of the Basic Government Policy for Regional Development of the Russian Federation for the period through 2025";
9. Decree of the President of the Russian Federation No. 176 dated 19.04.2017 "On the Strategy for Environmental Security of the Russian Federation for the period through 2025";
10. the Strategy of Spatial Development of the Russian Federation for the period through 2025, as approved by RF Government Decree No. 207-r dated 13.02.2019;
11. the Basic Government Policies in Environmental Development of the Russian Federation for the period through 2030, as approved by the President of the Russian Federation on 30.04.2012;
12. the Transport Strategy of the Russian Federation for the period through 2030, as approved by Decree of the Government of the Russian Federation of 22.11.2008 No. 1734-r (as subsequently amended);

13. the Strategy for Development of Railway Transport in the Russian Federation for the period through 2030, as approved by RF Government Directive No. 877-r dated 17.06.2008;
14. the Long-Term Development Program of Russian Railways for the period through 2025, as approved by RF Government Directive No. 466-r dated 19.03.2019;
15. the Strategy for Development of Maritime Activities in the Russian Federation for the period through 2030, as approved by RF Government Directive No. 2205-r dated 08.12.2010;
16. the Strategy for Development of Seaport Infrastructure of Russia for the period through 2030, as approved at the session of members of the Maritime Board of the RF Government on 28.09.2012;
17. the Strategy for Development of Inland Waterway Transport of the Russian Federation for the period through 2030, as approved by RF Government Decree No. 327-r dated 29.02.2016;
18. the Government Program of the Russian Federation "Development of the Transport System" as approved by RF Government Decree No. 1596 dated 20.12.2017;
19. the Government Program of the Russian Federation "Accessible environment" for 2011-2020, as approved by Decree of the Government of the Russian Federation of 01.12.2015 No. 1297 (as amended on 30.03.2018 - No. 352);
20. the Comprehensive Plan for Modernization and Expansion of Arterial Infrastructure for the Period through 2024, as approved by RF Government Decree No. 2101-r dated 30.09.2018;
21. the Federal Targeted Program "The National Border of the Russian Federation (2012 - 2020)";
22. the Strategy for Development of Tourism in the Russian Federation for the period through 2020, as approved by RF Government Decree No. 941-r dated 31.05.2014;
23. the Implementation Plan for Basic Government Policies for Regional Development of the Russian Federation for the period through 2025, as approved by RF Government Directive No. 1166-r dated 05.06.2017;
24. RF Government Decree No. 482 dated 26.06.2008 (version of 31.03.2018) "On the approval the Rules of Establishment, Opening, Operation, Operation and Closure of National Border-Crossing Points of the Russian Federation".
25. RF Government Decree No. 930 dated 25.12.2007 "On the approval of the general requirements for construction, reconstruction, equipment and infrastructure of

buildings, spaces and structures that are necessary for border control, customs control and other control procedures performed at national border-crossing points of the Russian Federation" (as amended);

26. RF Government Decree No. 778 dated 27.07.2012 (version of 28.04.2016) "On the approval of requirements for signage and equipment of road and railway sections operating as international connections from the national border of the Russian Federation to the border-crossing point of the Russian Federation";
27. RF Government Decree No. 872 dated 20.11.2008 "On the approval of the Rules for Control Procedures at Border-Crossing Points at the National Border of the Russian Federation";
28. RF Government Decree No. 995 dated 19.09.2015 "On the approval of the Rules of Customs Supervision of the Export of Products that are Subject of Quarantine from the Russian Federation";
29. RF Government Decree No. 792 dated 13.08.2016 "On the procedure for government quarantine and phytosanitary control (oversight) at border-crossing points at the national border of the Russian Federation";
30. Resolution of the Board of the Eurasian Economic Commission No. 196 dated 17.09.2013 "On introduction of compulsory prior notification on goods that are imported to the common customs area of the Customs Union by railway";
31. RF Ministry of Transport Directive No. 31 dated 09.02.2010 "On approval of the Standard Scheme for traffic of persons, transport vehicles, cargo, goods and animals across the national border of the Russian Federation through railway border-crossing points";
32. Directive of the FSB of Russia No. 562 dated 08.11.2012 "On the approval of the administrative regulation on the performance of the government function of border control at national border-crossing points of the Russian Federation";
33. Directive of the Federal Agency for State Border Infrastructure Development No. 451-OD dated 27.12.2010 "On the approval of the routine at national border-crossing points of the Russian Federation";
34. Directive of the Federal Customs Service No. 1157 dated 01.06.2011 "On the approval of the *Guidelines for Actions of Customs Officers Who Perform Customs Operations in Respect of Goods Transported Internationally by Railway*";
35. Directive of the Federal Customs Service No. 1572 dated 05.08.2015 "On the approval of the *Procedure of Using the Common Automatic Information System of the*

