DEVELOPMENT STRATEGY OF RUSSIAN RAILWAYS HOLDING FOR THE PERIOD UNTIL 2030
(GENERAL)
Table of Contents

Introduction ........................................................................................................................................... 3

1. Holding’s current state evaluation ......................................................................................... 5
   1.1. Brief description of the Holding ......................................................................................... 5
   1.2. Major threats to Holding’s development ........................................................................... 7

2. Holding’s mission and strategic objectives ............................................................................. 9

3. Holding development scenarios ............................................................................................... 12

4. Target business model of Russian Railways Holding .............................................................. 13

5. Strategy development of the Holding broken down by key business segments ......................... 15
   5.1. Transport and Logistics Business Segment ...................................................................... 15
   5.2. Passenger operations and service business segment ......................................................... 21
   5.3. Infrastructure Business Segment ..................................................................................... 30
   5.4. International Engineering and Transport Construction business segment ....................... 36
   5.5. Social segment ................................................................................................................... 39

6. Tasks of Holding’s organizational development ....................................................................... 43

7. State support of Holding’s development and main directions of regulatory framework improvement ....................................................................................................................... 45

8. Social and economic effects of Strategy implementation ........................................................ 46
Introduction

Russian Railway Holding (hereinafter referred to as the “Holding”) is the leader of the Russian transport market and one of the largest companies in the global transport sector. During 10 years of its development, JSC RZD has taken a long way of reforming and modernization having ensured transformation of the business model, corporate and organizational structure, changes in the market or railway service in Russia and corporate culture development. In the course of its structural reforming, the Holding has procured attainment of the main objectives – increase in stability, safety and availability of transportation, decrease in transport load on the Russian economy and meeting an increasing demand for transportation.

Current trends in the development of the Russian and global economy make the Holding face new tasks, the settlement of which is both intended to foster accelerated social and economic development of the Russian Federation and ensure Holding’s sustainable development, increase in its global competitive power and business value.

In this regard, elaboration of a long-term development strategy of Russian Railways Holding is a relevant task. The basis for elaboration of the corporate strategy is determined by the tasks established by the Government of the Russian Federation in the forecast of social and economic development of Russia until 2030 and updated Transport Strategy of the Russian Federation for the period until 2030 (hereinafter referred to as the “Transport Strategy”). Strategic documents approved on the state level put the following large-scale tasks before the transport complex:

- establishment of Russia’s common transport space based on well-balanced priority development of the effective transport infrastructure;
- assurance of availability and quality of transport and logistics services in freight traffic in line with country's economic development needs;
- assurance of availability and quality of transport services for the population in line with social standards;
- integration with the global transport space, implementation of the country’s transit potential;
- increased security of the transport system;
- mitigation of adverse environmental impact of the transport system.

Such significant and large-scale tasks may be settled subject to public private partnership that provides for the concentration of efforts and resources of the state as a shareholder of Russian Railways Holding, effective distribution of risks and liabilities for attainment of the targets set.
The proposed Development Strategy of Russian Railways Holding for the period until 2030 (hereinafter referred to as the “Strategy”) sets out tasks and objectives, key priorities and long-term development projects, assesses effectiveness of the activities presented for society and shareholders.
1. **Holding's current state evaluation**

1.1. **Brief description of the Holding**

Russian Railway Holding is the leading railway company in Russia and one of the largest joint stock companies in the global transport sector.

JSCo RZD accounts for 44.5% of cargo turnover and 30.6% of passenger turnover in the country’s entire transport system; it secures 1.7% of the Russian GDP, 1.5% of tax receipts to the budgetary system of the Russian Federation and some 4% of the overall capital investments in Russia.

JSCo RZD is among top 5 largest companies in Russia; it holds leadership among global joint stock companies in transport:

- it ranks 2nd in the world and 1st in Europe in terms of the length of the owned infrastructure and electrified mileages;
- it ranks 2nd in the world and 1st in Europe in terms of cargo turnover;
- it is among 10 world’s and 3 Europe’s largest transport companies in terms of passenger turnover;
- it is one of the most effective railway companies in terms of key performance indicators: infrastructure utilization rate, locomotive performance, cost of carriage, specific consumption of fuel and energy resources in carriage.

Currently, JSCo RZD, a parent company of the holding, owns shares in 143 subsidiaries and affiliates (hereinafter referred to as “S&A”). The overall annual revenue of S&A exceeds 45% in the total revenue of Russian Railways Holding.

Since its incorporation, the company has taken a long way of corporate management establishment and development. Since 2003, during its structural reforming, the industry has seen incorporation of 85 subsidiaries and affiliates, establishment of a corporate management system in line with international standards and assurance of effective interaction with other shareholders of companies. At the same time, to develop market relations and enhance competition in the industry JSCo RZD, sold shares of S&A for a total of 250 bln rubles.

The Holding is one of the most attractive borrowers on the Russian and foreign capital markets. JSCo RZD has stable credit ratings not lower than sovereign ones; it is actively engaged in information disclosure and interacts with investors in an open way, which helps draw down credits and loans on the record terms for Russian companies.

JSCo RZD accounts for 1.3% of employment in the country’s economy (Holding – for more than 1.6%) with some 1% more secured by its regular orders and investments. Holding’s activities at all stages of structural reforming and development are based on the principles of social responsibility and partnership between the employer and labor collective. Assurance of competitiveness of employees’ wages and social support level agreed upon in
the Bargaining Agreement are top priorities of the social policy being implemented.

Russian Railways Holding is one of the largest investors into the Russian economy; during 2004-2012, the volume of Holding’s capital investments exceeded 3 trn rubles in the prices of relevant years. Investments made have secured an increase in international cargo carriage by more than 150 mln tons a year and growth in cargo turnover by 40% compared to 2004. They have also enabled updating of capital assets, track upgrade and implementation of a number of large infrastructure projects.

Since 2004, the Holding has significantly expanded its presence on foreign markets and enhanced its international weight. Currently, Russian Railways Holding has 11 representative offices abroad.

The Holding plays an active role in international transport organizations – Railway Transportation Council of the CIS member-countries, Organization for the Collaboration of Railways, International Union of Railways.

Currently, JSCo RZD is a unique company that occupies a strategic position in the transport complex of the Russian Federation and produces significant influence on many aspects of country’s social and economic development.
1.2. Major threats to Holding’s development

Trends of social and economic development of Russia and country’s railway transport are predetermined by the global challenges that Russian Railways Holding will face in the nearest term and risks related to further effective development.

1) The current and predicted economic situation in the country that features industrial production slowdown implies the risks of the decreased scope of operations for Russian Railways Holding.

2) The Holding operates amidst a lack of investment. With the current trend in terms of the volume of finance, a delay in infrastructure development and upgrade will result in a decrease in the carriage growth rate and adverse implications for the economy and cargo owners:
   - if investment deficit remains, the cargo carriage growth potential will be some 1.5% a year on the average until 2020, some 0.5% until 2030 with an increase in demand for carriage of 2-3% a year on the average;
   - length of bottlenecks may reach 19 th. km by 2020;
   - there will be a significant increase in a number of train speed constraints; cargo delivery rate and reliability will decrease, freight car turnover will continue to decelerate and transportation safety will decrease, which will result in impaired competitive power of the Holding and railway transport compared to other means of transportation.

3) Possible establishment of local carriers and expansion of the fleet of private locomotives implies a risk of decreased income and profit of Russian Railways Holding from cargo carriage. Sale of batches of shares of JSCo FFC and other strategic companies will entail a decrease in the Holding’s income and growth of deficit of funds to implement infrastructure projects.

4) Decrease in competitive power of railway transport compared to other means of transportation and further withdrawal of high paying freight in favor of other means of transportation will result in a low growth rate of the Holding’s revenue base with fixed charges retained, which will require optimization (curtailment) of the railway network or increase in state support.

5) The passenger railway service sector will face considerable development restraints:
   - further passenger service will decrease with curtailment of state subsidies to promote mobility of the population and travelling in parlor cars;
   - the speed of long-distance passenger service will not increase because of infrastructure restrictions and competitive power of railway transport will decrease;
   - there will be a lack of funds for renewal of the passenger car and locomotive fleet.
A share of railway transport in the overall passenger turnover may decrease from 27% in 2012 to 20% in 2030.

6) Without a stable model of operation and financing, the suburban railway service segment will not reach the growth rate compliant with the demand, especially in large agglomerations:
   – railway infrastructure overload will not allow to build up the volume and speed of carriage in large hubs;
   – lack of investment funds will result in decrease in the suburban rolling stock fleet;
   – lack of full compensation of carriers’ shortfall in income by regional budgets will result in curtailment of traffic, route network localization in the most profitable directions, deterioration in service quality and absence of incentives for private investments inflow into the sector.

