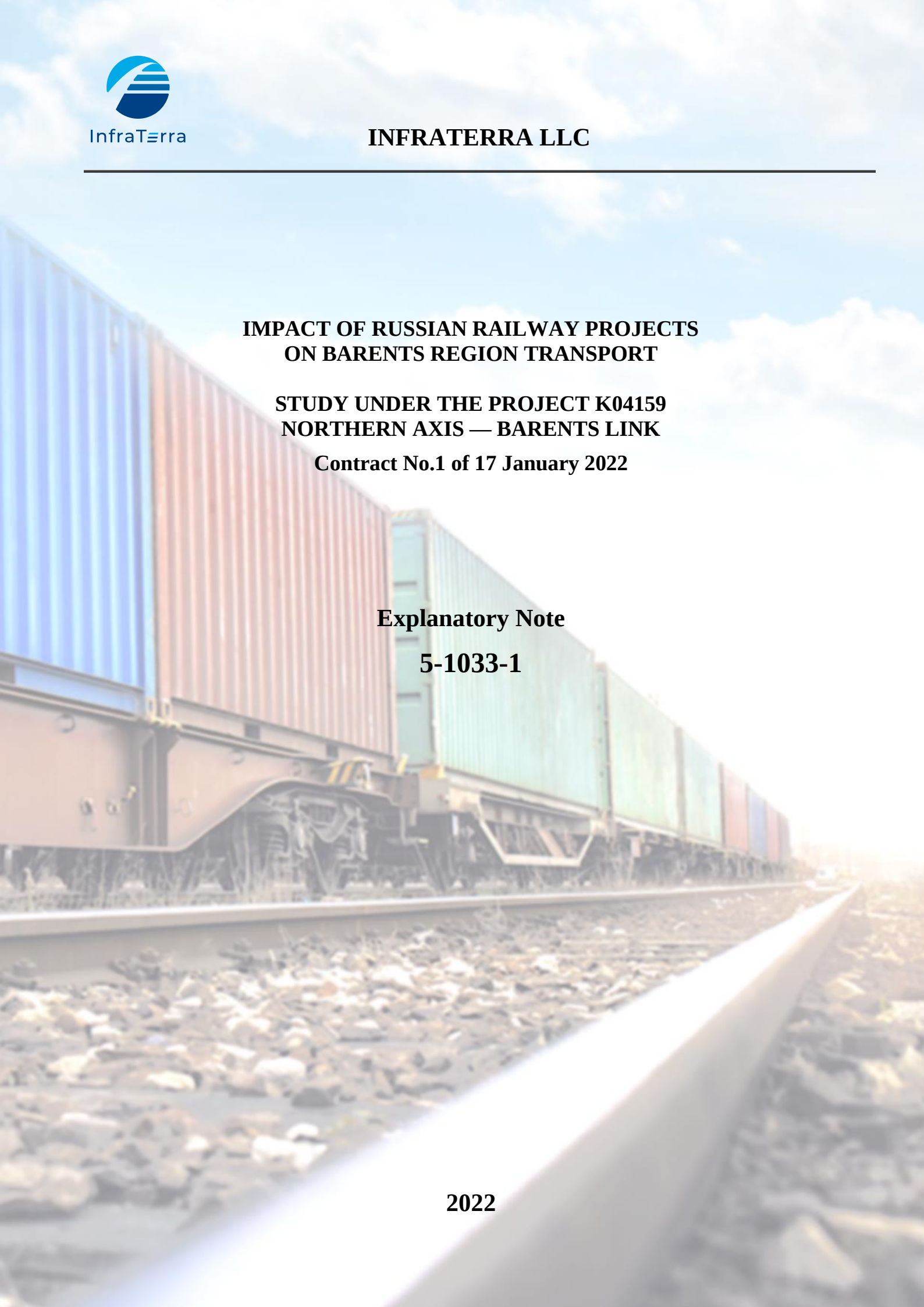

INFRATERRA LLC

IMPACT OF RUSSIAN RAILWAY PROJECTS ON BARENTS REGION TRANSPORT

STUDY UNDER THE PROJECT K04159 NORTHERN AXIS — BARENTS LINK

Contract No.1 of 17 January 2022

Explanatory Note

5-1033-1

2022

Contents

Introduction

This Report was prepared under Contract No. 1 of 17 January 2022 concluded between Kainu Regional Council and InfraTerra LLC for the study of impact of Russian railway projects on the transport system of the Barents Region as part of Northern Axis - Barents Link KO 4159 (NABL) Project.

Barents Region consists of the following regions (Fig. 1):

— Nordland, Troms and Finnmark counties in Norway,
— Västerbotten and Norrbotten counties in Sweden,
— Lapland (Lappi), North Ostrobothnia (Pohjois-Pohjanmaa) and Kainuu counties in Finland,
— Murmansk Region, Arkhangelsk Region, the Komi Republic, Nenets Autonomous District and the Republic of Karelia in the Russian Federation.

Fig. 1 Barents Region Territory

The study objective was to identify the impact of the infrastructure development projects, both for the existing and planned railways in the Russian Federation, on the transport situation of the Barents Region.

The following was prepared:

1. Description of the priorities and prospects of the Russian railway development projects (strategic priorities for the future railway transport development) to identify as follows:

— Main geographical trends in the railway development and the most important regions and destinations/directions, in terms of the Russian Federation's transport development strategy;
— Impact of the strategic priorities on the development of the east-west rail transport in the Barents Region;
— Impact of the strategic priorities on the development of the TEN-T core and comprehensive network at the EU border;

— Contribution of these strategic priorities to the Barents Region's flows of goods in terms of exports and imports: whether they open new opportunities for exports/imports of the northern area products to the Far East, etc.

2. Identification of the development priorities as regards the following rail links, which would be important for international accessibility of the Barents and Kainuu Regions:

— Ledmozero — Kochkoma railway in the Republic of Karelia;

— Northern Latitudinal Railway (NLR);

— Other projects and railway links considered in the first section of the study;

— Justification of the expediency and significance of the railway links under consideration for the Russian Federation.

3. Identification of the priority Russian rail border crossing points on the border with the EU countries of the Barents Region, indicating which border crossing points Russia is investing in.

Information sources

Information sources for the study are both the data obtained by inquiry letters and from public sources of information.

By the level of authority, the information is categorized as follows:

- Data from the governments of constituent entities of the Russian Federation that are part of the Barents Region;
- Data from the territorial agencies of federal authorities and federal services of the Russian Federation (the data applies to the group of regions on a territorial basis);
- Data from the central bodies of federal authorities and federal services of the Russian Federation (the data applies to the entire territory of Russia), and
- Data from private companies (JSC Russian Railways).

By institutions, the information sources are categorized as follows:

- Transport authorities,
- Rail transport authorities and their agencies,
- Russian border crossing points development authorities,
- Customs authorities,
- State Border Service departments,
- Statistics Service departments,
- Economic development agencies

The following public resources of information were used:

- Official website of the Federal State Statistics Service (Rosstat) https://rosstat.gov.ru/ and websites of Rosstat departments in the constituent entities of the Russian Federation
- Website of the Unified Interdepartmental Statistical Information System (UISIS) https://www.fedstat.ru/
- Website of the Ministry of Transport of the Russian Federation https://mintrans.gov.ru/
- Website of the Federal Agency for Railway Transport (Roszheldor) http://www.rlw.gov.ru/
- Website of JSC Russian Railways https://www.rzd.ru - the official online representation of the company
- Website of the Federal State Directorate for Construction and Operation of the Russian Border Facilities (FGKU Rosgranstroy) https://www.rosgranstroy.ru/
- Website of the Federal Customs Service https://customs.gov.ru/ including its section Customs Statistics on Foreign Trade of the Russian Federation http://stat.customs.ru/
- Official website of the State Customer Directorate for Implementation of the Transport System Modernization Program http://ppp-transport.ru/ru/fcp/otchety
- Portal of State Programs of the Russian Federation https://programs.gov.ru/opendata/
- Official websites of the Governments' Offices of the RF constituent entities
- Information portal of Railway Transportation https://cargo-report.info/

- Database of the studies posted on the Barents Region website https://www.barentsinfo.fi/beac/document_database/wg_documents.aspx?ID=4
- Official website of the United Nations Economic Commission for Europe (UNECE) https://w3.unece.org/PXWeb/ru
- Official website of the European Comission https://ec.europa.eu/transport/themes/infrastructure/about-ten-t_en
- Website of the World Bank https://data.worldbank.org/
- Website of the European Union Statistics Service (Eurostat) https://ec.europa.eu/eurostat
- Website of the Finnish Customs https://tulli.fi/en/statistics
- Website of the Norwegian Customs https://data.toll.no/dataset

Information inquiries were officially sent to 23 institutions:

1. Ministry of Arctic and Economic Development of Murmansk Region
2. Ministry of Economic Development, Industry and Science of Arkhangelsk Region
3. Department of Finance and Economics of the Nenets Autonomous District
4. Ministry of Economic Development and Industry of the Komi Republic
5. Ministry of Economic Development and Industry of the Republic of Karelia
6. Ministry of Economic Development of the Russian Federation
7. Oktyabrskaya (*October*) Railway, JSC Russian Railways branch
8. Severnaya (*Northern*) Railway, JSC Russian Railways branch
9. Northwest Territorial Directorate of the Federal Agency for Railway Transport
10. Vyborg Customs of the Northwest Customs Directorate
11. Baltic Customs of the Northwest Customs Directorate
12. Karelia Customs of the Northwest Customs Directorate
13. Murmansk Customs of the North-West Customs Directorate
14. St. Petersburg Branch of FGKU Rosgranstroy
15. Murmansk Branch of FGKU Rosgranstroy
16. Infrastructure Development Directorate of the Ministry of Transport of the Russian Federation
17. Ministry of Transport of the Russian Federation
18. State Customer Directorate for Implementation of Transport Infrastructure Complex Development Projects (FKU Rostransmodernizatsiya)
19. Directorate for Construction and Operation of the Russian Border Facilities (FGKU Rosgranstroy)
20. JSC Russian Railways Directorate of Foreign Projects and International Relationships
21. Border Service of the Republic of Karelia
22. Border Service of St. Petersburg and Leningrad Region
23. Institute of Transport Economics and Development

Information was provided only by several organisations.

1. Description of the existing railway infrastructure in Russia ensuring transport connection to the Barents Region and the EU

RZD (JSC Russian Railways) is the owner of the Russian public railway infrastructure. The railway network is operated by 16 branches of RZD. Two of these branches operate in the Barents Region: the October (Oktyabrskaya) Railway (in Murmansk Region and the Republic of Karelia) and the Northern (Severnaya) Railway (in Arkhangelsk Region and the Komi Republic).

The existing public railway network of RF constituent entities is shown in Fig. 1.1.

The October Railway operates the railway infrastructure of the north-western Russian regions (except for Kaliningrad Region), including the railway line between St. Petersburg and Moscow. The office of the company is located in St. Petersburg.

The Northern Railway operates the railway network, which covers mainly the north and northeast of the Russian European part. Its office is located in Yaroslavl. The Northern Railway serves the area over 1 million km^2 with the population of more than 6 million people. The Northern Railway includes five regional offices, which are located in Arkhangelsk, Vologda, Solvychegodsk, Sosnogorsk and Yaroslavl.

The gauge of railways in Russia is 1520 mm. Almost all European railways have the gauge of 1435 mm; in Finland, the gauge is 1524 mm.

Table 1.1 shows the operating length and density of the public railways in the Russian Federation constituent entities that are part of the Barents Region.

Table 1.1

Railway infrastructure in the Russian Barents Region

Regions	Railways operating length, km			Density of public railways, km/ 10 000 km^2 of the territory	Density of public railways, km / 1000 of residents
	2010	2015	2020	2020	2020
Arkhangelsk Region (without Nenets Autonomous District)	1 766.7	1 766.7	1 766.7	43	1,6
Murmansk Region	870.3	870.3	870.3	60	1,2
Republic of Karelia	2 225.6	2 225.6	2 225.6	123	3,7
Komi Republic	1 690.3	1 690.3	1 690.3	41	2,1
Total for RF entities in the Barents region:	6 552.9	6 552.9	6 552.9	49	2,0

Information source: Federal State Statistics Service

Given the operating railway length, the Republic of Karelia has the largest railway network in the Russian Barents Region, which accounts for 34% of the total length. Murmansk Region has the smallest railway network that takes only 13.3% of the total operating length.

Over the past 10 years (from 2010 to 2020), the total length of the Russian public railway lines in the Barents Region has not changed and remains 6 552.9 km.

Totally in Russia, 381 km of new railway lines were put into operation during the period from 2015 to 2020. New railways were mainly built in the Southern Federal District (Krasnodar region), Siberian Federal District (mostly in Kemerovo region), Central Federal District (Voronezh and Moscow regions), and the Far East Federal District (see Fig. 1.2).

In the Russian Barents, the density of the railway network is higher in the border regions - the Republic of Karelia and Murmansk Region; the densest network is in Karelia. The density of the public railway network in these regions ranges from 41 km per 10,000 km^2 of the territory in the Komi Republic to 123 km per 10000 km^2 in the Republic of Karelia (Fig. 1.3).

The Republic of Karelia also has the highest railway density per capita.

In 2021, the total volume of freight transported by public railways in the Barents Region amounted to 87.8 million tons (see Table 1.2 and Fig.1.3).

The largest freight volumes were dispatched from Murmansk Region (36.1%) and Karelia (30.9%).

Over the period from 2016 to 2021, the freight volumes transported by rail increased by 8%. The largest increase in freight dispatch volumes was registered in Arkhangelsk Region, while the Komi Republic demonstrated a slight decrease. (Fig. 1.4, 1.5).

In Arkhangelsk and Murmansk Regions, the dispatch and arrival volumes of freight are almost the same, while in Karelia and the Komi Republic, the dispatch volumes significantly exceed the arrival volumes (Fig. 1.3).

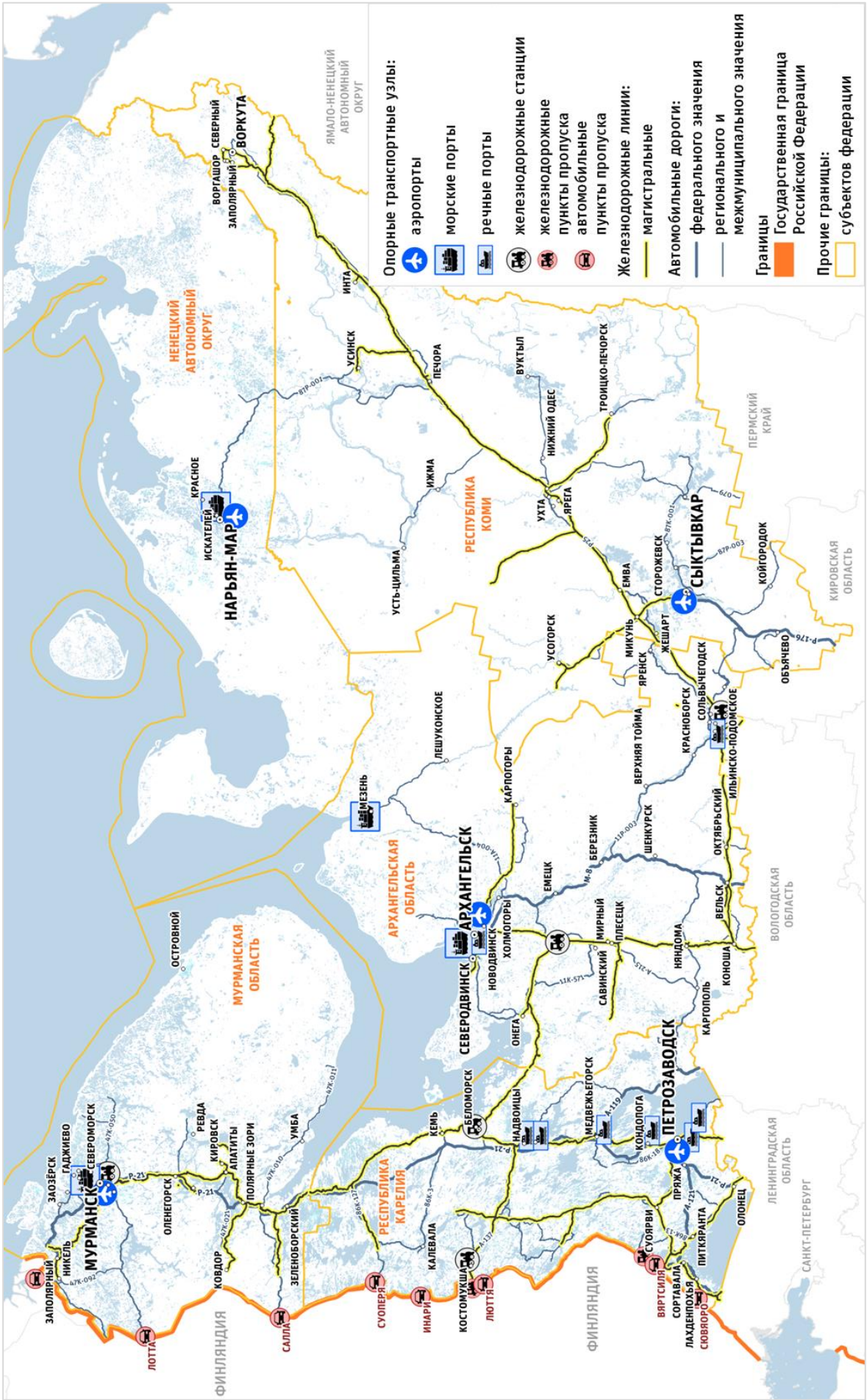

Fig.1.1 Russian Barents Region railway infrastructure

Fig.1.2 New railways built, km

Information source: Federal State Statistics Service

Fig.1.3 Barents Region railway infrastructure characteristics

Information source: Federal State Statistics Service, https://cargo-report.info

Инд. № подл.	Подпись и дата	Взамен инд №

Путеп | Кол. | Лист | № док | Подпись | Дата

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Table 1.2

Freight and passenger transportation via public railways in the Russian Barents Region

Regions	Dispatch, thousand tons				Arrival, thousand tons				Passenger transportation via public railways, thousand people		
	2015	2020	2021	2021/ 2015, %	2015	2020	2021	2021/ 2015, %	2015	2020	2020/ 2015, %
Arkhangelsk Region (without the Nenets Autonomous District)	10402	13941	14595	140.3	12820	14285	13184	102.8	3364	2376	70.6
Murmansk Region	26269	31503	31724	120.8	27045	31690	30118	111.4	670	434	64.8
Republic of Karelia	27347	29223	27128	52.5	7495	8130	8779	76.4	1170	995	85.0
Komi Republic	18325	14665	14365	148.0	5722	5043	5726	153.4	2145	1341	62.5
Total for Russian regions that are part of the Barents Region	82343	89332	87812	106.6	53082	59148	57807	108.9	7349	5146	70.0

Information source: Federal State Statistics Service, https://cargo-report.info

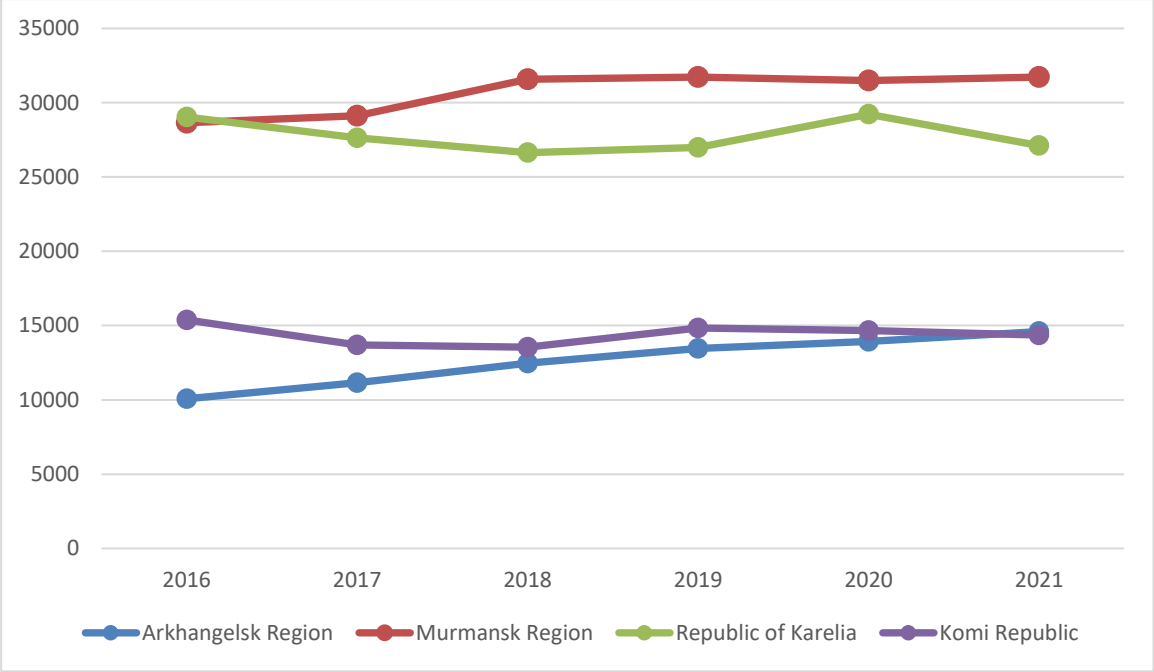


Fig.1.4 Freight dispatch via public railways, thousand tons

Information source: Federal State Statistics Service, https://cargo-report.info

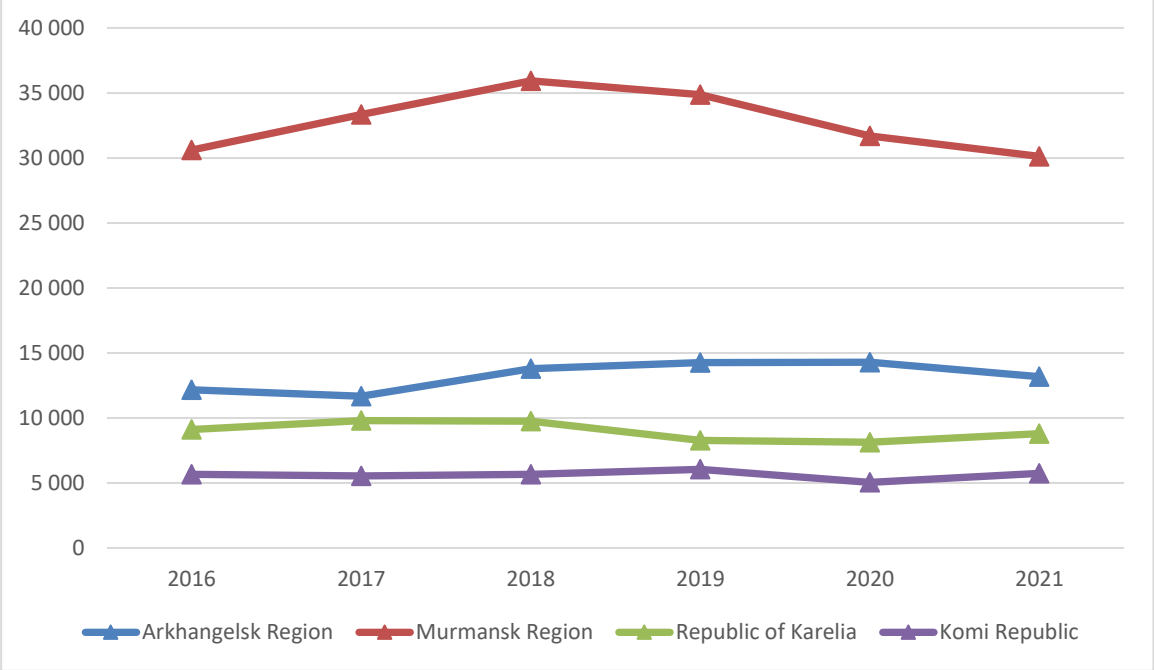


Fig.1.5 Freight arrival via public railways, thousand tons

Information source: Federal State Statistics Service, Information portal of Railway Transportation (https://cargo-report.info)

Timber, minerals and construction materials are the main goods transported in Arkhangelsk Region. Most of the freight transportation is domestic.

Mainly ores and fertilizers are transported from Murmansk Region. 30 to 40% of the freight handled at Murmansk Region railway stations is export.

Oil and hard coil are the main goods transported in the Komi Republic. 45% of the oil is exported.

In the Republic of Karelia, the main commodities transported by rail are ores, minerals and construction materials. 50% of the ore is exported (Fig. 1.6, 1.7, 1.8).

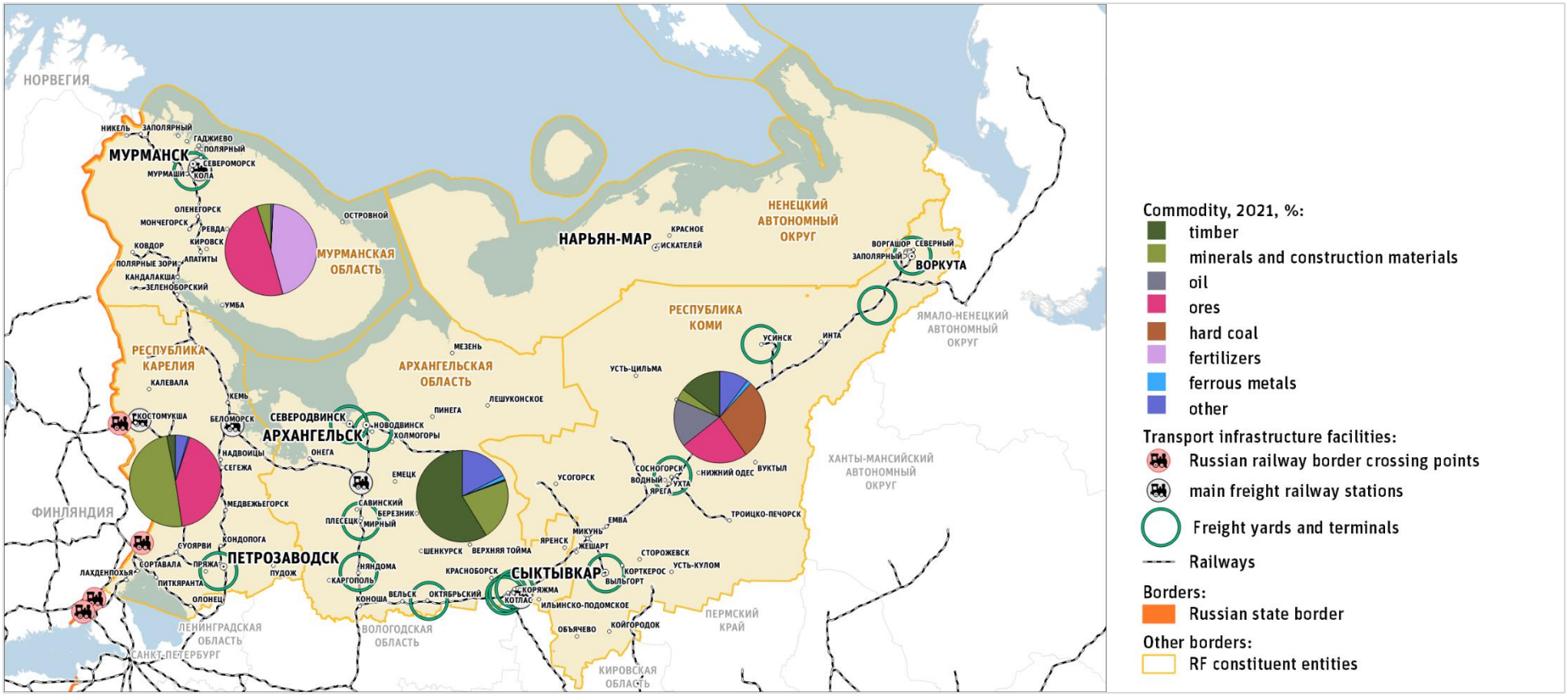


Fig.1.6 Freight dispatch from the Barents Region railway stations

Information source: Information portal of Railway Transportation (https://cargo-report.info)

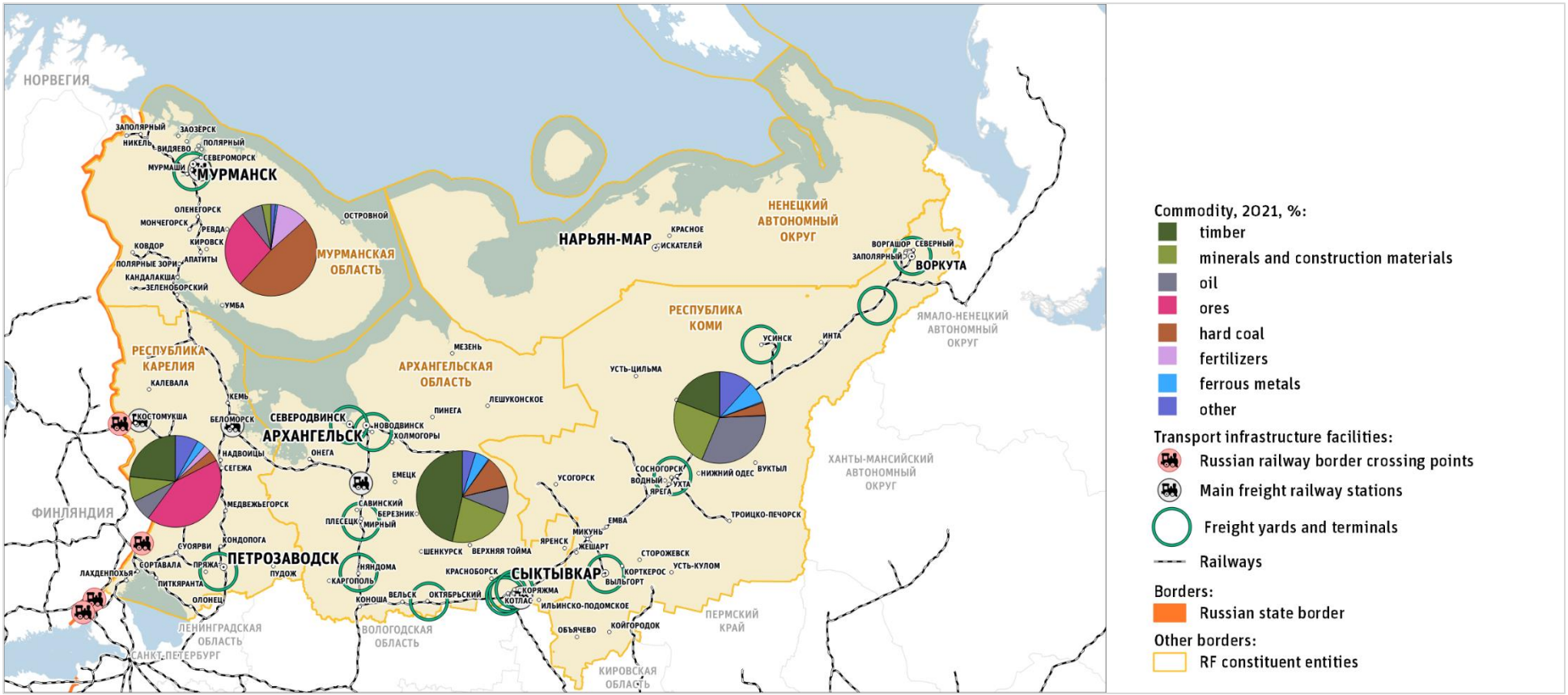


Fig. 1.7 Freight arrival to the Barents Region railway stations

Information source: Information portal of Railway Transportation (https://cargo-report.info)

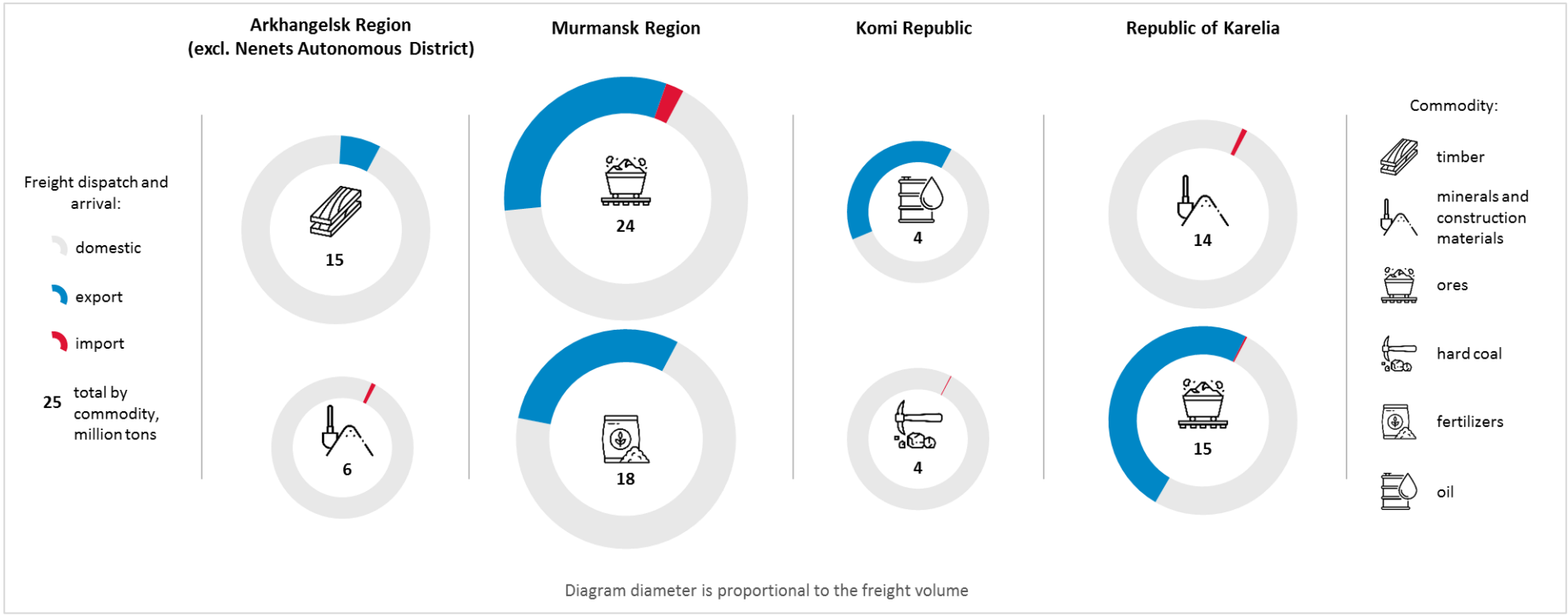


Fig.1.8 Railway station operating volumes by commodity and transportation type

Information source: Information portal of Railway Transportation (https://cargo-report.info)

Arkhangelsk Region

70% of the total freight volume in Arkhangelsk Region is transported by rail. The total length of railways is 1766.7 km; the railways density is 43 km per 10 000 km^2. In 2021, the public railways carried 14 mln tons of goods and 2 376 thousand passengers.

