Analysis of operating results

Transportation and logistics

Russian Railways operates railway infrastructure, owns rolling stock (through subsidiaries and affiliates) and provides both basic transportation and 3PL/4PL services. The Company is applying advanced logistics technologies, implementing an automated customer relationship management system and a uniform freight transportation service catalogue, and expanding its geography, while also continuing to develop and introduce new services for shippers.

KEY GROWTH AREAS UNDER THE LONG-TERM DEVELOPMENT PROGRAMME

- Building long-term relations with customers, including by linking guaranteed freight volumes to infrastructure, organisational and technical initiatives designed to fully meet the customers' transportation needs
- Improving customer feedback and ensuring high client loyalty, including by putting in place an automated customer relationship management system in the freight transportation segment in Russian Railways and across its subsidiaries and affiliates
- Creating an automated tool to maintain a uniform freight transportation service catalogue giving customers access to the entire range of freight transportation services, offerings and specifications
- Strengthening logistics capabilities to satisfy the customer demand for comprehensive services, including use of global transportation chains and outsourcing logistics for industrial facilities
- Enhancing accuracy of freight shipment schedules by improving the system of shipments with fixed departure and arrival times and reducing delivery time
- Fine-tuning transportation products and services to meet the shippers' needs and developing new products and services
- Developing freight transportation quality standards based on availability, timeliness and reliability of transportation services, cargo safety, choice of logistics, terminal and warehousing services, and delivery speed
- Developing the RZD Express service for small and medium-sized cargo batches
- Introducing RoLa services
- Conducting a dedicated analysis and, if economically feasible, initiating gradual abolition of tariff regulation in certain sufficiently competitive transportation market segments (including container (RoLa) shipping, transportation of light petroleum products, fish, fish products, etc.)
- Enhancing coordination within the Group in order to improve the performance of transportation and logistics subsidiaries and business units
- Launching electronic workflow as a tool to facilitate communication between all participants of the transportation process (including the federal executive authorities and international multimodal freight transportation players)
Key achievements in 2019

- Loaded freight turnover reached 2,601.9 bn tkm (up 0.2% vs 2018).
- Handling volumes went up for iron ore (up 3.5 mt, or 3.0%), chemical and mineral fertilisers (up 1.3 mt, or 2.2%), cement (up 1.2 mt, or 4.7%) and containerised cargoes (up 4.1 mt, or 13.1%).
- The first container train was dispatched from the Bely Rast terminal and logistics centre.
- As part of the initiative to support non-commodity exports, a new Agroexpress service was launched for fast container train shipments of Russian agricultural and food products to China.
- In Q2 2019, Russian Railways jointly with FESCO launched Trans-Siberian LandBridge, a new multimodal transit service for fast transportation of various cargoes, including auto parts and household appliances, from Japan’s ports and South Korea via the Commercial Port of Vladivostok and the Trans-Siberian railway, with subsequent delivery to the consignee’s warehouse in Europe by road. The service helps to halve the overall lead time to 21 days as compared to the traditional deep-sea route and also provides the opportunity to send containers back from Europe to Japan or South Korea. Total Trans-Siberian LandBridge shipments since its launch in May and through the end of 2019 amounted to 27 thousand TEU.
- A certificate of compliance was received for a universal container and piggyback flatcar of 13-5205 type, which can also be used for carrying wheeled transport (100 flatcars are expected to come online in Q1 2020).
- To maintain top-notch quality of service, Russian Railways launched regular Client Days.
- We kept using new logistic technologies to expand our portfolio of integrated end-to-end services (door-to-door, just-in-time, last-mile delivery and others) based on consolidated efforts of all divisions and business units involved in the Company’s transportation and logistics operations.
- New capabilities were launched as part of the Freight Transportation electronic trading platform (FT ETP), including trading in bids to supply rolling stock, transportation planning services for domestic routes, transportation orders for indirect international routes (via Russian sea ports), and cloud services for service providers.
- The Group further developed free IT services, taking a completely new approach to providing information services in 2019. For instance, Russian Railways decided to provide basic information on freight transportation and the technical condition of rolling stock free of charge as part of basic transportation services starting January 2019.
- The AutoAgent project was launched to enable automatic execution of the clients’ transportation documents for empty cars. In 2019, it was also expanded to cover document execution for loaded cars and automatic release of bills of lading.