7) Deterioration of country’s demographics will inevitably result in competition for qualified staff with a relevant level of wages. Failure to keep wages on a competitive level will bring about an outflow of the Holding’s staff, including highly qualified employees.

With current development trends of Russian Railways Holding retained, a gap between consumers’ needs and Holding’s capabilities to meet them may result in economy’s major infrastructure growth restraints before long.

In this regard, the Holding’s strategy includes the objectives, tasks and activities targeted at minimization of the above risks and overcoming of current development restraints.
2. Holding’s mission and strategic objectives

**Mission of Russian Railways Holding** is effective development of the transport business competitive on the Russian and global market with effective performance of tasks of the national railway cargo and passenger carrier and owner of the public railway infrastructure at its core.

**Mission of Russian Railways Holding** is implemented through attainment of the following strategic objectives by 2030:

- Considerably increase the Holding’s business value compared to 2012, conduct effective market launch of shares of JSCo RZD and ensure stable growth of their value;
- Retain leadership in railway cargo carriage in Europe, enhance appeal of railway transport for clients and increase freight traffic by 500-800 mln tons by 2030;
- Enhance client satisfaction through better quality of service with competitive carriage cost retained;
- Become one of top 5 companies of Europe in terms of the logistics business, increase a share of transport and logistics services in the Holding’s business portfolio;
- Ensure effective service of global supply chains of largest Russian and international clients, expand transport and logistics business in Eurasia;
- Ensure preservation of the current share in passenger service of the Russian transport system, increase suburban passenger turnover by 1.8-2.2 times and by 1.3-1.7 times in long-distance and interregional service by 2030;
- Implement projects for the development of high-speed and ultra high-speed service, ensure carriage with a new level of speed accounting for up to 20% (in the passenger turnover structure) by 2030;
- Become one of the world’s top 10 companies in terms of infrastructure construction, ensure generation of a long-term stock of orders and highest level of project implementation;
- Retain global leadership in terms of effectiveness, safety and quality of infrastructure services;
- Ensure consistent renewal of assets using innovative technologies and solutions based of effective management of life cycle cost, availability and reliability of capital assets;
- Become one of top 5 most attractive large corporate employers of Russia, employ the best specialists in the Holding through the guarantee of
competitive wages, increase in performance, improvement of labor conditions and relevant social package;
– Place a priority on “green” technologies and ensure double decrease in environmental load;
– Consistently streamline the Holding’s business portfolio in line with the strategy chosen, focus efforts on core and most effective businesses, ensure stable synergy between Holding’s elements.

**Strategic objectives will be attained with regard to Holding’s values:**
– Exceptional safety of all processes;
– Loyalty to traditions, support of corporate values;
– Customer-oriented approach, long-term mutually beneficial partnership with clients, continuous development of the products and services portfolio for the benefit of consumers;
– Balance between the interests of the state, consumers, Company and private shareholders;
– Effective social partnership and social responsibility;
– Continuous improvement, search for the ways to improve the quality of services and enhance performance; commitment to innovations;
– Openness, transparency, feasibility of operations, compliance with the best corporate management standards;
– Promotion of conditions for employees’ professional and personal development;
– Willingness to improve Russia’s transport service and enhance availability of transport services for businesses and population;
– Attainment of global competitiveness on the transport and logistics market;
– Effectiveness of processes, focus on sound use of all types of resources, reduced environmental impact.

**The Strategy will be implemented through:**
– Elaboration of a business model by 5 key segments and strategy to attain targets for each segment and Holding as a whole;
– Clear definition of objectives, establishment of strategic development parameters for each business segment;
– Elaboration of the strategic initiatives targeted at attainment of target parameters for segments;
– Elaboration and application of the corporate policies, programs and standards targeted at Strategy implementation;
– Close integration of strategic and operational management systems;
– Evolution of the Holding management system along with implementation of the Strategy and improvement of the business model;
– Effective interaction with the state as related to improvement of the regulatory model and compensation for a shortfall in income as part of public commitments;
– Implementation of an effective financial, investment and credit policy in line with strategic tasks and objectives;
– Continuous staff training and motivation to reach targets;
– Open interaction with society, experts and clients.
3. **Holding development scenarios**

Macroeconomic parameters of the Holding's development strategy are based on the long-term forecasts, state strategies, programs and concepts approved on the governmental level\(^1\).

Long-term forecasts of social and economic development of the Russian Federation until 2030 elaborated by the Russian Ministry of Economic Development provide for three scenarios of social and economic development in the longer term – conservative, innovative and target (forced).

This has been used as the basis for the development of 3 Holding development scenarios:

Pessimistic scenario is based on the conservative scenario of the long-term forecast of social and economic development of the Russian Federation and it provides for Holding's inertial development without a major transformation of the business model and increase in development investments. Holding's business growth rates are restricted due to an increase in railway infrastructure bottlenecks, decreased cargo and passenger turnover growth rates.

The conservative scenario of the Strategy is also based on the conservative scenario of the long-term forecast of social and economic development of the Russian Federation, but it provides for the minimum required development of infrastructure to meet the demand of economy for carriage, increase in passenger service subject to better state support as to passenger complex development and creation of a control network of high-speed and ultra high-speed railway lines. This scenario corresponds to the baseline scenario of the Transport Strategy of the Russian Federation until 2030 approved at the meeting of the Government of the Russian Federation dated August 27, 2013.

The optimistic scenario of the Strategy is based on an innovative scenario of long-term forecast of social and economic development of the Russian Federation and it provides for complete satisfaction of the demand for cargo carriage, dynamic growth in passenger service thanks to active development of ultra high-speed, high-speed and intracity service subject to state support. This scenario corresponds to the innovative scenario of the Transport Strategy.

The Strategy presented is based on the conservative scenario as the most probable one. If economy develops in line with the optimistic scenario, this will yield additional opportunities for the development of Russian Railways Holding. Pessimistic scenario is not actually a development scenario and it is not addressed in the Strategy in full.

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4. Target business model of Russian Railways Holding

Recently, prerequisites have been created to elaborate a new business model that provides for management of large business segments with regard to common tasks, technologies and additional synergy from coordinated activities. The target business model determines well-balanced and interrelated development of Russian Railways Holding in five key segments:

1. **Transport and logistics business segment** A strategic development priority for this business segment is generation of a diversified product portfolio of Russian Railways Holding with transition from provision of mainly carriage services to provision of comprehensive integrated “door-to-door” services to cargo owners and consistent range expansion from 2PL to 3PL, 4PL services and establishment of global logistics chains.

2. **Passenger operations and service** A strategic development priority for this business segment is expansion of supply to consumers of modern transport services that provide for accelerated and more combined traffic, increase in the quality of traditional service in trains and adjacent areas. One of the key directions is expansion of the range of high-speed and ultra high-speed carriage between country’s largest agglomerations based on advanced effective solutions.

   Expansion of the scale of this business is closely related to the state model of population’s increased mobility, provision of transport services to persons entitled to benefits, public order for socially significant passenger service and regulation of interspecific competition.

3. **Infrastructure** Strategic priorities of infrastructure development are conditioned by its naturally monopolistic character and include curtailment of infrastructure costs, improved opportunities for the design of new transport and logistics products (speed, reliability of infrastructure services, increase in carriage capacities), network upgrade and construction of additional main tracks that pay back to adapt to increasing traffic.

   A peculiarity of this business segment development is preservation of a public nature of services, state regulation as a subject of natural monopoly and equal accessibility to consumers.

   The infrastructure segment comprises not only infrastructure proper, but also traffic control, operation and traction repair complexes.

4. **International engineering and transport construction** A strategic priority for this segment development is consolidation and expansion of Holding’s presence on the market of international railway engineering and transport construction, laying the groundwork for the expansion of other businesses of the Holding on the markets of its presence as a contractor when infrastructure facilities are erected. This segment is planned to be actively developed based on the unique competences that the Holding has in design and
construction of railway transport facilities, creation of complex systems for infrastructure and carriage management, traffic control, railway economy and finance management.

5. **Social business segment** Development strategy of Russian Railways Holding is based on understanding of significance of the Holding's team as a key asset able to ensure attainment of long-term development objectives and perception of Holding’s social services as an important competitive advantage. In this regard, social segment development is based on objective assessment of the added value created thanks to social support of the team and effective use of this segment to provide market services. Holding’s social and public policy implemented outside of the team is an integral part of this segment.
5. Strategy development of the Holding broken down by key business segments

5.1. Transport and Logistics Business Segment

Current state evaluation

According to analytical research findings, in 2012, the volume of the market of transport and logistics services amounted to some 2.6 trillion rubles. Since 2004, the volume of the market of transport and logistics services in Russia has grown by 20% in comparable prices after a dramatic drop (some 11%) in 2009 affected by the crisis and decline in demand for transportation. Cargo turnover accrued 11.2% compared to 2004. At the same time, after the crisis of 2008, air and road transport have accelerated cargo turnover growth rates.