Main railway lines:

- Moscow – Arkhangelsk: within the region, the railway runs in the meridian direction from the Vologda Region border to the stations Konosha 1 – Nyandoma – Plesetskaya – Obozerskaya;
- Moscow – Vorkuta: the line branches from the Moscow – Arkhangelsk railway at Konosha 1 station and runs east via Kotlas – Solvychegodsk (in Vychegodsky settlement) to the border of the Komi Republic;
- Belomorsk – Obozerskaya: the west-to-east trunk railway line connects the Moscow – Arkhangelsk railway and the St. Petersburg – Murmansk railway that run in the meridian direction; the western stretch of the line is located in the Republic of Karelia and the eastern one – in Arkhangelsk Region;
- Kotlas – Kirov: the railway line runs in the meridian direction connecting Kirov to Kotlas and the railway line to Vorkuta; in Arkhangelsk Region, the northern 60 km-long stretch of the railway is located.

The following RZD regional offices operate in Arkhangelsk Region:

- Arkhangelsk Regional Office operating the railway lines Konosha – Arkhangelsk, Obozersky – Onega – Belomorsk, and Arkhangelsk – Karpogory – Vendinga,
- Solvychegodsk Regional Office operating the railway lines Konosha – Kotlas – Mikun, Udimsky – Veliky Ustyug, and Kotlas – Luza,
- Vologda Regional office, operating the line Konosha – Vozhega

The only electrified line is Vologda – Konosha – Obozerskaya – Belomorsk.

Two-track lines are Vologda – Konosha – Obozerskaya, Konosha – Veresovo and Velsk – Kotlas (further to Mikun); the other lines are single-track railways.

The largest stations and junctions in the region are Arkhangelsk, Severodvinsk, Obozersky, Onega, Karpogory, Nyandoma, Plesetsk, Konosha and Kotlas.

The main commodities transported by rail are timber, ferrous metals, construction materials and oil.

Murmansk Region

Public railways are the most essential component of the Murmansk Region transport system, which accounts for a substantial proportion of freight and passenger transportations.

The total length of railways is 870.3 km; the railways density is 60 km per 10 000 km^2. In 2021, the public railways carried 31 mln tons of goods and 434 thousand passengers.

The regional railway network includes a transit trunk railway St. Petersburg – Petrozavodsk – Murmansk.

The railway lines running in the region:

- A stretch of the St. Petersburg – Murmansk railway that crosses the region from south to north (from the Karelian border to Murmansk);
- Kola – Pechenga
- Olenegorsk – Monchegorsk
- Apatity - Titan
- Pinozero – Kovdor
- Ruchyi-Karelskie – Alakurtti
- Murmansk – Vaenga
- Luostari – Nikel-Murmansky

The railway lines are operated by Murmansk Regional Office of the October Railway.

439 km of the lines are electrified. 416 km of them are supplied with alternating current, in particular the line between Poyakonda station at the Karelian border and Murmansk. 23 km are powered by direct current: those are the line from Apatity to Kirovsk, comprising the Apatity – Titan stretch operated by Murmansk Regional Office of the October Railway, and the Titan – Kirovsk stretch owned by JSC Apatit.

The railway stations and junctions are Murmansk, Apatity, Ruchyi-Karelskie, Kandalaksha, Olenegorsk, Pyayve, and Zapolyarnaya.

The rail transport carries large volumes of raw materials, metals and fish products.

Most of cargo handled in seaports of Murmansk Region is delivered by rail. Almost all goods that are transshipped in the ports of Murmansk, Kandalaksha and Vitino arrive by the railways. Oil products, coal and mineral fertilizers are carried from various Russian regions for export. Mining and processing plants located in Murmansk Region also delivery their products by rail to Murmansk seaport for further transportation by sea.

The Republic of Karelia

The railways in Karelia play a key role in freight and passenger transportations and take the largest share of the total volume shipped by all modes of transport (90% of all goods).

The total length of railways is 2225.6 km; the railways density is 123 km per 10 000 km^2. In 2021, the public railways carried 29 mln tons of goods and 995 thousand passengers.

The Karelian railway network includes a trunk railway St. Petersburg – Murmansk (the Northern line of the October Railway) and several lines of the October and Northern Railways.

Railway lines in the Republic of Karelia:

- A stretch of the trunk railway St. Petersburg – Murmansk being the main railway in the republic;
- A stretch of the railway St. Petersburg – Sortavala – Suoyarvi 1 – Tomitsy;
- A large part of the railway Yanisyarvi – Lodeinoye Pole;
- Suoyarvi 1 - Yushkozero;
- Kochkoma – Kiviyarvi;
- A stretch of the railway Belomorsk - Obozerskaya;
- Louhi – Pyaozero

The railways of the Republic of Karelia exit to Leningrad Oblast, Arkhangelsk Region and Finland.

Petrozavodsk Subdivision of the October Railway is one of largest revenue generating enterprises that form the republic's budget. It operates most of the railway lines located in Karelia and has four locomotive depots, four companies that serve the signaling and communication systems, two companies operating power equipment and seven track maintenance and repair companies.

St. Petersburg Regional Office of the October Railway operates the railway lines south of the Elisenvaara station; Murmansk Regional Office - the Northern line north of Louhi, and Volkhovstroy Office operates the line Yanisyarvi – Lodeinoye Pole.

Junction stations are Belomorsk, Brusnichnaya, Kochkoma, Ledmozero, Louhi, Matkaselka, Suoyarvi 1, Tomitsy, Khiytola and Yanisyarvi. The border crossing points at the border with Finland are Värtsilä and Kiviyarvi.

At present, there is no information on operating narrow-gauge railways in the area.

Main export commodities are minerals, timber, pulp and paper products, food products and agricultural raw materials.

The Republic of Komi

The railways in Komi are second only to oil and gas pipelines in terms of the volume of freight transportations.

The total length of railways is 1690.3 km; the railways density is 41 km per 10 000 km2. In 2021, the public railways carried 14 mln tons of goods and 1341 thousand passengers.

The public railway network in the republic comprises a 1.7 thousand km-long trunk railway Kotlas – Vorkuta, which is part of the Northern Railway, and three low-traffic lines – Mikun – Koslan – Vendinga, Sosnogorsk – Troitsko-Pechorsk and Synia – Usinsk.

There are two main operating companies that are subsidiaries of JSC Russian Railways:

- Sosnogorsk Office of the Northern Railway,
- Solvychegodsk Office of the Northern Railway

Junction stations are Ukhta, Usinsk, Syktyvkar, Sosnogorsk, Pechora, Mikun, Inta, Vorkuta and Vogvazdino.

Main commodities transported by rail are hard coal, oil and oil products, timber and construction materials.

The Nenets Autonomous District

There are no railways in the Nenets Autonomous District.

Description of railway border crossing points

In this study, the characteristics of all railway border crossing points between Russia and the Barents Region countries were considered. In addition, the study presents information on the currrent condition of road border-crossing points at the Russian – Finnish border.

The study also describes the level of development of all land border-crossing points to get a complete picture of the transport modes and their share in cross-border transportations between Russia and the Barents Region countries.

The data on actual volumes of individuals and vehicles allowed through the border was provided by FGKU Rosgranstroy upon an official request and was also taken from the official site of the Finnish Customs (https://tulli.fi/).

Russia has land borders with two countries of the Barents Region, namely Finland and Norway.

Land border crossing points between Russia and Finland include:

- 4 railway border crossing points located at the Russian-Finnish border and a passenger checkpoint located at the railway station in Vyborg;
- 10 road border-crossing points

The only land border crossing point at the border with Norway is a Borisoglebsk (Storskog) road crossing point located in Murmansk Region.

Location of the border crossing points is shown in Fig.1 and Fig.1.1.

The list and characteristics of land border-crossing points between Russia and the Barents Region countries are given in Table 1.3.

Table 1.3

List and characteristics of land border-crossing points between Russia and the Barents Region countries

Border crossing point type*	Border crossing point on the RF territory	RF constituent entity	Bordering state	Bordering crossing point	Characteristics
ABCP	Brusnichnoye	Leningrad Region	Finland	Nuijamaa	automobile, passenger-and-freight, permanent, multidirectional
RBCP	Buslovskaya			Vainikkala	railway, passenger-and-freight, permanent, multidirectional
RBCP	Vyborg			Vainikkala	railway, passenger, permanent, multidirectional
ABCP	Svetogorsk			Imatra	automobile, passenger-and-freight, permanent, multidirectional
RBCP	Svetogorsk			Imatra	railway, passenger-and-freight, temporary, multidirectional, simplified procedure
ABCP	Torfyanovka			Vaalimaa	automobile, passenger-and-freight, permanent, multidirectional
ABCP	Värtsilä	Republic of Karelia		Niirala	automobile, passenger-and-freight, permanent, multidirectional
RBCP	Värtsilä			Niirala	railway, passenger-and-freight, permanent, multidirectional
ABCP	Inari			Inari	automobile, passenger-and-freight, temporary, two-directional, simplified procedure
ABCP	Lyttä			Vartius	automobile, passenger-and-freight, permanent, multidirectional
RBCP	Lyttä			Vartius	railway, passenger-and-freight, permanent, multidirectional
ABCP	Suoperä			Kuusamo	automobile, passenger-and-freight, permanent, multidirectional
ABCP	Syväoro			Parikkala	automobile, passenger-and-freight, temporary, two-directional, simplified procedure
ABCP	Lotta	Murmansk Region		Raja-Jooseppi	automobile, passenger-and-freight, permanent, multidirectional

Border crossing point type*	Border crossing point on the RF territory	RF constituent entity	Bordering state	Bordering crossing point	Characteristics
ABCP	Salla			Kelloselkya	automobile, passenger-and-freight, permanent, multidirectional
ABCP	Borisoglebsk		Norway	Storskog	automobile, passenger-and-freight, permanent, multidirectional

Border crossing point type: ABCP - automobile border crossing point, RBCP - railway border crossing point.*

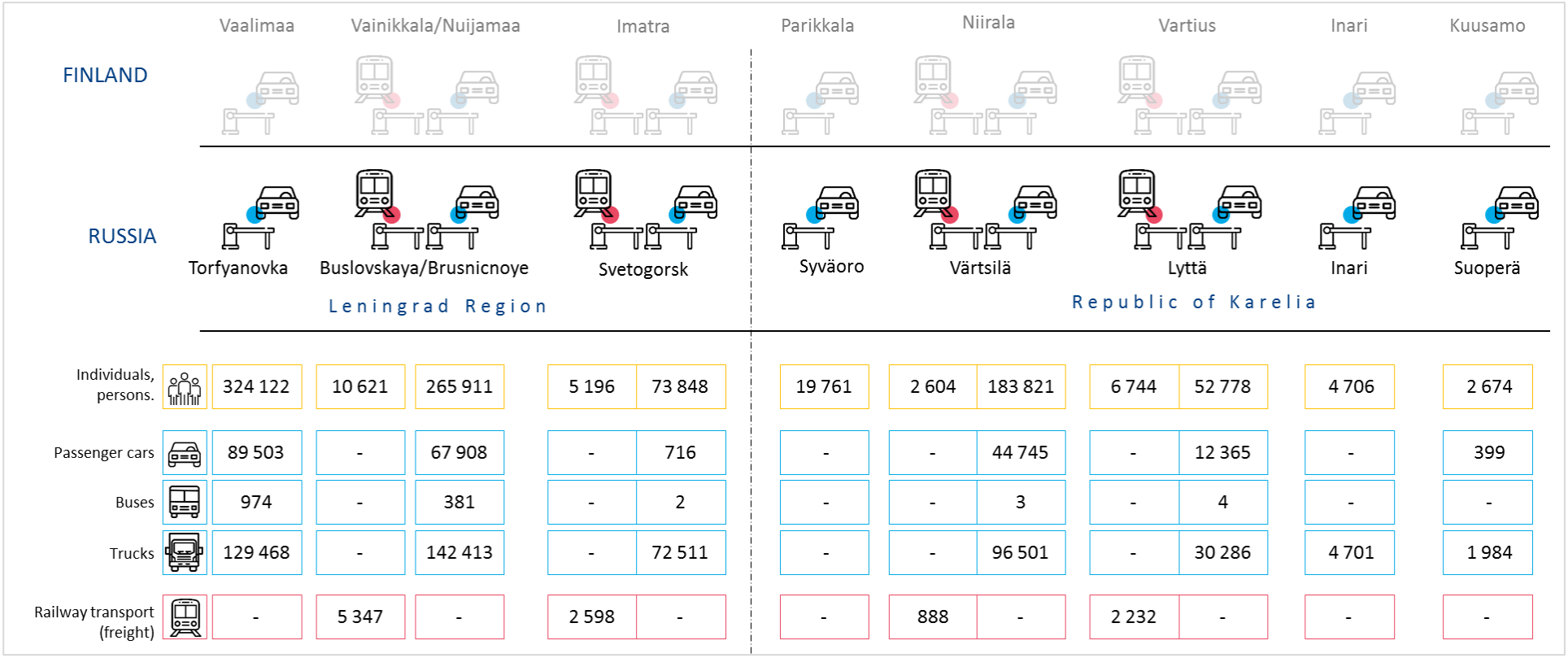
Information source: FGKU Rosgranstroy (https://www.rosgranstroy.ru/checkpoints/the-list-of-checkpoints/)

The railway and road border crossing points at the Russian border differ in terms of passenger and freight volumes handled. The analysis of actual capacity of the railway border crossing points (based on the data from Petersburg Branch of FGKU Rosgranstroy) shows that the border crossings of Leningrad Region serve passenger and freight transport volumes that are respectively 1.7 and 2.5 times higher than the volumes handled by border crossing points in Karelia.

63% of all passengers and 72% of freight trains pass through the railway border crossing points in Leningrad Region.

Border crossings located in Leningrad Region also serve the highest volume of road transportations, in particular 72% of all passengers, individual cars and freight vehicles.

Fig. 1.9 and Fig.1.10 show the volumes of passengers and vehicles allowed through the Russian- Finnish border in 2021 (based on the data of Russian sources).



Individuals, persons.	324 122	10 621	265 911	5 196	73 848	19 761	2 604	183 821	6 744	52 778	4 706	2 674
Passenger cars	89 503	-	67 908	-	716	-	-	44 745	-	12 365	-	399
Buses	974	-	381	-	2	-	-	3	-	4	-	-
Trucks	129 468	-	142 413	-	72 511	-	-	96 501	-	30 286	4 701	1 984
Railway transport (freight)	-	5 347	-	2 598	-	-	888	-	2 232	-	-	-

Fig. 1.9 Volumes of passengers and vehicles allowed through the Russian- Finnish border in 2021 (based on the data of Russian sources)

Information source: Petersburg Branch of FGKU Rosgranstroy

Border crossing point on the RF territory	Region	Bordering state	Bordering crossing point
Brusnichnoye	Leningrad Region	Finland	Nuijamaa
Svetogorsk			Imatra
Torfyanovka			Vaalimaa
Värtsilä	Republic of Karelia		Niirala
Inari			Inari
Lyttä			Vartius
Suoperä			Kuusamo
Syväoro			Parikkala
Salla	Murmansk Region		Kelloselkya
Lotta			Raja-Jooseppi
Borisoglebsk		Norway	Storskog

Railway border crossing points

Border crossing point on the RF territory	Region	Bordering state	Bordering crossing point
Buslovskaya	Leningrad Region	Finland	Vainikkala
Svetogorsk			Imatra
Värtsilä	Republic of Karelia		Niirala
Lyttä			Vartius

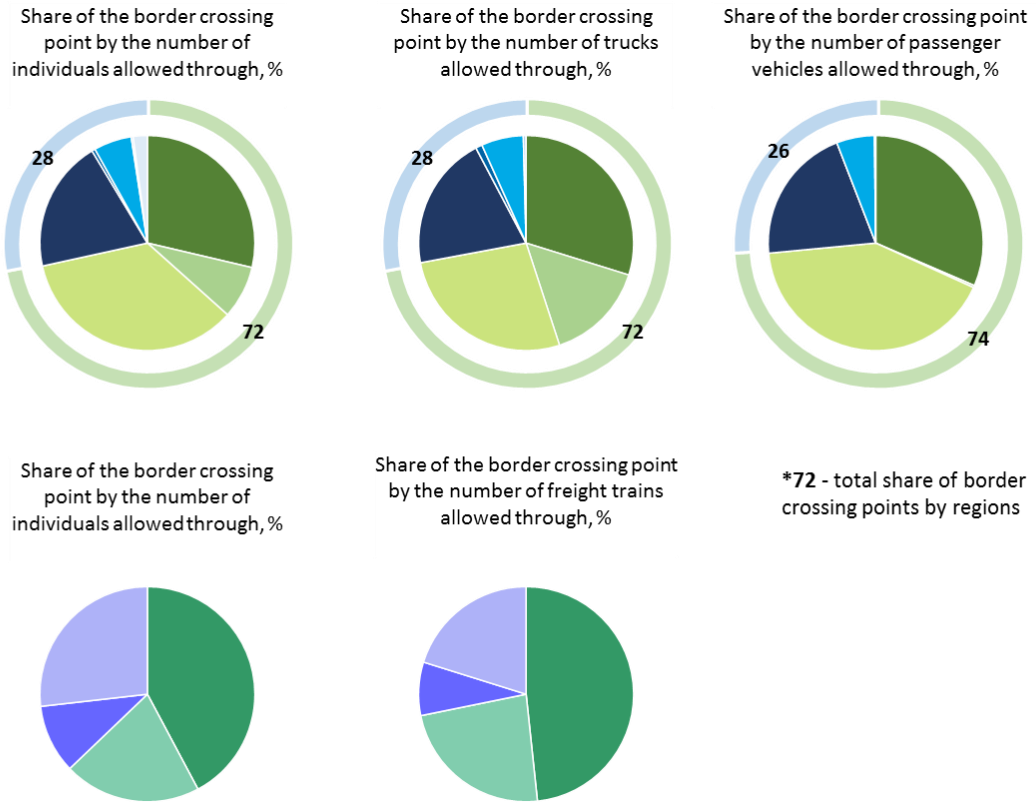


Fig. 1.10 Distribution of passenger and transport volumes allowed through the Russian – Finnish border crossing points in Leningrad Region and Karelia in 2021 (based on the data of Russian sources)

Information source: Petersburg Branch of FGKU Rosgranstroy

The results of the performed analysis show that road border crossings serve the largest passenger volumes. Out of 953,000 individuals allowed through the Russian-Finnish border in 2021, 97.3% passed through road border crossings and 2.7% - railway border crossings (Fig. 1.11).

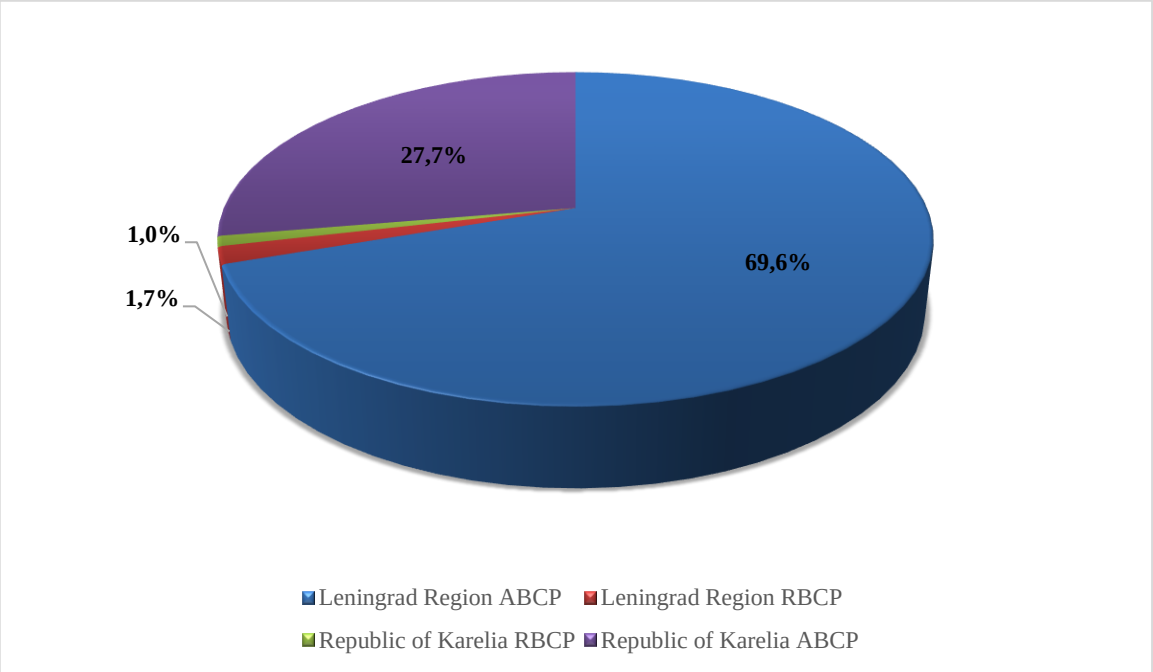


Fig. 1.11 Distribution of passengers allowed through the Russian-Finnish border crossing points located in Leningrad Region and Republic of Karelia in 2021 based on FGKU Rosgranstroy data

Information source: Petersburg Branch of FGKU Rosgranstroy

Railway border crossing points

In 2021, Buslovskaya (Vainikkala) railway border crossing point in Leningrad Region handled the largest passenger volume among all rail border crossings in the Russian Barents - 10,600 passengers or 42% of the total number of passengers allowed through.

This border crossing point also handled the largest number of freight trains - more than 5 000, which is 48% of all freight trains allowed through the border between Russia and the Barents Region countries.

Lyttä (Vartius) crossing point located in the Republic of Karelia is the second in terms of the number of passengers allowed through the border - 6,700 people or 27% of all individuals who passed through rail border crossings.

In terms of freight traffic volumes allowed through, Svetogorsk (Imatra) railway border crossing point was the second. It handled 2,600 trains or 23% of all freight trains.

As compared to the other railway border crossings, in 2021, Värtsilä (Niirala) point located in the Republic of Karelia handled the lowest volumes of passenger and freight transportations, in particular, 2,600 passengers (10%) and 900 freight trains (8%).

In terms of freight volumes allowed through railway border crossing points as compared to their design capacity, in 2021 Lyttä (Vartius) and Buslovskaya (Vainikkala) were the most loaded ones (over 60% of their capacity). According to the data for 2021, Värtsilä (Niirala) border crossing point had a sufficient capacity reserve (Table 1.4).

Table 1.4

Actual number of freight trains handled by railway border crossing points in 2021 (compared to their capacity)

Border crossing point on the RF territory	RF Region	Border crossing point in Finland	Number of trains (thousands) per year		Traffic load on the border crossing point in 2021, % of the capacity
			Actually allowed through in 2021	Capacity of the border crossing point	
Buslovskaya	Vainikkala	Vainikkala	5.3	8.8	61%
Svetogorsk		Imatra	2.6	6.6	40%
Värtsilä	Republic of Karelia	Niirala	0.9	4.4	20%
Lyttä		Vartius	2.2	3.7	61%

Information source: St. Petersburg Branch of Rosgranstroy Federal State Institution

The Finnish Customs data on the number of passengers and vehicles crossing the border is structured differently as compared to the Russian Customs data; therefore, a meaningful comparison of data for the same year is not possible. However, the data of the Finnish customs provides the number of empty and loaded railway cars allowed through the border crossing points with indication of directions (to Russia/to Finland). This allows verifying the data. The data received from the Finnish Customs[1] confirms the data on the actual border crossing capacity provided by the Russian Customs: Vainikkala (Buslovskaya) border crossing point handled the largest number of railway cars while Niirala (Värtsilä) served the lowest volume. (Table 1.5).

[1] Open data of the Finnish Customs – https://tulli.fi/tilastot/taulukot/logistiikkatilastoja

Table 1.5

Number of railway cars allowed through to Finland in 2019 -2021

Border crossing point on the territory of Finland	Border crossing point on the RF territory	RF Region	Railway cars, thousands			Change in the allowed railway cars number					
			2019 year prior to COVD-19 pandemics	During COVID-19 pandemics		2020 compared to 2019		2021 compared to 2020		2021 compared to 2019	
				2020	2021	thousand	%	thousand	%	thousand	%
Vainikkala	Buslovskaya	Leningrad Region	274.3	280.8	294.9	6.4	102.3%	14.2	105.0%	20.6	107.5%
Imatra	Svetogorsk		103.5	103.6	96.6	0.1	100.1%	-7.0	93.3%	-6.9	93.4%
Niirala	Värtsilä	Republic of Karelia	23.4	25.0	28.0	1.6	106.6%	3.0	111.9%	4.5	119.3%
Vartius	Lyttä		114.7	115.5	122.4	0.8	100.7%	6.9	106.0%	7.7	106.7%

Information source: the Finnish Customs – https://tulli.fi/tilastot/taulukot/logistiikkatilastoja

The open data of the Finnish Customs also allows evaluating the possible impact on freight rail transportations of the COVID-19 pandemic restrictions.

The data analysis for 2019-2021 shows that the restrictions did not reduce the volume of freight traffic in contrast to the passenger traffic: in 2020, at all border crossing points, the volume of handled freight railway cars increased by 0.1-6.6% compared to 2019. In 2021, there was also an increase in the number of freight railway cars allowed through all border crossing points, except for Imatra (Svetogorsk) (Table 1.5).

Loaded railway cars mainly go to Finland. In 2021, the volume of loaded freight cars allowed through to Finland[2] was 87.9 to 99.9% of the total number of loaded freight cars crossing checkpoint in both directions.

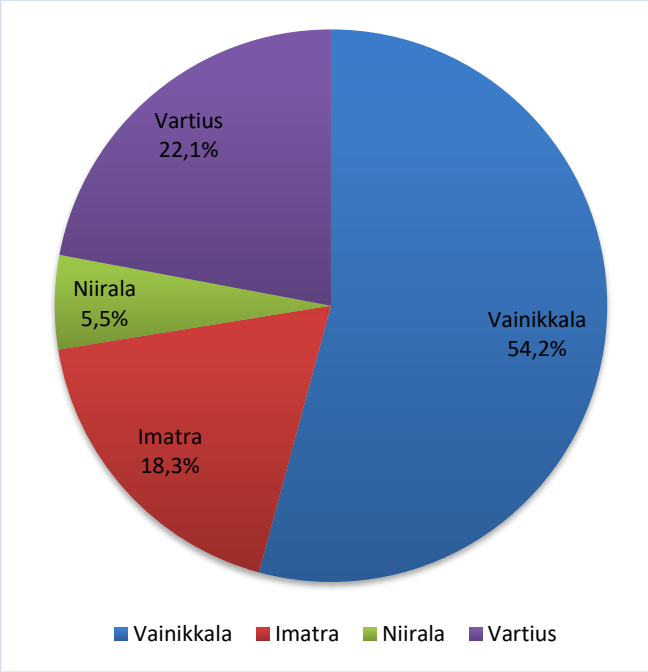
Most trains heading Russia carry empty railway cars: about 93% of the total number of railway cars crossing the Russian-Finnish border in the direction of Russia.

The largest number of loaded railway cars are allowed through Vainikkala (Buslovskaya), both to Finland (54.2% of the total number of loaded railway cars heading to Finland) and to Russia (82.6% of the total number of loaded railway cars heading to Russia) (Fig. 1.12).