Amid high volatility in the key sales markets, we focus strongly on driving demand for the Russian Railways services and drawing freight to rail. We also keep streamlining communications with our clients across all aspects of our operations, including tariff policies, regulatory issues and logistic arrangements.”

Alexey Shilo
Deputy CEO, Head of the Centre for Corporate Transport Services
FREIGHT TRANSPORTATION USING RUSSIAN RAILWAYS’ INFRASTRUCTURE

Handling
In 2019, 1,278.1 mt of freight, or an average of 3,501.7 kt per day, was handled by Russian Railways (down 0.9% vs 2018). The decrease was due to reduced transportation of grain, oil and petroleum products, ferrous metals, timber, coal, ferrous scrap metals and industrial commodities.

The reporting year saw lower handling volumes across the board. Domestic and export handling volumes decreased by 1.2% (to 788.2 mt) and 0.8% (to 478.3 mt) respectively.

The shares of domestic and export transportation in the handling breakdown remained almost unchanged vs 2018 and accounted for 61.7% and 37.4% respectively. Shipments of hard coal, bulk oil, construction materials and ores made up the largest part of handling volumes, with their aggregate share amounting to 66.4%.

In 2019, handling volumes declined across tariff classes. The most expensive cargoes (Class III) were the most sensitive to changing market conditions with a drop of 4.4%, while Class II and the cheapest Class I freights only fell by 0.4% and 0.5% respectively.

In Class I, timber was the worst performer with a 8.1% decline. In Class II, grain showed a considerable decrease of 20.1%. Finally, Class III saw ferrous metal handling volumes go down by 5.6%.

Low-margin cargoes dominated the freight shipment structure, gaining 0.2 pp since 2018. The shares of mid- and high-margin cargoes grew by 0.2 pp and decreased by 0.4 pp respectively.

Highlights of freight transportation using Russian Railways’ infrastructure

<table>
<thead>
<tr>
<th>Item</th>
<th>Measurement unit</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>Change vs 2018, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling volumes</td>
<td>mt</td>
<td>1,214.5</td>
<td>1,222.3</td>
<td>1,261.3</td>
<td>1,289.6</td>
<td>1,278.1</td>
<td>–0.9</td>
</tr>
<tr>
<td>daily average</td>
<td>thousand t</td>
<td>3,327.3</td>
<td>3,339.5</td>
<td>3,455.7</td>
<td>3,533.2</td>
<td>3,501.7</td>
<td>–0.9</td>
</tr>
<tr>
<td>Total freight turnover</td>
<td>bn tkm</td>
<td>2,954.9</td>
<td>2,997.8</td>
<td>3,176.7</td>
<td>3,304.8</td>
<td>3,305.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>loaded turnover</td>
<td>bn tkm</td>
<td>2,304.8</td>
<td>2,342.6</td>
<td>2,491.9</td>
<td>2,596.9</td>
<td>2,601.9</td>
<td>0.2</td>
</tr>
<tr>
<td>empty turnover</td>
<td>bn tkm</td>
<td>650.1</td>
<td>655.2</td>
<td>684.8</td>
<td>707.9</td>
<td>703.0</td>
<td>–0.7</td>
</tr>
<tr>
<td>Share of shipments delivered within required (contractual) period</td>
<td>%</td>
<td>92.9</td>
<td>96.1</td>
<td>96.7</td>
<td>97.1</td>
<td>98.4</td>
<td>1.3 pp</td>
</tr>
<tr>
<td>Average loaded car delivery speed</td>
<td>km/day</td>
<td>372</td>
<td>381</td>
<td>386</td>
<td>390</td>
<td>395</td>
<td>1.3</td>
</tr>
<tr>
<td>Average loaded and empty car delivery speed</td>
<td>km/day</td>
<td>341</td>
<td>361</td>
<td>362</td>
<td>370</td>
<td>372</td>
<td>0.6</td>
</tr>
</tbody>
</table>
Handling by transportation type