In 2012, railway transport accounted for 44.5% of the transport system’s cargo turnover. Russian Railways Holding occupied some 44% of the market in value terms. Some 90% of Holding’s proceeds in this business are generated by a regulated carriage service – infrastructure and traction. Remaining 10% of proceeds are secured by the operator business and high added-value services. International sales of the Holding account for no more than 3% (some 11% with GEFCO), which conditions strong dependence of the business on the Russian economy and volume of raw materials export and restricts Holding’s comprehensive insight into international markets and international clients.

Considering restricted capabilities to increase business scope and profitability in the carriage segments controlled by the state, the Holding has set upon expansion of activities in deregulated segments of the transport and logistics market:

- 2010 saw incorporation of subsidiary JSCo RZD-Logistika that provides comprehensive forwarding and logistics services;
- 2010 saw incorporation of Bely Rast Terminal and Logistics Center LLC;
- 2012 saw acquisition of 75% of shares in one of Europe’s largest logistics companies GEFCO;
- management of JSCo RZD approved concepts for the development of container carriage and terminal logistics complexes.

Efforts made have enabled strategic development of the transport and logistics business segment in the longer term.

Market forecast until 2030
Development forecast of the market of transport and logistics services implies preservation of the trends that have persisted over the last years:
- shares of logistics, forwarding and warehouse services in the total volume of the transport and logistics market will grow;
- much budgetary funds will be allocated for road industry development; road system will become much more dense;
- growth rates of the road transport cargo turnover until 2030 will be twice as high as that of the railway transport;
- there will be continued implementation of projects for pipeline and product line network expansion.

The period until 2030 is expected to see a considerable increase in the outsourcing logistics market, which is conditioned by market’s organic growth and increase in the outsourcing share in logistics costs. Accelerated development of logistics and manufacturers’ cost transfer from own transport departments to logistics outsourcing will help this segment grow faster than GDP subject to optimization of the overall level of transport costs.

The basic carriage service will remain significant to the market, but its market share will reduce and it will reach 80% by 2030. This high share (compared to American and European markets) is due to the scale of the country and freight structure (high share of raw materials that need no complex logistics).

The draft Transport Strategy provides for various rates of transport development. Public railway transport is expected to show the lowest cargo turnover growth rate by 2030 with preservation of its role-defining category and market share 83% (without pipeline transport). At the same time, long-term forecast of social and economic development of the Russian Federation provides for indexation of cargo carriage rates at the inflation level.

Predicted changes will result in a decreased share of traditional railway carriage in cargo turnover and volume of the transport and logistics market. In case of an increased length of infrastructure bottlenecks and absence of major changes in the quality of services, a share of railways may go down dramatically.

**Development tasks for the transport and logistics business of Russian Railways Holding**

The main development tasks for the transport and logistics business of Russian Railways Holding are as follows:
- increase in Holding’s competitive power on the freight market;
- increase in a share of high-margin cargo and meeting an increasing demand for bulk cargo carriage;
establishment of long-term relations with clients, improvement of the feedback with consumers;
- increase in market flexibility and business expansion in deregulated segments subject to effective provision of public services in the naturally monopolistic segment;
- development of logistics capabilities to meet clients’ demand for integrated services, including in global transport chains;
- 2-3-fold increase in transit freight traffic by 2030;
- development of new products and services in railway service;
- strengthening relations with key partners on the transport market;
- assurance of steady gain in cash flows for the development of the carriage and logistics business and infrastructure;
- mitigation of the risks related to high volatility of raw materials markets and instability of export cargo traffic.

To settle the tasks set, Russian Railways Holding is elaborating a business model of an international carriage and logistics company through business development in non-regulated segments: rolling stock operation, development of terminals and warehouses, provision of logistics services and logistics outsourcing, international carriage. The Holding will continue its systemic efforts to improve and enhance appeal of the basic railway carriage service.

**Main directions of development of the transport and logistics business segment of Russian Railways Holding**

Attainment of Holding’s strategic tasks requires development of both traditional carriage and new products and services in the dynamic logistics segment.

In the railway carriage segment, Holding’s development will be based on a number of strategic directions:

1. Meeting demand for increasing traditional carriage services with regard to infrastructure capabilities.
2. Proactive relations with consignors that expect a significant gain in loading or have a significant volume of traffic handled using other means of transportation, coordination of activities with ports.
3. Improvement of service quality, increase in the speed of cargo delivery for all types of deliveries, enhancement of carriage routing, expedient development of carriage according to the schedule, increase in a share of supplies delivered when due. Expansion of the range of special-purpose products and services for the attraction of high paying freight and transit cargo traffic.
4. Establishment of long term carriage contracts with major accounts, including subject to “take or pay”, elaboration of solutions to streamline cargo traffic, reduce transportation intensity of processes, optimization of loaded and empty car transportation range jointly with major accounts.

5. Improvement of commercial relations with other participants of the carriage process – industrial railway transport enterprises, rolling stock operators, specialized transport divisions of large consignors.

6. Development of the system of sale of freight traffic, expansion of a range of electronic services and remote sale capabilities and co-operation with sales divisions of the Holding.

7. Improvement of the tariff policy, co-operation with public authorities as related to preparation of a new freight traffic price list, improvement of the flexible tariff policy, deregulation of tariffs in competitive segments of the market.

8. Improvement of Holding’s internal processes, including as related to interaction between divisions of the infrastructure business segment and transport and logistics business segment.

At the same time, increase in cargo turnover and carriage performance is not enough for the Holding to dramatically enhance its competitive power, business profitability and return on capital employed. This is why Russian Railways Holding will continue expansion of the current supply of the basic carriage service and offer additional services in such market segments as forwarding, logistics, rolling stock operation and terminal and warehouse handling of cargo.

A development task in the segment of logistics services is an increase in clients’ satisfaction and marginality per ton for traditional carriage with a relatively low demand for investments for the development of the logistics business.

A key to success in the logistics business is effective and guaranteed provision of services to major accounts, the largest of which are the transnational companies operating on the global market.

This requires further development of the Holding’s business beyond the Russian Federation and consolidation of GEFCO’s positions on promising markets.

Attainment of the above objectives requires at least twofold increase in the scope of the business related to carriage; first of all, through expansion of presence in logistics, rolling stock operation in the Russian Federation and enhanced activities in the “1,520 space” and on the Eurasian market.

To this end, during the period until 2030, the Holding will focus on three directions:

– creation of additional cargo traffic and increase in profitability by way of increased sale of comprehensive services;
– development of the transit potential of the Russian Federation and better control over export and import streams;
– establishment of a strong player on the Eurasian market based on the platform of subsidiaries.

A number of strategic initiatives intended to foster development in key segments has been elaborated to support successful transition to the chosen business model.

Control parameters of the target state of the transport and logistics business segment in line with the conservative scenario are provided in table 5.1.1.

### Table 5.1.1

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit of measurement</th>
<th>2012</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>Interest</td>
<td>100%</td>
<td>+178%</td>
<td>+368%</td>
<td>+750%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Interest</td>
<td>100%</td>
<td>+45%</td>
<td>+231%</td>
<td>+487%</td>
</tr>
<tr>
<td>Investment volume net of VAT</td>
<td>billion rubles</td>
<td>0.5</td>
<td>198.2</td>
<td>670.6</td>
<td>1756.9</td>
</tr>
<tr>
<td>Return on capital employed (ROCE)</td>
<td>Interest</td>
<td>20.4%</td>
<td>19.6%</td>
<td>21.2%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Debt/EBITDA</td>
<td>times</td>
<td>0.4</td>
<td>0.7</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Load</td>
<td>million tons</td>
<td>1 271.9</td>
<td>1 309.4</td>
<td>1 590.0</td>
<td>1 786.2</td>
</tr>
<tr>
<td>Freight turnover</td>
<td>billion ton-km</td>
<td>2 782.6</td>
<td>2 932.0</td>
<td>3 418.1</td>
<td>3 905.4</td>
</tr>
<tr>
<td>Share of transport and logistics services in the business portfolio of Russian Railways Holding</td>
<td>Interest</td>
<td>10%</td>
<td>20%</td>
<td>23%</td>
<td>23%</td>
</tr>
</tbody>
</table>

### Key risks of implementation of the strategy of the transport and logistics business

Key risks of successful implementation of the strategy are mainly internal restrictions and risks of state regulation. The main of them are as follows:
- lack of managerial resources for the development in all new directions;
- complexity of repositioning of the Holding as an effective vendor of logistics services (instead of an image of a monopolistic inflexible carrier);
- preservation of internal competition and poor co-operation between business units;
- lack of governmental decisions in regulatory control and tariff regulation;

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2 In the prices of corresponding years.
3 on an accumulated basis since 2013
- preservation of infrastructure constraints of growth of traffic and carriage quality;
- regulatory decisions that hamper Holding’s development targeted at further redistribution of the most marginal carriage segments to private players. At the same time, market risks will retain their significant impact:
  - adverse macroeconomic situation, economic stagnation in the years coming;
  - decline in raw materials prices;
  - priority development of the road and pipeline infrastructure;
  - aggressive policy of global and local competitors.
In the course of implementation of strategic initiatives, transport and logistic business segment management bodies will ensure management of relevant risks.
5.2. Passenger operations and service business segment

Current state evaluation

The current state of passenger service in Russia may be described as negative:
- in terms of mobility of the population, Russia is well behind developed countries while railway transport covers only some 14% of the overall mobility level;
- the volume of passenger service and passenger turnover for public transport is much lower than the level attained in the USSR with the main drop in passenger turnover experienced by railway transport and buses;
  - vehicle-to-population ratio in increasing at a quickened pace; over the last 10 years, the fleet of private cars has accrued more than 10 mln units;
  - over the last 10 years, the growth rate of population’s expenses on public transport services has been far behind the growth rate of earnings and expenses on goods and services of the population.