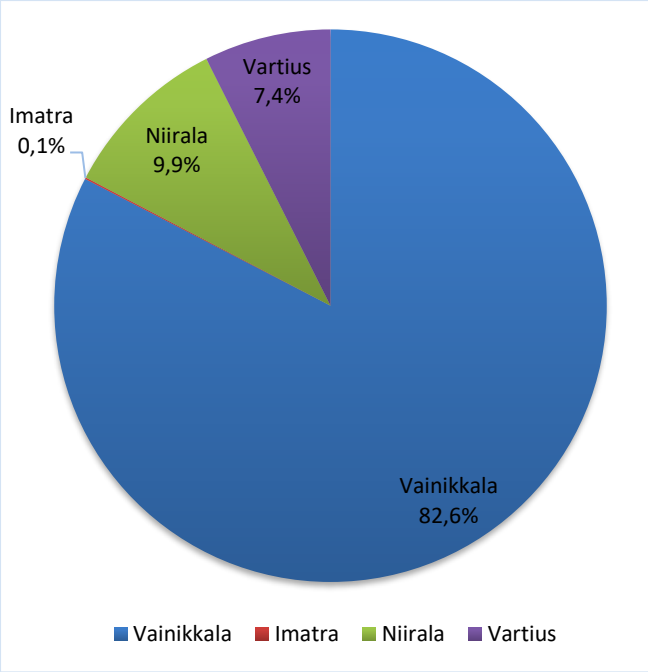
Imatra (Svetogorsk) border crossing point is practically not used now for passage of loaded trains to Russia; however, its share in the total number of loaded railway cars allowed through to Finland exceeds 18%.

Of the total number of all railway cars allowed through the Russian-Finnish border crossing points in both directions in 2021, the share of loaded railway cars going from Russia to Finland was 49%; while the share of empty railway cars heading in the opposite direction was 47%.

[2] Open data of the Finnish customs, https://tulli.fi/tilastot/taulukot/logistiikkatilastoja



To Finland



To Russia

Fig. 1.12 Distribution of loaded freight railway cars allowed through the Russian-Finnish border in 2021, % of the total number of cars in the direction

Automobile border crossing points

As described above, according to the data of FGKU Rosgranitsa, the largest passenger and freight volumes are allowed through the road border crossing points located on the Russian-Finnish border section in Leningrad Region.

According to the Russian Customs data for 2021, the following road border crossing points located in Leningrad Region served the largest volumes:

- Brusnichnoye (Nujamaa) point allowed through the largest freight volumes: more than 142,000 trucks;
- Torfyanovka (Vaalimaa) point allowed through the largest passenger volumes: more than 324,000 passengers.

However, the data for 2021 is not indicative in terms of passenger transportations due to the decrease of passenger flows resulted from restrictions related to the COVID-19 pandemic. Therefore, the FGKU Rosgranitsa data on the number of passengers and individual vehicles allowed through the road border crossing points in 2021 were not considered for assessment of their actual capacity.

In 2021, in terms of the actual freight volumes handled by the road border crossing points of Leningrad Region and the Republic of Karelia (compared to their capacity), the largest freight volumes were allowed through:

- Värtsilä (Niirala): more than 220% of the capacity, i.e. the border crossing point capacity to allow through trucks is completely exhausted;

– Lyttä (Vartius): 140% of the planned capacity, i.e. the border crossing point capacity to allow through trucks is completely exhausted.

According to the data for 2021, Suoperä (Kuusamo) border crossing point handled very low volumes (Table 1.6).

Table 1.6

Actual number of trucks handled by road border crossing points on the Russian-Finnish border in 2021 (compared to their capacity)

Border crossing point on the RF territory	RF Region	Border crossing point in Finland	Number of trucks (thousands) per year		Traffic load on border crossing point in 2021, % of the capacity
			Actually allowed through in 2021	Capacity of the border crossing point	
Brusnichnoye	Leningrad Region	Nuijamaa	142.4	292.0	48.8%
Svetogorsk		Imatra	72.5	77.0	94.2%
Torfyanovka		Vaalimaa	129.5	474.5	27.3%
Borisoglebsk	Murmansk Region	Storskog	n/a	n/a	-
Lotta		Raja-Jooseppi	n/a	n/a	-
Salla		Kelloselkä	n/a	n/a	-
Värtsilä	Republic of Karelia	Niirala	96.5	43.8	220.3%
Inari		Inari	4.7	n/a	-
Lyttä		Vartius	30.3	21.9	138.3%
Suoperä		Kuusamo	2.0	14.6	13.6%
Syväoro		Parikkala	n/a	n/a	-

Information source: St. Petersburg Branch of Rosgranstroy Federal State Institution

Unfortunately, the data on the road border crossing points located in Murmansk Region was not received from the Russian sources. In view of the above, comparison of border crossing points was carried out using the Finnish customs statistics.

According to the data of the Finnish Customs[3], Salla and Lotta (Raya-Jooseppi) road border crossing points located on the border of Murmansk Region with Finland served only about 2.6% of the total number of vehicles allowed through the border in 2019 (Table 1.7). The share of the road border crossing points located on the border with Leningrad Region is 71% and those located on the border with the Republic of Karelia is 26.4% of the total volume of vehicles allowed through the land section of the Russian-Finnish border.

Nujamaa (Brusnichnoye) and Vaalimaa (Torfyanovka) road border crossing points served the largest volumes, i.e. 27% and 26%, respectively, of the total volume of vehicles allowed through the border. This confirms the data from the Russian sources. Parikkala (Syväoro) point handled the smallest volumes.

[3] Open data of the Finnish Customs, https://tulli.fi/tilastot/taulukot/logistiikkatilastoja

Due to the fall in passenger transportation volumes, the total number of vehicles allowed through road border crossing points in 2021 decreased by 80% compared to 2019.

Conclusions

Four out of five Russian Barents regions have the public railways. The total length of railways is about 6,500 km. The density of railways in these regions differs considerably (up to 3 times): the Republic of Karelia has the maximum density of railway tracks. There is a 2-5-times difference between the minimum and maximum volumes of freight dispatch and arrival (the largest freight volumes are handled at the railway stations of Murmansk Region). The main commodities transported are ores, fertilizers, timber, minerals and construction materials. More than 70% of goods are transported within Russia; 23% of goods are exported.

The border crossing points located in Leningrad Region handle the largest volumes of rail and road transport. Depending on the mode of transport, these border crossing points allow through from 63 to 72% of all passengers, trucks and passenger vehicles.

Road border crossing points allowed through the largest number of passengers: in 2021, 97.3% of passengers passed the Russian-Finnish border through road points and 2.7% of passengers used the railway ones.

Among the railway border crossing points, Buslovskaya (Vainikkala) border crossing point located in Leningrad Region allows through the largest passenger and freight transportation volumes: 42% of all passengers and 48% of all freight trains crossing the border between Russia and the Barents Regions countries.

As for railway border crossing points, in 2021 Lutta (Vartius) and Buslovskaya (Vainikkala) were the most loaded: the handled volumes amount to over 60% of their planned capacity.

The trains heading to the Russian Federation mainly carry empty railway cars: about 93% of the total number of railway cars).

The largest number of loaded railway cars are allowed through Vainikkala (Buslovskaya), both to Finland (54.2% of the total number of loaded railway cars heading to Finland) and to Russia (82.6% of the total number of loaded railway cars heading to Russia).

Table 1.7

Number of vehicles allowed through automobile border crossing points located on the Russian-Finnish border in 2019 and 2021

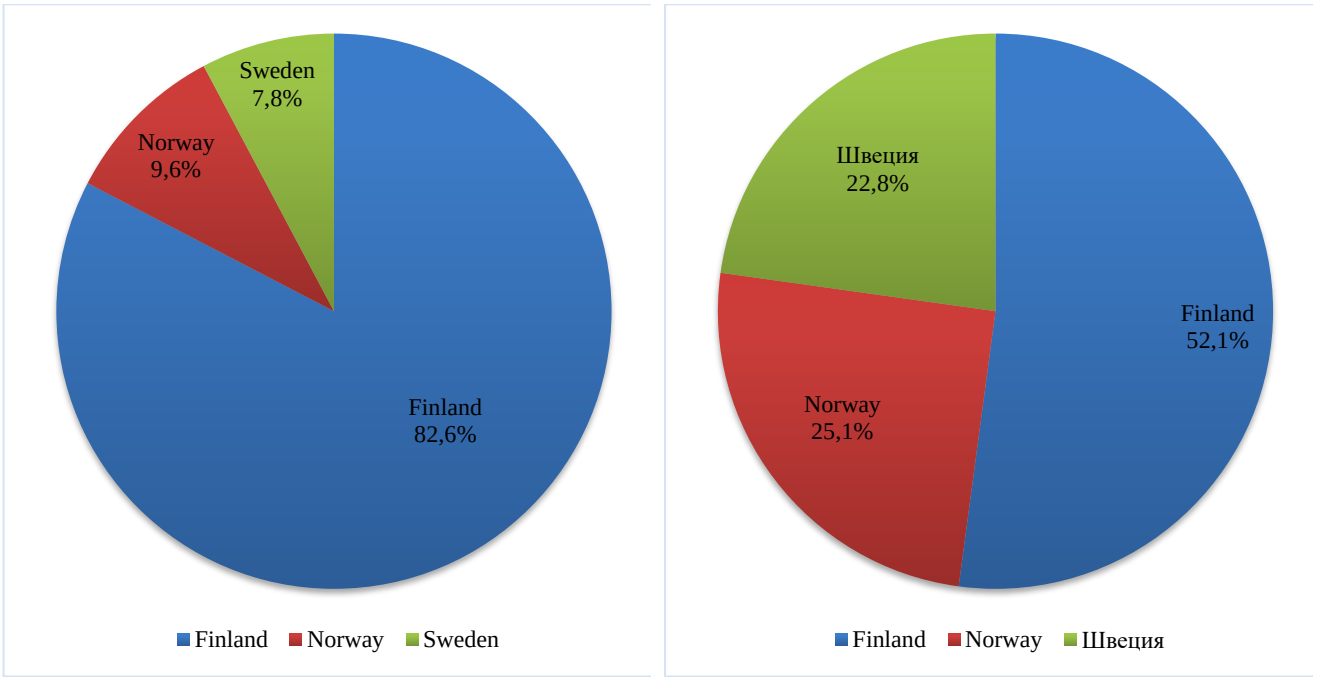
Border crossing point on the territory of Finland	Border crossing point on the RF territory	RF Region	Vehicles, thousands						Change in the number of vehicles, 2021 to 2019		
			2019 year prior to the COVID-19 pandemics			2021 year during the COVID-19 pandemics					
			TOTAL	Trucks and buses	Passenger cars and minibuses	TOTAL	Trucks and buses	Passenger cars and minibuses	TOTAL	Trucks and buses	Passenger cars and minibuses
Nuijamaa	Brusnichnoye	Leningrad Region	**1,035.8**	150.4	885.4	**220.6**	139.3	81.2	21%	93%	9%
Imatra	Svetogorsk		**685.1**	55.9	629.1	**78.1**	76.7	1.4	11%	137%	0%
Vaalimaa	Torfyanovka		**978.9**	178.4	800.5	**238.4**	132.4	106.1	24%	74%	13%
Niirala	Värtsilä	Republic of Karelia	**704.0**	97.5	606.5	**138.0**	97.0	41.0	20%	100%	7%
Inari	Inari		**-**	n/a	n/a	**-**	n/a	n/a	-	-	-
Vartius	Lyttä		**225.1**	35.9	189.2	**40.1**	29.0	11.1	18%	81%	6%
Kuusamo	Suoperä		**46.4**	6.4	40.0	**2.4**	2.0	0.4	5%	31%	1%
Parikkala	Syväoro		**23.1**	22.1	1.0	**19.3**	19.2	0.0	84%	87%	2%
Raja-Jooseppi	Lotta	Murmansk Region	**31.0**	1.5	29.5	**2.0**	1.3	0.7	6%	87%	2%
Kelloselkä (Salla)	Salla		**66.1**	1.4	64.7	**2.6**	0.9	1.7	4%	68%	3%
Total for the Russian-Finnish border section			**3,795.4**	**549.4**	**3,246.0**	**741.4**	**497.8**	**243.6**	**20%**	**91%**	**8%**

Information source: data of Finnish Customs – https://tulli.fi/tilastot/taulukot/logistiikkatilastoja

2. Evaluation of the share of railway transportations in the total transportation volume between the Russian regions and the Barents Region

The foreign trade turnover of the Russian Federation with the Barents Region countries is relatively small: in 2021, the total share of trade with Finland, Sweden and Norway did not exceed 3% of the total Russian foreign trade.[4]

Among the countries of the Barents Region, Russia has the largest foreign trade volumes with Finland: 82.6% of export and 52.1% of import to/from the countries of the Barents Region. (Fig. 2.1).



Export from Russia Import to Russia

Fig. 2.1 Distribution of the Barents Region countries by the foreign trade volumes with Russia (% of the total foreign trade of the Barents Region countries)

The main groups of commodities in the foreign trade between the countries of the Barents Region and the Russian regions, which have the largest share in the trade turnover with the countries of the Barents Region, are shown in Fig. 2.2 and 2.3.

[4] The foreign trade import and export data is given based on the freight assessment by weight, rather than by value. Information source: RF Foreign Trade Customs Statistics (http://stat.customs.gov.ru/)

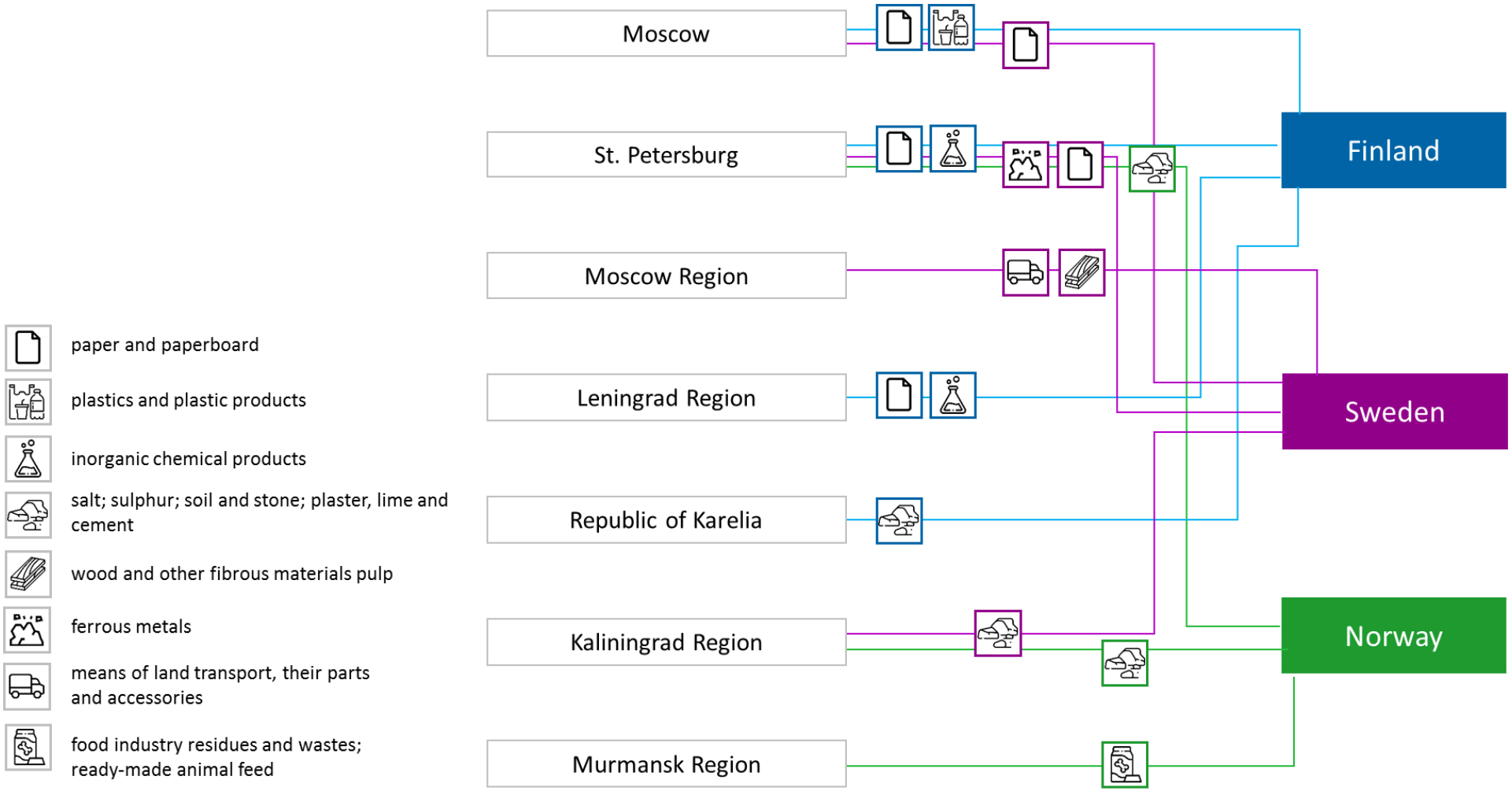


Fig. 2.2 Main groups of commodities imported from the Barents Region countries to Russia and main Russian regions with the largest share in commodity volumes imported from the Barents Region countries

Information source: RF Foreign Trade Customs Statistics (http://stat.customs.gov.ru/)

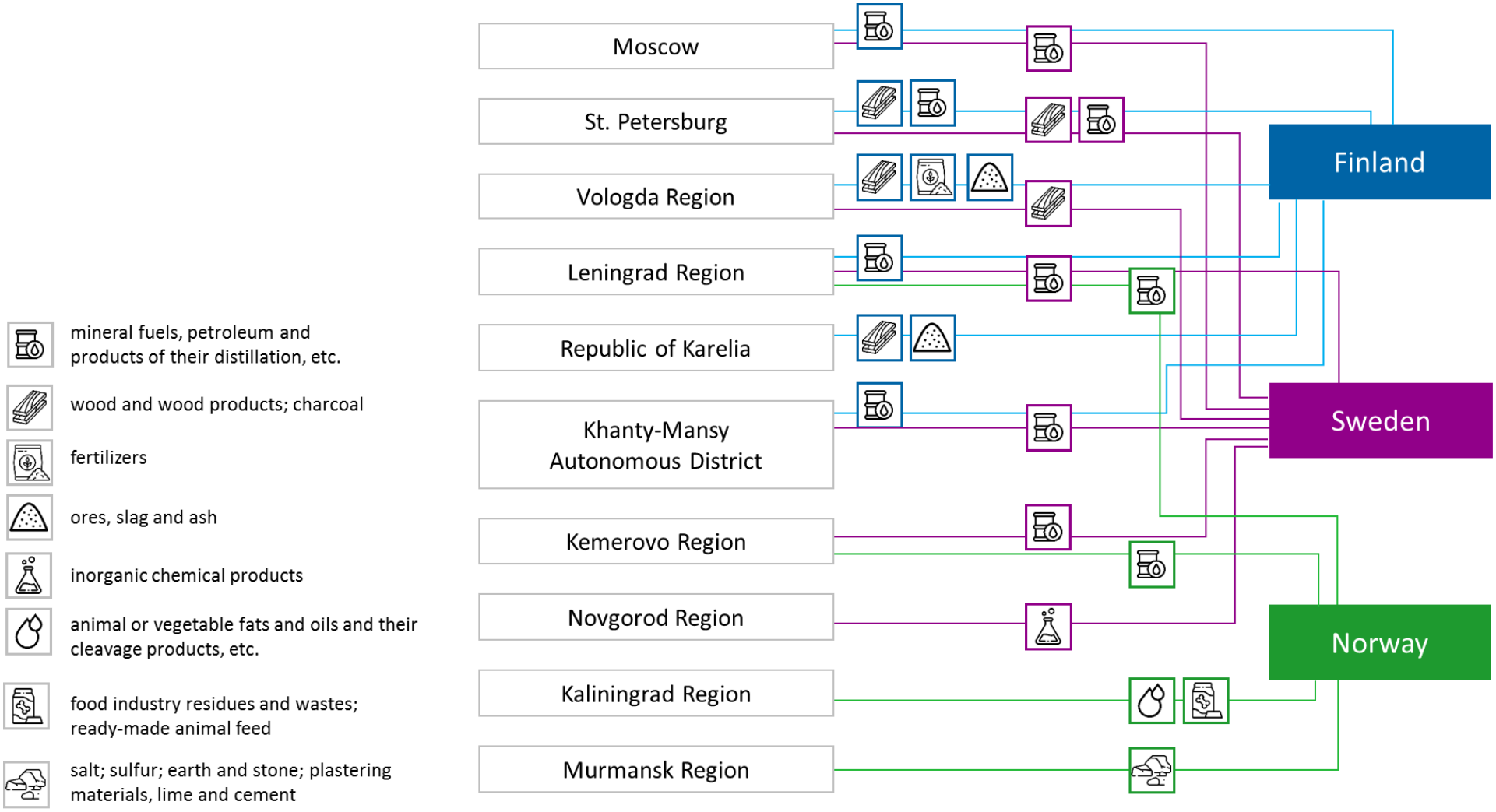


Fig. 2.3 Main groups of commodities exported to the Barents Region countries from Russia and main Russian regions with the largest share in commodity volumes exported to the Barents Region countries

Information source: RF Foreign Trade Customs Statistics (http://stat.customs.gov.ru/

As stated above, of all Barents Region countries, Finland has the largest share in the foreign trade with Russia and the largest turnover, which amounts to 80% of the total foreign trade turnover of Russia with the countries of the Barents Region[5].

The main modes of transportation of the foreign trade goods between Russia and Finland are:

- Sea transport to export goods from Russia to Finland (51%[6] of the total import volumes to Finland from Russia);
- Trucks to import goods from Finland to Russia (74% of the total export volumes from Finland to Russia).

Distribution of export-import volumes by modes of transport in the foreign trade between Russia and Finland is given in Table 2.1 and Fig. 2.4.

Table 2.1

Distribution of export-import volumes by modes of transport in the foreign trade between Russia and Finland (2020)

Modes of transport	Export from Finland to Russia		Import to Finland from Russia	
	Mln. tons	% of the total volume	Mln. tons	% of the total volume
All modes of transport	1 551.4	100%	24 529.0	100%
Sea transport (including automobile and railway ferries)	31.3	2%	12 572.8	51%
Railway transport	357.3	23%	6 670.7	27%
Trucks	1 151.6	74%	3 784.7	15%
Air transport	0.1	0.01%	0.024	0.0001%
Postal consignments	0.001	0.0001%	0.005	0.00002%
Pipelines, electrical and other cable lines	0.0	0%	1 104.3	5%
Inland water transport (Saimaa Canal)	11.0	1%	396.4	2%
Own propulsion (watercraft and aircraft)	0.01	0.001%	0.003	0.00001%

Information source: Finnish Customs Statistics Uljas (https://uljas.tulli.fi/v3rti/db/0/dirs/11)

[5] Information source: RF Foreign Trade Customs Statistics (http://stat.customs.gov.ru/)

[6] Information source: (hereinafter unless otherwise stated): Finnish Customs Statistics Uljas (https://uljas.tulli.fi/v3rti/db/0/dirs/11)

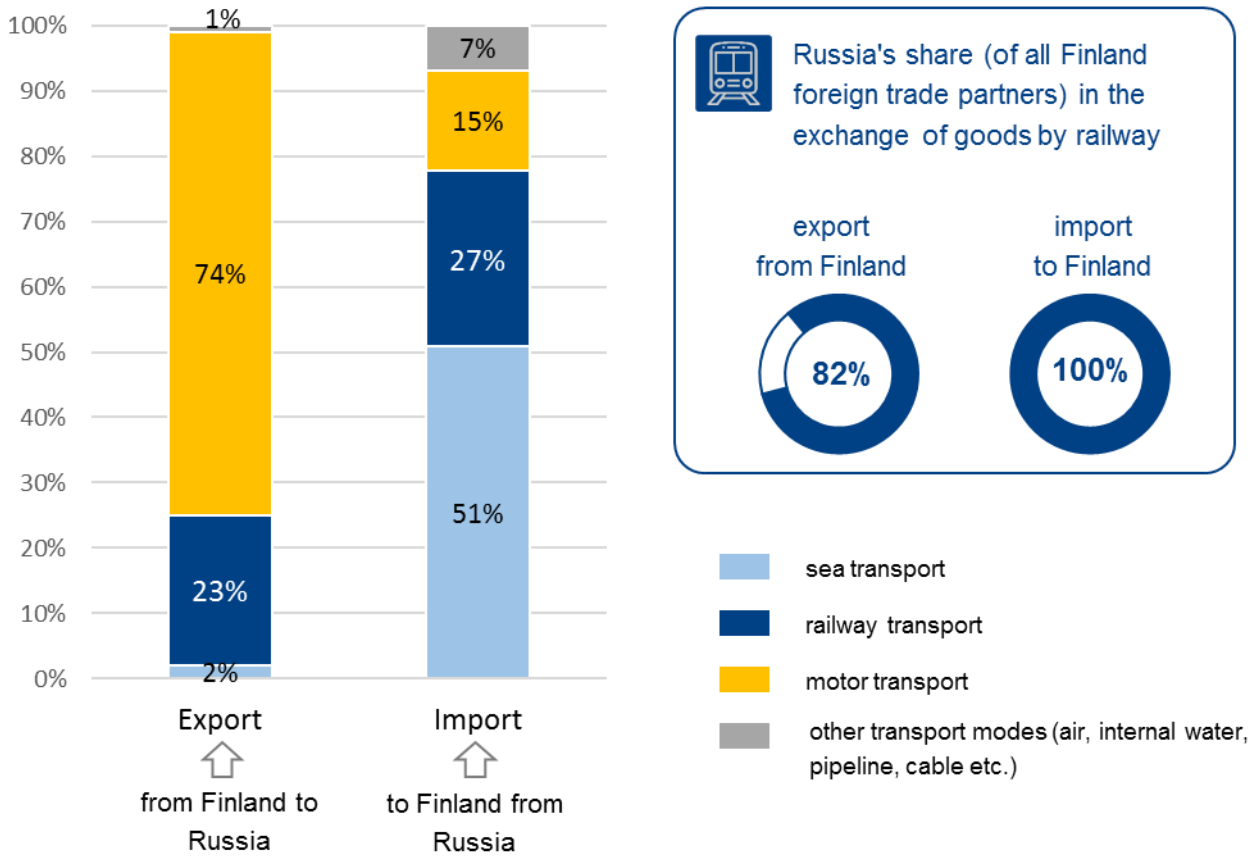


Fig. 2.4 Distribution of export-import volumes by modes of transport in the foreign trade between Russia and Finland

Information source: Finnish Customs Statistics Uljas (https://uljas.tulli.fi/v3rti/db/0/dirs/11)

The share of railway transport in foreign trade turnover and freight volumes transported between the countries of the Barents Region and Russia is relatively small. For Finland, the share of railway exports/imports amounts to 27% of the total foreign trade turnover between Russia and Finland.

Owing to the existing extensive railway network and the same track gauge in Russia and Finland, Russia has become the main foreign trade partner of Finland in the Barents Region in terms of freight volumes transported by rail (Fig. 2.4).

Increase of the railway transport share in the total volume of freight transportations between Russia and the Barents Region countries would depend on the level of containerization.

Containerization facilitates switching of freight flows from other modes of transport to the railway. Is also allows increasing rail transportation volumes without expansion of the existing railway infrastructure.

At present, freight volumes between Russia and Finland (both export and import) transported by rail in containers amount to 227.2 mln tons[7], while import volumes to Finland exceed the export volumes from Finland more than two times.

According to the Transport Strategy of the Russian Federation to 2030[8], some commodity groups transported by railways have the potential to increase the containerization level (see Chapter 6 for more details). The export/import volumes of these commodity groups in the Russian foreign trade including the countries of the Barents Region, are shown in Fig. 2.5.

[7] According to the Finnish Customs Statistics Database Uljas (https://uljas.tulli.fi/v3rti/db/0/dirs/11)

[8] Transport Strategy of the Russian Federation to 2030 with the forecast for the period to 2035 was approved by Governmental Order No. 3363-p of 27 November 2021

Commodity groups that have the potential to increase the containerization level:

- timber
- agricultural products
- ferrous metals
- fertilizers
- salt, sulphur, minerals and construction materials
- pulp and paper industry products
- machines and equipment

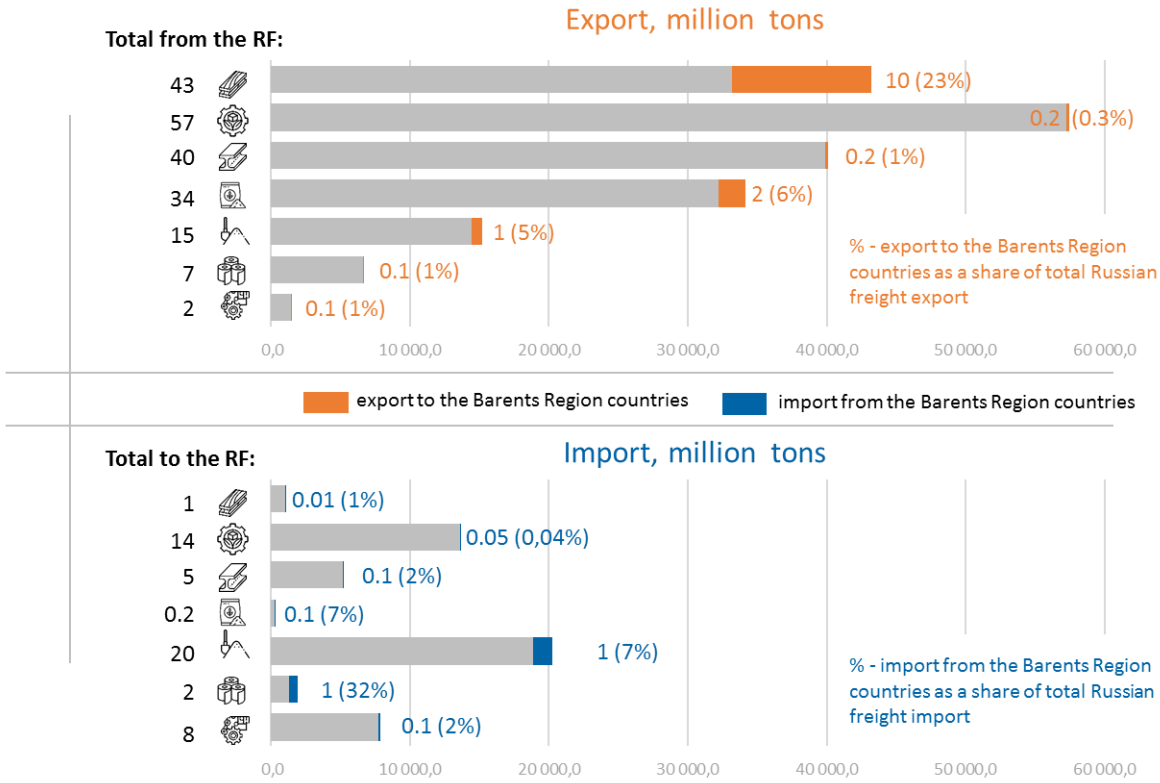


Fig. 2.5 Export-import volumes by groups of commodities that have the potential to increase containerization level in the Russian foreign trade including the Barents Region countries, in 2020

Information source: RF Foreign Trade Customs Statistics (http://stat.customs.gov.ru/)

Conclusions

Finland has the largest foreign trade turnover with Russia among the Barents Region countries.

The railway transport share in the foreign trade volumes between the Barents Region countries and Russia is relatively small. For Finland, the main trade partner of Russia in the Barents Region, it amounts to only 27% of the total export/import between Finland and Russia.

Owing to the existing extensive railway network and the same track gauge of railways in Russia and Finland, Russia has become the main foreign trade partner of Finland in the Barents Region in terms of rail exports and imports.