<table>
<thead>
<tr>
<th>Item</th>
<th>2018</th>
<th>2019</th>
<th>Change vs 2018, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling</td>
<td>1,289.6</td>
<td>1,278.1</td>
<td>-0.9</td>
</tr>
<tr>
<td>Domestic</td>
<td>797.6</td>
<td>788.2</td>
<td>-1.2</td>
</tr>
<tr>
<td>Export</td>
<td>482.3</td>
<td>478.3</td>
<td>-0.8</td>
</tr>
</tbody>
</table>

Including:

| via ports    | 306.3 | 316.9 | 3.5               |
| via border crossings | 176.0 | 161.4 | -8.3              |
| Import and transit | 9.8 | 11.6  | 19.1              |

Handling volumes evolution, mt

<table>
<thead>
<tr>
<th>Year</th>
<th>Handling volume, mt</th>
<th>Change vs 2018, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>1,278.1</td>
<td>-0.9</td>
</tr>
<tr>
<td>2018</td>
<td>1,289.6</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>1,261.3</td>
<td>2.2</td>
</tr>
<tr>
<td>2016</td>
<td>1,222.3</td>
<td>-1.0</td>
</tr>
<tr>
<td>2015</td>
<td>1,214.5</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Domestic handling by cargo type in 2019, %

- Hard coal: 23.0
- Oil and petroleum products: 4.7
- Construction cargoes: 5.7
- Iron and manganese ore: 6.1
- Ferrous metals: 7.5
- Chemical and mineral fertilisers: 20.5
- Timber: 15.5
- Other: 15.5

Export handling by cargo type in 2019, %

- Hard coal: 13.0
- Oil and petroleum products: 4.7
- Iron and manganese ore: 7.5
- Ferrous metals: 20.5
- Chemical and mineral fertilisers: 43.5
- Timber: 12.4
- Other: 12.4
**Freight turnover**

Despite the 0.9% decrease in handling volumes in 2019, the total freight turnover was in line with the 2018 figure, amounting to 3,305.0 bn tkm. Loaded freight turnover accounted for 2,601.9 bn tkm of that, up 0.2% y-o-y. The 0.9% increase in the average haul (from 1,835 km to 1,851 km) was the main factor contributing to the turnover increase.

Domestically, loaded freight turnover contracted by 0.9% to 1,017.0 bn tkm in 2019, which was offset by export shipments via railway stations near ports (up by 5.3%). The export, import and transit turnover increased by 0.2% (to 1,408.5 bn tkm), 8.7% (to 110.3 bn tkm) and 2.5% (to 66.1 bn tkm) respectively. The strong growth in exports is further reducing the share of domestic shipments in overall loaded freight turnover.

In terms of cargo types, in 2019, coal’s and ore’s shares grew by 0.3 pp each, and that of mineral and construction cargoes – by 0.2 pp. The share of oil and petroleum products decreased by 0.4 pp and the share of ferrous metals – by 0.1 pp, compared to 2018.

### Loaded freight turnover evolution

<table>
<thead>
<tr>
<th>Year</th>
<th>Loaded freight turnover, bn tkm</th>
<th>Growth, % y-o-y</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2,601.9</td>
<td>0.2</td>
</tr>
<tr>
<td>2018</td>
<td>2,596.9</td>
<td>4.2</td>
</tr>
<tr>
<td>2017</td>
<td>2,491.9</td>
<td>6.4</td>
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</tr>
<tr>
<td>2015</td>
<td>2,304.8</td>
<td>0.3</td>
</tr>
</tbody>
</table>

- Loaded freight turnover, bn tkm
- Growth, % y-o-y
### Loaded freight turnover breakdown, %