Thus, recent years have seen a stable trend towards a decline in the demand for public transport services and allocation of increasing funds on the use of private cars. According to experts, passenger turnover of private cars currently exceeds passenger turnover of public transport of all types.

In 2012, JSCo RZD accounted for 30% of the market of passenger intrastate carriage in terms of passenger turnover. Aviation accounted for some 17.5% of passenger turnover, buses and urban transport – some 46% of passenger turnover. A stable trend of the post-crisis period has been an increased share of aviation transport with a decline in the share of buses and railway transport. This means that service users prefer more expensive, but at the same time more comfortable private cars and flights; with enhanced wellbeing, consumer preferences shift to the sector of services of higher quality. Similarly, high-speed and ultra high-speed interregional, suburban and intracity carriage of the Holding enjoys high demand.

The main constraints for more dynamic development of this business segment are as follows:
- limited sources of investments;
- preservation of cross-subsidies;
- absence of long-term decisions as related to the tariff policy and state support;
- incomplete financing of social commitments at the expense of regional budgets and resulting decrease in a number of routes and supply of transport solutions on the market;
- infrastructure restrictions that hamper increase in traffic and prevent full use of speed capacities of the available rolling stock.
Market forecast until 2030

In line with parameters of the draft Transport Strategy of the Russian Federation until 2030, demand for passenger service may increase by 1.8-2.1 times with a relevant increase in passenger turnover. This is due to a predicted gain in population’s transport mobility (with regard to a low base) with an increase in real available income of the population and bringing the transport system to the level of developed countries. In terms of value, the market of public passenger service may increase by 3.5-4 times.

The most significant market growth in absolute terms will be related to economic development of country’s largest agglomerations where social and economic development will be concentrated. According to estimates, by 2030, a share of economies of Russian agglomerations in GDP may reach 57-60% with 35-37% of the country’s population residing in them.

In this situation, the Holding will face unique opportunities to secure an increase in the passenger business. However, this will require elaboration and market launch of brand new products and services at affordable prices and assurance of competitive power of railway service compared to the main competitors – air and road transport. It is obvious that with the current business model preserved and without a dramatic change in technologies and state support, railway transport in general and the Holding in particular will curtail passenger turnover with the general market growth.

Development tasks of the passenger operations and service business segment of Russian Railways Holding

Tasks of the Passenger Operations and Service business segment are determined by the Transport Strategy and business development targets; they are to focus on three strategic directions:

- stabilization of the railway transport share on the growing market of passenger service;
- co-operation with regulating public authorities, assurance of state support of railway service with regard to its social and economic performance;
- increase in economic performance of carriage and related additional business activities.

With regard to complexity and diversity of the passenger service market, operations as part of the business segment will focus on three main segments:

- ultra high-speed and high-speed service;
- traditional long-distance service;
- suburban and intracity service.
Considering a determining role of state policy measures for the promotion and regulation of population’s transport mobility, improvement of co-operation with the state as a transport regulator, largest investor in its development and Holding’s shareholder is strategically important. As related to Holding’s co-operation with regulators, the following are the priority tasks:

- determination and approval of parameters of a public order for passenger service for a long term;
- assurance of break-even of the socially-oriented carriage performed as part of the public order for the Holding;
- elaboration and implementation of the long-term program for the development of the allocated infrastructure for ultra high-speed and high-speed service;
- procurement of state funds as a source of development investments.

Thus, the state is a key constituent in implementation of the long-term program for the development of passenger railway service and business segment development strategy.

An important thing is that the relevant approach corresponds to the Transport Strategy that provides for the tasks of major qualitative transformation of passenger railway service with implementation of large-scale investment projects.

**Main directions of strategic development of the Passenger Operations and Service business segment**

Preservation of the Holding’s share on the passenger service market requires implementation of the measures targeted at an increased infrastructure capacity, dramatic increase in passenger train speed, optimization of the route network in line with the demand, rolling stock renewal and enhanced appeal of the railway station environment. Most of the specified development directions are related to large investment.

In this regard, scenario conditions for the development of this business segment differ not only with their macroeconomic parameters, but also portfolio and period of implementation of strategic projects with regard to available sources of their finance.

Pessimistic scenario provides for implementation of a restricted number of projects, with regard to which a financing decision has been made – preservation of the rate of rolling stock renewal and passenger equipment on the current level, partial implementation of a project for upgrade of the Moscow Transport Hub, limited expansion of the range of high-speed service and
absence of allocated HSL in the construction project portfolio. This development scenario does not correspond to Transport Strategy parameters.

Conservative scenario features significant investments in the development of the Moscow Transport Hub and railway infrastructure of a number of country’s largest agglomerations, construction of 3 Ultra-High Speed Line projects until 2030 (Moscow – Ekaterinburg, Moscow – Adler, Moscow – St. Petersburg) and implementation of 14 projects for the arrangement of high-speed service with a relevant focus of railway lines on cargo and passenger carriage. This approach is in line with the baseline scenario of the Transport Strategy.

Optimistic scenario provides for a possibility to increase state investments in railway development, which enables implementation of another Ultra-High Speed Line project on the Kazan – Samara route and acceleration of the launch of high-speed service on the Moscow – Tula – Kursk route until 2020. Launch of the Moscow – Adler Ultra-High Speed Line is also accelerated from 2030 (conservative scenario) to 2025 in the optimistic scenario. This scenario is based on the innovative scenario of the Transport Strategy.

This said, the conservative and optimistic development scenarios provide for implementation of a number of projects based on the principles of social and economic performance and return on budgetary funds invested thanks to external economic and budgetary effects.

**Strategic development of suburban passenger service**

Suburban service has the following priority tasks:
- increase in operational performance of suburban passenger companies;
- meeting demand on the most busy routes and growing markets (in the first place, in agglomerations);
- increase in appeal of suburban service for consumers through rolling stock renewal, optimization of running times, increase in the route speed and improvement of the tickets sale system;
- assurance of complete coverage of a shortfall in income under public order;
- development of intracity service technologies and integration of urban railway routes with suburban service and carriage using other means of transport;
- implementation of the commercial potential of railway stations that serve more than 2.6 mln passengers a day.
The Strategy provides for break-even of the suburban complex under all scenarios due to implementation of internal optimization measures and allocation of state support funds in the required scope.

Internal optimization activities will be targeted at increased collection of fare, optimization of transport operation and increase in train occupancy, curtailment of ticket sale costs, optimization of specifications of the rolling stock being purchased and its maintenance expenses.

The most important task is suburban service development in the largest agglomerations. Increase in the speed in the main directions will help attract significant passenger flow and improve economic and social state of regions.

Further development of service in the Moscow Transport Hub is an individual development priority. The solution provides for completion of the project for the development of carriage along the Smaller Ring of the Moscow Railways, expansion of the infrastructure of all radial directions with an increase in the number of “clock traffic” routes, increase in traffic of Aeroexpress trains to preserve a share of the airport transportation market at a level of at least 25%.

Besides, a special focus shall be made on upgrading of the infrastructure of railway stations and construction of multi-purpose transport and interchange stations (hereinafter referred to as TIS) for integration of suburban and intracity service with urban transport.

Regulatory conditions required for the implementation of this direction of the strategy of the Passenger Operations and Service business segment include:

- approval of the concept of development of suburban passenger service by railway and an action plan to ensure its implementation by the Russian Government;
- approval of a long-term mechanism of operational subsidizing of carriers from federal budgetary funds subject to obligatory full compensation for a shortfall in income due to public order performance;
- financing of activities to develop the suburban service complex and expansion of the infrastructure capacity as part of state and regional programs;
- elaboration and regulatory documentation of an effective system of ticket fines and introduction of an effective mechanism of their collection.