3. Review of the current rail infrastructure development projects in Russia that may affect the Barents Region transport

The study analysed the existing Russian railway development projects in order to identify the projects that have the potential to affect the transport situation in the Barents region.

The existing development plans based on information from official sources were reviewed.

The review identified eight Russian Federation documents, which describe specific development projects:

- Land-use planning scheme of the Russian Federation in the field of federal transport (railway, air, sea, inland water transport) and federal highways
- Transport Strategy of the Russian Federation to 2030 with the forecast for the period to 2035
- Long-term Development Programme of JSC Russian Railways to 2025
- Development Strategy of the Russian Arctic Zone and Provision of National Security for the period to 2035
- National Programme of the Russian Federation “Development of the Transport System”
- Integrated plan of the trunk infrastructure modernisation and expansion for the period to 2024, including the federal projects identification summaries:
  - Railway transport and transit;
  - Communications between centres of economic growth.

In addition, two documents of other Barents Region countries were selected:

- National Transport System Plan for 2021–2032 of Finland.
- Transport System Plan for Lapland 2040.

It should be noted that the documents mentioning these projects are of differing nature. Some of them specify the project details, including implementation period, budget or maps; others do not have the project description.

The projects that involve the following type of works were reviewed:

- construction, reconstruction, capacity increase, modernisation, electrification of railway tracks;
- construction and reconstruction of railway stations.

219 railway infrastructure development projects were reviewed (Annex A, Fig. 3.1).

Main geographical trends in the Russian railway development are as follows:

- modernisation of the Baikal-Amur and Trans-Siberian railways infrastructure with the development of traffic and freight capacity;
- construction of north-south (longitudinal) railway sections that will connect the Baikal-Amur and Trans-Siberian railways with the Arctic Ocean coast;

- modernisation of the railway infrastructure of the North-South direction in order to increase the transport accessibility of the port of Murmansk;
- some of the projects are aimed at improving connections with neighbouring countries;
- creation of northern latitudinal railway transport corridor, which will connect the ports of Murmansk and Arkhangelsk with the Western Siberia industrial regions and the Pacific ocean coast via the existing railway network.

12 projects are planned for implementation in the Russian Barents Region, 5 major projects are shown on the map (Fig. 3.2):

1. construction of the second railway track on the railway section Murmansk – Petrozavodsk;
2. construction of the second railway track on the railway section Arkhangelsk – Obozerskaya;
3. construction of Belkomur railway line,
4. construction of the railway line Sosnogorsk – Indiga (Barentskomur),
5. reconstruction of the railway section Konosha – Kotlas – Chum – Labytnangi.

Reconstruction (electrification) of the railway section Tornio – Haparanda is planned on the Barents Region territory of Finland and Sweden. This project is also shown on the map (Fig. 3.2).

The proposed projects in the Russian Federation, Finland and Sweden will potentially increase the capacity of the West-East transport corridor running through the Barents Region.

Conclusions on the impact of railway projects on the transport situation in the Barents region are given in Chapter 6.

Fig. 3.1 Russian Railways Network Development Projects

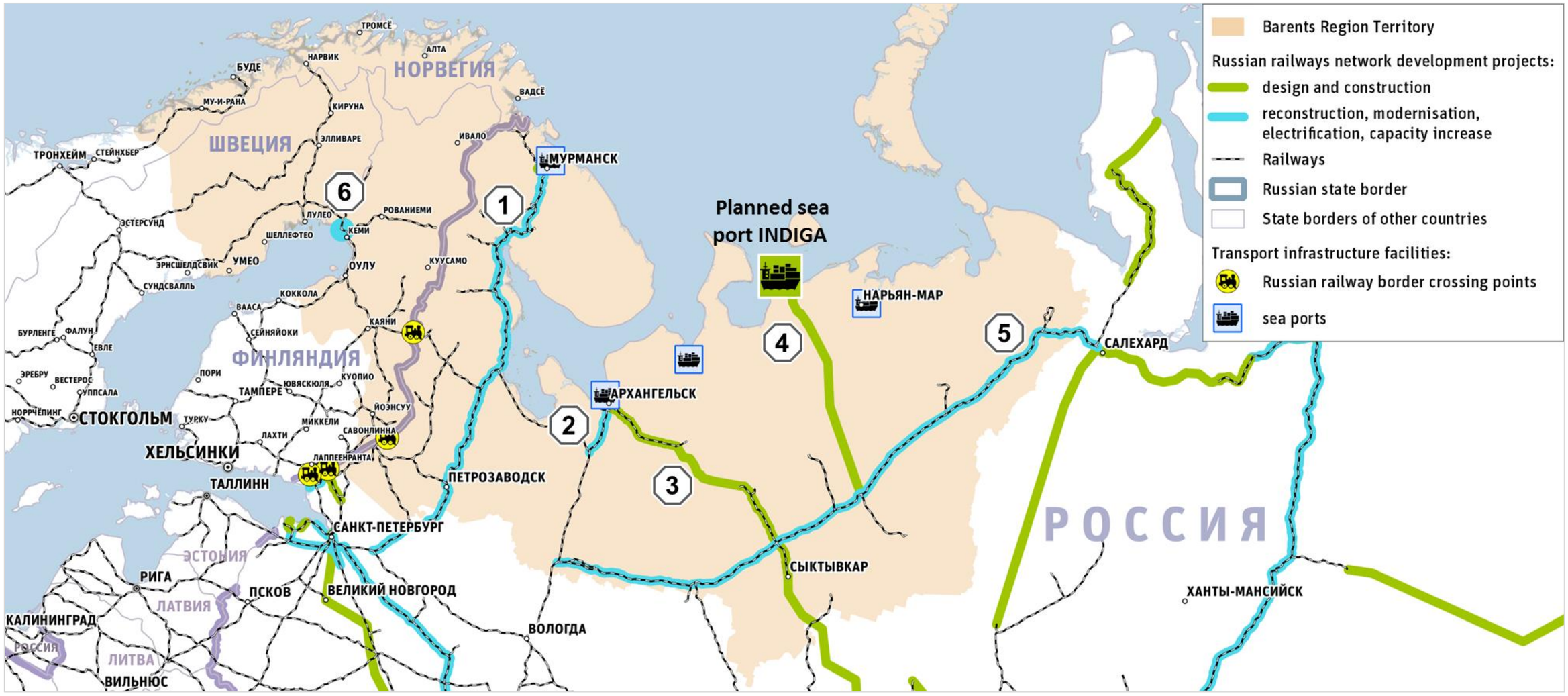


Fig.3.2 Railways Network Development Projects in the Barents Region

Development of border crossing points

Transport infrastructure, which facilitates transportation of exports and imports, cannot develop in isolation from the development of border crossing points.

FGKU Rosgranstroy, under the Ministry of Transport of the Russian Federation, is responsible for the development and modernisation of border crossing points, ensuring their uninterrupted operation and equipment with up-to-date technologies and systems.

It needs to be pointed out that in reply to the official request for information on development of all land border crossing points at Russian- Finnish and Russian-Norwegian borders, FGKU Rosgranstroy has provided information only about planned development of the following road border crossing points at Russian - Finnish border: Värtsilä, Lyttä, Torfyanovka, Svetogorsk and Brusnichnoye.

The above-mentioned road border crossing points located in Leningrad region and the Republic of Karelia were included in the modernisation plan for Russian border crossing points to 2027.

According to FGKU Rosgranstroy documents, reconstruction of these points includes creation of comfortable environment for border crossing and modernisation of the equipment necessary for the state border control, which will increase the border crossing points capacity.

Reconstruction works are planned for implementation as follows: reconstruction of several busiest road border crossing points in Leningrad Region is scheduled for completion in 2023 and 2024; for other crossing, no deadlines are specified. (Table 3.1).

The capacity increase after reconstruction will be different: the maximum capacity increase is planned for the border crossing points located in Karelia (5-time increase as compared to the current capacity). Yet among the border crossing points to be improved, Torfyanovka will have the highest capacity (about 3 mln vehicles per year), while Lyttä – the lowest (about 0.5 mln) (Table 3.2).

It is also worth noting that the October Railway is carrying out complex works to start high-speed train operation between St. Petersburg and Buslovskaya and to switch freight traffic to another railway line with a rail border crossing point in Svetogorsk. Therefore, it is expected that the Svetogorsk border crossing point will develop.

Table 3.1

Implementation periods for border crossing points reconstruction and policy documents

Border crossing point on the RF territory	Russian region	Bordering crossing point	Main Policy documents		Project stage	Implementation period
Brusnichnoye	Leningrad Region	Nuijamaa	Modernisation plan for Russian border crossing points to 2027. List of 43 priority Russian border crossing points with reconstruction period to 2027 and allocated additional funding under Federal Law No. 390-FZ of 06.12.2021 "On the federal budget for 2022 and for the planning period of 2023 and 2024".	Departmental project "Construction, reconstruction and technical re-equipment of the Russian border crossing points" under the National Programme of the Russian Federation "Development of the Transport System"[9]	Survey and design works	Commissioning - **2024**
Svetogorsk		Imatra				Commissioning - **2023**
Torfyanovka		Vaalimaa				Implementation period– **till 2027**
Värtsilä	Republic of Karelia	Niirala				
Lyttä		Vartius				

Information source: FGKU Rosgranstroy, St. Petersburg Branch

[9]National Programme of the Russian Federation "Development of the Transport System", approved by Russian Government Decree No. 1596 of December 20, 2017 (as last amended by Russian Government Decree No. 2442 of December 24, 2021)

Table 3.2

Development of Russian land border crossing points with the Barents Region countries

Border crossing point type	Border crossing point on the RF territory	Russian Region	Bordering state	Bordering crossing point	Design annual capacity, thousand vehicles		Capacity increase	
					before reconstruction (current)	after reconstruction (future)	By times	Vehicles, thousand
Automobile	Brusnichnoye	Leningrad Region	Finland	Nuijamaa	876.0	1800.0	2.1	924.0
	Svetogorsk			Imatra	753.7	1250.6	1.7	496.9
	Torfyanovka			Vaalimaa	1,277.5	2938.3	2.3	1660.8
	Värtsilä	Republic of Karelia		Niirala	317.6	1627.9	5.1	1310.4
	Lyttä			Vartius	109.5	543.9	5.0	434.4

Information source: FGKU Rosgranstroy, St. Petersburg Branch

There is information on development projects for six border crossing points in Finland.

Information on the development of border crossing points infrastructure in Finland is obtained from the Finnish Transport Infrastructure Agency[10], which coordinates the implementation of these projects, funded jointly by the European Union and Finland.

Two border crossing points development projects (Raja-Jooseppi and Vartius) were finalised in 2021, other projects will be finalised in the coming year (2022).

Information on Finnish border crossing points development is presented in Fig. 3.3.

Finnish border crossing points development projects cover both road and rail border crossing points, for example, a new rail X-ray scanner will be installed at Imatra, which will increase the border crossing point capacity.

Improvement and development works at the Finnish border crossing points have been implemented within the framework of the European Neighbourhood Instrument for Cross-Border Cooperation (ENI CBC):

- Kolartic, participants: Finland, Russia, Sweden, Norway;
- Karelia, participants: Finland, Russia;
- Southeast Finland – Russia, participants: Finland, Russia.

The largest amount of financing, 11.45 mln Euro, was allocated to the improvement project for Raja - Joseppi (Lotta) road border crossing point, which was finalised in 2021.

The projects for reconstruction and technical refurbishment of Russian and neighbouring states' border crossing points shall be synchronized to increase the transport connectivity level..

Comparison of the existing development plans for land border crossing points in Russia and in the other Barents Region countries, bordering Russia (Fig. 3.3) shows that the modernisation projects need further synchronisation.

However, it should be noted that some of the projects to develop the busiest border crossing points, such as Torfyanovka-Vaalimaa and Svetogorsk-Imatra, are well-synchronized.

[10] https://vayla.fi/en/development-projects-for-border-crossing-points

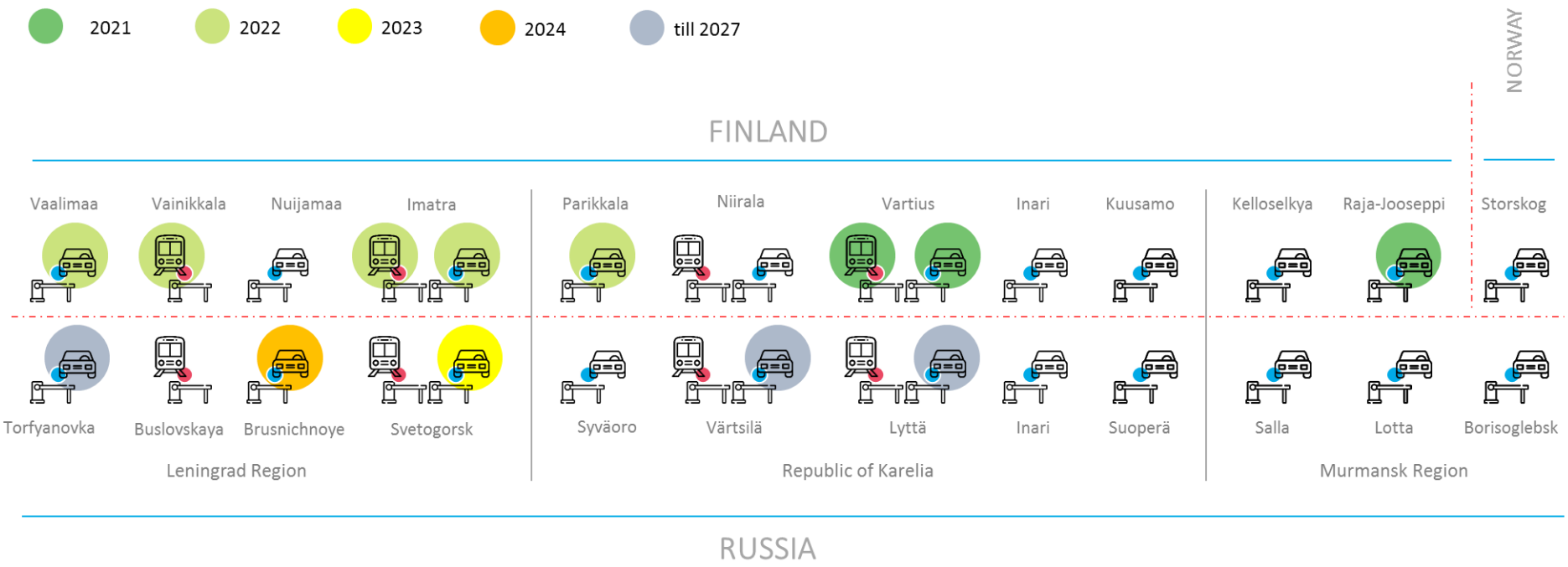


Fig. 3.3 Implementation periods for land border crossings development in Russia and Barents Region countries

Conclusions

Twelve Russian railway development projects are planned for implementation in the Barents Region. The proposed projects in the Russian Federation, Finland and Sweden will potentially increase the capacity of the West-East transport corridor running through the Barents Region.

4. Review of the ongoing and planned major investment projects involving rail transport that, when completed, may have impact on trade turnover with the Barents Region countries

Major investment projects that are being implemented in Russia have been considered to evaluate an expected growth of rail freight transportations. The projects that, when completed, will boost the growth have been selected. The list of selected projects, including those involving rail transportations, is given in Annex B. Special attention was given to the following parameters: the level of investment, type and volume of produced goods, and expected implementation period.

A broad range of information sources was used to analyse the ongoing and planned investment projects (see Table 4.1).

Table 4.1

Sources of information about ongoing and planned large investment projects

Source	Description	Investment project characteristics	Link to open data source (URL)
List of special investment contracts (SPIK)	A special investment contract is a tool to support investors in Russia. The contracting parties are the investor on one hand and the region/municipality on the other hand. Many companies seek to implement their investment projects by concluding SPIK contracts to get investment incentives or government guarantees to secure funding.	Both Russian and foreign companies can conclude a contract. The project shall involve the use of advanced technologies and production of goods to be competitive at the world market. A minimum investment threshold is not set. Projects may relate to any industry.	https://gisp.gov.ru/spic2/pub/spic/search/
Economic forums	Economic forums are large-scale events for the business community that are held in various country's regions and attended by representatives of major Russian and foreign companies, politicians and experts. Investment project agreements are often concluded at such forums due to their suitable format.	Projects of both Russian and foreign companies can be presented at forums. Typically, large companies participate in these forums. Projects may relate to any sphere of economics.	https://forumspb.com/ ?lang=ru https://forumvostok.ru/ https:// www.russiacalling.ru/ https://seforum.biz/ https://yalta-forum.com/

Source	Description	Investment project characteristics	Link to open data source (URL)
Investment Effectiveness Rating of Russian companies	The rating is a list of companies that are the largest investors into Russian economics. Since 2020, the rating is updated every year. The rating is prepared by National Credit Ratings Agency (NCR) together with Social Analysis and Forecast Agency (ASAP). The rating includes large Russian companies operating in various industries, mining and service sector.	The rating does not contain data on specific projects. Therefore, companies' official websites and reports were reviewed to get information for the study; also, the data from open sources was used. The considered projects are implemented by Russian companies in various spheres of economics.	https://www.rbc.ru/business/24/08/2021/611b814b9a79472874d332d3?from=newsfeed
Regional investment portals	Investment portals are a tool to support investment activity in the regions. The portals publish data on socio-economic development of the region, possible incentives and special conditions for investors. The portals also provide information on ongoing and planned investment projects. Each region has its own investment portal; there is no single format for such portals.	Portals contain information on projects implemented by large and small companies in various economic sectors of a particular region.	https://www.investinregions.ru/

In 2020, investments in the Russian fixed assets reached 20.1 trillion RUB, which is 18.7% of GDP. According to the World Bank data for 2020, the world average was 26%. In some countries, the share of investment in fixed assets was higher, for example, it reached 32% in the Republic of Korea and 44% in China. However, after the growth of 2017 to 2019, there was some decline (1.4%) in fixed assets investment in 2020 as compared to 2019 due to the COVID-19 pandemic and related restrictions (see Fig.4.1).

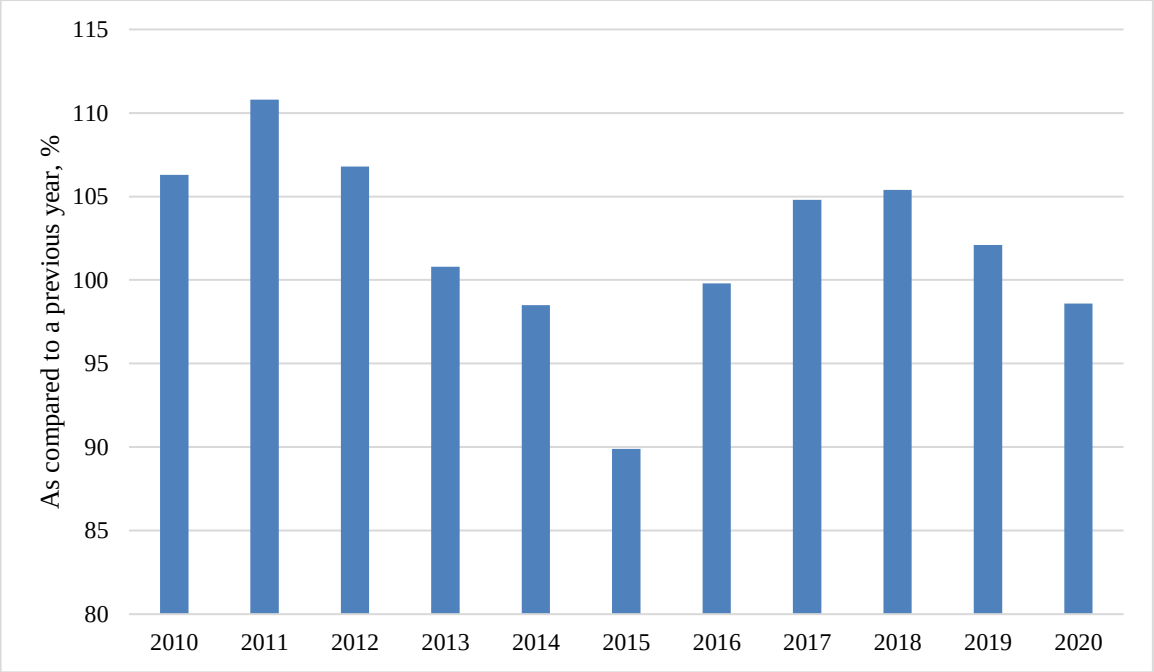


Fig. 4.1 Dynamics of investment in fixed assets in Russia, as compared to a previous year

Information source: Investment in Russia 2021 Digest, Federal State Statistics Service

Investment in fixed assets is unevenly distributed among the different types of economic activity. Four economic activities accounted for the most investment in 2020 (Fig. 4.2). These include mining (16.4% of total investment in fixed assets), transportation and storage (15.9%), processing industries (14.7%) and real estate trading (13.2%). Together, these sectors account for about 60% of total investment in all fixed assets.

It should be also noted that the processing industries sector is also internally heterogeneous in terms of investment attractiveness. Different economic activities with different volumes of investment in fixed assets are grouped under the same name. 14.7% of total investment in processing industries are distributed as follows: 3.3% in fuel coke and oil products production, 2.5% in chemical industry, 1.9% in metal production, 1.6% in food production, 0.8% in transport machine building (excluding motor vehicles) and only 4.6% in all other 20 sectors of processing industry (Fig. 4.3).

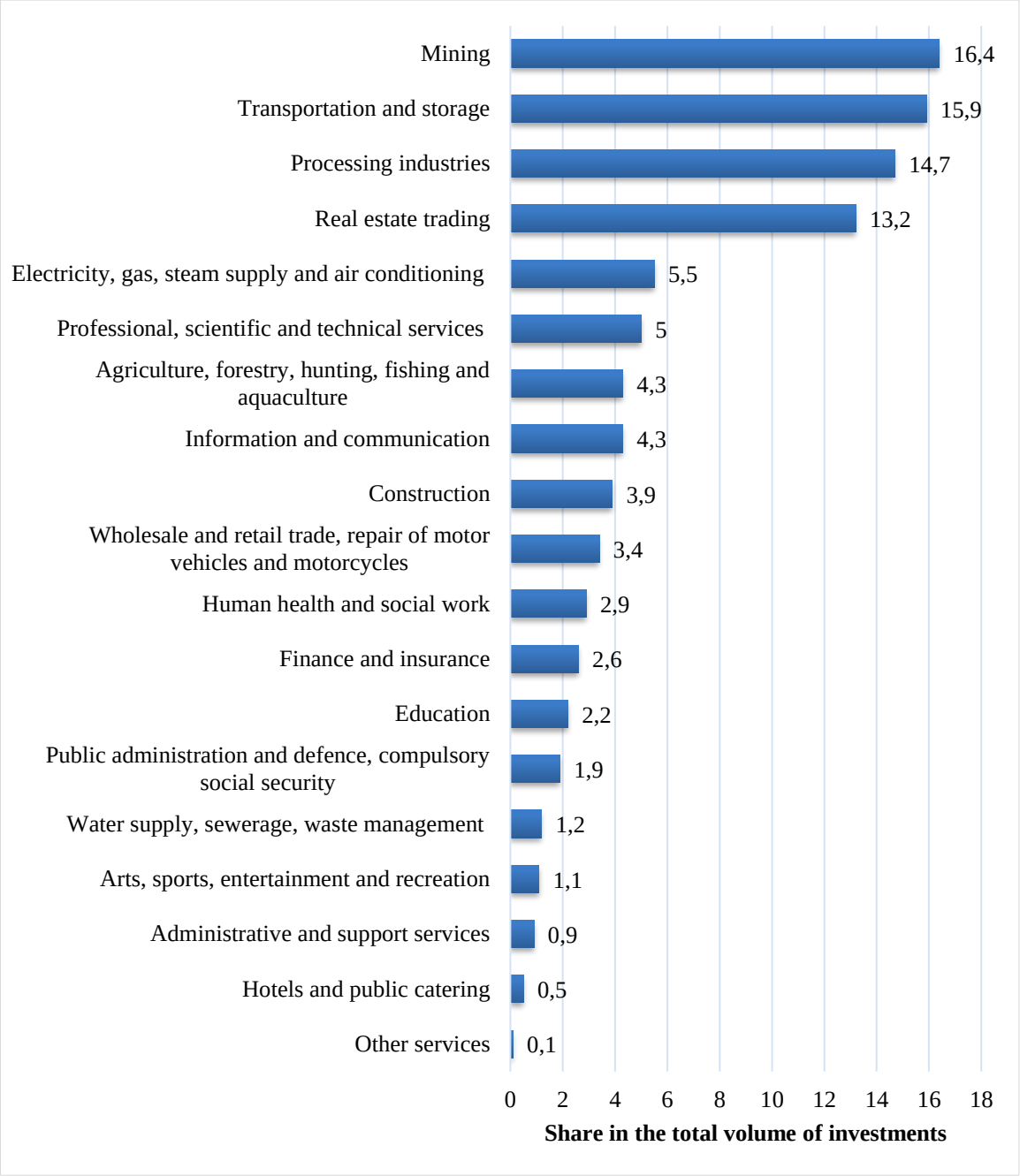


Fig. 4.2 Structure of investments in fixed assets by economic activity (as a percentage of total investment in fixed assets)

Information source: Investment in Russia 2021, Federal State Statistics Service

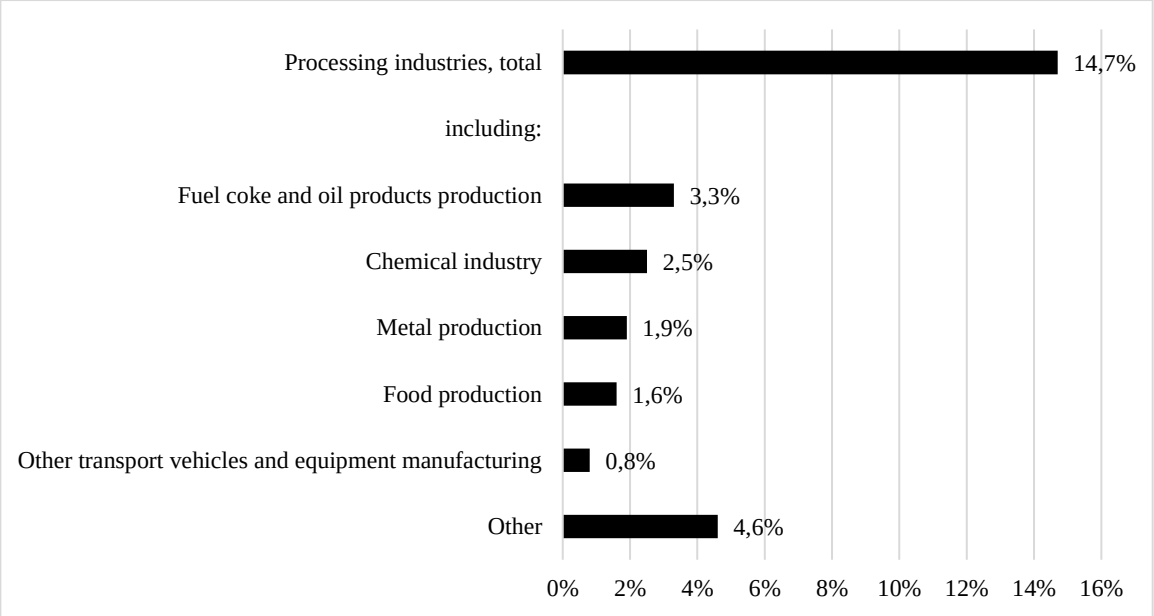


Fig. 4.3 Structure of investments in fixed assets in manufacturing and processing industry (as a percentage of total investments in fixed assets)

Information source: Investment in Russia 2021, Federal State Statistics Service

There is also investment heterogeneity within the mining sector. The total share of investment in this sector is 16.4%, out of which 11% are investment in oil and natural gas extraction, 2.6% in mining services, 1.7% in metal ores mining, 0.8% in coal mining and only 0.3% in other extractive industries (Fig. 4.4).

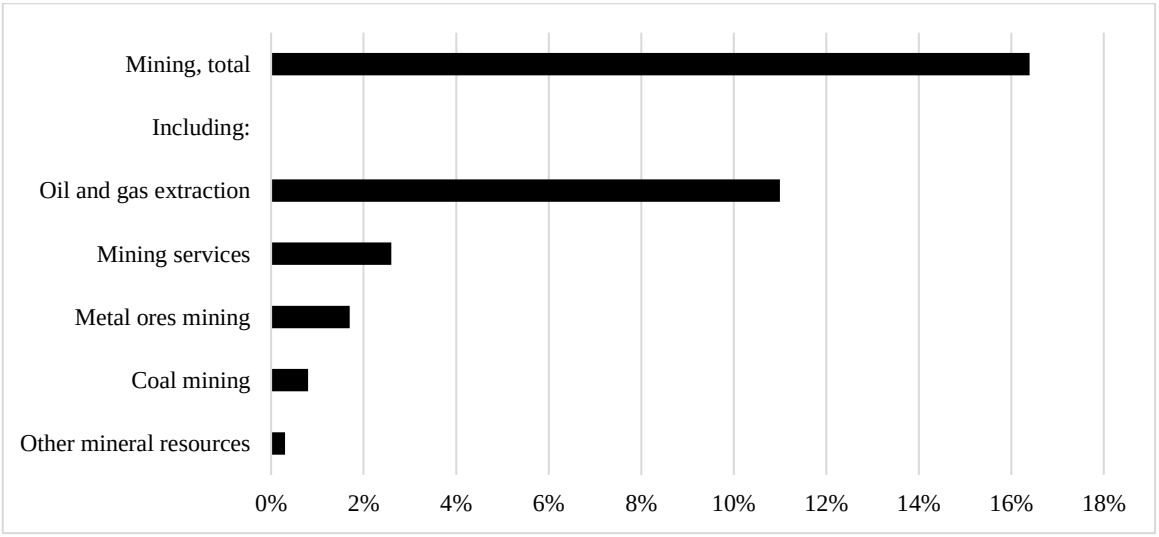


Fig. 4.4 Structure of investments in fixed assets in mining industry (as a percentage of total investments in fixed assets)

Information source: Investment in Russia 2021, Federal State Statistics Service

Thus, it can be argued that the most attractive areas for investment in Russia are as follows: mining (especially oil and gas, but also metal ore and coal), oil and gas processing, chemical and metal industry, food production and transport machine building.

Our review of the country's largest investment projects supports these conclusions. Most projects considered in this study belong to the above-mentioned sectors. The largest Russian investment projects today are in the chemical industry (including both basic chemistry and oil and gas processing), metal production (both ferrous and non-ferrous), mining (oil, gas, coal, precious and non-ferrous metal ores, iron ore, raw materials for chemical industry); and, to a lesser extent, in the timber and pulp and paper industry, transport machine building and construction materials production.

The study covered only the projects that have already started and those for which agreements have been concluded; therefore all projects reviewed are expected to be completed before 2030. All projects were divided into two categories in terms of the expected implementation period: near term (up to and including 2025) and intermediate term (from 2026 to 2030). Most projects (79.1% of the total) are expected to be implemented in the short term (Fig. 4.5). These projects account for 77.5% of total investment (about 7.3 trillion RUB), and only 48% of production (about 191.9 million tons of various goods).