**In direction**

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic</th>
<th>Export</th>
<th>Import</th>
<th>Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>39.1</td>
<td>54.1</td>
<td>4.2</td>
<td>2.5</td>
</tr>
<tr>
<td>2018</td>
<td>39.5</td>
<td>54.1</td>
<td>3.9</td>
<td>2.5</td>
</tr>
<tr>
<td>2017</td>
<td>40.1</td>
<td>53.6</td>
<td>4.0</td>
<td>2.3</td>
</tr>
<tr>
<td>2016</td>
<td>41.7</td>
<td>52.8</td>
<td>3.6</td>
<td>2.0</td>
</tr>
<tr>
<td>2015</td>
<td>43.4</td>
<td>50.8</td>
<td>3.7</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**By cargo type**

- Coal: 16.9
- Oil and petroleum products: 3.8
- Mineral and construction cargoes: 5.8
- Ores: 6.4
- Ferrous metals: 8.0
- Chemical and mineral fertilisers: 14.9
- Other: 44.2

Total turnover: 2,601.9 bn tkm
TRANSPORTATION AND LOGISTICS SERVICES

Operating in a highly competitive and volatile market, Russian Railways seeks to provide comprehensive services across all transportation types and expand its customer offering. Advanced 3PL/4PL logistics technologies lie at the centre of our business, ensuring our ability to serve the maximum number of consumers.

Below are the key achievements made as part of fine-tuning transportation products and services to meet the shippers’ needs and developing new products and services:

- purchases using RZD Market software piloted, with a rail freight transportation service introduced on the Freight Transportation e-commerce platform;
- a memorandum of cooperation signed between the Federal Antimonopoly Service of the Russian Federation, SPIMEX, and Russian Railways to organise exchange trading via a company from the Russian Railways Group acting as the commodity pool operator;
- the Methodology of Using Distributed Ledger (Blockchain) Based Smart Contracts in Russian Railways’ Transportation and Logistics adopted;
- eleven new core transportation and logistics products implemented.

Container solutions remain one of the most promising areas in the transportation and logistics business. Container trains cover more than 450 routes, both domestically and internationally, travelling on average around 800 km/day. The average speed of container trains carrying perishable freight and transit freight is 1,000 km/day and 1,150 km/day respectively.

In 2019, container transportation through Russian Railways’ network reached 5,001.9 thousand TEU, up 12.6% y-o-y, including 3,012.5 thousand TEU carried by container trains, up 20% (506 thousand TEU) vs 2018. As a result, the share of containers transported by container trains in 2019 exceeded 60%, while the share of full train shipments and container shipments increased by 4% vs 2018.

Transit transportation in 2019

In 2019, transit transportation (including empty railcars) stood at 28.54 mt, up 0.4% y-o-y. Container transit, including the return of empty containers from Europe to China under the new logistic arrangements, totalled 618 thousand TEU, up 11.8% y-o-y, including along the following key routes:

- 347.7 thousand TEU via the East–West transport corridor;
• 162.6 thousand TEU on routes to Central Asia;
• 52.6 thousand TEU along the China–Belarus–China axis.

Performance highlights of major transportation and logistics subsidiaries and affiliates

**RZD Logistics**

RZD Logistics is the largest multimodal logistics operator in the CIS and the Baltics established as part of the development of the logistics business of the Russian Railways Group. The company arranges freight transportation to more than 50 regular delivery destinations in Russia, Europe and China and provides logistics services for foreign trade in Eurasia (the CIS, the Baltics, China, Japan, Vietnam, India, and the European Union).

In 2019, Russian Railways launched Trans-Siberian LandBridge, a new multimodal transit service for fast transportation of various cargoes from Japan and South Korea via the Commercial Port of Vladivostok and the Trans-Siberian Railway, with subsequent delivery to the consignee’s warehouse in Europe by road. The service helps to reduce the overall lead time as compared to the traditional deep-sea route and provides the opportunity to send containers back from Europe to Japan and South Korea.