Customs Bodies in Customs Operations in Respect of Rolling Stock and Goods Transported Thereby Internationally Where Documents and Information are Provided Electronically";

36. Directive of the Ministry of Agriculture of the Russian Federation No. 293 dated 13.07.2016 "On the approval of the procedure for issuing the phytosanitary certificate, the re-export certificate, and the quarantine certificate";
37. the Forecast of the Socio-Economic Development of the Russian Federation for the period through 2036, approved at the session of the RF Government on 22.11.2018;
38. Law of Saint Petersburg No. 771-164 dated 19.12.2018 "On the strategy for socio-economic development of Saint Petersburg through 2030";
39. Law of Leningrad Region No. 76-oz dated 08.08.2016 "On the strategy of socio-economic development of Leningrad Region through 2030" (adopted by the Legislative Assembly of Leningrad Region on July 13, 2016 (version as per Law of Leningrad Region No. 60-oz dated 20.06.2018) ;
40. The Transport Strategy of Saint Petersburg through 2025, as approved by Decree of the Government of Saint Petersburg dated 13.07.2011 No. 945 (as amended by 14.07.2017);
41. the Investment Strategy of Leningrad Region through 2025, approved by Decree of the Government of Leningrad Region No. 29 dated 19.02.2014 (as amended as of May 16, 2016);
42. Government Program of Saint Petersburg "Economic and social development of territories of Saint Petersburg" for 2015 – 2020, as approved by Decree of the Government of Saint Petersburg of 30.06.2014 No. 551;
43. Government Program of Saint Petersburg "Development of the transport system of Saint Petersburg" for 2015-2020, as approved by Decree of the Government of Saint Petersburg of 30.06.2014 No. 552 (as of 04.12.2018);
44. Law of Saint Petersburg No. 728-99 dated 22.12.2005 "On the Master-Plan of Saint Petersburg" (as amended by December 19, 2018);
45. The Territorial Planning Scheme of Leningrad Region, approved by Decree of the Government of Leningrad Region No. 460 dated 29.12.2012 (version of December 22, 2017 – No. 592);
46. The Program for Development of the Transport System of Saint Petersburg and Leningrad Region through 2020, approved by the Coordination Council for

development of the transport system of Saint Petersburg and Leningrad Region (par. 1, Section I, Minutes No. 80 dated 27.11.2015);