The projects are unevenly distributed across Russia. They are mostly concentrated in regions rich in natural resources (the Nenets Autonomous District, Krasnoyarsk and Zabaykalsky Regions, Irkutsk and Arkhangelsk Regions, Komi Republic and Republic of Buryatia, and others) or in industrial cities or suburban industrial areas (Perm, Leningrad, Tula, Ryazan, Omsk and Nizhny Novgorod regions).

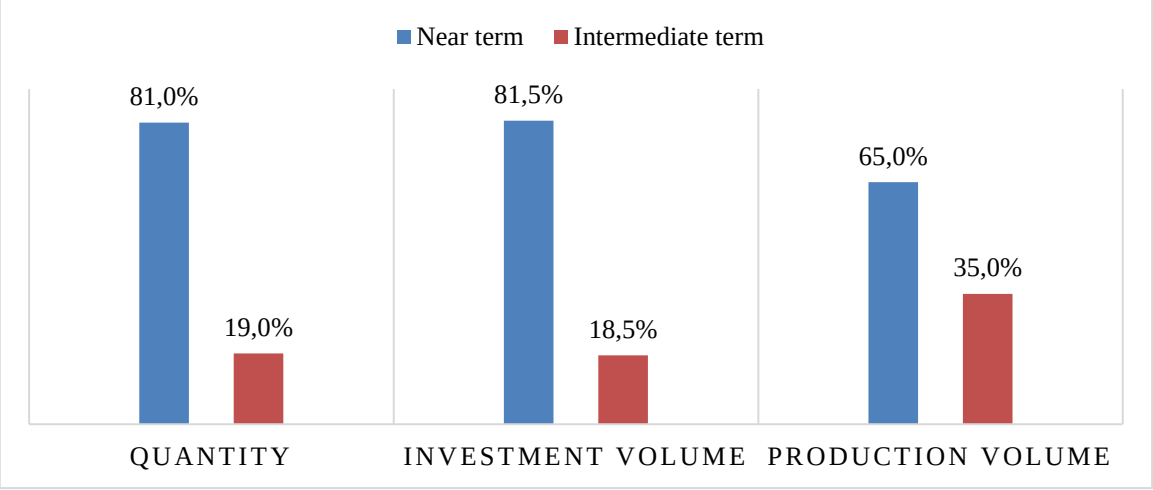


Fig. 4.5 Investment projects breakdown in terms of implementation period

The largest ongoing and planned investment projects in Russia, which may have impact on the foreign trade with the Barents Region countries via rail transport are shown in Fig.4.6

Fig. 4.6 The largest ongoing and planned investment projects in Russia, which may have impact on the foreign trade with the Barents Region countries via rail transport

Twenty projects are implemented or planned for construction in the Russian North-West with the total investment volume of 4.2 trillion rubles (60% of all considered projects) and the total production volume of about 74 million tons (52% of all considered projects). The largest share of investment comes to a joint project of Gazprom and JSC RusGazDobycha for construction of LNG and ethane gas processing plant near the port of Ust-Luga. It is now the largest investment project in Russia worth 3 trillion rubles/ the planned production volume is 18.4 million tons a year. However, this project is mainly aimed at using sea and pipeline transport.

The total investment in the chemical industry of the Russian North-West including this and several other projects amounts to more than 3.3 trillion rubles. The share of chemical industry projects in the total investments is about 88% (Fig. 4.7). The projects related to extraction of minerals take about 4% of investment (168.5 billion rubles) as well as the projects implemented in timber, pulp and paper industry (154.5 billion rubles). About 3% of investment comes to the projects related to production of machines and equipment (117 billion rubles), and about 1 % to all other industries (22 billion rubles).

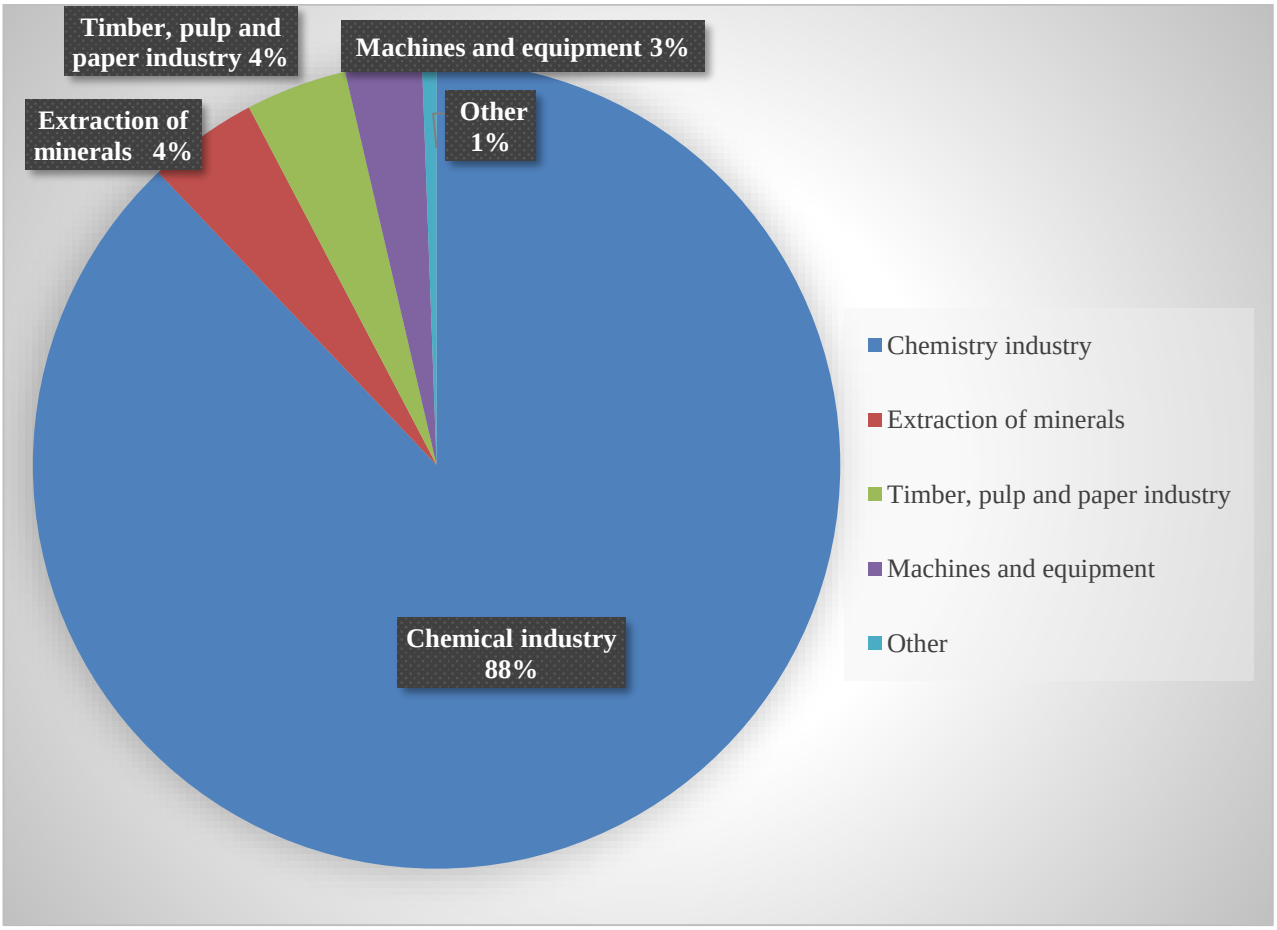


Fig. 4.7 Distribution of investment into the largest projects in the North-West of Russia by industry, % of total investment volumes

The largest ongoing and planned investment projects in the Russian North-West with indication of investment volumes are shown in Fig. 4.8

Fig. 4.8 The largest ongoing and planned investment projects in the Russian North-West with indication of investment volumes

In terms of production volumes, the situation is different (Fig. 4.9). Chemical industry takes the largest share with about 47% (34.7 million tons). Mining industry accounts for about 42% (31 million tons); timber, pulp and paper industry takes about 4% of (3.5 million tons). Other industries account for about 4% of production volumes (5 million tons). The data on production volumes in machine manufacturing industry was not available.

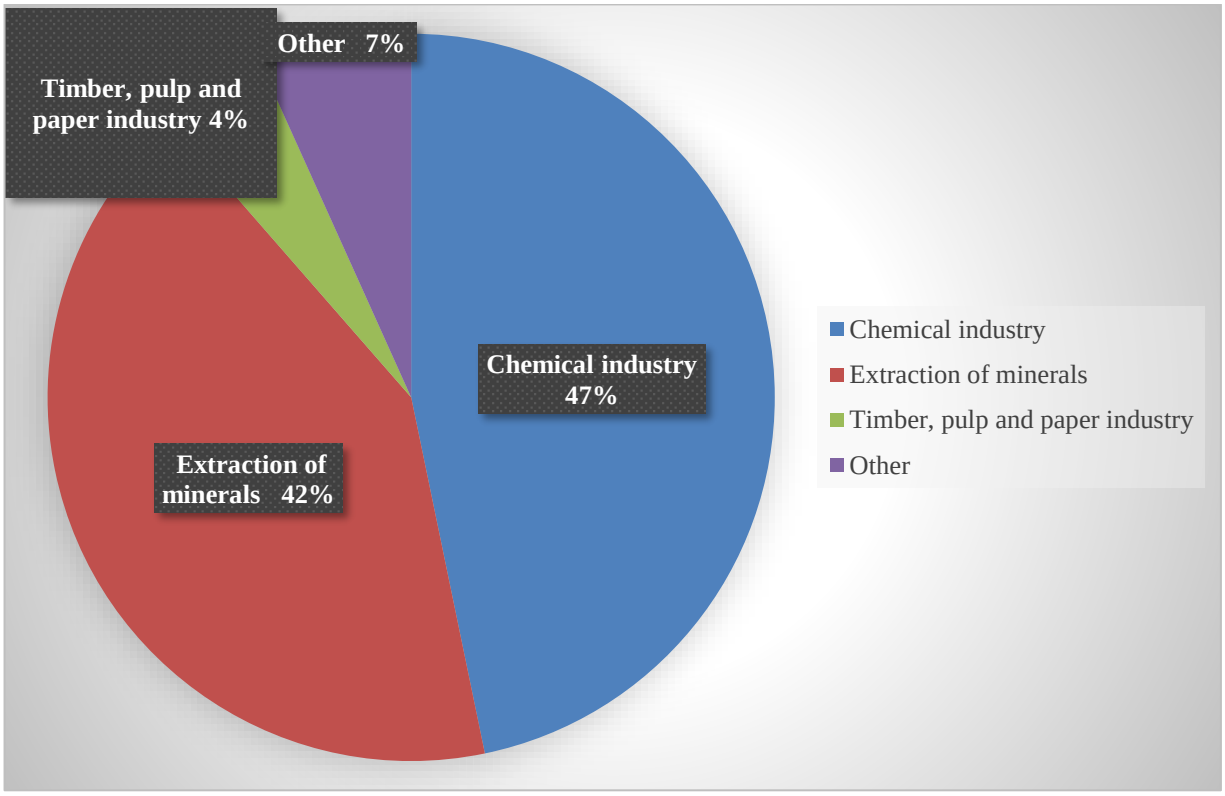


Fig. 4.9 Distribution of production volumes among largest investment projects in the North-West of Russia by industry, % of total production volume

The largest ongoing and planned investment projects in the Russian North-West with indication of their planned production volumes are shown in Fig. 4.10

Fig. 4.10 The largest ongoing and planned investment projects in the Russian North-West with indication of their planned production volumes

Despite significant investment volumes, not all considered projects may lead to increase of the Russian rail transportations. Some of the projects do not involve railway transport but pipeline or sea transport. This mainly applies to oil and gas production and processing industries.

Moreover, a number of investment projects are intended primarily for using sea transport and are implemented near the existing seaports, especially in the Arctic zone, where the projects are aimed at transporting products via the Northern Sea Route. These projects include oil extraction in the Nenets Autonomous District and Taimyr (Vostok Oil), development of Syradaiskoye coal deposit in Taimyr, development of Chernogorskoye deposit near Norilsk (copper, nickel and precious metals), construction of mining and processing plant at Baimskaya ore deposit in Chukotka (copper, molybdenum and precious metals) and development of Pavlovskoye deposit on the Novaya Zemlya islands (zinc and lead).

Among the considered projects, there are those with the greatest potential to increase the volume of rail transportations in Russia. These are projects in the chemical, mining and metallurgical industries, and to a lesser extent, the projects in the machine building, wood industry, pulp and paper industry and production of construction materials. Implementation of these projects is expected to result in increased rail transportations of the following commodity groups:

1. Chemical products: mineral fertilizers (Perm Region), ammonia and carbamide (Leningrad and Tula Regions), methanol (Tula and Volgograd Regions), polymers (Tyumen Region), nitric acid (Tula Region), sulphuric acid (Leningrad Region), phosphoric acid (Leningrad Region), polyolefins (Tyumen Region) and pharmaceuticals (Ryazan Region).
2. Metallurgical products, including ferrous and non-ferrous metals: copper (Zabaikalsky Region), zinc and lead (the Republic of Buryatia), tin (the Republic of Sakha); iron ores (Murmansk and Belgorod Regions), steel and pipes (Nizhny Novgorod Region); and precious metals (Arkhangelsk, Irkutsk and Krasnoyarsk Regions). This group includes products of the mining industry projects providing for construction of processing plants.
3. Other goods (this group relate to a few projects involving small investment and low production volumes): construction materials, in particular, lime (the Komi Republic); products of wood industry, pulp and paper industry (Arkhangelsk Region, the Republic of Karelia, the Komi Republic, Krasnoyarsk Region); transport machine building, including cars (Tula Region, the Republic of Tatarstan) and special machinery (the Republic of Karelia).

Conclusions

Most major investment projects in Russia relate to the chemical, mining and metallurgical industries. Some projects cover wood, pulp and paper industry, agriculture and machine building. The projects are localised in mining areas, industrial cities and suburban industrial zones. Some of the projects provide for the use of pipelines or maritime transport and do not involve rail transport at all. Investment projects involving rail transportations are mainly implemented in chemical and metallurgical industries and to a lesser extent in construction materials industry, timber, pulp and paper industry and machine building.

5. Substantiation of feasibility, importance, and priority of railway projects in Russia

The priority railway projects were selected based on the ranking method developed to evaluate the projects in terms of the following five criteria that were then summed up considering their weight:

$$R_i = k_{1i} \cdot W_1 + k_{2i} \cdot W_2 + k_{3i} \cdot W_3 + k_{4i} \cdot W_4 + k_{5i} \cdot W_5$$

k_1 – criterion 1: Policy Document Type

All projects were divided into 4 groups based on the type of document mentioning a particular project.

RZD programme	1	Long-term development programme of JSC Russian highways (RZD) to 2025
RF programmes	2	National programme of the Russian Federation for Development of the Transport Integrated plan of the trunk infrastructure modernisation and expansion for the period to 2024
RF strategic documents	3	Transport Strategy of the Russian Federation to 2030 with the forecast for the period to 2035 Development Strategy of the Russian Arctic Zone and Provision of National Security for the period to 2035
Land-use planning schemes	4	Land-use planning scheme of the Russian Federation in the field of federal transport

k_2 – criterion 2: Implementation Period

All projects were grouped as follows:

- The projects, which implementation period is indicated in policy documents:
  - to be implemented up to 2025 года (group 1);
  - to be implemented from 2026 to 2030 (group 2);
- The projects, which implementation period is not indicated in policy documents (group 3)

k_3 – criterion 3: Interest

This criterion indicates whether the federal government and private business sector are interested in a particular project or not.

The interest in a project is reflected as follows:

- Federal government:
  - availability of presidential instructions;
  - inclusion of a project into federal target investment programmes for the next three budget years (2022 – 2024);
- Private business sector:

- availability of signed cooperation agreements, letters of intent or implementation contracts,
- information about the active implementation phase of investment projects on official web-portals of investors, etc.

Based on the above criterion the projects were divided into two groups.

k_4 – criterion 4: Specified/Not specified Budget

This criterion shows whether the estimated project budget is specified in any documents, signed agreements, etc. According to criteria 4, the projects are split into two groups.

k_5 – criterion 5: New freight volumes

This criterion shows whether there are any investment projects, which may have impact on the railway infrastructure capacity, planned for implementation in close proximity to location of planned railway projects.

The data on the selected investment projects that are described in Chapter 4 were used for ranking purposes.

Railway projects that are implemented close to investment project locations are divided into two groups based on expected production volumes to be transported. The third group are railway projects implemented within areas, where no investment projects are planned.

The weight of each criterion was assessed to define its proportion in evaluation of the railway project priority.

- W_1 (criterion 1 weight) – 26 %;
- W_2 (criterion 2 weight) – 23 %;
- W_3 (criterion 3 weight) – 25 %;
- W_4 (criterion 4 weight) – 14 %;
- W_5 (criterion 5 weight 5) – 13 %.

Ranks (Ri) were assigned to the projects based on the sum of 5 criteria. A higher sum means a closer implementation period, more interest from the government or business, larger expected freight volumes, etc. The higher the sum, the higher is the project priority rank.

A ranking list of the railway projects in terms of their priority is given in Annex C.

In addition, each project was included into a particular rank group. A rank group comprises the railway infrastructure development projects that are characterized by similar conditions for the planned implementation.

In assessing impact on international transport accessibility of the Barents Region, the following projects are worth attention:

— Capacity increase of the Volkhovstroy – Murmanks link (some documents also mention Murmansk – Petrozavodsk railway)

The project will be realised with the Integrated Plan of the trunk infrastructure modernisation and expansion for the period to 2024 (federal project "Railway transport and transit")

The project implementation period and the budget are determined in the above document and are regularly updated.

The project is designed to increase the capacity of railway approaches to seaports of the North-West Basin to 146.6 mln tons.

The project provides for construction of the second main tracks on stretches with lowest capacity, reconstruction of stations and rehabilitation of passing loops.

In the study, the project was included into rank group 1.

— Reconstruction of the Konosha - Kotlas - Chum –Labytnangi line of the RZD's Northern Railway.

The project is essentially important for implementation of integrated Northern Latitudinal Railway Project, which is designed to ensure access to the Arctic zone for central and north-west regions of Russia, the Urals and East-West Transport Corridor.

- The project is included into the Development Strategy of the Russian Arctic Zone; the planned implementation period is 2026 – 2030.

The following investment projects are being implemented or planned within the area the railway runs:

- ✓ Creation of an industrial hub for minerals processing at Belgopskoye deposit;
- ✓ Construction of Yaregsky ore mining and processing plant with the capacity of 650 thousand tons a year.

In the study, the project was included into rank group 2.

— Northern Latitudinal Railway

This integrated project is implemented under concession agreement. The participants are the Ministry of Transport of the Russian Federation, JSC Russian Railways, Government of the Yamalo-Nenets Autonomous District, JSC Development Corporation, JSC Yamal Railway Company, PJSC Gazprom.

The project includes the following measures for railway infrastructure development in the Arctic:

- ✓ Construction of 406 km-long single track non-electrified railway line Salekhard - Nadym under investment project Ural Promyshlenniy - Ural Polyarniy (Industrial Urals - Polar Urals);
- ✓ Construction of the bridge crossing over the Ob River near Salekhard (length of the bridge is 2440 m, total length of two public railway tracks is 36.7 km) under investment project Ural Promyshlenniy - Ural Polyarniy (Industrial Urals - Polar Urals);
- ✓ Reconstruction of Pangody - New Urengoy - Korotchaevo railway section;
- ✓ Reconstruction of railway station Obskaya-2;
- ✓ Construction of the bridge crossing over the Nadym River;
- ✓ Construction of Nadym - Pangody railway section.

The project implementation shall result in development of the existing and future seaports of the Russian Arctic zone, including construction of new terminals and transhipment complexes (Murmansk, Arkhangelsk, Dikson, Pevek, Sabetta, Dudinka, Tiksi).

In the study, the project was included into rank group 2.

— Northern Latitudinal Railway 2

The project includes construction of Bovanenkovo - Sabetta railway section.

It is planned to make Sabetta the easternmost port of the Northern Sea Route with a railway approach.

This project will ensure the railway network connection (via the Northern Latitudinal Railway and Northern Railway) with Sabetta seaport and the Northern Sea Route.

The project is included into the Transport Strategy of the Russian Federation to 2035.

Planned annual freight volume is about 8 - 11 mln tons.

In the study, the project was included into rank group 2.

— Construction of the railway line Arkhangelsk - Syktyvkar - Perm with Solikamsk bypass (Belkomur)

This project provides for construction of 1155 km-long railway connecting the RF constituent entities of the North-West Federal Region.

The project is included into the Land-use Planning Scheme of the Russian Federation in the field of federal transport and the Transport Strategy of Arkhangelsk Region to 2030.

This project directly depends on the implementation of another project - construction of the deepwater area of the port of Arkhangelsk.

If the new deepwater port is constructed, it will ship export freight brought by Belkomur, such as hard coil from Pechora basin and Kuzbass, timber from the Komi Republic, Arkhangelsk and Vologda Regions, East Siberia, potassium fertilizers from Perm Region, and containerised transit cargo from the South-East Asia and Western Europe.

According to the expert assessment, the new deepwater port project in Arkhangelsk is likely to be implemented in intermediate term due to the priority of the Northern Sea Route infrastructure development projects.

Further details on the project are provided in Chapter 6.

In the study, the project was included into rank group 2.

— Construction of the railway section Sosnogorsk - Indiga (Barentskomur).

The 612 km railway construction project is included into the Development Strategy of the Russian Arctic Zone and Provision of National Security for the period to 2035.

At present, the design documentation for this project has not been developed.

The project is related to the project of Indiga deepwater seaport construction, which is intended to ship goods transported by railway from the Urals, Siberia, the Far East, and the countries of Southeast Asia via Komi Republic.

The Indiga project is currently at the design stage and its construction period is regularly postponed due to its low commercial attractiveness for potential investors. The project is implemented without participation of the Federal Government.

Recently, the railway line construction project received a new momentum after the issue of Presidential Instruction No. Pr-50 of 14.01.2022 to the Government of the Russian Federation to

submit proposals for construction of a new railway route, which will provide an access to the Barents Sea in the area of the Indiga River estuary.
The deadline for submission of proposals expires on 10.05.2022.
In the study, the project was included into rank group 3.

The Policy Documents of the Russian Federation do not include the activities on the existing Ledmozero - Kochkoma railway line. This railway section can operate 18 train-pairs per day. However, it is classified as a low-traffic line due to the current lack of freight volumes. Use of this railway section for freight transportations in the latitudinal direction from Arkhangelsk to Lyttä (Vartius) would allow reducing the distance by 240 km.

The Russian Railway Network development projects with indication of their rank group are shown in Fig. 5.1 and Fig.5.2.

Fig. 5.1 Russian Railways Network Development Projects with indication of their rank group

Fig. 5.2 Russian Railways Network Development Projects with indication of their rank group. North-West Region

6. Analysis of a potential change in volumes of export/import flows through rail border crossing points between Russia and the EU on the transport situation in the Barents Region

Implementation of Russian railway development projects will help to increase the volume of railway freight transportations and redistribute freight flows between the existing and planned destinations. Russian railway development projects are described in Chapter 3 (Fig. 3.1) of the Report.

The most significant projects for the Barents region include (Fig. 3.2):

1. Construction of the second railway track at the Murmansk – Petrozavodsk line,
2. Construction of the second railway track at the Arkhangelsk – Obozerskaya line,
3. Construction of Belkomur railway line,
4. Construction of the railway line Sosnogorsk – Indiga (Barentskomur),
5. Reconstruction of the railway section Konosha – Kotlas – Chum – Labytnangi,
6. Reconstruction of the railway section Tornio – Haparanda (Finland – Sweden border-crossing point)

The projects in the Russian Federation, Finland and Sweden that are planned according to the strategic development documents will potentially increase the capacity of the West-East transport corridor running through the Barents Region.

Increasing transit traffic from China and other Asian countries towards Europe requires the infrastructure development and stable operation of complementary east-west and north-south transport corridors to meet the growing demand.

The Trans-Siberian Railway and the BAM are part of the East -West international transport corridor. Russian Railways plans to split freight traffic: the BAM will carry larger volumes of raw materials, which will speed up transport of containers via the Trans-Siberian railway from Asia to Europe.

According to the Russian Transport Strategy to 2030[11], the total volume of trade between countries gravitating towards freight transportation through the East -West international transport corridor (the EU, China, the Republic of Korea and Japan) will grow from 14.1 to 21.4 million TEU, of which 3 to 5 million TEU will be transported via the Russian Federation. These trade volumes comprise high-value commodities transported between the northwest and central parts of China and the European regions that are remote from the sea route via the Suez Canal.

Transport corridors development will increase railway traffic on the approaches to St. Petersburg transport hub. In particular, freight flows will increase at the section between St. Petersburg and the Finnish border and through land border crossing points. The growth is due to the passage of two international transport corridors, East – West and North –South, through the hub. At present freight

[11] Transport Strategy of the Russian Federation to 2030 with the forecast for the period to 2035 was approved by RF government decree No.3363-r of 27 November 2021.

transportations, including containers, pass through Buslovskaya - Vainikkala, Svetogorsk - Imatra, Lüttä - Vartius and Värtsilä - Niirala border crossing points. Planned redirection of freight flows from St. Petersburg - Buslovskaya railway section will affect traffic load on Svetogorsk - Imatra border crossing point.

Further development of the railway network in the Barents Region will be related to development of the Northern Sea Route.

Creation of the northern sea transit corridor, which will include, in addition to the Northern Sea Route ports, ports of Murmansk, Arkhangelsk, Onega and Kandalaksha on the west, and Petropavlovsk-Kamchatsky on the east will allow linking the European and Asian markets offering an alternative to the container transportation route via the Suez Canal.

When completed, the project will ensure transit of freight volumes up to 440 thousand TEU[12] (5 mln ton) via the Northern Sea Route.

Preliminary estimates show that implementation of the northern sea transit corridor project would result in potential additional volumes for rail traffic in the Barents Region of about 2.0 mln tons a year.

According to the policy documents, the largest planned interregional project in the Russian Barents Region is the Belkomur Project (railway line Karpogory – Vendinga – Syktyvkar – Kudymkar – Perm) that will link the railway networks of Arkhangelsk Region, the Komi Republic and Perm Region, and will provide hinterland regions with access to the ports of the Barents Sea and the White Sea.

Belkomur will be the shortest route to the Northern Europe, Siberia, Kazakhstan and Central Asia and will create favourable conditions for freight transit in Russia and organisation of domestic and international multimodal transportations.

Construction of the Belkomur railway will allow the Nordic countries, in particular Norway, Sweden and Finland, to increase imports of raw materials from Russia, Asia and the Far East and enhance the capacity of their ports through international transit of goods (mainly containers).

According to Belkomur Interregional Company[13], the railway will transport annually about 24 mln tons of goods, mainly hard coal, bauxites, coking coal, alumina and potash chloride.

When Belkomur is put into operation, it will also carry about 30 mln tons[14] of goods from the regions east to the Urals to Arkhangelsk seaport.

Implementation of investment projects that are aimed to export goods to the European countries will have impact on transportation volumes handled by the rail network and border-crossing points. Main

[12] According to RF Transport Strategy data

[13] Belkomur Interregional Company JSC is a project implementation company established in 1996 by the governments of the Russian regions where the planned railway will run, in particular the Republic of Komi, Arkhangelsk and Perm regions (http://www.belkomur.com/)

[14] According to Transport Development Strategy of Arkhangelsk Region 2030, approved by Arkhangelsk Region government order No.310-rp of 15 December 2009

investment projects that would have effects on the rail network capacity are given in Section 4 (Annex B).

Below is information on the current situation and future development of the transport network in the Barents Region EU countries.

The Scandinavian railway infrastructure is integrated into the Scandinavian – Mediterranean Corridor and the North Sea - Baltic Corridor, which development is supported by the European Union. The Scandinavian countries successfully combine their well-developed railway and sea transport infrastructures to increase freight transportations between the Northern Europe and China. Considering extensive development of the railway networks and the countries' commitment to reduction of greenhouse gases, rail transportations may become a key tool of foreign trade development.

Development of the Trans-European Transport Network is intended to remove bottlenecks in the transport infrastructure by overcoming technical barriers. TEN-T will integrate national transport networks into a single transport space of the European Union to facilitate its socio-economic development. Some planned corridors will extend beyond the EU to the territory of Turkey, Ukraine, Belarus and through Finland to Russia.

Development of the transport infrastructure in the European countries that are part of the Barents Region will accommodate increasing transport volumes generated on west-east links.

The required rolling stock and capacity of railway lines depend on the type of goods transported. Russian cross-border transportations in the Barents Region include timber, minerals, ores, fertilizers, oil products, construction materials, etc.

In terms of total weight, overall dimensions and a railcar utilisation level, railway freight transportation is classified as follows:

- small shipment with the total weight not exceeding 10 tons and the volume occupying about one third of the freight car space;
- low-tonnage shipment with the total weight of 10 to 20 tons that occupies up to half of the freight car space;
- group shipment, which is transportation of consignments of goods that occupy more than one freight car and are unloaded at the same destination point;
- fixed-route transportation, which is similar to group shipment but provides for freight unloading at different destination points;
- containerized transportation

Containerized transportation is the most common, convenient, safe and cost-effective mode of freight transport. Goods are securely fixed inside all-metal containers, which protect them from any environmental effects. Freight can be quickly handled at terminals and easily trans-shipped, for example, to river or sea transport.

According to the Transport Strategy of the Russian Federation, since 2010, rail containerized transportation in Russia has grown from 2.5 to 5 million TEU in 2019 and to 5.8 million TEU in 2020.

The level of containerization has increased from 4.2 % to 11.4 % (excluding hard-to-containerize commodities: coal, ores and mineral building materials). The average annual growth is over 9%.

The integrated plan of the trunk infrastructure modernisation and expansion for the period to 2024[15] is designed to enhance the growth of transit container transportation via the Trans-Siberian Railway from 0.414 million TEU to 1.656 million TEU and to increase container transport speed from 810 km per day to 1319 km per day to 2024.

According to the Transport Strategy of the Russian Federation, timber, agricultural products, metals, fertilizers, construction materials, pulp and paper industry products, machinery, equipment, etc. have a significant growth potential in terms of containerized railway transportation.

There is a potential for increasing the containerization level by 1.5 - 2 times, i.e. up to 16 - 20 % of the total freight volumes that can be transported in containers. For certain commodities (agricultural products and timber), the containerization level can be increased by 3-4 times.

The volume of containerized transit transportation in the Russian Federation (by all modes of transport) will increase to 3.7 million TEU by 2035[5].

There is a potential to increase the containerization level of the following commodities:

- agricultural products: 8%;
- fertilizers and chemical products: 21%;
- machines and equipment: 63%;
- metals and metal products: 11%
- timber: 18%.

Additional traffic load on the Barents Region railway network due to rail transport development and investment projects was assessed considering the following factors:

- freight transportation volumes through land border crossing points of the Russian Federation (FGKU Rosgranitsa);
- freight transportation volumes in the regions that have the largest import/export volumes from/to Finland, Sweden, Norway (the Russian Customs statistics)
- freight transportation volumes, including containers, dispatched by rail from the Russian Barents regions (the Russian Customs statistics);
- freight transportation volumes allowed through border crossing points (Finnish Customs);
- number of freight trains allowed through border crossing points (Finnish customs);
- expected transportation volumes via Russian transport corridors (Transport Strategy of the Russian Federation);
- planned capacity of border crossing points (FGKU Rosgranitsa);

[15] Integrated plan of the trunk infrastructure modernisation and expansion for the period to 2024 approved by Decree of the Government of the Russian Federation No.2101-r of 30.09.2018 (as amended by Decree of the Government of the Russian Federation No. 3896-r of 28.12.2021).