In 2019, Russian Railways launched Trans-Siberian LandBridge, a new multimodal transit service for fast transportation of various cargoes from Japan and South Korea via the Commercial Port of Vladivostok and the Trans-Siberian Railway, with subsequent delivery to the consignee’s warehouse in Europe by road. The service helps to reduce the overall lead time as compared to the traditional deep-sea route and provides the opportunity to send containers back from Europe to Japan and South Korea.

Major projects for industrial companies in 2019 include the expanded partnership with Severstal to provide services to Severstal’s steel mill in the Vologda Region, resulting in a 20% increase in transportation services to the mill, and the arrangement of round runs to transport LPG, sulphur and empty railcars for Tengizchevroil.

GEFCO

GEFCO (a French-based subsidiary of Russian Railways Group) is a global provider of 3PL/4PL logistics solutions and services. With 350 operational sites all over the world and a footprint spanning over 150 countries, the company is among Europe’s Top 10 logistics operators. Russian Railways holds a 75% stake in GEFCO.

In 2019, the company’s revenue was RUB 36,253 m, while net profit totalled RUB 449.3 m, down 11% and 65% y-o-y respectively. The decrease in the company’s performance is attributable to the general macroeconomic conditions and the expiry of the contracts for transportation of socially important cargoes in April 2019.

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The company’s revenue in 2019 grew 2% y-o-y to EUR 4.739 bn. Net profit for the same period totalled EUR 118.2 m (up 22.2%).
In partnership with Russian Railways, GEFCO launched a number of projects in Russia to improve efficiency of the Group’s supply chains and use its assets in joint activities. One of the key projects is multimodal transportation of oversized coal mining machinery and equipment from Europe to Russia.

A number of promising projects were implemented in automobile logistics, the company’s core customer service segment that relies on a fleet of its own auto carriers. In 2019, over 1.6 thousand railcars arrived from Kaliningrad at the operator’s site in Domodedovo. In the reporting year, GEFCO organised transit transportation of over 1 thousand finished cars along the Silk Road from Europe to Russia.

GEFCO was the first to arrange export shipments by rail from Bystrinsky Mining and Processing Plant owned by Norilsk Nickel.

**UTLC ERA**

UTLC Eurasian Rail Alliance (UTLC ERA) develops transit railway container services in Russia, Kazakhstan and Belarus. UTLC ERA is a joint venture of Russian Railways, Belarusian Railway and Kazakhstan Temir Zholy, with each founder having an equal shareholding of 33.33%.

In 2019, its revenue was RUB 27.1 bn and net profit stood at RUB 2.6 bn. Container transit services provided by UTLC ERA totalled 333.02 thousand TEU.

China remains the main driver of transit shipping. The total value of goods shipped by UTLC ERA in 2019 exceeded USD 25 bn. The company’s container transportation footprint in 2019 spanned across 83 routes from China to Europe and 59 routes from Europe to China.

In the reporting year, UTLC ERA was able to significantly increase the speed of transit container trains, with the transit time along the China–Europe–China axis reduced to less than five days².

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1. Here and further: UTLCERA is a joint venture of Russia, Belarus and Kazakhstan.
2. On the base route of UTLCERA Dostyky/Altyńkol-Brest/Brzuži/Svisloch.
Federal Freight Company (FFC) is a network-wide operator of freight rolling stock. The company is a subsidiary of Russian Railways and one of the largest railway freight operators in Russia. FFC runs 15 branches and transport service agencies and has representative offices in Moscow and Kazakhstan.

The company accounts for over 95% of all empty rolling stock offered via the Freight Transportation electronic trading platform (FT ETP).

In 2019, FFC’s revenue was RUB 108.3 bn (up 9.6% y-o-y, under RAS), sales revenue reached RUB 27.8 bn (up 16.3%) and net profit grew to RUB 23.5 bn (up 9.8%).