47. The Government Program of Leningrad Region "Development of roads in Leningrad Region" as approved by Decree of the Government of Leningrad Region No. 397 dated 14.11.2013;
48. The Sub-Program "Improvement of transport services available to the population of Leningrad Region during 2014-2020" of the Government Program of Leningrad Region "Ensuring sustainable operation and development of housing infrastructure and utility systems, and improvement of energy efficiency in Leningrad Region", approved by Decree of the Government of Leningrad Region No. 400 dated 14.11.2013 (version of December 29, 2018 — No. 553);
49. The Master-Plan for Development of the Railway Hub of the Transport System of Saint Petersburg and Leningrad Region, approved by the Coordination Council for development of the transport system of Saint Petersburg and Leningrad Region (par. 1, Section IX, Minutes No. 80 dated 27.11.2015);
50. The Concept of Development of the Transport Infrastructure of Leningrad Region through 2020, as approved by Directive of the Committee for Housing, Utilities, and Transport of Leningrad Region No. 99 dated 30.12.2014;
51. The Comprehensive Plan for Transport Services for the Population of Saint Petersburg and Leningrad Region for the Medium and Long Term (through 2030) in Respect of Regional Passenger Services, as approved by Directive of the Government of Leningrad Region No. 592-r dated 28.12.2015;
52. The Program for Comprehensive Development of Transport Infrastructure Systems of the Municipal Area "Svetogorsk urban settlement", Vyborgsky District, Leningrad Region dated December 27, 2017 – No. 649;
53. Government statistics on socio-economic development, international trade, transport, freight and passenger transport operations.

APPENDIX A

Questionnaire (manufacturing sector companies)

Would you please answer these questions for us to be able to estimate future cargo traffic across the railway border-crossing point "Svetogorsk" of the Russian Federation:

1. **Company name:**
   _____
2. **Company address (region of the Russian Federation, city/town):**
   Headquarters:_____
   _____
   Branches *(if any):*
   _____
   _____
   _____
3. **Main business**_____
   _____
   _____
4. **Main products**_____
   _____
   _____
5. **Contact details, name and position of the respondent**
   _____
   _____
   _____
6. **What was the amount of export of your company's products to Finland in 2017?**

		tons
1	Total	
	including: main products	
2		
3		
4		
5		

7. **What was the amount of import of products from Finland in 2017?**

		tons
1	Total	
	including: main products	
2		
3		
4		
5		

8. Which Russia – Finland border-crossing points are being used to transport products?

	BCP
1	
2	
3	
4	
5	

9. Which transport modes are being used to transport products?

	Transport mode	To Finland	To Russia
1	Trucks		
2	Trains		
3	Maritime transport		
4	Inland waterways		

10. What are the main problems relevant to transportation of products from Russia to Finland and from Finland to Russia which arise at the national border of the Russian Federation?

	Problems	To Finland	To Russia
1	Uncertainty as to the time of delivery of the cargo		
2	Lack of a convenient route (*please indicate which)* resulting in long delivery times		
3	Long processing times at customs and border control facilities		

11. Does your company have plans to increase the amount of export/import of products to Finland/Russia during the period through 2035?

		Export	Import
1	Yes		
2	No *(go to Question No. 13)*		
3	Not sure *(go to Question No. 13)*		

12. What would be the growth of export or import of products (in kind) to Finland/Russia in 2020, 2025, 2030 and 2035 as compared to 2017, in percent?

		From Russia to Finland	From Finland to Russia
1	2020		
2	2025		
3	2030		
4	2035		

13. The railway border-crossing point "Svetogorsk/Imatra" is subject to reconstruction. Does your company have plans to use the railway border-crossing point "Svetogorsk/Imatra" to export/import products to Finland/Russia?

		Export	Import
1	Yes		
2	No		
3	Not sure		

14. What are your main suggestions as to the future infrastructure of the railway border-crossing point "Svetogorsk/Imatra":

	Suggestions (*please, specify*)
1	
2	
3	
4	
5	
6	
7	

Questionnaire (cargo carrier companies)

Would you please answer these questions for us to be able to estimate future cargo traffic across the railway border-crossing point "Svetogorsk" of the Russian Federation:

1. **Company name:**

   _____

2. **Company address (region of the Russian Federation, city/town):**

   Headquarters:_____

   Branches *(if any):*_____

3. **Main services provided**_____

4. **Contact details, name and position of the respondent**

   _____

5. **What was the amount of cargo transported by your company from Russia to Finland and from Finland to Russia in 2017?**

		tons
1	from Russia to Finland	
2	from Finland to Russia	

6. **What was the amount of cargo transported by your company from Russia to Finland and from Finland to Russia in 2017, by major type of product:**