[5] According to the Transport Strategy of the Russian Federation.

- information on investment projects.

This analysis also used the data of earlier transport and economic feasibility studies and research works, which have been carried out as part of development of a single trunk transport network and certain transport corridors in Russia.

Based on preliminary assessments additional transportation volumes on the Barents Region railway network will comprise:

- 9 million tons of goods per year due to implementation of the West-East Railway Corridor Development Project;
- 2 million tons of goods per year due to implementation of the Northern Sea Route Project;
- 3 million tons of goods per year due to implementation of Belkomur Project;
- 40 tons per year due to implementation of investment projects that, when completed, would use the transport infrastructure of the Barents Region.

Additional freight volumes are estimated at about 14 million tons per year, and the total freight volume will amount to 43 million tons per year. Taking into account the growth in container transit through the Barents Region, the share of containerized transportations may reach 30%.

Expected additional freight volumes through the border crossing points:

- Svetogorsk - Imatra: 6 million tons per year;
- Värtsilä - Niirala: 7 million tons per year;
- Lyttä- Vartius: 1 million tons per year.

The main technical parameter that determines the railway capacity to carry certain transport volumes is its utilization rate, which is defined as a ratio of the actual number of train pairs travelling in the given direction per a time unit to the current capacity.

Taking into account the capacity of the above border crossing points and the data on traffic flows, their utilization rate is estimated at 70% of the planned capacity.

Conclusions

If the planned railway development and investment projects are implemented, additional freight volumes to be transported by the Barents Region rail network will amount to 14 mln tons per year and the total freight transportation volume will be 43 mln tons. The transport infrastructure required to carry these volumes include the existing and planned railway lines. The border crossing points have the capacity reserve and their operation is evaluated optimal.

The study results reflect the current political situation and may require correction if the situation changes.

Annex A

Railway infrastructure development projects

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
1	Construction of high-speed railway Moscow-St. Petersburg, including construction and reconstruction of railway stations, interstations and tracks	Moscow, Moscow Region, Tver Region, Novgorod Region, Leningrad Region, St. Petersburg	Construction	679	RF Land-use Planning Scheme in the field of federal transport
2	Construction of 770 km-long high-speed railway Moscow-Nizhny Novgorod-Kazan, including construction and reconstruction of terminal stations, stations, interstations and tracks	Moscow, Moscow Region, Vladimir Region, Nizhny Novgorod Region, Chuvash Republic, Republic of Mari El , Republic of Tatarstan	Construction	770	RF Land-use Planning Scheme in the field of federal transport
3	Construction of 766 km-long high-speed railway Kazan - Ekaterinburg, including construction and reconstruction of terminal stations, stations, interstations and tracks, as well as construction of higher speed lateral railways	Republic of Tatarstan, Udmurt Republic, Republic of Bashkortostan, Perm Region, Sverdlovsk Region	Construction	766	RF Land-use Planning Scheme in the field of federal transport
4	Construction of 205.5 km-long lateral higher speed railway Chernushka - Perm to support passenger traffic on high-speed railway Moscow - Kazan - Ekaterinburg	Perm Region	Construction	205.5	RF Land-use Planning Scheme in the field of federal transport
5	Construction of 205.6 km-long lateral higher speed railway Chernushka - Ufa to support passenger traffic on high-speed railway Moscow - Kazan - Ekaterinburg	The Republic of Bashkortostan	Construction	205.6	RF Land-use Planning Scheme in the field of federal transport
6	Construction of 1525 km-long high-speed railway Moscow - Rostov-on-Don - Adler	Moscow, Moscow Region, Tula Region, Lipetsk Region, Voronezh Region, Rostov Region, Krasnodar Region, Republic of Adygeya	Construction	1525	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
7	Construction of Ural high-speed railway Chelyabinsk - Ekaterinburg with traffic capacity of 49 train-pair per day	Chelyabinsk Region, Sverdlovsk Region	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
8	Railway section Mga - Gatchina - Veimarn - Ivangorod, complex reconstruction of the section and railway approaches to ports on the Gulf of Finland southern shore, capacity increase of Mga - Gatchina - Veimarn - Ust-Luga section by construction and electrification of 161.5 km of second main tracks, construction of 209 km of receiving and dispatch tracks	Leningrad Region	Reconstruction, capacity increase	209	RF Land-use Planning Scheme in the field of federal transport
9	Mga - Sonkovo - Dmitrov, construction of second tracks to increase the capacity of 596.1 km-long section	Leningrad Region, Novgorod Region, Tver Region, Moscow Region	Capacity increase	596.1	RF Land-use Planning Scheme in the field of federal transport
10	Connection tracks between Savelovskaya line and Smolensk-Kursk diameter, construction of 2.56 km of public railway (along the Riga line tracks)	Moscow	Capacity increase	2.56	RF Land-use Planning Scheme in the field of federal transport
11	Railway section Mytischy - Pushkino, construction of IV main track, 11.9 km	Moscow Region	Capacity increase	11.9	RF Land-use Planning Scheme in the field of federal transport
12	Railway section Pushkino-Sofrino, construction of 15 km of main track III	Moscow Region	Capacity increase	15	RF Land-use Planning Scheme in the field of federal transport
13	Lyubertsy - Lytkarino, reconstruction of 12,5 km-long local railway section due to start of passenger train operation	Moscow Region	Capacity increase	12.5	RF Land-use Planning Scheme in the field of federal transport
14	Railway section Domodedovo (Aviatsionnaya) - Domodedovo Airport, construction of 6.3 km of main public railway track II	Moscow Region	Capacity increase	6.3	RF Land-use Planning Scheme in the field of federal transport
15	Railway section Khimki - Sheremetyevo, construction of 10.7 km of public railway track	Moscow, Moscow Region	Capacity increase	10.7	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
16	Railway section Moscow-Passazhyrskaya-Oktyabrskaya - Kryukovo, construction of 28.3 km of main public railway track IV	Moscow, Moscow Region	Capacity increase	28.3	RF Land-use Planning Scheme in the field of federal transport
17	Railway section Presnya - Likhobory - Kozhukhovo, construction of 40 km of main public railway track III	Moscow	Capacity increase	40	RF Land-use Planning Scheme in the field of federal transport
18	Railway section Rabochiy Poselok - Usovo, reconstruction of 15.634 km of public railway track as part of the higher-speed railway project using Aeroexpress trains at Moscow-Passazhyrskaya-Smolenskaya-Usovo section	Moscow, Moscow Region	Reconstruction	15.634	RF Land-use Planning Scheme in the field of federal transport
19	Railway section Rostokino - Belokamennaya (PK 114+00), construction of MCC main track IV between Yaroslavskoye and Otkrytoye highway with traffic capacity of 371 train-pair per day	Moscow	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
20	Railway section Akhtuba - Trubnaya, construction of 126.9 km of second main public railway tracks on the Akhtuba - Trubnaya section with a line load of 33.4 - 45.8 million tkm/km, or an increase of 53 to 62 per cent	Astrakhan Region, Volgograd Region	Capacity increase	126.9	RF Land-use Planning Scheme in the field of federal transport; Federal Project Identification summary for Railway transport and transit as per Integrated plan of the trunk infrastructure modernisation and expansion
21	Railway section Enem-Krivenkovskaya, construction of 24 km of additional second tracks	Krasnodar Region	Capacity increase	24	RF Land-use Planning Scheme in the field of federal transport
22	Railway section Enem - Krymskaya, construction of 23 km of additional second tracks	Krasnodar Region	Capacity increase	23	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
23	Railway section Timashevskaya - Krymskaya, construction of 112.8 km of additional second public railway tracks	Krasnodar Region	Capacity increase	112.8	RF Land-use Planning Scheme in the field of federal transport
24	Railway section Yurovsky - Gostagaevsky, construction of 28 km of additional second public railway tracks	Krasnodar Region	Capacity increase	28	RF Land-use Planning Scheme in the field of federal transport
25	Railway section Krymskaya - Yurovsky - Vyshesteblievskaya, construction of 75 km of additional second tracks	Krasnodar Region	Capacity increase	75	RF Land-use Planning Scheme in the field of federal transport
26	Railway section Tomusinskaya - Yerunakovo, construction of 13.7 km of additional second public railway tracks	Kemerovo Region	Capacity increase	13.7	RF Land-use Planning Scheme in the field of federal transport
27	Railway section Ryamy - Kamen-on-Ob', construction of 3.2 km of additional public railway tracks	Altay Region	Capacity increase	3.2	RF Land-use Planning Scheme in the field of federal transport
28	Railway section Karasuk - Tatarskaya, construction of 208 km of additional public railway tracks	Novosibirsk Region	Capacity increase	208	RF Land-use Planning Scheme in the field of federal transport
29	construction of additional second public railway tracks with capacity of 40 train pairs per day at Lena-Vostochnaya - Kirenga section	Irkutsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
30	Railway section Kirenga - Severobaikalsk, capacity of 33 train-pairs per day	Irkutsk Region, Republic of Buryatia	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
31	Railway section Severobaikalsk - Taksimo, capacity of 27 train-pairs per day	Republic of Buryatia	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
32	Railway section Taksimo - Novaya Chara, capacity of 32 train-pairs per day	Republic of Buryatia, Zabaykalsky Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
33	Railway section Novaya Chara - Khani, capacity of 28 train-pairs per day	Zabaykalsky Region, Sakha Republic (Yakutia)	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
34	Railway section Khai - Tynda, capacity of 33 train-pairs per day	Sakha Republic (Yakutia), Amur Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
35	Railway section Tynda- Neryungri, capacity of 21 train-pairs per day	Sakha Republic (Yakutia), Amur Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
36	Railway section Tynda - Ulak, capacity of 26 train-pairs per day	Amur Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
37	Railway section lak - Fevralsk, capacity of 23 train-pairs per day	Amur Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
38	Railway section Fevralsk - Novy Urgal, capacity of 25 train-pairs per day	Amur Region, Khabarovsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
39	Railway section Novy Urgal - Postyshevo, capacity of 23 train-pairs per day	Khabarovsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
40	Railway section Postyshevo - Komsomolsk-Sortirovochny, capacity of 29 train-pairs per day	Khabarovsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
41	Railway section Komsomolsk-Sortirovochny - Vanino, capacity of 29 train-pairs per day	Khabarovsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
42	Railway section Tynda - Bamovskaya, capacity of 32 train-pairs per day	Amur Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
43	Railway section Shturm - Gorely, capacity of 32 train-pairs per day	Amur Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
44	Railway section Komsomolsk-Sortirovochny - Volochayevka, capacity of 28 train-pairs per day	Khabarovsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
45	Reconstruction of public railway tracks at section Taishet - Lena-Vostochnaya with capacity of 123 train-pairs per day	Irkutsk Region	Rehabilitation	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
46	Reconstruction of public railway tracks at section Lena-Vostochnaya - Kirenga with capacity of 40 train-pairs per day	Irkutsk Region	Rehabilitation	n/a	RF Land-use Planning Scheme in the field of federal transport
47	Reconstruction of public railway tracks at section Kirenga - Severobaykalsk with capacity of 33 train-pairs per day	Irkutsk Region, Republic of Buryatia	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
48	Reconstruction of public railway tracks at section Severobaykalsk - Taksimo with capacity of 27 train-pairs per day	Republic of Buryatia	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
49	Reconstruction of public railway tracks at section Taksimo- Novaya Chara with capacity of 32 train-pairs per day	Republic of Buryatia, Zabaykalsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
50	Reconstruction of public railway tracks at section Novaya Chara - Khani with capacity of 28 train-pairs per day	Zabaykalsky Region, Sakha Republic (Yakutia)	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
51	Reconstruction of public railway tracks at section Khani - Tynda with capacity of 33 train-pairs per day	Sakha Republic (Yakutia), Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
52	Reconstruction of public railway tracks at section Tynda - Ulak with capacity of 26 train-pairs per day	Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
53	Reconstruction of public railway tracks at section Ulak - Fevralsk with capacity of 23 train-pairs per day	Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
54	Reconstruction of public railway tracks at section Fevralsk - Novy Urgal with capacity of 25 train-pairs per day	Amur Region, Khabarovsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
55	Reconstruction of public railway tracks at section Novy Urgal - Postyshevo with capacity of 23 train-pairs per day	Khabarovsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
56	Reconstruction of public railway tracks at section Postyshevo - Komsomolsk-Sortirovochny, capacity of 29 train-pairs per day	Khabarovsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
57	Reconstruction of public railway tracks at section Komsomolsk-Sortirovochny - Vanino with capacity of 29 train-pairs per day	Khabarovsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
58	Reconstruction of public railway tracks at section Tynda - Bamovskaya with capacity of 32 train-pairs per day	Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
59	Reconstruction of public railway tracks at section Tynda - Neryungri with capacity of 23 train-pairs per day	Sakha Republic (Yakutia), Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
60	Reconstruction of public railway tracks at section Novy Urgal - Izvestkovaya with capacity of 25 train-pairs per day	Khabarovsk Region, Jewish Autonomous District	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
61	Reconstruction of public railway tracks at section Komsomolsk-Sortirovochny - Volochayevka with capacity of 28 train-pairs per day	Khabarovsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
62	Chelyabinsk - Nizhnyaya - Kamensk-Uralsky, construction of 56 km of additional second public railway tracks	Chelyabinsk Region, Sverdlovsk Region	Capacity increase	56	RF Land-use Planning Scheme in the field of federal transport
63	Tobolsk - Surgut - Korotchaevo, construction of additional second public railway tracks with capacity of 26 train pairs per day	Tyumen Region, Khanty-Mansiysk Autonomous District, Yamal-Nenets Autonomous District	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
64	Railway section Kalino - Levshino, construction of 5.4 km of additional public railway tracks	Perm Region	Capacity increase	5.4	RF Land-use Planning Scheme in the field of federal transport
65	Railway section Agryz 1 - Kazan, construction of 52.9 km of additional tertiary public railway tracks	Republic of Tatarstan	Capacity increase	52.9	RF Land-use Planning Scheme in the field of federal transport
66	Railway section Seyda - Inta, construction of 80.3 km of additional second public railway tracks	Komi Republic	Capacity increase	80.3	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
67	Railway section Arkhangelsk - Obozerskaya, construction of 45.9 km of additional second public railway tracks	Arkhangelsk Region	Capacity increase	45.9	RF Land-use Planning Scheme in the field of federal transport
68	Railway section Tosno - Lyuban, construction of 29.9 km of tertiary public railway tracks	Leningrad Region	Capacity increase	29.9	RF Land-use Planning Scheme in the field of federal transport
69	Railway section Murmansk - Petrozavodsk, construction of 327 km of second public railway tracks	Murmansk Region, Republic of Karelia	Capacity increase	327	RF Land-use Planning Scheme in the field of federal transport
70	Railway section Vyborg-passazhirsky - Buslovskaya, construction of 18.3 km of second public railway tracks	Leningrad Region	Capacity increase	18.3	RF Land-use Planning Scheme in the field of federal transport
71	Railway section Vyborg - tovarny - Kamennogorsk, construction and electrification of 40 km of second public railway tracks	Leningrad Region	Capacity increase	40	RF Land-use Planning Scheme in the field of federal transport
72	Railway section Chishmy - Ulyanovsk, construction of 202.3 km of additional second public railway tracks	Republic of Bashkortostan, Republic of Tatarstan, Samara Region, Ulyanovsk Region	Capacity increase	202.3	RF Land-use Planning Scheme in the field of federal transport
73	Railway section Kirov (Lyangasovo) - Kotelnich, construction of 70.6 km of additional tertiary public railway tracks	Kirovsk Region	Capacity increase	70.6	RF Land-use Planning Scheme in the field of federal transport
74	Railway section Dema - Chishmy, construction of 24.6 km of additional quaternary public railway tracks	Republic of Bashkortostan	Capacity increase	24.6	RF Land-use Planning Scheme in the field of federal transport
75	Railway section Khabarovsk - Volochaevka, construction of 3 km of additional main public railway tracks	Khabarovsk Region	Capacity increase	3	RF Land-use Planning Scheme in the field of federal transport
76	Railway section Cherepanovo - Srednesibirskaya, construction of 54.9 km of additional second public railway tracks	Novosibirsk Region, Altay Region	Capacity increase	54.9	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
77	Railway section Voskresensk - Golutvin, construction of 27.9 km of additional tertiary public railway tracks	Moscow Region	Capacity increase	27.9	RF Land-use Planning Scheme in the field of federal transport
78	Railway section M. Gorkiy - Kotelnikovo - Tikhoretskaya - Krymskaya, complex reconstruction of the section with construction of Krasnodar railway junction bypass - new 72 km-long double-track electrified public railway line, commissioning of 461 km of second public railway tracks, electrification of 848 km of public railway	Volgograd Region, Rostov Region, Krasnodar Region	Construction, Capacity increase	72/ 461	RF Land-use Planning Scheme in the field of federal transport; Federal Project Identification summary for Railway transport and transit as per Integrated plan of the trunk infrastructure modernisation and expansion
79	Railway section Sochi - Adler - Veseloye, construction of a 48 km section of public railway track II for Adler - Alpika Service mountain resort combined (road and rail) road construction project	Krasnodar Region	Capacity increase	48	RF Land-use Planning Scheme in the field of federal transport
80	Railway section Tuapse - Adler, reconstruction of public railway tracks with construction of double-track sections at 9 runs with a total operational length of about 30 km	Krasnodar Region	Capacity increase	30	RF Land-use Planning Scheme in the field of federal transport
81	Railway section Adler - Sochi airport, construction of 2.8 km of public railway track	Krasnodar Region	Construction	2.8	RF Land-use Planning Scheme in the field of federal transport
82	Railway section Oune - Vysokogornaya, reconstruction of a 27 km section of public railway tracks with construction of new 3.892 km bypass of the Kuznetsovsky Tunnel to increase traffic capacity of Komsomolsk-on-Amur - Sovetskaya Gavan line due to increased freight traffic to Port Vanino	Khabarovsk Region	Reconstruction, Construction	3.892	RF Land-use Planning Scheme in the field of federal transport
83	Reconstruction of 2.6 km-long bridge crossing over the Amur river (2nd stage)	Khabarovsk Region	Reconstruction	2.6	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
84	Reconstruction of 5 km-long railway tunnel under the Amur river near Khabarovsk	Khabarovsk Region	Reconstruction	5	RF Land-use Planning Scheme in the field of federal transport
85	Railway section Nakhodka Vostochnaya, station development with construction of the second public railway connecting track at Khmylovsky - Nakhodka Vostochnaya section with capacity of 18 million tonnes of freight per year	Primorsky Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
86	Railway section Sayanskaya - Koshurnikovo, reconstruction of 3 tunnels, 5 km	Krasnoyarsk Region	Reconstruction	5	RF Land-use Planning Scheme in the field of federal transport
87	Railway section Krivenkovskaya - Belorechenskaya, reconstruction of tunnels, total length of 5 km	Krasnodar Region	Reconstruction	5	RF Land-use Planning Scheme in the field of federal transport
88	Railway section Grozny - Nazran, complex reconstruction to restore freight and suburban passenger train service of Grozny - Prokhladny section	Republic of Chechnya, Republic of Ingushetia	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
89	Railway section Mezhdurechensk - Abakan - Kuragino, capacity of 52 train-pairs per day, construction of second track, construction of double track sections	Kemerovo Region, Republic of Khakassia, Krasnoyarsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
90	Railway section Kuragino - Sayanskaya, capacity of 64 train-pairs per day, construction of second track, construction of double track sections	Krasnoyarsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
91	Railway section Sayanskaya - Tayshet, capacity of 48 train-pairs per day, construction of second track, construction of double track sections	Krasnoyarsk Region, Irkutsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
92	Railway section Yaiva-Solikamsk, construction of a 53 km service line	Perm Region	Construction	53	RF Land-use Planning Scheme in the field of federal transport
93	Railway section Aksaraiskaya-Astrakhan, reconstruction of the	Astrakhan Region	Reconstruction	7	RF Land-use Planning Scheme

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
	bridge over the Volga River and public railway tracks, 7 km				in the field of federal transport
94	Bridge across the Kama River at Perm junction, reconstruction of the bridge and public railway tracks, 1.5 km	Perm Region	Reconstruction	1.5	RF Land-use Planning Scheme in the field of federal transport
95	Railway section Ulyanovsk Central - Akbash, reconstruction of the bridge across the Volga river and public railway tracks, 2.5 km	Ulyanovsk Region	Reconstruction	2.5	RF Land-use Planning Scheme in the field of federal transport
96	Railway section Syzran - Bezenchuk, reconstruction of the bridge and public railway tracks, 5 km, in order to unload heavily-loaded Kropachevo route	Samara Region	Reconstruction	5	RF Land-use Planning Scheme in the field of federal transport
97	Railway section Egorshino - Tavda, reconstruction of the bridge across the Tura river and public railway tracks, 0.5 km	Sverdlovsk Region	Reconstruction	0.5	RF Land-use Planning Scheme in the field of federal transport
98	Railway section Zhilevo - Ozherelye, reconstruction of the bridge across the Oka river and public railway tracks, 1.2 km	Moscow Region	Reconstruction	1.2	RF Land-use Planning Scheme in the field of federal transport
99	Railway section Liski - Rossosh, reconstruction of the bridge across the Don river and public railway tracks, 0.7 km	Voronezh Region	Reconstruction	0.7	RF Land-use Planning Scheme in the field of federal transport
100	Railway section Leo Tolstoy - Yelets, reconstruction of the bridge and public railway tracks, 0.3 km	Lipetsk Region	Reconstruction	0.3	RF Land-use Planning Scheme in the field of federal transport
101	Railway section Myagrenka - Kem section of St.Petersburg - Murmansk railway, construction of the second crossing over the river Shuya	Republic of Karelia	Construction	0.5	RF Land-use Planning Scheme in the field of federal transport
102	Railway section Myagrenka - Kem section of St.Petersburg - Murmansk railway, construction of 4 km-long public railway to increase the section capacity	Republic of Karelia	Construction	4	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
103	Railway section Kazan Station - Kazan International Airport, reconstruction of the public railway tracks, 23.5 km, for intermodal transport implementation	Republic of Tatarstan	Reconstruction	23.5	RF Land-use Planning Scheme in the field of federal transport
104	Railway section Syzran-Sennaya, electrification of a 170 km section of public railway tracks	Samara Region, Volgograd Region	Electrification	170	RF Land-use Planning Scheme in the field of federal transport
105	Railway section Kinel-Orenburg, electrification of a 376 km section of public railway tracks	Orenburg Region	Electrification	376	RF Land-use Planning Scheme in the field of federal transport
106	Railway section Rtischevo - Kochetovka, electrification of a 254.4 km section of public railway tracks	Saratov Region, Penza Region, Tambov Region	Electrification	254.4	RF Land-use Planning Scheme in the field of federal transport; Federal Project Identification summary for Railway transport and transit as per Integrated plan of the trunk infrastructure modernisation and expansion
107	Railway section Yurovsky - Temryuk - Kavkaz - Taman, electrification of a 110 km section of public railway tracks	Krasnodar Region	Electrification	110	RF Land-use Planning Scheme in the field of federal transport
108	Railway section Shunting loop 9th km - Yurovskiy - Anapa, electrification of a 86 km section of public railway tracks	Krasnodar Region	Electrification	86	RF Land-use Planning Scheme in the field of federal transport
109	Railway section Karymskaya - Zabaykalsk, electrification of a 365.6 km section of public railway track	Zabaykalsky Region	Electrification	365.6	RF Land-use Planning Scheme in the field of federal transport
110	Railway section Ulan-Ude - Naushki, electrification of a 253 km section of public railway track for traffic towards Mongolia	Republic of Buryatia	Electrification	253	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
111	Construction of additional public railway tracks in section Taishet-Tagul with capacity of 123 train-pairs per day	Irkutsk Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
112	Construction of additional public railway tracks in section Smolyaninovo - Nakhodka with capacity of 123 train-pairs per day	Primorsky Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
113	Railway section Baranovsky-Khasan with capacity of 123 train-pairs per day	Primorsky Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
114	Railway section Karymskaya - Zabaikalsk with capacity of 29 train-pairs per day	Zabaikalsky Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
115	Railway section Birobidzhan - Leninsk with capacity of 12 train-pairs per day	Jewish Autonomous District	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
116	Capacity increase of railway section Makhalino - Kamyshovaya -State border with China to 9 train-pairs per day	Primorsky Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
117	Reconstruction of public railway section Yurty - Taishet with capacity of 123 train-pairs per day	Irkutsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
118	Reconstruction of public railway section Taishet - Slyudyanka with capacity of 123 train-pairs per day	Irkutsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
119	Reconstruction of public railway section Slyudyanka - Petrovsky Zavod with capacity of 137 train-pairs per day	Republic of Buryatia, Zabaikalsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
120	Reconstruction of public railway section Petrovsky Zavod- Chita 1 with capacity of 153 train-pairs per day	Zabaikalsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
121	Reconstruction of public railway section Chita 1 - Chernyshevsk Zabaikalsky with capacity of 123 train-pairs per day	Zabaikalsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
122	Reconstruction of public railway section Chernyshevsk Zabaikalski - Bamovskaya with capacity of 123 train-pairs per day	Zabaikalsky Region, Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
123	Reconstruction of public railway section Bamovskaya - Belogorsk with capacity of 153 train-pairs per day	Amur Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
124	Reconstruction of public railway section Belogorsk - Khabarovsk with capacity of 123 train-pairs per day	Amur Region, Jewish Autonomous Region, Khabarovsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
125	Reconstruction of public railway section Khabarovsk - Ussuriysk with capacity of 123 train-pairs per day	Khabarovsk Region, Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
126	Reconstruction of public railway section Ussuriysk -Smolyaninovo with capacity of 123 train-pairs per day	Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
127	Reconstruction of public railway section Baranovsky - Khasan with capacity of 123 train-pairs per day	Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
128	Reconstruction of public railway section Uglovaya -Mys Astafieva with capacity of 123 train-pairs per day	Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
129	Reconstruction of public railway section Ussuriysk - Rassypnaya Pad with capacity of 123 train-pairs per day	Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
130	Reconstruction of public railway section Vladivostok - Mys Churkin with capacity of 148 train-pairs per day	Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
131	Reconstruction of public railway section Pervaya Rechka - Vladivostok with capacity of 148 train-pairs per day	Primorsky Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
132	Electrification of railway section Borzya - Zabaikalsk	Zabaikalsky Region	Electrification	n/a	RF Land-use Planning Scheme in the field of federal transport
133	Electrification of public railway section Karasuk (Osolodino) - Tatarskaya - Nazyvayevskaya - Konovalovo, 816.5 km long	Novosibirsk Region, Omsk Region, Kurgan Region	Electrification	816.5	RF Land-use Planning Scheme in the field of federal transport
134	Reconstruction of Big and Small Novorossiysk tunnels	Krasnodar Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
135	Reconstruction of local industrial (non-public) railway section Kalische - LAES 2, 7.5 km long	Leningrad Region	Reconstruction	7.561	RF Land-use Planning Scheme in the field of federal transport
136	Reconstruction of railway tracks and infrastructure facilities in section Predportovaya - Ligovo	St. Petersburg	Reconstruction	12,6	RF Land-use Planning Scheme in the field of federal transport
137	Reconstruction of railway tracks and infrastructure facilities in section Oranienbaum - Bronka	St. Petersburg	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
138	Reconstruction of railway tracks and infrastructure facilities in section Bolshaya Izhora - Bronka	Leningrad Region, St. Petersburg	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
139	Reconstruction of railway tracks and infrastructure facilities in section Kupchinskaya - Rybatskoye	St. Petersburg	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
140	Reconstruction of railway tracks and infrastructure facilities in section Oranienbaum - Stary Petergof	St. Petersburg	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
141	Reconstruction of railway tracks and infrastructure facilities in section Novy Petergof - Strelna	St. Petersburg	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
142	Krymsky railway junction, reconstruction of second main railway in section Krymskaya station - 9 km with capacity of 71 train-pairs per day	Krasnodar Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
143	Construction of second track of public railway in section Aksaraiskaya 2 - Maly Aral with capacity of 128 train-pairs per day	Astrakhan Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport; Federal Project Identification summary for Railway transport and transit as per Integrated plan of the trunk infrastructure modernisation and expansion
144	Construction of additional railway tracks in section Ugleuralskaya - Nyar with capacity of 82 train-pairs per day	Perm Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
145	Construction of additional railway tracks in section Palniki - Divya with capacity of 42 train-pairs per day	Perm Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
146	Reconstruction of railway tracks and construction of a shunting loop in section Divya - Yarino with capacity of 41 train-pairs per day	Perm Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
147	Reconstruction of railway tracks and construction of shunting loops in section Bokovaya - Kukhtaym with capacity of 40 train-pairs per day	Perm Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
148	Reconstruction of railway tracks and construction of shunting loops in section Ugleuralskaya - Shestaki with capacity of 39 train-pairs per day	Perm Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
149	Construction of Northern railway by-pass of Perm with capacity of 53 train-pairs per day	Perm Region	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
150	Reconstruction of public railway section Pikhtovoye - Vysotsk with capacity of 30 train-pairs per day	Leningrad Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
151	Reconstruction of public railway tracks in section Ozherelye - Uzlovaya - Yelets with capacity of 154 train-pairs per day	Moscow Region, Tula Region, Lipetsk Region	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
152	Railway crossing of the Strait of Kerch and reconstruction of public railway section Strait of Kerch-Dzhankoy with a branch to Feodosia and Kerch with capacity of 31 train-pairs per day	Republic of Crimea	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
153	Construction of railway sidetrack to the crossing of the Strait of Kerch on the Crimean peninsular with capacity of 31 train-pairs per day	Republic of Crimea	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
154	Construction of third track of the trunk public railway in section Derbyshki - Arsk with capacity of 187 train-pairs per day	Republic of Tatarstan	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
155	Construction of second track of the trunk public railway in section Orenburg - Iletsk with capacity of 154 train-pairs per day	Orenburg Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
156	Reconstruction of the main railway track in section St. Petersburg Glavny - St. Petersburg Tovarny-Moskovsky with capacity of 460 train-pairs per day	St. Petersburg	Reconstruction and Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
157	Reconstruction of the main railway tracks in section St. Petersburg Tovarny-Moskovsky - St. Petersburg Sortirovochny Moskovsky (Obukhovo Park) with capacity of 240 train-pairs per day	St. Petersburg	Reconstruction	n/a	RF Land-use Planning Scheme in the field of federal transport
158	Construction of double-track railway section Volkovskaya - St. Petersburg Sortirovochny Moskovsky (Obukhovo Park) with capacity of 240 train-pairs per day	St. Petersburg	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
159	Construction of additional 4th main track in section St. Petersburg Sortirovochny Moskovsky (Obukhovo Park) - Tosno with capacity of 460 train-pairs per day	St. Petersburg and Leningrad Region	Capacity increase	n/a	RF Land-use Planning Scheme in the field of federal transport
160	Construction of double-track railway section Tikhonovo-Toima and a connecting track to Toima station with capacity of 33 train-pairs per day	Republic of Tatarstan	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
161	Construction of railway section Tommot - Kerdem -Yakutsk (Nizhny Bestyakh) of railway line Berkakit - Tommot - Yakutsk in Republic of Sakha (Yakutia), 450.4 km long, to increase transport accessibility and reduce infrastructure constrains, improve social and economic situation in Yakutia and provide year round freight delivery to hard-to-reach areas	Republic of Sakha (Yakutia)	Construction	450.4	RF Land-use Planning Scheme in the field of federal transport
162	Construction of single-track non-electrified railway section Polunochnoye - Obskaya - Salekhard, 856 km long, as part of investment project "Industrial Ural - Polar Ural"	Sverdlovsk Region, Khanty-Mansi Autonomous District, Yamal-Nenets Autonomous District	Construction	856	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
163	Construction of single-track non-electrified railway section Salekhard - Nadym, 406 km long, as part of investment project "Industrial Ural - Polar Ural"	Yamal-Nenets Autonomous District	Construction	406	RF Transport Strategy to 2035; information of Corporation of Development JSC.
164	Construction of the Ob river crossing near Salekhard (2440 m long, and construction of 2 public railway lines of 36.7 km) as part of investment project "Industrial Ural - Polar Ural"	Yamal-Nenets Autonomous District	Construction	36.7	RF Transport Strategy to 2035; information of Corporation of Development JSC.
165	Construction of railway line section Petyayarvi - Kamennogorsk, 56 km long, to switch freight traffic to a parallel line due to start of high-speed passenger train operation in the existion railway section St. Petersburg - Vyborg - Buslovskaya - Helsinki	Republic of Karelia	Construction	56	RF Land-use Planning Scheme in the field of federal transport
166	Construction of railway line Murmashi-2 - Lavna, 27 km long	Murmansk Region	Construction	27	RF Land-use Planning Scheme in the field of federal transport
167	Construction of new Kuznetsovky tunnel in the railway section Komsomolsk -on-Amur - Sovetskaya Gavan, 3.9 km long, to increase the section capacity	Khabarovsk Region	Construction	3.892	RF Land-use Planning Scheme in the field of federal transport
168	Capacity increase and completion of construction of the public railway section Nadym - Pangody - Novy Urengoy - Korotchaevo, 707 km long as part of Northern Latitudinal Railway development	Yamal-Nenets Autonomous District	Construction	707	RF Land-use Planning Scheme in the field of federal transport
169	Construction of railway line Biysk - Gorno-Altaisk, 115 km long	Altaisky Region, Altai Republic	Construction	115	RF Land-use Planning Scheme in the field of federal transport
170	Construction of North-Siberian trunk railway section Nizhnevartovsk - Bely Yar - Ust-Ilimsk, 1892 km long, for development and service of Lower Angara industrial area (except for section Yelchimo - Chadobets)	Khanty-Mansi Autonomous District, Tomsk Region, Krasnoyarsk Region, Irkutsk Region	Construction	1892	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
171	Construction of North-Siberian trunk railway section Yelchimo - Chadobets, 110 km long	Krasnoyarsk Region	Construction	110	RF Land-use Planning Scheme in the field of federal transport
172	Construction of railway line section Selikhin - Nysh, 582 km long	Khabarovsk Region, Sakhalin Region	Construction	582	RF Land-use Planning Scheme in the field of federal transport; RZhD long-term development programme to 2025.
173	Construction of railway line section Kyzyl - Kuragino with capacity of 19 train-pairs per day in connection with development of minerals and raw resources base of Republic of Tuva.	Republic of Tuva, Krasnoyarsk Region	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
174	Construction of railway line section Naryn - Lugokan, 223 km long, for development of Bystrinsky deposit of polymetalic ore	Zabaikalsky Region	Construction	223	RF Land-use Planning Scheme in the field of federal transport
175	Construction of railway line section Payuta - Bovanenkovo, 331 km, to provide transport link to Yamal peninsular	Yamal-Nenets Autonomous District	Construction	331	RF Land-use Planning Scheme in the field of federal transport
176	Construction of railway line Ilyinsk - Uglegorsk, 143 km long	Sakhalin Region	Construction	143	RF Land-use Planning Scheme in the field of federal transport
177	Construction of new railway Leninsk - State border of Russia including construction of a bridge crossing and reconstruction of the public railway section Birobidzhan - Leninsk, 6 km long, to create a new border crossing point between Russia and China	Jewish Autonomous District	Construction	6	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
178	Construction of the Western by-pass of Saratov railway junction of Privolzhskaya Railway and increase of capacity of the railway section Lipovsky - Kurdyum to 154 31 train-pairs per day	Saratov Region	Construction	69	RF Land-use Planning Scheme in the field of federal transport; RZhD long-term development programme to 2025; Federal Project Identification summary for Railway transport and transit as per Integrated plan of the trunk infrastructure modernisation and expansion
179	Construction of a new double-track electrified railway line Tatarskaya - Nazyvayevskaya, 295 km long, as part of Omsk railway junction by-pass construction	Omsk Region, Novosibirsk Region	Construction	295	RF Land-use Planning Scheme in the field of federal transport
180	By-pass of Yaroslavl railway junction and construction of a new single-track electrified line,27 km long	Yaroslavl Region	Construction	27	RF Land-use Planning Scheme in the field of federal transport
181	By-pass of Chita railway junction and construction of a new electrified single-track line from Chernovskaya station to Antipikha station, 27 km long	Zabaikalsky Region	Construction	27	RF Land-use Planning Scheme in the field of federal transport
182	Construction of Belkomur railway line in section Arkhangelsk - Syktyvkar - Perm (Solikamsk) from White See to Komi Republic and Ural with by-pass of Solikamsk. Creation of railway link connecting the Russian regions of North-Western Federal District, 1155 km long	Perm Region, Komi Republic, Arkhangelsk Region	Construction	1155	RF Land-use Planning Scheme in the field of federal transport
183	Construction of railway line between Gagarinsky mining and processing plant and Trans-Siberian Trunk Railway, 148 km long, to be used for transporation of freight in proposed section Shimanovskaya - Gar - Fevralsk,as part of the project	Amur Region	Construction	148	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
	for creation of a new ore mining and smelting cluster in Amur region.				
184	Construction of stage 2 of railway line section Pravaya Lena - Yakutsk (in Yakutsk, Pokrovsk and Hangalass district) from Pravaya Lena station with construction of a combined bridge crossing of the Lena river near Yakutsk to River port of Yakutsk (left side of the river) in Republic of Sakha (Yakutia) (in Megino-Kangalass district and city of Yakutsk). Railway length: 104.5 км, length of teh bridge cossing: 3200 m.	Republic of Sakha (Yakutia)	Construction	104.5	RF Land-use Planning Scheme in the field of federal transport
185	Construction of single-track railway section Kalische - Koporye, 16.7 km	Leningrad Region	Construction	16.7	RF Land-use Planning Scheme in the field of federal transport
186	Reconstruction of public railway section Moscow - Yaroslavl, 282 km long	Moscow, Moscow Region, Yaroslavl Region	Reconstruction	282	RF Land-use Planning Scheme in the field of federal transport
187	Reconstruction of public railway section Moscow - Krasnoye, 487 km long	Moscow, Moscow Region, Smolensk Region	Reconstruction	487	RF Land-use Planning Scheme in the field of federal transport
188	Reconstruction of public railway section Moscow - Suzemka, 488 km long	Moscow and Moscow Region	Reconstruction	488	RF Land-use Planning Scheme in the field of federal transport
189	Reconstruction of public railway section Moscow - Adler, 1384 km long, and construction of the new railway line Prokhorovka - Zhuravka - Chertkovo - Bataisk	Moscow, Moscow Region, Ryazan Region, Tambov Region, Lipetsk Region,Voronezh Region, Rostov Region, Krasnodar Region	Reconstruction	1384	RF Land-use Planning Scheme in the field of federal transport
190	Reconstruction of public railway section Moscow - Adler, 1384 km long, and construction of the new railway line Prokhorovka - Zhuravka - Chertkovo - Bataisk	Belgorod Region, Voronezh Region, Rostov Region	Construction	n/a	RF Land-use Planning Scheme in the field of federal transport
191	Reconstruction of public railway section Novosibirsk - Omsk, 627 km long	Novosibirsk Region, Omsk Region	Reconstruction	627	RF Land-use Planning Scheme in the field of federal transport