**Strategic development of long-distance passenger service**

The Strategy provides for a gradual decrease in the scope of traditional long-distance passenger service.

In the longer run, it is planned to preserve predominance of socially significant carriage in the regulated segment in the overall long-distance passenger turnover. Holding’s strategic task is to gradually decrease the volume of state subsidies with regard to this carriage by way of improvement of the carriage technology, optimization of the route network and running times,
increase in flexibility of the tariff policy and transition of the passenger flow to high-speed railway service.

Strategy of development of long-distance passenger service may only be implemented subject to establishment of the required regulatory and legal framework, including as related to subsidizing of construction of the allocated infrastructure and assurance of the Ultra-High Speed Lines operation. Another key factor for the development of traditional long-distance service will be a long-term, predictable and economically feasible public order for socially important regulated carriage.

**Strategic development of high-speed and ultra high-speed railway transport**

International experience of passenger transport development shows that creation of an optimal transport system featuring high economic feasibility, safety and reliability is impossible without development of high-speed and ultra high-speed railway service in densely populated areas and connections between large agglomerations. Development of the network of high-speed and ultra high-speed passenger lines is provided for in the Transport Strategy of the Russian Federation until 2030 and forecast of country’s long-term social and economic development.

The main tasks for the development of high-speed and ultra high-speed service for the Holding are as follows:
- preservation of a share in passenger turnover with an increase in population’s transport mobility and stricter requirements to the level of transport services;
- isolation of cargo and passenger operations in the most loaded directions, infrastructure focus;
- development of technologies of high-speed container carriage of package cargo using Ultra-High Speed Lines;
- transition of a number of routes of long-distance trains to the Ultra-High Speed Line infrastructure in order to speed up service and fully use the rolling stock potential (up to 200 km/h);
- creation of advanced engineering and technical solutions in the Ultra-High Speed Line range for their further application in the railway network.

Moscow-Kazan Ultra-High Speed Line-2 is a top-priority high-speed transport development project (with further extension to Ekaterinburg). This project provides for an additional increase in passenger flow by 5 mln people by 2030 (without regard to attraction of passengers from traditional service types) due to high population density (large agglomerations crossed by the line and adjacent to it), poor development of flight connections and road infrastructure.
Another Ultra-High Speed Line priority project is Moscow – Adler route (hereinafter also referred to as the Center – South Ultra-High Speed Line) that will secure an additional gain in passenger flow by 6.5 mln people by 2030.

The third Ultra-High Speed Line project is the Moscow – St. Petersburg line that will compete for passenger flows with alternative types of service.

The last priority is on the project for construction of the Kazan – Samara ultra-high-speed line. This project is not implemented under the conservative scenario.

Ultra-High Speed Line construction projects will be implemented subject to public private partnership.

It should be noted that Ultra-High Speed Line and rapid transit development will secure a considerable multiplier effect for the economy that will significantly outstrip a fiscal effect from carriage operations. Besides, an increase in population’s transport mobility secured by high-speed railway service development will help ensure saving of alternative investments into the development of highways, airfields and airports and purchase of regional aircraft. Ecological friendliness and safety of the transport system will grow.

**Development strategy for passenger railway stations and equipment**

Strategic directions of passenger service development provide for a significant increase in passenger flow via passenger stations and equipment. The Strategy provides for no significant expansion of the geography of railway station complexes and construction of new railway stations (except for new railway stations for Ultra-High Speed Lines and individual projects in large cities). Thus, load of the infrastructure related to passenger service at railway stations will significantly increase, which requires settlement of a number of strategic tasks:

- development and reconstruction of passenger railway stations and equipment within the existing precinct boundaries;
- effective zoning and arrangement of passenger flows;
- assurance of feasible integration of the railway passenger infrastructure and other means of transport;
- increase in the commercial potential through expansion of commercial areas, attraction of the most reliable and experienced partners for service development, enhancement of appeal of railway station territories as a shopping and recreational space with regard to technology peculiarities and requirements.

Another very significant task is increase in the level of safety at passenger railway stations and better quality of control over passengers’ access to public areas and train. This task will be settled as part of special state programs and projects with regard to budgetary funds allocated for these purposes.
An important element of the Strategy is reconstruction of existing railway station complexes and creation of transport and interchange stations at their basis and construction of new TIS in agglomerations with integration of a railway component. Relevant projects will be implemented in close coordination with regional and local authorities with regard to projects implemented for the development of intracity and suburban railway operations.

Effective performance of tasks in this area requires adjustment of the tariff policy to cover economically feasible costs on the maintenance of railway stations and passenger equipment subject to a rate of profitability to finance investments.

Passenger infrastructure development activities will be financed both at the expense of the Holding and with attraction of private investments and bank financing.

In the absence of state support, the pessimistic scenario of the Strategy will be implemented, which will result in a decreased share of the railway transport in the country’s transport system.

Control parameters of the target state of the Passenger Operations and Service business segment in line with the conservative scenario are provided in table 5.2.1.

Table 5.2.1

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit of measurement</th>
<th>2012</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>Interest</td>
<td>100%</td>
<td>+32%</td>
<td>+112%</td>
<td>+346%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Interest</td>
<td>100%</td>
<td>+19%</td>
<td>+343%</td>
<td>+861%</td>
</tr>
<tr>
<td>Subsidies (operational)</td>
<td>Interest</td>
<td>100%</td>
<td>-27%</td>
<td>-5%</td>
<td>+25%</td>
</tr>
<tr>
<td></td>
<td>billion rubles</td>
<td>23.9</td>
<td>852.7</td>
<td>2,260.0</td>
<td>5,664.8</td>
</tr>
<tr>
<td>including investments of Russian Railways Holding</td>
<td>billion rubles</td>
<td>369.5</td>
<td>966.7</td>
<td>2,343.6</td>
<td></td>
</tr>
<tr>
<td>state support</td>
<td>billion rubles</td>
<td>483.2</td>
<td>1,293.3</td>
<td>3,321.2</td>
<td></td>
</tr>
<tr>
<td>Return on capital employed (ROCE)</td>
<td>Interest</td>
<td>-0.02%</td>
<td>-0.2%</td>
<td>5.5%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Debt/EBITDA</td>
<td>times</td>
<td>0.6</td>
<td>1.7</td>
<td>1.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Passenger traffic</td>
<td>billion passenger-km</td>
<td>144.6</td>
<td>149.8</td>
<td>165.6</td>
<td>202.2</td>
</tr>
<tr>
<td>Average suburban traffic speed</td>
<td>km/h</td>
<td>45</td>
<td>45</td>
<td>до 60 6</td>
<td>up to 60 7</td>
</tr>
<tr>
<td>Length of high-speed and ultra high-speed lines</td>
<td>km</td>
<td>1,250</td>
<td>1,250</td>
<td>3,490</td>
<td>10,635</td>
</tr>
<tr>
<td>including HSL</td>
<td>km</td>
<td>0</td>
<td>0</td>
<td>770</td>
<td>3,731</td>
</tr>
<tr>
<td>Share of long-distance passengers using high-speed and ultra high-</td>
<td>Interest</td>
<td>3%</td>
<td>3%</td>
<td>12%</td>
<td>34%</td>
</tr>
</tbody>
</table>

4 In the prices of corresponding years.
5 Without regard to state support of Ultra-High Speed Line projects (5,668 bln rubles)
6 In large agglomerations after infrastructure reconstruction.
<table>
<thead>
<tr>
<th>Speed lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of the railway transport in the overall passenger turnover</td>
</tr>
<tr>
<td>Proceeds of the railway station complex, including transport and interchange stations</td>
</tr>
</tbody>
</table>

**Key risks for implementation of the strategy of the Passenger Operations and Service business segment**

A major risk for Strategy implementation is a further decline in the passenger service market share as a result of refusal to implement or late performance of strategic projects such as development of Ultra-High Speed Lines, high-speed service and railway systems of agglomerations. Low rate of infrastructure preparation for a qualitative change in the level of passenger train speed and capacity in the main directions keeps the Holding from retaining its market positions and offering competitive products to passengers. In this regard, risk of failure to implement the Transport Strategy as related to railway development due to a lack of state subsidies and funds to implement socially significant projects appears very considerable.

Development of the business segment may be significantly hampered by strict regulation of passenger service tariffs and restriction of their level with a retained high inflation rate of passenger carriers’ expenses and increase in their tax burden.