As at the end of 2019, FFC:
- remained one of the best performing railway operators, according to the INFOLine Rail Russia TOP ranking;
- recognised as the best subsidiary of the Russian Railways Group in terms of economic and financial performance;
- started providing 4PL logistics services to industrial companies;
- carried out pilot RoLa shipments using universal 13-5205 type flatcar;
- started supplying rolling stock as part of the new Rolling Stock Lots service launched at the Freight Transportation electronic trading platform (FT ETP);
- tested the loading and unloading of grain products and mineral and construction cargoes to/from special bulk and unit load containers;
- started developing innovative rolling stock for expedited container transit along the China–Europe route;
- continued to be a leader of the freight rolling stock market in terms of:
  - the share in Freight turnover, total (12.3%);
  - the average annual size of fleet under management (134,600 units);
  - the share in the Russian railcar fleet (11.2%).
IMPROVING THE QUALITY OF TRANSPORTATION SERVICES

**FT ETP progress**
The Freight Transportation electronic trading platform (FT ETP) integrates transportation, rolling stock supply, terminal, warehousing and logistics services of Russian Railways’ subsidiaries into a single marketplace.

The platform currently connects over 70 service providers, including 55 rolling stock operators, three terminal and warehouse operators, three carriers and six stevedores.

Over 250,000 railcars were dispatched across Russian Railways’ network via FT ETP, with over 16 mt of freight shipped, including 4 mt of freight exported. The number of users registered on the platform exceeded 4,600.

In 2019, the Russian Railways Group expanded its offer of digital services, introducing such options as trading in bids to supply rolling stock, empty railcar management, cargo protection and logistics support. On top of that, international freight transportation to Latvia and Finland is now also available.

**Creating freight transportation and logistics centres**
The Comprehensive Plan for Upgrading and Expanding Core Infrastructure until 2024 provides for the implementation of Transport and Logistics Centres federal project.

By now, the first phase of the project has been completed to establish the Kaliningrad transportation and logistics centre and its satellite facility at the Chernyakhovsk station. This is where transit containers going on the Chongqing–Duisburg–Chongqing route are transshipped between the 1,520 mm and 1,435 mm gauge flatcars. The Kaliningrad transportation and logistics centre has therefore opened a new transportation corridor between the EU and China through Russia’s Kaliningrad Region.

The first phase of the Bely Rast project has been piloted. Since 27 December 2019, the transportation and logistics centre has been accommodating container trains.

In 2019, as part of its efforts to introduce new integrated terminal and warehousing
solutions, Russian Railways joined forces with Logbox to implement the Smart Logistics Project. The idea of the project is to create a powerful transportation and logistics centre in the Moscow Metropolitan Area (MMA) to split the current container rail freight flow in two: shipments for Moscow consumers and for those outside the Moscow Ring Road.

**Improving the quality of transportation services**
Russian Railways' key priority in the freight transportation segment is to attract additional cargo volumes and expand the range of logistics products available to the customers. To this end, the Group launched the following high-speed services: Scheduled Freight Traffic and Freight Express. In 2019, 43,410 trains (up 33.5% y-o-y) were dispatched as part of the fixed schedule freight transportation service delivering 79.17 mt of cargo (up 9% y-o-y).

The option of consolidating small-sized cargo batches offered as part of the Freight Express service helps more than halve the delivery time and make transportation by rail as expedient as transportation by road. In 2019, 1,990 trains (up 23%) were dispatched, delivering 2.3 mt of cargo (up 28% y-o-y).

To attract potential customers and provide easier access to its services and infrastructure, Russian Railways opened sales offices across all its network in Russia. Russian Railways is currently operating 45 regional and local sales offices. In 2019, sales offices attracted around 1,000 new railway customers.

Russian Railways employs a multi-channel monitoring system to collect customer feedback. The Company engages Russian Public Opinion Research Centre (VCIOM) and RZD-Partner to conduct comprehensive service quality assessment surveys.

According to VCIOM, as at August 2019, 53% of the respondents were satisfied or quite satisfied with the service quality (up 1 pp y-o-y).