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
192	Railway line Pangody - Novy Urengoy - Korotchayevo	Yamal-Nenets Autonomous District	Reconstruction	187	RF Transport Strategy to 2035; information of Corporation of Development JSC.
193	Obskaya-2 railway station	Yamal-Nenets Autonomous District	Reconstruction	15	RF Transport Strategy to 2035; information of Corporation of Development JSC.
194	Nadym river bridge crossing	Yamal-Nenets Autonomous District	Construction	1.3	RF Transport Strategy until 2035; information of Corporation of Development JSC.
195	Railway line Nadym - Pangody	Yamal-Nenets Autonomous District	Construction	110	RF Transport Strategy until 2035; information of Corporation of Development JSC.
196	Railway line Bovanenkovo - Sabetta	Yamal-Nenets Autonomous District	Construction	173	RF Transport Strategy to 2035
197	Railway line Samara - Kurumoch - Tolyatti	Samara Region	Construction, modernisation	100	RZhD long-term development programme to 2025.
198	Higher speed railway Novosibirsk - Barnaul	Novosibirsk Region, Altai Region	Construction, reconstruction	n/a	RZhD long-term development programme to 2025.
199	Railway line Moscow - ivanovo (section Ivanovo - Novki - Nerekhta)	Vladimir Region, Ivanovo Region	Electrification	n/a	RZhD long-term development programme to 2025.
200	Higher speed railway Yekaterinburg - Nizhni Tagil	Sverdlovsk Region	Construction, reconstruction	n/a	RZhD long-term development programme to 2025.
201	Higher speed railway Tula - Belgorod	Tula Region, Oryol Region, Kursk Region, Belgorod Region	Construction, reconstruction	n/a	RZhD long-term development programme to 2025.
202	High-speed railway line Moscow - Krasnoye	Moscow, Moscow Region, Smolensk Region	Construction	n/a	RZhD long-term development programme to 2025.

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
203	Railway line Elegest - Kyzyl-Kuragino	Republic of Tuva, Krasnoyarsk Region	Construction	424.1	RZhD long-term development programme to 2025.
204	Railway line Krasnodar - Krymskaya (second main railway track)	Krasnodar Region	Construction	n/a	Federal Project Identification summary for Railway transport and transit as per Integrated plan of the trunk infrastructure modernisation and expansion
205	Railway line Morozovskaya - Volgodonskaya	Rostov Region	Reconstruction	n/a	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
206	Railway line Luzhskaya Sortirovochnaya - Luzhskaya Vostochnaya - Luzhskaya Generalnaya	Leningrad Region	Construction	n/a	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
207	Railway line Volkhovstroy-Murmansk	Leningrad Region, Murmansk Region	Capacity increase	1320	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
208	Railway Moscow - Aprelevka	Moscow and Moscow Region	Construction	n/a	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
209	Railway line Moscow Passazhirskaya Smolenskaya - Moscow Butyrskaya - Beskudnikovo - Lobnya	Moscow and Moscow Region	Construction	34	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
210	Railway Moscow Kalanchevskaya - Maryina Roscha platform	Moscow	Construction	n/a	Project Identification Summary as per Integrated Plan for communication between economic development centers
211	Railway line Moscow passazhirskaya Kurskaya - Moscow Kalanchevskaya	Moscow	Construction	4	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
212	Railway line Moscow Tovarnaya Oktyabrskaya - Nikolayevka - Moscow-2 - Moscow Passazhirskaya Kazanskaya	Moscow	Construction, reconstruction	n/a	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
213	Construction of railway line Post 81 km - Dmitrov -Iksha - Povarovo (BMO)	Moscow Region	Construction	n/a	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
214	Railway line to the Northern terminal of Sheremetievo Internation airport	Moscow	Construction	n/a	Project Identification Summary as per Integrated Plan of Railway Transport modernisation and transit development
215	Railway line Bagerovo - Vladislavovka -Dzhankoi	Rebublic of Crimea	Construction, reconstruction, electrification	n/a	Project Identification Summary as per Integrated Plan for communication between economic development centers

Item No.	Project name	RF regions	Type of works	Length, km	Document (source)
216	Railway line Ozherelye - Uzlovaya - Yelets	Moscow Region, Tula Region, Lipetsk Region	Electrification	305	Project Identification Summary as per Integrated Plan for communication between economic development centers
217	Railway line Sosnogorsk - Indiga	Nenets Autonomous District, Komi Republic	Construction	612	"Development Strategy of the Russian Arctic Zone and Provision of National Security for the period to 2035
218	Railway Konosha - Kotlas -Chum - Labytnangi	Arkhangelsk Region, Komi Republic, Yamal-Nenets Autonomous District	Reconstruction	1667	"Development Strategy of the Russian Arctic Zone and Provision of National Security for the period to 2035
219	Railway line Murmansk - Olenegorsk	Murmansk Region	Construction, reconstruction	106	State decree for investing RZhD project in Murmansk Region "Development of Murmansk-Volkhovstroy railway section. Reconstruction of Murmansk-Olenegorsk railway with construction of the second track" with 5 year tax exemption

Annex B

Major investment projects that are being implemented in Russia

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
Major investment projects								
1	Chemical industry	Construction of gas chemical plant for processing natural gas at Kumzhinskoye and Korovinskoye gas fields	Near term	Nenets Autonomous District	Zapolyarny District. at Krasnoye settelment near Indiga	204 000.0	RusKhim Managing Company LLC	3 600.0
2	Transport Logistics	Indiga Seaport	Intermediate term	Nenets Autonomous District	Zapolyarny District. Bolshoi Rumyanichny Cape in Chyosha Bay (southern part of the Barents Sea. near Indiga)	353 000.0	"Indiga SeaPort Directorate LLC	
3	Chemical industry	Construction of LNG processing plant to produce engine fuel	Near term	Nenets Autonomous District	Nenets Autonomous District	4 257.2	Synthetic Fuel Plant LLC	25.1
4	Machinery manufacturing	Development of KAMAZ and Mercedes-Benz model range and production modernisation	Intermediate term	Republic of Tatarstan	Naberzhnie Chelny	46 500.0	KAMAZ JSC	912.0
5	Chemical industry	Development of ammonia production in Kingisepp	Near term	Leningrad Region	Kingisepp. Fosforit industrial area	119 000.0	EvroKhim-Severo-Zapad JSC	11 400.0
6	Chemical industry	Development of full-cycle production of biopharmaceutical drugs.	Near term	Ryazan Region	Skopin. Skopinfarm plant area	5 300.0	Farmimeks JSC	0.8

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
		substances and blood plasma that do not have analogues being produced in Russia; planned capacity - 600 thousand litres a year						
7	Mining	Construction of ore mining plant at the Ust-Yaivinsky mine and production of potassium chloride	Near term	Perm Region	Berezniki	35 700.0	Uralkaly JSC	11 000.0
8	Chemical industry	Production of catalysts	Near term	Omsk Region	Omsk	30 000.0	Gasprromneft-Katalitic heskie Sistemy LLC	21.0
9	Mining	Construction of mining complex of Polovodovsky potash plant in the northern Polovodovsky section at Verkhnekamskoye potash and magnesium salt deposit and production of potassium chloride	Near term	Perm Region	Solikamsk	117 800.0	Uralkaly JSC	2 800.0
10	Mining	Construction of mining complex in the southern area of Solikamskoye and Novo-Solikamskoye sections at Verkhnekamskoye potash and	Near term	Perm Region	Solikamsk area. Rodnikovskoye settlement	36 800.0	Uralkaly JSC	About 3000*

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
		magnesium salt deposit and production of potassium chloride						
11	Chemical industry	Development of Talitskiy section of Verkhnekamskoye potash and magnesium salt deposit	Intermediate term	Perm Region	Solikamsk area	87 700.0	Verkhnekamskaya Potach company (subsidiary of Akron JSC)	2 000.0
12	Machinery manufacturing	Construction of automobile factory	Near term	Tula Region	Uzlovaya industrial park	42 400.0	Haval Motor Manufacturing Russia	255.0
13	Metallurgy	Introduction of steel production technologies. including round billets and high-quality slabs	Near term	Nizhny Novgorod Region	Vyksa	150 000.0	Ekolant LLC	1 800.0
14	Chemical industry	Introduction of granulated carbamide production technology involving staged degradation of ammonia carbamate	Near term	Tula Region	Schyokino	40 200.0	Schyokinazot JSC	1 225.0
15	Chemical industry	Introduction of methanol production technology by steam reforming	Near term	Tula Region	Schyokino	19 500.0	Schyokinazot JSC	500.0
16	Chemical industry	Introduction of new technologies for nitric acid and ammonia nitrate production	Near term	Tula Region	Schyokino	9 900.0	Schyokinazot JSC	610.0

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
17	Metallurgy	Construction of seamless pipe rolling plant	Near term	Nizhny Novgorod Region	Vyksa	50 000.0	Vyksunsky steel plant (subdivision of OMK JSC)	500.0
18	Mining	"Construction of mining and processing plant for Baimskaya ore deposit	Intermediate term	Chukotka Autonomous District	Bilibinky District. Peschanka Deposit	570 000.0	GDK Baimskaya (memeber of KAZ Minerals Group. Kazakhstan)	1 400.0
19	Mining	Construction of mining and processing plant for Udokanskoye copper deposit	Near term	Zabaikalsky Region	Kalarsky District. Udokanskoye deposit	227 250.0	Udokanskaya Med (USM Holding member)	136.0
20	Mining	Construction of mining and processing plant on Yuzhnay Island of the Novaya Zemlya archipelago	Near term	Arkhangelsk Region	Novaya Zemlya archipelago. Yuzny Island. Pavlovskoye deposit	37 500.0	PGRK JSC (member of Rosatom state corporation)	270.0
21	Mining	Construction of Ozyorny mining and processing plant	Near term	Republic of Buryatia	Eravninsky District	90 000.0	Ozernoye LLC	677.0
22	Chemical industry	LNG and ethane gas processing plant	Near term	Leningrad Region	Ust-Luga	3 000 000.0	Baltic Chemical Complex LLC (joint venture of Gazprom and RusGas	18 400.0

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
							Dobycha JSC)	
23	Mining	Development of Syradasaiskoye deposit and construction of clean coal production plant	Near term	Krasnoyarsk Region	Taimy District. Syradasaiskoye deposit	45 000.0	Severnaya Zvezda LLC (member of AEON Corporation Holding)	17 000.0
24	Metallurgy	Construction of new processing line at Stoilensky mining and processing plant	Intermediate term	Belgorod Region	Stariy Oskol. Stoilensky plant	250 000.0	NLMK JCS (NLMK Group)	21 500.0
25	Mining	Development of Sukhoi Log gold deposit	Intermediate term	Irkutsk Region	Bodaibinsky District. Sukhoi Log deposit	240 000.0	Polus JSC	0.1
26	Chemical industry	Construction of methanol plant at the former Khimprom area	Near term	Volgograd Region	Volgograd. Khimprom	50 000.0	AEON Corporation Holding	1 000.0
27	Mining	Gold mining at Veduga deposit	Near term	Krasnoyarsk Region	Severo-Yeniseisky District. Veduga deposit	37 500.0	Polymetal JSC	0.01
28	Wood industry	Development of modern wood processing plant at ULK Group of Companies	Near term	Arkhangelsk Region	Pinezhsky. Plesetsky and Vinogradovsky Districts	28 345.7	ULK Group	2 625.0
29	Other industries	Processing plant at Mikhail Lomonosov diamond deposit	Intermediate term	Arkhangelsk Region	Arkhangelsk Region	73 400.0	Severalmaz JSC	less than 1*
30	Mining	Yaregsky ore mining and processing plant. capacity of 650 mln tons a year	Near term	Komi Republic	Ukhta	45 784.0	Yarega Ruda JSC	About 700*

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
31	Construction materials	Construction of minerals processing industrial hub at Belgopskoye deposit	Intermediate term	Komi Republic	Ukhta	18 000.0	Ukhta Construction Materials Plant LLC	About 1000*
32	Pulp and paper industry	Construction of rayon pulp plant	Near term	Komi Republic	Troitsko-Pechorsky municipal district	71 200.0	Komi Ministry of economic development and industries	n/a
33	Machinery manufacturing	Development of forestry machinery production in the Republic of Karelia	Near term	Republic of Karelia	Petrozavodsk	13 952.0	Amkodor-Onego LLC	8.2
34	Pulp and paper industry	Modernisation of Segezhsky pulp and paper plant. phase 2	Near term	Republic of Karelia	Segezhsky District. Segezha	55 000.0	Segezhsky pulp and paper plant	850.0
35	Mining	Construction of mining and processing plant at Chernogorskoye deposit	Near term	Krasnoyarsk Region	Norilsk	240 000.0	Chernogorskaya GRK LLC	7 000.0
36	Pulp and paper industry	Construction of pulp and paper plant in Krasnoyarsk Region	Near term	Krasnoyarsk Region	Krasnoyarsk Region	140 000.0	State Development Corporation VEB.RF	900.0
37	Transport logistics	Construction of bulk cargo terminal in Murmansk seaport	unspecified	Murmansk Region	Murmansk	12 360.0	TULOMA Sea Terminal LLC	n/a
38	Mining	Apatite and shtaffelite ore processing plant	unspecified	Murmansk Region	Kovdor	7 441.0	Kovdorsky mining processing plant	About 7000*

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
39	Mining	Modernisation of Kovdorsky mining and processing plant	Intermediate term	Murmansk Region	Kovdor	4 419.0	Kovdorsky mining processing plant	22 900.0
40	Machinery manufacturing	Construction centre for large capacity marine structures	unspecified	Murmansk Region	Belokamenka	102 900.0	NOVATEK-Murmansk	n/a
41	Agriculture	Construction of smolt factory	unspecified	Murmansk Region	Kolsky District Retinskoye	4 039.0	Russkoye More - Akvakultura LLC	About 4000*
42	Chemical industry	Construction of high-molecular thermally stable polymers for construction materials industry within import substitution programme	Near term	Tula Region	Novomoskovsk	9 000.0	Poliplast Novomoskovsk LLC	n/a
43	Agriculture	Development of bio-technology cluster on the area of advanced socio-economic development in Yefremov. Tula Region	unspecified	Tula Region	Yefremov	10 000.0	Kargill LLC	n/a
44	Metallurgy	Construction of alloy additive plant for production of ultra-strong steel and titanium alloys	Near term	Tula Region	Special economic zone PPT Uzlovaya	5 580.0	Evraz Uzlovaya LLC	17.0
45	Oil processing	Development of Uvatsky industrial hub	unspecified	Tyumen Region	Uvatsky District	788 340.0	NK ROSNEFT JSC	n/a
46	Oil processing	Integrated development of	Near term	Tyumen Region	Tobolsk	664 400.0	"SIBUR Holding	Oil processing

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
		Tobolsk industrial site						
47	Mining	Development of Ruchey Tirekhtyakh tin deposit	Near term	Republic of Yakutia	Ust-Yansky District	7 943.0	Yanolovo JSC	2 000.0
48	Chemical industry	Strategic development of Volkhov Branch of Apatit JSC	Near term	Leningrad Region	Volkhovsky District. Volkhov	25 000.0	Apatit JSC	1 250.0
49	Agriculture	Vysotsky grain terminal	Near term	Leningrad Region	Volosovsky District. Rabititskoye settlement	13 000.0	Tekhnotrans LLC	200.0
Medium and small investment projects								
50	Construction materials	Construction of asphalt plant	Near term	Nenets Autonomous District	Naryan-Mar (area cadastral number 83:00:040003:335)	13.0	KOTKINOINVEST LLC	less than 20*
51	Agriculture	Reindeer herding products processing in the Nenets Autonomous District	Near term	Nenets Autonomous District	Zapolyarny District. Iskateley village	3.9	NPO Natural Products of Arctic LLC	0.0
52	Agriculture	Polar regions herbs	unspecified	Nenets Autonomous District	Nenets Autonomous District	1.4	Business Development Centre of the Nenets Autonomous District JSC	1.0
53	Agriculture	Wild herb harvesting and processing factory in the Nenets Autonomous District	unspecified	Nenets Autonomous District	Nenets Autonomous District	1.2	Business Development Centre of the Nenets Autonomous District JSC	4.4

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
54	Agriculture	Reindeer herding products processing in the Nenets Autonomous District	unspecified	Nenets Autonomous District	Nenets Autonomous District	54.0	Business Development Centre of the Nenets Autonomous District JSC	0.2
55	Agriculture	Fur farm and fur primary processing factory	unspecified	Nenets Autonomous District	Nenets Autonomous District	35.5	Business Development Centre of the Nenets Autonomous District JSC	0.0
56	Chemical industry	Live and inactivated vaccine production factory	Near term	Kaluga Region	Vorsino Industrial Park	n/a	Pharm Aid (joint company Rostekh. Rosnano and Ishvan Pharmaceuticals. UAE)	6.0
57	Agriculture	Construction and modernisation of reindeer herding products processing factory at PSK Olenevod	Near term	Komi Republic	Vorkuta	420.3	PSK Olenevod	0.8
58	Wood industry	Modernisation of sawmill and pellet production at Solomesky wood mill	Near term	Republic of Karelia	Petrozavodsk	2 500.0	Solomensky lesozavod LLC	120.0

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
59	Wood industry	Pellet factory with the capacity of 50 000 t per year	Near term	Republic of Karelia	Pudozhsky District. Pudozh. Kolovo	300.0	GreenEnergy Pudozh LLC	50.0
60	Mining	Modernisation of Olkon JSC production capacities	unspecified	Murmansk Region	Murmansk Region	1 697.0	Olenegorsky mining processing plant	n/a
61	Agriculture	Construction of two small fish processing plants. installation of water treatment plants and energy infrastructure	unspecified	Murmansk Region	Murmansk Region	192.0	Park LLC	n/a
62	Agriculture	Constsruction of new fish processing factory with the capacity of 50 t a day	unspecified	Murmansk Region	Murmansk Region	676.0	Russkaya Treska LLC	18.3
63	Agriculture	Construction of small fish processing factory	unspecified	Murmansk Region	Murmansk Region	103.5	Prichal - L LLC	n/a
64	Metallurgy	Construction of steel mill in Agidel. Bashkortostan	Near term	The Republic of Bashkortostan	Agidel	148.9	Development Corporation of the Republic of Bashkortostan	n/a
65	Agriculture	Development of agricultural complex in Tuimazinsky district. Bashkortostan	Near term	The Republic of Bashkortostan	Tuimazinsky District	131.9	Development Corporation of the Republic of Bashkortostan	n/a

No.	Industry	Project Name	Implementation Period	Russian Region	Project Location	Estimated total budget, mln RUB	Project Proponent	Production volume, thousand tons/year
66	Construction materials	Development of brick production in Fyodorovsky District. Bashkortostan	Near term	The Republic of Bashkortostan	Fyodorovsky District	155.0	Development Corporation of the Republic of Bashkortostan	n/a
67	Chemical industry	Construction of Akrus polymer and composite materials plant	unspecified	Tula Region	Special economic zone PPT Uzlovaya	1 863.0	Innovative industrial coatings LLC	18.0
68	Chemical industry	Development of powder materials production for machine tool industry and high-temperature processes	unspecified	Tula Region	Tula	1 075.0	Polema JSC	n/a
69	Other industries	Construction of ferrous alloy plant	Near term	Tyumen Region	Tyumen	1 250.0	Tyumensky ferrous alloy plant LLC	n/a
70	Machinery manufacturing	Construction of railway car repair plant	Near term	Leningrad Region	Vyborgsky District. Vysotsk	1 500.0	Baltiysky railway car repair plant Novotrans LLC	1 549.8

* InfraTerra's estimation

n/a No available data

Annex C

Ranking list of the railway projects in terms of their priority

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway section Mga - Gatchina - Veimarn - Ivangorod, complex reconstruction of the section and railway approaches to ports on the Gulf of Finland southern shore, capacity increase of Mga - Gatchina - Veimarn - Ust-Luga section by construction and electrification of 161.5 km of second main tracks, construction of 209 km of receiving and dispatch tracks	RF Programmes	Yes 2025 and earlier	Yes	Yes	Yes Large volume	1	1
Railway line Volkhovstroy-Murmansk	RF Programmes	Yes 2025 and earlier	Yes	Yes	Yes Large volume	2	1
Railway section M. Gorkiy - Kotelnikovo - Tikhoretskaya - Krymskaya, complex reconstruction of the section with construction of Krasnodar railway junction bypass - new 72 km-long double-track electrified public railway line, commissioning of 461 km of second public railway tracks, electrification of 848 km of public railway	RF Programmes	Yes 2025 and earlier	Yes	No	Yes Large volume	3	1
Construction of 770 km-long high-speed railway Moscow-Nizhny Novgorod-Kazan, including construction and reconstruction of terminal stations, stations, interstations and tracks	RF Programmes	Yes 2025 and earlier	Yes	Yes	No	4	1
Mga - Sonkovo - Dmitrov, construction of second tracks to increase the capacity of 596.1 km-long section	RF Programmes	Yes 2025 and earlier	Yes	Yes	No	5	1
Railway line Morozovskaya - Volgodonskaya	RF Programmes	Yes 2025 and earlier	Yes	Yes	No	6	1
Higher speed railway Tula - Belgorod	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	Yes Large volume	7	1
Railway line Ozherelye - Uzlovaya - Yelets	RF Programmes	Yes 2025 and earlier	No	Yes	Yes Small volume	8	1

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway line Luzhskaya Sortirovochnaya - Luzhskaya Vostochnaya - Luzhskaya Generalnaya	RF Programmes	Yes 2025 and earlier	No	No	Yes Large volume	9	1
Railway section Rtischevo - Kochetovka, electrification of a 254.4 km section of public railway tracks	RF Programmes	Yes 2025 and earlier	No	Yes	No	10	1
Railway line Samara - Kurumoch - Tolyatti	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	No	11	2
Higher speed railway Novosibirsk - Barnaul	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	No	12	2
Railway line Moscow - ivanovo (section Ivanovo - Novki - Nerekhta)	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	No	13	2
Higher speed railway Yekaterinburg - Nizhni Tagil	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	No	14	2
High-speed railway line Moscow - Krasnoye	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	No	15	2
Railway line Elegest - Kyzyl-Kuragino	JSC Russian Railways Programme	Yes 2025 and earlier	No	Yes	No	16	2
Construction of single-track non-electrified railway section Salekhard - Nadym, 406 km long, as part of investment project "Industrial Ural - Polar Ural"	RF strategic documents	No	Yes	Yes	No	17	2
Construction of the Ob river crossing near Salekhard (2440 m long, and construction of 2 public railway lines of 36.7 km) as part of investment project "Industrial Ural - Polar Ural"	RF strategic documents	No	Yes	Yes	No	18	2
Railway line Pangody - Novy Urengoy - Korotchayevo	RF strategic documents	No	Yes	Yes	No	19	2
Obskaya-2 railway station	RF strategic	No	Yes	Yes	No	20	2