Risk mitigation activities include consistent interaction with federal executive bodies to improve the regulatory model, substantiate social and economic and budgetary performance of the projects implemented with state support.
5.3. **Infrastructure Business Segment**

**Current state evaluation**

Infrastructure of the public railway transport is an engineering complex that includes public railway track and other structures, railway stations, power supply facilities, communication networks, signals and interlocking system, information complexes and traffic control system and other buildings, structures, facilities, devices and equipment that enable operation of this complex.

Infrastructure complex also includes traction rolling stock as only timely joint operation of infrastructure, traffic control and locomotive management enables increase in performance, secure reliability and safety of transportation.

This is confirmed by global trends: research ordered by the European Railway Community has shown that there is no evidence of growth in operational performance of the railway system in case of separation of infrastructure and carriage and artificial development of competition.

Attempts to separate infrastructure and carriage in the systems that feature high intensity of operations and infrastructure load will result in increased costs and loss of efficiency.

This business segment predominantly operates in natural monopoly with relevant state regulation of tariffs, service rules and rules of access to services.

Currently, the infrastructure complex has the following key problems:
- mismatch between the capacity level in individual directions and demand by the carriage market, some 10.2 th. km of bottlenecks;
- high wear rate of individual infrastructure elements;
- high average age of the locomotive fleet;
- operational unavailability subject to surplus of cars and destruction of the network-wide model of universal car fleet management;
- absence of possibilities for breakthrough increase in reliability, speed and accuracy of service.

This increasingly results in switching of clients with high-value cargo to alternative types of transportation and discontent with the quality of railway service.

Activities of the infrastructure segment are the most important to the Holding; contingent gains classified as infrastructure and traction performance of JSCo RZD account for some 74% of the aggregate income; this segment comprises some 70% of Holding employees and some 75% of its assets.

**Development tasks of the Holding’s infrastructure business segment**
The main tasks for the development of RZD Holding’s infrastructure business segment are as follows:
- development by way of upgrade of the existing and construction of new infrastructure to ensure the predicted volume of cargo and passengers;
- separation of the public infrastructure into passenger and cargo as independent engineering and technology systems, including creation of infrastructure to arrange ultra high-speed service;
- infrastructure development in order to shift to heavy traffic with the trains’ tonnage rating of 9 th. tons and more;
- locomotive fleet renewal and reduced lifecycle cost of traction resources;
- load or restructuring of low-intensity lines, increase in consistency of infrastructure use;
- optimization of costs due to increased energy efficiency and labor performance, proper arrangement of repair and operational activities;
- improvement of carriage management systems in line with market demands and transportation and infrastructure assets development level;
- increase in carriage safety and mitigation of the risks related to human influence on the process;
- gradual decrease in adverse environmental impact of the infrastructure and traction, reduction of hazardous emissions.

Operations of the Holding’s infrastructure business segment should not require cross-subsidies at the expense of other businesses on the operational level, whereas infrastructure development investments are to be substantiated and transparent to the state and be supported by budgetary ad non-budgetary financing in the required scope.

In this regard, a Holding’s strategic task is the attraction, apart from funds of the federal budget and JScO RZD, of such investment sources as money of pension funds, Russian Direct Investment Fund, National Welfare Fund, issue of infrastructure bonds.

In close co-operation with the state, JScO RZD elaborates a possibility to transfer to a regulatory (network) contract tied in to the long-term tariff policy. Russian Railways Holding also co-operates with consignors and involves them in railway infrastructure development based on entering into “take or pay” contracts.

**Strategic initiatives of railway infrastructure development**

Strategic initiatives of infrastructure business development are broken down into three components based on their implementation centers:
transportation control, infrastructure maintenance, upkeep, operation and repair of locomotives.

**Strategic initiatives in transportation control**

1. Focus of individual infrastructure areas on cargo or passenger carriage.
   Implementation of this initiative will secure a number of positive technology effects: steady operation of each system; minimization of freight trains unloading by passenger ones, release of infrastructure for mastering of a promising cargo flow through concentration of passenger service in allocated lines and high-speed areas, increase in speed and reliability of cargo delivery, optimization of infrastructure maintenance standards.

2. Infrastructure development in order to expand the heavy traffic range with the tonnage rating of 9 th. tons.
   Amidst an increasing number of bottlenecks in infrastructure capacity, one of the key directions to enhance its use efficiency is an increase in the weight of freight trains. Subject to relevant infrastructure development, this will enable not only an increase in railway line capacity, but also reduction of the required locomotive fleet in operation.

3. Increase in a number of routes of freight traffic through the development of railway yards.
   The Holding has adopted and is implementing a program for upgrading of the main railway yards in the network, in line with which it intends to increase the length of classification tracks, upgrade fleets, introduce automated marshalling operations management systems and personnel removal from hazardous areas. Implementation of the program will secure a gain in a number of carriage routes and focusing of marshalling operations at fewer highly equipped yards.

4. Creation and development of automated transportation control systems, transfer to paperless technologies.
   Implementation of the initiative will enable setting up of a common information platform for operation of the automated systems that ensure integrated control of operational activities based on the common information model and adaptive planning methods and transfer to paperless technologies.
   A set of automated systems will be used as the basis for the development of adaptive methods of carriage planning, transportation streamlining and planning of production resources in line with the demand for carriage.

5. Optimization of low-density line operation.
   The main directions of activities as part of this initiative are as follows:
   − search for the freight base to increase the line load;
   − optimization of the line service technology, curtailment of costs;
   − shutdown or transfer to interested parties of the lines that feature no growth potential.
Strategic initiatives in infrastructure maintenance and repair

Strategic task is railway track upgrading (reconstruction) using elements of structures that enable decrease in the lifecycle cost in the most heavy-traffic directions.

An important element in this regard is smoothing of seasonal peaks in trackworks and transition to the year-round track repair and reconstruction technology. Besides, the accumulated experience in infrastructure repair at closed hauls will also enjoy strategic development.

In order to increase labor performance and minimize demand for idle time for infrastructure repair, the Holding is implementing a comprehensive program for advanced maintenance vehicles fleet renewal and expansion.

It also intends to introduce a system of comprehensive troubleshooting and remote monitoring of infrastructure, RAT systems based on microprocessor elements with enhanced functional capabilities, modular digital systems of GSM-R, DMR technical radio communication, performance of activities to increase energy efficiency, streamline technology standards, etc.

Besides, ways to improve efficiency of the infrastructure complex include improvement of infrastructure monitoring and troubleshooting systems and engineering structures based on advanced methods and systems and enhanced practices of infrastructure maintenance and service planning based on the actual state with regard to predicted pre-failure conditions and risks.

Another strategic task in infrastructure maintenance and repair is improvement of technology standards with regard to the attained level of methods and technology and scope of introduction of the infrastructure areas repaired or upgraded using advance engineering solutions.

Strategic initiatives in the locomotive complex

Acquisition of locomotives with improved technical characteristics and new-generation locomotives is a priority task for an increase in the volume of carriage, improvement of its qualitative indicators, increase in reliability and efficiency of the traction complex.

Savings of operating expenses thanks to the acquisition of this traction rolling stock are attained by way of improvement of the technical preparedness factor as compared to similar locomotives, decrease in the period and change in the structure of a repair cycle, increase in reliability of locomotives, decrease in specific weight of fuel and energy resources and gain in labor performance of locomotive crews.

Transition to full service maintenance of the locomotive fleet is a strategic direction of development in this area for JSCo RZD.
Besides, introduction of a lean manufacturing system in the locomotive complex will be completed.

Other strategic tasks of the segment include aggregation and optimization of a number of locomotive repair depots; drivers will further on transit to one-person operation in individual types of carriage.