	Product	From Russia to Finland, tons	From Finland to Russia, tons
1			
2			
3			
4			
5			

7. **Does your company provide transit cargo transportation via the Russia – Finland border?**

1	Yes	
2	No	

8. Which Russia – Finland border-crossing points are being used to transport products?

	BCP
1	
2	
3	
4	
5	

9. Which transport modes are being used by your company to transport products?

	Transport mode	From Russia to Finland	From Finland to Russia
1	Trucks		
2	Trains		
3	Maritime transport		
4	Inland waterways		

10. What are the main problems relevant to transportation of products from Russia to Finland and from Finland to Russia which arise when crossing the national border of the Russian Federation?

	Problems	To Finland	To Russia
1	Lack of a convenient route (*please indicate which)* resulting in long delivery times		
2	Long and unpredictable duration of customs clearance and border control procedures		

11. Does your company have plans to transport more cargo from Russia to Finland and from Finland to Russia?

		From Russia to Finland	From Finland to Russia
1	Yes		
2	No		
3	Not sure		

12. Does your company have plans to carry more transit cargo via the Russia – Finland border?

1	Yes	
2	No *(go to Question No. 14)*	
3	Not sure *(go to Question No. 14)*	

13. What would be the growth in the cargo traffic (in kind) from Russia to Finland and from Finland to Russia in 2020, 2025, 2030 and 2035 as compared to 2017, in percent?

		From Russia to Finland	From Finland to Russia
1	2020		
2	2025		
3	2030		
4	2035		

14. The railway border-crossing point "Svetogorsk" is subject to reconstruction. Does your company have plans to use the railway border-crossing point "Svetogorsk" to transport cargo from Russia to Finland and from Finland to Russia?

		From Russia to Finland	From Finland to Russia
1	Yes		
2	No		
3	Not sure		

15. What are your main suggestions as to future infrastructure of the railway border-crossing point "Svetogorsk"?

	Suggestions (*please, specify*)
1	
2	
3	
4	
5	
6	
7	

APPENDIX B

Questionnaire (travel agencies)

Would you please answer these questions for us to be able to estimate future passenger traffic across the border-crossing point "Svetogorsk" of the Russian Federation:

15. Company name:

_____

16. Company address (region of the Russian Federation, city/town):

Headquarters: _____

Branches *(if any):*

_____

17. Main business *(international tourism, domestic tourism)*

_____

18. Contact details, name and position of the respondent

_____

19. Does your company organize tours from Russia to Finland and from Finland to Russia?

1	Yes	
2	No *(go to Question No. 10)*	

20. How many tourists used your company to travel from Russia to Finland and from Finland to Russia in 2017-2018 *(persons)***:**

		2017	2018
1	from Russia to Finland		
2	from Finland to Russia		

21. Roughly, what are the seasonal fluctuations in the demand for tours from Russia to Finland and from Finland to Russia *(please, indicate in percent)***:**

	Season	%
1	Winter	
2	Spring	
3	Summer	
4	Autumn	
	Total	100

22. Which Russia – Finland border-crossing points does your company use in its tours?

	BCP
1	
2	
3	
4	
5	

23. How long does it take on average for a passenger to cross the Russian national border (*in minutes)***?**

	Border-crossing point	To Finland	To Russia
1	RdBCP "Svetogorsk"		
2	RdBCP "Brusnichnoye"		
3	RdBCP "Torfyanovka"		
4	RwBCP "Buslovskaya"		

24. The railway border-crossing point "Svetogorsk" is subject to reconstruction which involves arrangements for passengers' crossing the border-crossing point Does your company have plans to organize tours from Russia to Finland and from Finland to Russia via the railway border-crossing point "Svetogorsk"?

1	Yes	
2	No	
3	Not sure	

25. Does your company have plans to have more tourists going from Russia to Finland and from Finland to Russia, if the railway border-crossing point "Svetogorsk" starts processing passengers?