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
	documents						
Nadym river bridge crossing	RF strategic documents	No	Yes	Yes	No	21	2
Railway line Nadym - Pangody	RF strategic documents	No	Yes	Yes	No	22	2
Railway Konosha - Kotlas -Chum - Labytnangi	RF strategic documents	Yes 2026-2030	No	Yes	Yes Large volume	23	2
Railway section Mezhdurechensk - Abakan - Kuragino, capacity of 52 train-pairs per day, construction of second track, construction of double track sections	RF Programmes	No	Yes	No	No	24	2
Railway section Kuragino - Sayanskaya, capacity of 64 train-pairs per day, construction of second track, construction of double track sections	RF Programmes	No	Yes	No	No	25	2
Railway section Sayanskaya - Tayshet, capacity of 48 train-pairs per day, construction of second track, construction of double track sections	RF Programmes	No	Yes	No	No	26	2
Construction of high-speed railway Moscow-St. Petersburg, including construction and reconstruction of railway stations, interstations and tracks	RF Land-use planning scheme	Yes 2026-2030	Yes	No	No	27	2
Construction of Belkomur railway line in section Arkhangelsk - Syktyvkar - Perm (Solikamsk) from White See to Komi Republic and Ural with by-pass of Solikamsk. Creation of railway link connecting the Russian regions of North-Western Federal District, 1155 km long	RF Land-use planning scheme	No	Yes	No	Yes Large volume	28	2
Railway line Bovanenkovo - Sabetta	RF strategic documents	Yes 2025 and earlier	No	Yes	No	29	2
Railway section Krymskaya - Yurovsky - Vyshesteblievskaya, construction of 75 km of additional second tracks	RF Programmes	Yes 2025 and earlier	No	No	No	30	2
Railway line Krasnodar - Krymskaya (second main railway track)	RF Programmes	Yes 2025 and earlier	No	No	No	31	2

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway Moscow - Aprelevka	RF Programmes	Yes 2025 and earlier	No	No	No	32	2
Railway line Moscow Passazhirskaya Smolenskaya - Moscow Butyrskaya - Beskudnikovo - Lobnya	RF Programmes	Yes 2025 and earlier	No	No	No	33	2
Railway Moscow Kalanchevskaya - Maryina Roscha platform	RF Programmes	Yes 2025 and earlier	No	No	No	34	2
Railway line Moscow passazhirskaya Kurskaya - Moscow Kalanchevskaya	RF Programmes	Yes 2025 and earlier	No	No	No	35	2
Railway line Moscow Tovarnaya Oktyabrskaya - Nikolayevka - Moscow-2 - Moscow Passazhirskaya Kazanskaya	RF Programmes	Yes 2025 and earlier	No	No	No	36	2
Construction of railway line Post 81 km - Dmitrov -Iksha - Povarovo (BMO)	RF Programmes	Yes 2025 and earlier	No	No	No	37	2
Railway line to the Northern terminal of Sheremetievo Internation airport	RF Programmes	Yes 2025 and earlier	No	No	No	38	2
Construction of 766 km-long high-speed railway Kazan - Ekaterinburg, including construction and reconstruction of terminal stations, stations, interstations and tracks, as well as construction of higher speed lateral railways	JSC Russian Railways Programme	No	No	Yes	Yes Small volume	39	2
Railway section Akhtuba - Trubnaya, construction of 126.9 km of second main public railway tracks on the Akhtuba - Trubnaya section with a line load of 33.4 - 45.8 million tkm/km, or an increase of 53 to 62 per cent	RF Programmes	No	No	No	Yes Large volume	40	2
Railway section Yaiva-Solikamsk, construction of a 53 km service line	RF Programmes	No	No	No	Yes Large volume	41	2
Construction of additional railway tracks in section Ugleuralskaya - Nyar with capacity of 82 train-pairs per day	RF Programmes	No	No	No	Yes Large volume	42	2
Construction of railway section Tommot - Kerdem -Yakutsk (Nizhny Bestyakh) of railway line Berkakit - Tommot - Yakutsk in Republic of Sakha (Yakutia), 450.4 km long, to increase transport accessibility and reduce infrastructure constrains,	RF Land-use planning scheme	No	Yes	No	No	43	2

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
improve social and economic situation in Yakutia and provide year round freight delivery to hard-to-reach areas							
Construction of Ural high-speed railway Chelyabinsk - Ekaterinburg with traffic capacity of 49 train-pair per day	JSC Russian Railways Programme	No	No	Yes	No	44	2
Construction of railway line section Selikhin - Nysh, 582 km long	JSC Russian Railways Programme	No	No	Yes	No	45	2
Construction of the Western by-pass of Saratov railway junction of Privolzhskaya Railway and increase of capacity of the railway section Lipovsky - Kurdyum to 154 31 train-pairs per day	JSC Russian Railways Programme	No	No	Yes	No	46	2
Railway line Murmansk - Olenegorsk	RF Land-use planning scheme	Yes 2025 and earlier	No	No	Yes Small volume	47	2
construction of additional second public railway tracks with capacity of 40 train pairs per day at Lena-Vostochnaya - Kirenga section	RF Programmes	No	No	No	Yes Small volume	48	2
Railway section Kirenga - Severobaikalsk, capacity of 33 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	49	2
Railway section Severobaikalsk - Taksimo, capacity of 27 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	50	2
Railway section Taksimo - Novaya Chara, capacity of 32 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	51	2
Railway section Novaya Chara - Khani, capacity of 28 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	52	2
Railway section Khai - Tynda, capacity of 33 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	53	2
Reconstruction of public railway tracks at section Taishet - Lena-Vostochnaya with capacity of 123 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	54	2
Reconstruction of public railway tracks at section Lena-Vostochnaya - Kirenga with capacity of 40 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	55	2
Reconstruction of public railway tracks at section Kirenga - Severobaykalsk with capacity of 33 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	56	2

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Reconstruction of public railway tracks at section Severobaykalsk - Taksimo with capacity of 27 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	57	2
Reconstruction of public railway tracks at section Taksimo- Novaya Chara with capacity of 32 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	58	2
Reconstruction of public railway tracks at section Novaya Chara - Khani with capacity of 28 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	59	2
Reconstruction of public railway tracks at section Khani - Tynda with capacity of 33 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	60	2
Reconstruction of public railway tracks in section Ozherelye - Uzlovaya - Yelets with capacity of 154 train-pairs per day	RF Programmes	No	No	No	Yes Small volume	61	2
Railway line Sosnogorsk - Indiga	RF strategic documents	No	No	No	Yes Large volume	62	3
Connection tracks between Savelovskaya line and Smolensk-Kursk diameter, construction of 2.56 km of public railway (along the Riga line tracks)	RF Programmes	No	No	No	No	63	3
Railway section Moscow-Passazhyrskaya-Oktyabrskaya - Kryukovo, construction of 28.3 km of main public railway track IV	RF Programmes	No	No	No	No	64	3
Railway section Presnya - Likhobory - Kozhukhovo, construction of 40 km of main public railway track III	RF Programmes	No	No	No	No	65	3
Railway section Rabochiy Poselok - Usovo, reconstruction of 15.634 km of public railway track as part of the higher-speed railway project using Aeroexpress trains at Moscow-Passazhyrskaya-Smolenskaya-Usovo section	RF Programmes	No	No	No	No	66	3
Railway section Tynda- Neryungri, capacity of 21 train-pairs per day	RF Programmes	No	No	No	No	67	3
Railway section Tynda - Ulak, capacity of 26 train-pairs per day	RF Programmes	No	No	No	No	68	3
Railway section Fevralsk - Novy Urgal, capacity of 25 train-pairs per day	RF Programmes	No	No	No	No	69	3
Railway section Novy Urgal - Postyshevo, capacity of 23 train-pairs per day	RF Programmes	No	No	No	No	70	3

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway section Postyshevo - Komsomolsk-Sortirovochny, capacity of 29 train-pairs per day	RF Programmes	No	No	No	No	71	3
Railway section Komsomolsk-Sortirovochny - Vanino, capacity of 29 train-pairs per day	RF Programmes	No	No	No	No	72	3
Railway section Tynda - Bamovskaya, capacity of 32 train-pairs per day	RF Programmes	No	No	No	No	73	3
Railway section Komsomolsk-Sortirovochny - Volochayevka, capacity of 28 train-pairs per day	RF Programmes	No	No	No	No	74	3
Reconstruction of public railway tracks at section Tynda - Ulak with capacity of 26 train-pairs per day	RF Programmes	No	No	No	No	75	3
Reconstruction of public railway tracks at section Fevralsk - Novy Urgal with capacity of 25 train-pairs per day	RF Programmes	No	No	No	No	76	3
Reconstruction of public railway tracks at section Novy Urgal - Postyshevo with capacity of 23 train-pairs per day	RF Programmes	No	No	No	No	77	3
Reconstruction of public railway tracks at section Postyshevo - Komsomolsk-Sortirovochny, capacity of 29 train-pairs per day	RF Programmes	No	No	No	No	78	3
Reconstruction of public railway tracks at section Komsomolsk-Sortirovochny - Vanino with capacity of 29 train-pairs per day	RF Programmes	No	No	No	No	79	3
Reconstruction of public railway tracks at section Tynda - Bamovskaya with capacity of 32 train-pairs per day	RF Programmes	No	No	No	No	80	3
Reconstruction of public railway tracks at section Tynda - Neryungri with capacity of 23 train-pairs per day	RF Programmes	No	No	No	No	81	3
Reconstruction of public railway tracks at section Komsomolsk-Sortirovochny - Volochayevka with capacity of 28 train-pairs per day	RF Programmes	No	No	No	No	82	3
Railway section Khabarovsk - Volochaevka, construction of 3 km of additional main public railway tracks	RF Programmes	No	No	No	No	83	3
Reconstruction of 5 km-long railway tunnel under the Amur river near Khabarovsk	RF Programmes	No	No	No	No	84	3
Railway section Baranovsky- Khasan with capacity of 123 train-pairs per day	RF Programmes	No	No	No	No	85	3
Reconstruction of public railway section Baranovsky - Khasan with capacity of 123 train-pairs per day	RF Programmes	No	No	No	No	86	3

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Construction of second track of public railway in section Aksaraiskaya 2 - Maly Aral with capacity of 128 train-pairs per day	RF Programmes	No	No	No	No	87	3
Construction of additional railway tracks in section Palniki - Divya with capacity of 42 train-pairs per day	RF Programmes	No	No	No	No	88	3
Reconstruction of railway tracks and construction of a shunting loop in section Divya - Yarino with capacity of 41 train-pairs per day	RF Programmes	No	No	No	No	89	3
Reconstruction of railway tracks and construction of shunting loops in section Bokovaya - Kukhtaym with capacity of 40 train-pairs per day	RF Programmes	No	No	No	No	90	3
Reconstruction of railway tracks and construction of shunting loops in section Ugleuralskaya - Shestaki with capacity of 39 train-pairs per day	RF Programmes	No	No	No	No	91	3
Construction of second track of the trunk public railway in section Orenburg - Iletsk with capacity of 154 train-pairs per day	RF Programmes	No	No	No	No	92	3
Railway line Bagerovo - Vladislavovka -Dzhankoi	RF Programmes	No	No	No	No	93	3
Tobolsk - Surgut - Korotchaevo, construction of additional second public railway tracks with capacity of 26 train pairs per day	RF Land-use planning scheme	No	No	No	Yes Large volume	94	3
Railway section Murmansk - Petrozavodsk, construction of 327 km of second public railway tracks	RF Land-use planning scheme	No	No	No	Yes Large volume	95	3
Railway section Myagrenka - Kem section of St.Petersburg - Murmansk railway, construction of the second crossing over the river Shuya	RF Land-use planning scheme	No	No	No	Yes Large volume	96	3
Railway section Myagrenka - Kem section of St.Petersburg - Murmansk railway, construction of 4 km-long public railway to increase the section capacity	RF Land-use planning scheme	No	No	No	Yes Large volume	97	3
Construction of 1525 km-long high-speed railway Moscow - Rostov-on-Don - Adler	RF Land-use planning scheme	No	No	No	Yes Small volume	98	3
Reconstruction of public railway section Slyudyanka - Petrovsky Zavod with capacity of 137 train-pairs per day	RF Land-use planning scheme	No	No	No	Yes Small volume	99	3
Reconstruction of public railway section Petrovsky Zavod- Chita 1 with capacity of 153 train-pairs per day	RF Land-use	No	No	No	Yes Small volume	100	3

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
	planning scheme						
Reconstruction of public railway section Chita 1 - Chernyshevsk Zabaikalsky with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	Yes Small volume	101	3
Electrification of public railway section Karasuk (Osolodino) - Tatarskaya - Nazyvayevskaya - Konovalovo, 816.5 km long	RF Land-use planning scheme	No	No	No	Yes Small volume	102	3
Reconstruction of public railway section Pikhtovoye - Vysotsk with capacity of 30 train-pairs per day	RF Land-use planning scheme	No	No	No	Yes Small volume	103	3
Construction of double-track railway section Tikhonovo-Toima and a connecting track to Toima station with capacity of 33 train-pairs per day	RF Land-use planning scheme	No	No	No	Yes Small volume	104	3
Construction of North-Siberian trunk railway section Nizhnevartovsk - Bely Yar - Ust-Ilimsk, 1892 km long, for development and service of Lower Angara industrial area (except for section Yelchimo - Chadobets)	RF Land-use planning scheme	No	No	No	Yes Small volume	105	3
Construction of North-Siberian trunk railway section Yelchimo - Chadobets, 110 km long	RF Land-use planning scheme	No	No	No	Yes Small volume	106	3
Construction of a new double-track electrified railway line Tatarskaya - Nazyvayevskaya, 295 km long, as part of Omsk railway junction by-pass construction	RF Land-use planning scheme	No	No	No	Yes Small volume	107	3
By-pass of Chita railway junction and construction of a new electrified single-track line from Chernovskaya station to Antipikha station, 27 km long	RF Land-use planning scheme	No	No	No	Yes Small volume	108	3
Reconstruction of public railway section Moscow - Adler, 1384 km long, and construction of the new railway line Prokhorovka - Zhuravka - Chertkovo - Bataisk	RF Land-use planning scheme	No	No	No	Yes Small volume	109	3
Reconstruction of public railway section Novosibirsk - Omsk, 627 km long	RF Land-use planning scheme	No	No	No	Yes Small volume	110	3
Construction of 205.5 km-long lateral higher speed railway Chernushka - Perm to support passenger traffic on high-speed railway Moscow - Kazan - Ekaterinburg	RF Land-use planning scheme	No	No	No	No	111	4
Construction of 205.6 km-long lateral higher speed railway Chernushka - Ufa to support passenger traffic on high-	RF Land-use	No	No	No	No	112	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
speed railway Moscow - Kazan - Ekaterinburg	planning scheme						
Railway section Mytischy - Pushkino, construction of IV main track, 11.9 km	RF Land-use planning scheme	No	No	No	No	113	4
Railway section Pushkino-Sofrino, construction of 15 km of main track III	RF Land-use planning scheme	No	No	No	No	114	4
Lyubertsy - Lytkarino, reconstruction of 12,5 km-long local railway section due to start of passenger train operation	RF Land-use planning scheme	No	No	No	No	115	4
Railway section Domodedovo (Aviatsionnaya) - Domodedovo Airport, construction of 6.3 km of main public railway track II	RF Land-use planning scheme	No	No	No	No	116	4
Railway section Khimki - Sheremetyevo, construction of 10.7 km of public railway track	RF Land-use planning scheme	No	No	No	No	117	4
Railway section Rostokino - Belokamennaya (PK 114+00), construction of MCC main track IV between Yaroslavskoye and Otkrytoye highway with traffic capacity of 371 train-pair per day	RF Land-use planning scheme	No	No	No	No	118	4
Railway section Enem-Krivenkovskaya, construction of 24 km of additional second tracks	RF Land-use planning scheme	No	No	No	No	119	4
Railway section Enem - Krymskaya, construction of 23 km of additional second tracks	RF Land-use planning scheme	No	No	No	No	120	4
Railway section Timashevskaya - Krymskaya, construction of 112.8 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	121	4
Railway section Yurovsky - Gostagaevsky, construction of 28 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	122	4
Railway section Tomusinskaya - Yerunakovo, construction of 13.7 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	123	4
Railway section Ryamy - Kamen-on-Ob', construction of 3.2 km of additional public railway tracks	RF Land-use planning scheme	No	No	No	No	124	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway section Karasuk - Tatarskaya, construction of 208 km of additional public railway tracks	RF Land-use planning scheme	No	No	No	No	125	4
Railway section lak - Fevralsk, capacity of 23 train-pairs per day	RF Land-use planning scheme	No	No	No	No	126	4
Railway section Shturm - Gorely, capacity of 32 train-pairs per day	RF Land-use planning scheme	No	No	No	No	127	4
Reconstruction of public railway tracks at section Ulak - Fevralsk with capacity of 23 train-pairs per day	RF Land-use planning scheme	No	No	No	No	128	4
Reconstruction of public railway tracks at section Novy Urgal - Izvestkovaya with capacity of 25 train-pairs per day	RF Land-use planning scheme	No	No	No	No	129	4
Chelyabinsk - Nizhnyaya - Kamensk-Uralsky, construction of 56 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	130	4
Railway section Kalino - Levshino, construction of 5.4 km of additional public railway tracks	RF Land-use planning scheme	No	No	No	No	131	4
Railway section Agryz 1 - Kazan, construction of 52.9 km of additional tertiary public railway tracks	RF Land-use planning scheme	No	No	No	No	132	4
Railway section Seyda - Inta, construction of 80.3 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	133	4
Railway section Arkhangelsk - Obozerskaya, construction of 45.9 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	134	4
Railway section Tosno - Lyuban, construction of 29.9 km of tertiary public railway tracks	RF Land-use planning scheme	No	No	No	No	135	4
Railway section Vyborg-passazhirsky - Buslovskaya, construction of 18.3 km of second public railway tracks	RF Land-use planning scheme	No	No	No	No	136	4
Railway section Vyborg - tovarny - Kamennogorsk, construction and electrification of 40 km of second public railway tracks	RF Land-use planning scheme	No	No	No	No	137	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway section Chishmy - Ulyanovsk, construction of 202.3 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	138	4
Railway section Kirov (Lyangasovo) - Kotelnich, construction of 70.6 km of additional tertiary public railway tracks	RF Land-use planning scheme	No	No	No	No	139	4
Railway section Dema - Chishmy, construction of 24.6 km of additional quaternary public railway tracks	RF Land-use planning scheme	No	No	No	No	140	4
Railway section Cherepanovo - Srednesibirskaya, construction of 54.9 km of additional second public railway tracks	RF Land-use planning scheme	No	No	No	No	141	4
Railway section Voskresensk - Golutvin, construction of 27.9 km of additional tertiary public railway tracks	RF Land-use planning scheme	No	No	No	No	142	4
Railway section Sochi - Adler - Veseloye, construction of a 48 km section of public railway track II for Adler - Alpika Service mountain resort combined (road and rail) road construction project	RF Land-use planning scheme	No	No	No	No	143	4
Railway section Tuapse - Adler, reconstruction of public railway tracks with construction of double-track sections at 9 runs with a total operational length of about 30 km	RF Land-use planning scheme	No	No	No	No	144	4
Railway section Adler - Sochi airport, construction of 2.8 km of public railway track	RF Land-use planning scheme	No	No	No	No	145	4
Railway section Oune - Vysokogornaya, reconstruction of a 27 km section of public railway tracks with construction of new 3.892 km bypass of the Kuznetsovsky Tunnel to increase traffic capacity of Komsomolsk-on-Amur - Sovetskaya Gavan line due to increased freight traffic to Port Vanino	RF Land-use planning scheme	No	No	No	No	146	4
Reconstruction of 2.6 km-long bridge crossing over the Amur river (2nd stage)	RF Land-use planning scheme	No	No	No	No	147	4
Railway section Nakhodka Vostochnaya, station development with construction of the second public railway connecting track at Khmylovsky - Nakhodka Vostochnaya	RF Land-use planning scheme	No	No	No	No	148	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
section with capacity of 18 million tonnes of freight per year							
Railway section Sayanskaya - Koshurnikovo, reconstruction of 3 tunnels, 5 km	RF Land-use planning scheme	No	No	No	No	149	4
Railway section Krivenkovskaya - Belorechenskaya, reconstruction of tunnels, total length of 5 km	RF Land-use planning scheme	No	No	No	No	150	4
Railway section Grozny - Nazran, complex reconstruction to restore freight and suburban passenger train service of Grozny - Prokhladny section	RF Land-use planning scheme	No	No	No	No	151	4
Railway section Aksaraiskaya-Astrakhan, reconstruction of the bridge over the Volga River and public railway tracks, 7 km	RF Land-use planning scheme	No	No	No	No	152	4
Bridge across the Kama River at Perm junction, reconstruction of the bridge and public railway tracks, 1.5 km	RF Land-use planning scheme	No	No	No	No	153	4
Railway section Ulyanovsk Central - Akbash, reconstruction of the bridge across the Volga river and public railway tracks, 2.5 km	RF Land-use planning scheme	No	No	No	No	154	4
Railway section Syzran - Bezenchuk, reconstruction of the bridge and public railway tracks, 5 km, in order to unload heavily-loaded Kropachevo route	RF Land-use planning scheme	No	No	No	No	155	4
Railway section Egorshino - Tavda, reconstruction of the bridge across the Tura river and public railway tracks, 0.5 km	RF Land-use planning scheme	No	No	No	No	156	4
Railway section Zhilevo - Ozherelye, reconstruction of the bridge across the Oka river and public railway tracks, 1.2 km	RF Land-use planning scheme	No	No	No	No	157	4
Railway section Liski - Rossosh, reconstruction of the bridge across the Don river and public railway tracks, 0.7 km	RF Land-use planning scheme	No	No	No	No	158	4
Railway section Leo Tolstoy - Yelets, reconstruction of the bridge and public railway tracks, 0.3 km	RF Land-use planning scheme	No	No	No	No	159	4
Railway section Kazan Station - Kazan International Airport, reconstruction of the public railway tracks, 23.5 km, for intermodal transport implementation	RF Land-use planning scheme	No	No	No	No	160	4
Railway section Syzran-Sennaya, electrification of a 170 km section of public railway tracks	RF Land-use planning scheme	No	No	No	No	161	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Railway section Kinel-Orenburg, electrification of a 376 km section of public railway tracks	RF Land-use planning scheme	No	No	No	No	162	4
Railway section Yurovsky - Temryuk - Kavkaz - Taman, electrification of a 110 km section of public railway tracks	RF Land-use planning scheme	No	No	No	No	163	4
Railway section Shunting loop 9th km - Yurovskiy - Anapa, electrification of a 86 km section of public railway tracks	RF Land-use planning scheme	No	No	No	No	164	4
Railway section Karymskaya - Zabaykalsk, electrification of a 365.6 km section of public railway track	RF Land-use planning scheme	No	No	No	No	165	4
Railway section Ulan-Ude - Naushki, electrification of a 253 km section of public railway track for traffic towards Mongolia	RF Land-use planning scheme	No	No	No	No	166	4
Construction of additional public railway tracks in section Taishet-Tagul with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	167	4
Construction of additional public railway tracks in section Smolyaninovo - Nakhodka with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	168	4
Railway section Karymskaya - Zabaikalsk with capacity of 29 train-pairs per day	RF Land-use planning scheme	No	No	No	No	169	4
Railway section Birobidzhan - Leninsk with capacity of 12 train-pairs per day	RF Land-use planning scheme	No	No	No	No	170	4
Capacity increase of railway section Makhalino - Kamyshovaya -State border with China to 9 train-pairs per day	RF Land-use planning scheme	No	No	No	No	171	4
Reconstruction of public railway section Yurty - Taishet with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	172	4
Reconstruction of public railway section Taishet - Slyudyanka with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	173	4
Reconstruction of public railway section Chernyshevsk Zabaikalski - Bamovskaya with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	174	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Reconstruction of public railway section Bamovskaya - Belogorsk with capacity of 153 train-pairs per day	RF Land-use planning scheme	No	No	No	No	175	4
Reconstruction of public railway section Belogorsk - Khabarovsk with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	176	4
Reconstruction of public railway section Khabarovsk - Ussuriysk with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	177	4
Reconstruction of public railway section Ussuriysk -Smolyaninovo with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	178	4
Reconstruction of public railway section Uglovaya -Mys Astafieva with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	179	4
Reconstruction of public railway section Ussuriysk - Rassypnaya Pad with capacity of 123 train-pairs per day	RF Land-use planning scheme	No	No	No	No	180	4
Reconstruction of public railway section Vladivostok - Mys Churkin with capacity of 148 train-pairs per day	RF Land-use planning scheme	No	No	No	No	181	4
Reconstruction of public railway section Pervaya Rechka - Vladivostok with capacity of 148 train-pairs per day	RF Land-use planning scheme	No	No	No	No	182	4
Electrification of railway section Borzya - Zabaikalsk	RF Land-use planning scheme	No	No	No	No	183	4
Reconstruction of Big and Small Novorossiysk tunnels	RF Land-use planning scheme	No	No	No	No	184	4
Reconstruction of local industrial (non-public) railway section Kalische - LAES 2, 7.5 km long	RF Land-use planning scheme	No	No	No	No	185	4
Reconstruction of railway tracks and infrastructure facilities in section Predportovaya - Ligovo	RF Land-use planning scheme	No	No	No	No	186	4
Reconstruction of railway tracks and infrastructure facilities in section Oranienbaum - Bronka	RF Land-use planning scheme	No	No	No	No	187	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Reconstruction of railway tracks and infrastructure facilities in section Bolshaya Izhora - Bronka	RF Land-use planning scheme	No	No	No	No	188	4
Reconstruction of railway tracks and infrastructure facilities in section Kupchinskaya - Rybatskoye	RF Land-use planning scheme	No	No	No	No	189	4
Reconstruction of railway tracks and infrastructure facilities in section Oranienbaum - Stary Petergof	RF Land-use planning scheme	No	No	No	No	190	4
Reconstruction of railway tracks and infrastructure facilities in section Novy Petergof - Strelna	RF Land-use planning scheme	No	No	No	No	191	4
Krymsky railway junction, reconstruction of second main railway in section Krymskaya station - 9 km with capacity of 71 train-pairs per day	RF Land-use planning scheme	No	No	No	No	192	4
Construction of Northern railway by-pass of Perm with capacity of 53 train-pairs per day	RF Land-use planning scheme	No	No	No	No	193	4
Railway crossing of the Strait of Kerch and reconstruction of public railway section Strait of Kerch-Dzhankoy with a branch to Feodosia and Kerch with capacity of 31 train-pairs per day	RF Land-use planning scheme	No	No	No	No	194	4
Construction of railway sidetrack to the crossing of the Strait of Kerch on the Crimean peninsular with capacity of 31 train-pairs per day	RF Land-use planning scheme	No	No	No	No	195	4
Construction of third track of the trunk public railway in section Derbyshki - Arsk with capacity of 187 train-pairs per day	RF Land-use planning scheme	No	No	No	No	196	4
Reconstruction of the main railway track in section St. Petersburg Glavny - St. Petersburg Tovarny-Moskovsky with capacity of 460 train-pairs per day	RF Land-use planning scheme	No	No	No	No	197	4
Reconstruction of the main railway tracks in section St. Petersburg Tovarny-Moskovsky - St. Petersburg Sortirovochny Moskovsky (Obukhovo Park) with capacity of 240 train-pairs per day	RF Land-use planning scheme	No	No	No	No	198	4
Construction of double-track railway section Volkovskaya - St. Petersburg Sortirovochny Moskovsky (Obukhovo Park) with capacity of 240 train-pairs per day	RF Land-use planning scheme	No	No	No	No	199	4
Construction of additional 4th main track in section St. Petersburg	RF Land-use	No	No	No	No	200	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
Sortirovochny Moskovsky (Obukhovo Park) - Tosno with capacity of 460 train-pairs per day	planning scheme						
Construction of single-track non-electrified railway section Polunochnoye - Obskaya - Salekhard, 856 km long, as part of investment project "Industrial Ural - Polar Ural"	RF Land-use planning scheme	No	No	No	No	201	4
Construction of railway line section Petyayarvi - Kamennogorsk, 56 km long, to switch freight traffic to a parallel line due to start of high-speed passenger train operation in the existion railway section St. Petersburg - Vyborg - Buslovskaya - Helsinki	RF Land-use planning scheme	No	No	No	No	202	4
Construction of railway line Murmashi-2 - Lavna, 27 km long	RF Land-use planning scheme	No	No	No	No	203	4
Construction of new Kuznetsovky tunnel in the railway section Komsomolsk -on-Amur - Sovetskaya Gavan, 3.9 km long, to increase the section capacity	RF Land-use planning scheme	No	No	No	No	204	4
Capacity increase and completion of construction of the public railway section Nadym - Pangody - Novy Urengoy - Korotchaevo, 707 km long as part of Northern Latitudinal Railway development	RF Land-use planning scheme	No	No	No	No	205	4
Construction of railway line Biysk - Gorno-Altaisk, 115 km long	RF Land-use planning scheme	No	No	No	No	206	4
Construction of railway line section Kyzyl - Kuragino with capacity of 19 train-pairs per day in connection with development of minerals and raw resources base of Republic of Tuva.	RF Land-use planning scheme	No	No	No	No	207	4
Construction of railway line section Naryn - Lugokan, 223 km long, for development of Bystrinsky deposit of polymetalic ore	RF Land-use planning scheme	No	No	No	No	208	4
Construction of railway line section Payuta - Bovanenkovo, 331 km, to provide transport link to Yamal peninsular	RF Land-use planning scheme	No	No	No	No	209	4
Construction of railway line Ilyinsk - Uglegorsk, 143 km long	RF Land-use planning scheme	No	No	No	No	210	4
Construction of new railway Leninsk - State border of Russia including	RF Land-use	No	No	No	No	211	4

Project name	Policy document type	Implementation period	Interest	Budget specified	New freight volumes	Project Rank	Rank Group
construction of a bridge crossing and reconstruction of the public railway section Birobidzhan - Leninsk, 6 km long, to create a new border crossing point between Russia and China	planning scheme						
By-pass of Yaroslavl railway junction and construction of a new single-track electrified line,27 km long	RF Land-use planning scheme	No	No	No	No	212	4
Construction of railway line between Gagarinsky mining and processing plant and Trans-Siberian Trunk Railway, 148 km long, to be used for transporation of freight in proposed section Shimanovskaya - Gar - Fevralsk,as part of the project for creation of a new ore mining and smelting cluster in Amur region.	RF Land-use planning scheme	No	No	No	No	213	4
Construction of stage 2 of railway line section Pravaya Lena - Yakutsk (in Yakutsk, Pokrovsk and Hangalass district) from Pravaya Lena station with construction of a combined bridge crossing of the Lena river near Yakutsk to River port of Yakutsk (left side of the river) in Republic of Sakha (Yakutia) (in Megino-Kangalass district and city of Yakutsk). Railway length: 104.5 км, length of teh bridge cossing: 3200 m.	RF Land-use planning scheme	No	No	No	No	214	4
Construction of single-track railway section Kalische - Koporye, 16.7 km	RF Land-use planning scheme	No	No	No	No	215	4
Reconstruction of public railway section Moscow - Yaroslavl, 282 km long	RF Land-use planning scheme	No	No	No	No	216	4
Reconstruction of public railway section Moscow - Krasnoye, 487 km long	RF Land-use planning scheme	No	No	No	No	217	4
Reconstruction of public railway section Moscow - Suzemka, 488 km long	RF Land-use planning scheme	No	No	No	No	218	4
Reconstruction of public railway section Moscow - Adler, 1384 km long, and construction of the new railway line Prokhorovka - Zhuravka - Chertkovo - Bataisk	RF Land-use planning scheme	No	No	No	No	219	4

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