Control parameters of the target state of the Infrastructure business segment in line with the conservative scenario are provided in table 5.3.1.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit of measurement</th>
<th>2012</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>Interest</td>
<td>100%</td>
<td>+16%</td>
<td>+77%</td>
<td>+189%</td>
</tr>
<tr>
<td>Cost of carriage (without depreciation in prices of 2012)</td>
<td>Interest</td>
<td>100%</td>
<td>-3.0%</td>
<td>-4.5%</td>
<td>-5.2%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Interest</td>
<td>100%</td>
<td>+12%</td>
<td>+77%</td>
<td>+261%</td>
</tr>
<tr>
<td>Investment volume net of VAT</td>
<td>billion rubles</td>
<td>481.1</td>
<td>1 303.4</td>
<td>5,678.3</td>
<td>14,453.3</td>
</tr>
<tr>
<td>Return on capital employed (ROCE)</td>
<td>Interest</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Debt/EBITDA</td>
<td>times</td>
<td>1.6</td>
<td>2.5</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Freight turnover</td>
<td>billion ton-km</td>
<td>2 782.6</td>
<td>2 932.0</td>
<td>3 418.1</td>
<td>3 905.4</td>
</tr>
<tr>
<td>Passenger traffic</td>
<td>billion passenger-km</td>
<td>144.6</td>
<td>149.8</td>
<td>165.6</td>
<td>202.2</td>
</tr>
<tr>
<td>Share of freight shipments delivered within the established period</td>
<td>Interest</td>
<td>72.5%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td>Average speed of delivery of consignments in loaded cars</td>
<td>km/day</td>
<td>242</td>
<td>290</td>
<td>310</td>
<td>350</td>
</tr>
<tr>
<td>including containers</td>
<td>km/day</td>
<td>313</td>
<td>400</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>Length of high-speed and ultra high-speed lines</td>
<td>km</td>
<td>1,250</td>
<td>1,250</td>
<td>3,490</td>
<td>10,635</td>
</tr>
<tr>
<td>Share (length) of public lines with capacity constraints</td>
<td>Interest</td>
<td>12.0%</td>
<td>11.1%</td>
<td>12.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Reduction in specific power consumption in traction</td>
<td>Interest</td>
<td>100%</td>
<td>98.4%</td>
<td>96.7%</td>
<td>94.1%</td>
</tr>
<tr>
<td>Reduction in specific fuel equivalent consumption in traction</td>
<td>Interest</td>
<td>100%</td>
<td>97.6%</td>
<td>92.3%</td>
<td>90.2%</td>
</tr>
<tr>
<td>Traffic safety level</td>
<td>Number of events per million train-km</td>
<td>2.4381</td>
<td>1.3958</td>
<td>1.0905</td>
<td>0.9226</td>
</tr>
</tbody>
</table>

**Key risks for implementation of the strategy of the Infrastructure business segment**

7 In the prices of corresponding years.
Key risks of implementation of strategic tasks of this business segment are determined by internal and external factors.

Key external risks are as follows:
- decrease in the rate of growth of carriage that has a high margin for the infrastructure cargo complex;
- deterioration of the country’s macroeconomic situation;
- increase in fuel, electric power and materials prices at a higher pace compared to indexation of infrastructure service tariffs;
- preservation of an unjustified growth in employees’ wages in excess of the labor performance growth rate, decrease in competitive power of wages of infrastructure segment employees;
- further organizational fragmentation of the railway industry (including setting up of local carriers and traction fragmentation) and increase in transactional costs;
- changes in the tariff system that result in non-recompensable losses for the Holding.

Key internal risks of Strategy implementation are as follows:
- failure to attain claimed qualitative parameters of infrastructure operation and resulting decrease in appeal of passenger and cargo carriage and logistics services;
- failure to attain labor performance gain targets;
- insufficient implementation of cost optimization programs;
- insufficient investments into infrastructure upgrading and development, transportation business growth is hampered by infrastructure.

At the same time, the above risks are traditional for the Holding, due to which there are well-elaborated ways to control them and mitigate adverse consequences of each of them for the business model.
5.4. International Engineering and Transport Construction business segment

Current state evaluation

According to experts, the annual volume of the global market of railway projects in 2009 amounted to some EUR 136 bln. In 2012-2016, the average annual growth rate of the railway projects market is expected at some 2.8%. By 2016, the market volume will amount to EUR 160.6 bln.

For Russian Railways Holding, target regions for implementation of international road projects are CIS, Eastern Europe, Asia and Oceania, Africa and Middle East.

Russian Railways Holding does not consider Western Europe and NAFTA (due to challenges in overcoming of qualification and competitive barriers that require significant financial investments at the stage of regional market entry) and North Africa (due to an unstable political situation and high country risks) as target regions for the implementation of new projects.

The international infrastructure projects implemented by Russian Railways Holding may be grouped as follows:

1) Comprehensive projects that provide for design, construction and delivery of required equipment to maintain and operate infrastructure facilities being created. Examples of such projects may be found in Armenia, Mongolia and PRC. These projects are implemented by individual legal entities.

Economic effect for Russian Railways Holding from implementation of projects mainly lies in a possibility to include these railway systems in the logistics chains based on the use of the Company’s infrastructure in the “East-West” and “North-South” directions.

2) Construction projects, under which companies of Russian Railways Holding act as a contractor in design and performance of construction operations. Examples of such projects may be found in Abkhazia, Iran, Serbia, Libya. Work is performed at customers’ expense or, in individual instances, at the expense of borrowed funds provided to customers by the Russian Federation.

Economic effect for Russian Railways Holding from implementation of these projects is receiving of profit from work performed.

Tasks of foreign economic activities of Russian Railways Holding in implementation of infrastructure projects
The main tasks of foreign economic activities of Russian Railways Holding in implementation of infrastructure projects are as follows:

- Generation of a portfolio of infrastructure projects of Russian Railways Holding abroad.
- Increase in the income of Russian Railways Holding from implementation of effective infrastructure projects abroad and projects that ensure additional loading of the infrastructure owned by JSCo RZD.
- Increase in a share of foreign infrastructure markets and global competitiveness of Russian Railways Holding through promotion of Russian railway products and services for the railway sector.

In the longer term (by 2030), Russian Railways Holding is expected to become a leader of a consortium of companies (both forming and not forming part of the Holding) that offers comprehensive services on the international market of railway infrastructure projects (including consulting, concept development, design, construction, delivery of materials, machines and equipment, transport complex management, etc.).

**Main directions of implementation of the strategy of Russian Railways Holding in international engineering and transport construction**

The main directions of implementation of the strategy of Russian Railways Holding in international engineering and transport construction are as follows:

1. Completion of establishment of the corporate international infrastructure project management culture.
2. Development of competencies in international engineering and transport construction.
3. Marketing analysis and monitoring of promising projects.
4. Elaboration of financing schemes and implementation of projects and mechanisms to mitigate risks of Russian Railways Holding in international engineering and transport construction.

Control parameters of the target state of the International Engineering and Transport Construction business segment in line with the conservative scenario are provided in table 5.4.1.

**Table 5.4.1**

Control parameters of the target state of the International Engineering and Transport Construction business segment (conservative scenario)
<table>
<thead>
<tr>
<th>Parameter(^8)</th>
<th>Unit of measurement</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceeds(^9)</td>
<td>billion rubles</td>
<td>40.4</td>
<td>133.5</td>
<td>226.8</td>
</tr>
<tr>
<td>EBITDA</td>
<td>billion rubles</td>
<td>1.3</td>
<td>1.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Key risks for implementation of the strategy of the International Engineering and Transport Construction business segment**

The main risks of implementation of the Strategy in international engineering and transport construction are the risks related to political instability, corruption, civil disorders and wars, exchange rate control, various defaults, expropriation of private capital and other occurrences in the country of project implementation as well as a lack of competences and production capacities to perform individual types of projects. Besides, one should mention risks of competition from the foreign companies willing to be engaged in independent project financing.

Several lines of activity are to be treated as the main mechanisms to mitigate risks:

- possibility of co-operation with the Russian Agency for Insurance of Export Credits and Investments (EXIAR) and other insurance agencies, which, apart from insurance, will secure additional benefits in credit issue as a possible decrease in the interest rate for performance of a project that provides for insurance against required risks;
- optimization of work with customers by way of payments in advance under contract agreements, which will help decrease project implementation risks in terms of Holding’s interests;
- implementation of risks as part of accommodation of expert credits by the Russian Federation.

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\(^8\) In the prices of corresponding years.
\(^9\) On an accumulated basis since 2013
5.5. Social segment

Tasks of the social segment of Russian Railways Holding

The Holding considers its personnel as its core asset. Considering the scope of activities and status of Russian Railways Holding as the country's largest employer, a key priority is implementation of the social responsibility policy targeted at employees, society and state.

The main strategic tasks of the social policy implemented by Russian Railways Holding are as follows:

− increase in competitive power of the Holding as an employer;
− attraction and retention of employees with required qualification in the Holding;
− effective manpower management with regard to introduction of new machinery and advanced technologies;
− introduction of a competence-based approach in personnel management;
− generation of effective staff reserve;
− continuous personnel development;
− implementation of an effective youth policy and corporate culture consolidation;
− implementation of an effective social policy;
− effective personnel management and social support;
− provision of healthcare services.

Labor performance in Russian Railways Holding over the last three months (in terms of value) has been increasing at a much higher pace as compared to the Russian Federation in general. The Holding has ensured outrunning growth of labor performance as compared to an increase in actual earnings.

At the same time, with the deteriorating demographic situation in the country, a relation of railway workers’ wages to the all-Russian level decreased from 1.4 times (in 2011) to 1.33 times (in 2012).

Considering that there is direct dependence between the relation of railway workers’ wages to the all-Russian level and employee turnover, it is critical for the Holding to ensure growth in actual earnings and their competitiveness as further employee turnover creates direct risks with regard to support of technology processes and traffic safety and results in increased costs on new personnel training.