1	Yes	
2	No	
3	Not sure	

26. Roughly, what could be the growth (in percent) in the number of tourists – your company's clients going from Russia to Finland and from Finland to Russia in 2020, 2025, 2030 and 2035 as compared to 2017, in percent?

		From Russia to Finland	From Finland to Russia
1	2020		
2	2025		
3	2030		
4	2035		

27. What services should be provided at the railway border-crossing point "Svetogorsk" or on the railway route from Russia to Finland and from Finland to Russia?

1	Currency exchange	
2	Tax Free	
3	Wi-Fi onboard trains	
4	Onboard passport control and customs control procedures (with the train moving)	
5	Other (*please, specify*)	
6	Not sure	

28. What would you suggest as to the schedule for passenger trains going via the railway border-crossing point "Svetogorsk":

	Suggestions (*please, specify*)
1	
2	
3	
4	
5	

Questionnaire (passenger transport companies)

Would you please answer these questions for us to be able to estimate future passenger traffic across the border-crossing point "Svetogorsk" of the Russian Federation:

1. **Company name:**
   _____
   _____
2. **Company address (region of the Russian Federation, city/town):**
   Headquarters:_____
   _____
   Branches *(if any):*
   _____
   _____
   _____
3. **Main services provided**_____
   _____
   _____
4. **Contact details, name and position of the respondent**
   _____
   _____

5. **Does your company provide passenger transport services from Russia to Finland and from Finland to Russia?**

1	Yes	
2	No *(go to Question No. 13)*	

6. **How many passengers did your company carry from Russia to Finland and from Finland to Russia in 2017-2018** *(pax)***:**

		2017	2018
1	from Russia to Finland		
2	from Finland to Russia		

7. **Roughly, what are the seasonal fluctuations in the demand for travel from Russia to Finland** *(please, indicate in percent)***:**

	Season	%
1	Winter	
2	Spring	
3	Summer	
4	Autumn	
	Total	100

8. Which transport modes does your company use to provide passenger transport services from Russia to Finland and from Finland to Russia?

	Transport mode	From Russia to Finland	From Finland to Russia
1	Road vehicles		
2	Trains		
3	Maritime transport		
4	Inland waterways		
5	Air transport		

9. Which Russia – Finland border-crossing points does your company use in its passenger services?

	BCP
1	
2	
3	
4	
5	

10. How long does it take on average for a passenger to cross the Russian national border (*in minutes)***?**

	Border-crossing point	To Finland	To Russia
1	RdBCP "Svetogorsk"		
2	RdBCP "Brusnichnoye"		
3	RdBCP "Torfyanovka"		
4	RwBCP "Buslovskaya"		

11. Does your company have plans to carry more passengers from Russia to Finland and from Finland to Russia?

		From Russia to Finland	From Finland to Russia
1	Yes		
2	No		
3	Not sure		

12. Roughly, what could be the growth in the number of passengers carried by your company from Russia to Finland and from Finland to Russia in 2020, 2025, 2030 and 2035 as compared to 2017, in percent?

		From Russia to Finland	From Finland to Russia
1	2020		
2	2025		
3	2030		
4	2035		

13. The railway border-crossing point "Svetogorsk" is subject to reconstruction. Does your company have plans to use the railway

border-crossing point "Svetogorsk" in its passenger transport services from Russia to Finland and from Finland to Russia?

1	Yes	
2	No	
3	Not sure	

14. What services should be provided at the railway border-crossing point "Svetogorsk" or on the railway route from Russia to Finland and from Finland to Russia?

1	Currency exchange	
2	Tax Free	
3	Wi-Fi onboard trains	
4	Onboard passport control procedures (with the train moving)	
5	Other (*please, specify*)	
6	Not sure	

REGIONAL COUNCIL OF SOUTH KARELIA

LOGISTICS PLANNING AND CONSULTING NRC Group proxion Transport Integration LLC.