In its social policy, the Holding will stick to the principle of an increase in actual earnings in line with labor performance gain and assurance of the relation of wages to the all-Russian level at 1.4 in the longer term.
Personnel development is one of key priorities of the Holding. The Holding has set up a comprehensive system for personnel training, advance and conversion training.

A created continuous education scheme that follows the cycle “nursery – school – higher educational establishment – company’s structural unit” is an important element in the personnel training and development system.

The Holding continues to develop the target training system for specialists with higher and intermediate vocational education and labor training system based on training centers of professional qualifications.

The Holding has completely established the system of extended corporate business education, a key element of which is the Corporate University of JSCo RZD.

Introduction and development of a system of uniform personnel requirements and distance learning system is the basis for improvement of personnel reserve management processes and increased efficiency of training and development of Holding’s employees.

Social package is a strong motivational tool in the personnel attraction and retention system.

Priority elements of the Holding’s strategy in social support and social development are as follows:

- improvement of corporate social responsibility and social partnership principles;
- further introduction of advanced tools and principles of social package provision intended to develop employee’s responsibility for work and his/her future;
- development of a corporate non-state pension coverage system;
- effective implementation of the housing policy;
- implementation of social policy in recreation and health improvement of employees and their family members;
- increase in payback of social infrastructure facilities.

Availability of quite a well developed social infrastructure is conditioned by a need to ensure stable and safe production and technology process of carriage, peculiarities of infrastructure equipment and rolling stock service that imply stay and accommodation of a large number of employees in the immediate vicinity to their place of work.

Most social infrastructure facilities are situated in remote localities with complicated climatic conditions that are generally characterized by a poor level of social infrastructure development and absence of alternative possibilities to receive social services. In this situation, employees’ provision with a possibility to use social services is one of the main factors that promote attraction and retention of staff.
Besides, in a strategic perspective, the Holding will continue to implement the policy targeted at an increase in employees’ retirement benefits through development of voluntary pension accruals and their co-financing by the employer.

In order to ensure continuous and safe carriage, the Holding has set up a system of non-state healthcare institutions of JSCo RZD (hereinafter referred to as “JSCo RZD NHI”), the key task of which is to exercise control over professional suitability of employees to the performance of production tasks, health support and promotion of professional longevity of employees. Considering the importance of “human factor” in production, activities performed by Holding’s healthcare institutions are an integral part of the railway carriage process.

Control parameters of the target state of the social business segment in line with the conservative scenario are provided in table 5.5.1.

### Table 5.5.1

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit of measurement</th>
<th>2012</th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor performance gain</td>
<td>Interest</td>
<td>100.0%</td>
<td>+8.4%</td>
<td>+29.6%</td>
<td>+67.2%</td>
</tr>
<tr>
<td>Relation between wages of Holding’s employees and All-Russian level</td>
<td>times</td>
<td>1.33</td>
<td>1.35</td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Key risks for implementation of the strategy of the social segment**

Considering that the country’s economy in general does not stick to the principle of an increase in wages only subject to outrunning gain in labor performance and wages growth rates in this country outrun its growth in companies of Russian Railways Holding, the Holding may find itself in a situation when in order to retain competitive wages, it will have to optimize its manpower and increase wages at a higher rate than labor performance gain.

Key activities to minimize these risks are as follows:

- system effort to increase internal effectiveness and ensure labor performance gain, which will help retain an optimal balance between railway workers’ wages and average wages in the country;
- implementation of a well-balanced social policy targeted at increase in appeal of Russian Railways Holding as an employer with concurrent growth in personnel social support system efficiency;
- improvement of the personnel training and development system, which will secure satisfaction of Holding’s strategic and operational demand for qualified staff;
– optimization of the structure and current activities of the social segment;
– assurance of a guaranteed level of control over professional suitability of employees to the performance of production tasks, health support and promotion of professional longevity of employees.
6. **Tasks of Holding’s organizational development**

Organizational development of Russian Railways Holding for the period until 2030 is targeted at assurance of effective management of the Holding’s economic complex with regard to changes in the business model, composition of assets and target markets, corporate structure and environment.

In the target state and at all stages of Holding’s development, management systems of JSCo RZD and its S&A should contain a full set of competences and processes that enable elaboration and implementation of the common corporate strategy and policies (financial, technical, personnel, social, information and others), ensure (as required) coordination of operational (production) activities of the enterprises forming part of the Holding, ensure management of performance, quality of services, relations with clients, partners, public and public authorities.

Holding’s target organizational model comprises the following elements:
- Board Of Directors of JSCo RZD and its committees;
- Management Board of JSCo RZD chaired by the President of JSCo RZD,
- advisory bodies,
- corporate center,
- railways (RCCM),
- business divisions comprising their management bodies,
- business units.

The Board of Directors is engaged in general management of Holding’s activities within its competence; it ensures implementation of the policy targeted at dynamic development, increase in stability and profitability of its operations.

The Management Board of JSCo RZD that comprises directors of JSCo RZD, acting on behalf of the Russian Federation and with regard to positions of S&A shareholders, ensures elaboration of proposals to determine priority directions of Holding’s activities and prospective plans of its development, determines common corporate policies, standards, rules and regulations elaborated by the Corporate Center, follows up on them and controls attainment of strategic objectives of business units.

Advisory bodies that comprise directors of JSCo RZD and key S&A ensure elaboration of proposals in the main directions of Holding’s activities for their submission to the Management Board of JSCo RZD.

Corporate center elaborates strategic decisions, develops common corporate policies, standards, rules and regulations based on the strategic decisions made to ensure their fulfillment, exercises control and follows up on strategic decisions and objectives, arranges current distribution of the most important and restricted resources, ensures coordination of branches and S&A with each other and “environment” at all management levels and procures
performance of control systems. Besides, the corporate center arranges corporate management and control of subsidiaries and affiliates.

In order to maintain controllability at all levels, railways – branches of JSCo RZD form part of the corporate center and perform a part of its functions on the regional level.

Business units – branches, structural divisions, S&A of JSCo RZD are responsible for economic activity performance and efficiency. Subject to absolute compliance with corporate policies, standards, rules and regulations, business units are vested with broad powers in operational decision-making and determination of the ways to attain established objectives, financial and non-financial targets.

Considering a common nature of tasks, technologies and additional synergy from coordinated activities, business units are united into business segments. Business segments are managed by the bodies in charge of the arrangement and control of management in business units with regard to peculiarities of a specific business segment in such directions as: cost and performance control, HR management, development, etc.
7. State support of Holding’s development and main directions of regulatory framework improvement

The scope of state support for the implementation of Holding’s investment programs is to be determined subject to:

- social and economic performance of the projects implemented by the Holding;
- gap between a level of income in line with the economically feasible level of tariffs and actual income in regulated segments of activities;
- Holding’s capabilities in effective attraction of borrowed funds with regard to established covenants and recoverability of loans through implementation of investment projects and increase in business performance;
- influence of a state support level on Holding’s financial and economic indicators and its capitalization level.

Mechanism of state support and state regulation of infrastructure development rates is as follows:

- contribution of funds to the share capital;
- introduction of an investment component in regulated tariffs of services of JSCo RZD;
- soft-term financing of investment projects that pay back for the period of up to 30 years;
- transition to long-term establishment of tariffs and improvement of pricelist No. 10-01;
- introduction of the regulatory (network) contract mechanism.

Absence of state support in the required volume will result in significant restriction in the development of passenger service, conservation and impairment of the situation with a high wear rate of capital assets and restrictions of the infrastructure capacity, deterioration in the carriage quality and limited satisfaction of economic demand for railway services and further increase in the loss ratio of JSCo RZD. Besides, the targets of Holding’s development set out herein will not be attained.
8. Social and economic effects of Strategy implementation

Development of Russian Railways Holding and the entire railway transport on its basis in line with the target scenario will help attain significant results for all stakeholders.

For the state: infrastructure conditions will be promoted for long-term innovative development of economy and consolidation of country’s transport unity.

Russian industry will receive infrastructure opportunities for an increase in output and consolidation of its position on foreign markets.

Innovative development of the home research and production complex and other branches of economy will be strongly promoted.

Growth and better quality of infrastructure and carriage services will result in better quality of living of the population, investment appeal of economy and regional development.

For consignors: transport service geography will be expanded; carriage quality will improve and additional choice of various grades of services will be provided.

For passengers: implementation of the Strategy will help dramatically improve service quality and expand its geography. Travelling time will become much shorter. Transport capabilities for residents of agglomerations will be expanded, which will help curtain public transport costs and give up on costly trips by car.

For population of the country: expansion of the transport and logistics business, construction of railway lines and industrial development will result in the creation of new jobs and better quality of living.

For Holding’s employees: long-term maintenance of a high social status and prestige value of work at the Holding will be ensured.

Implementation of the Strategy will secure an increase in competitive power, production and commercial performance of Russian Railways Holding.