



Railway Transportation and Infrastructure Business Unit

The Railway Transportation and Infrastructure Business Unit consolidates the core production business divisions that support the Company's activities in railway transportation as well as the maintenance and development of infrastructure and locomotives.

Key achievements of business unit in 2015

1

Improvements were made to the internal efficiency of production unit divisions, making it possible to fulfil the main budget parameters for the use of rolling stock, including for the average freight train weight (+0.9% versus the 2014 level), average daily locomotive productivity (+3.7%) and service speed (+3.7%)



3

The average freight delivery speed of loaded shipments grew by 44.1 km/day (13.5%) to 371.5 km/day



2

The share of loaded shipments delivered within the required (contractual) period in loaded railcars increased 5.2 p.p. versus the 2014 level



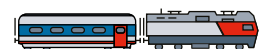
4

The freight train traffic schedule improved by 2.9 p.p. in terms of departure and by 12.9 p.p. in terms of travel time



5

All parameters of passenger train scheduling were improved, including by 0.7 p.p. for departure, 0.2 p.p. for embarkation/disembarkation stations on the train's route and 0.8 p.p. for arrival at the destination station versus the 2014 level





Business Unit

6

The scheduling of suburban trains ensured growth versus 2014 of 0.2 p.p. for departure from the departure point, 0.3 p.p. for arrival at intermediate destinations, 0.4 p.p. for departure from immediate destinations and 0.2 p.p. for arrival at destination points



7

Railway stations improved their quality of work. The downtime of transit railcars at marshalling yards declined 14.8% without processing and 10.3% with processing, while the time of railcar terminal operations at stations decreased 21.1% compared with 2014



8

The number of downtime hours in the work time of locomotive crews decreased 15.8% compared with 2014 while the plan was for a 7% reduction



9

As a result of implementing an energy efficiency programme, renovating the locomotive fleet and introducing an optimal energy schedule for train traffic, the specific consumption of fuel and energy resources fell 2.0% for train traction and 1.2% for electric traction versus the 2014 level



Key achievements of business unit in 2015

The Railway Transportation and Infrastructure Business Unit met all of its objectives for 2015. Enhancing the organisational level of operational work based on improvements to the system used to plan and transport freight traffic enabled the Company to transport of the required volume of shipments and reduce risks associated with infrastructural constraints.

Work to utilise information and management technologies played an integral role in enhancing the efficiency of the transportation process, including by establishing scheduled freight train traffic and expanding the scope of application of the Elbrus system, which ensures freight trains run on optimal energy schedules.

Russian Railways continues to draft regulatory and technical documentation governing the procedure for routine maintenance and repairs of infrastructure facilities as well as organising the operation of locomotives and locomotive crews taking into account the classification and specialisation of railway lines.

Activities of the business unit

The primary goal in the business unit's activities is to improve the efficiency of the transportation process through coordinated operational work and the coherent strategic development of business divisions taking into account their common objectives, technologies and the additional synergistic effects from joint activities.

The Russian Railways Group's strategy sets forth a number of production goals and objectives for developing the business unit:

- modernising and building new infrastructure;
- separating public infrastructure into freight and passenger infrastructure, including through the spin-off of high-speed transportation, as independent technical and technological systems;
- improving the uniform use of infrastructure as well as increasing the load on or restructuring low-intensity lines;
- developing infrastructure in order to transition to heavy haul traffic with weight standards of 9,000 tonnes or more;
- renovating the locomotive fleet and reducing the life-cycle cost of traction resources;
- improving transportation safety and mitigating risks related to the impact of the human factor on the production process;
- increasing energy efficiency and labour productivity and streamlining repair and maintenance work.

Key production indicators

Total freight turnover remained at the 2014 level in 2015. The comprehensive performance indicator that describes the reliability of freight delivery – the share of loaded shipments delivered by the required date – came to 94.7% (growth of 5.2 p.p. versus the previous year's level).

The average loaded freight delivery speed was 371.5 km per day (+13.5% versus the 2014 level). Positive dynamics were achieved on all railways.

Key performance indicators of the Railway Transportation and Infrastructure Business Unit

Indicator	Measurement unit	2014	2015	
			Value	Change, %
Total freight turnover	mln tkm	2,954.5	2,954.9	0.01
Average loaded freight delivery speed	km/day	327.4	371.5	13.5
Share of loaded shipments delivered by the required date	%	89.5	94.7	5.2 p.p.
Decrease in specific consumption of electricity for train traction (2014 – 100%)	%	100.0	98.8	-1.2
Decrease in specific consumption of diesel fuel for train traction (2014 – 100%)	%	100.0	98.0	-2.0

Results of the business unit's investment programme in 2015

The Central Infrastructure Directorate fully utilised its budget of RUB 87.6 bln in 2015. The bulk of the funds were spent on the track reconstruction (modernisation) programme. As a result, RUB 70 bln worth of work was performed to rebuild (modernise) tracks.

As part of the investment programme, work valued at approximately RUB 65.2 bln was performed under the federal programme to develop the Eastern operating domain.

The amount of fixed assets put into operation as part of projects of the Central Infrastructure Directorate totalled RUB 85.8 bln in 2015, a 0.6% increase versus the target.

Spending by the Central Traffic Control Directorate totalled RUB 3.2 bln in 2015. The main project was the 'Construction of Secondary Tracks, Extension of Station Tracks and the Development of Railway Hubs and Border Stations', on which RUB 1.9 bln was spent. The Directorate's investment programmes above all aimed to increase the carrying and processing capacity of the main railway network routes

and improve the reliability of operations by branches.

The amount of fixed assets put into operation as part of projects of the Central Traffic Management Directorate totalled RUB 8.3 bln in 2015, a 44.5% increase versus the target.

Spending of investment funds by the Traction Directorate totalled RUB 68.2 bln in 2015, or 0.9% less than the target (plan of RUB 68.8 bln), including RUB 59.9 bln spent on the investment project 'Purchase of Traction Rolling Stock' (0.4% below the plan), which aims to purchase 500 locomotives.

100.6 %

execution of the plan for commissioning fixed assets under the Central Infrastructure Directorate's projects in 2015

Measures to improve the efficiency of the business unit

Eliminating infrastructural constraints and increasing carrying capacity are among the priority objectives of the business unit's activities. Track repair work was carried out on 5,021 km of tracks in 2015 (100% of the annual plan), including the reconstruction (modernisation) of railway tracks on 2,814 km (100% of the annual plan).

The track improvement work resulted in an increase in traffic speed in the operating domain on 1,100.7 km for passenger trains and on 811 km for freight trains.

In order to ensure certain sections have carrying capacity for the planned transportation volumes, restrictions were eliminated for freight trains weighing 6,300 tonnes over a section of 71 km through enhancements to power supply equipment.

As a result of a range of measures implemented by the business unit's divisions in 2015 (energy efficiency programme, renovating the locomotive fleet and introducing an optimal energy schedule for train traffic), the specific consumption of fuel and energy resources was reduced versus the 2014 level:

- by 2.0% for train traction;
- by 1.2% for electric traction.

Traction Resource Management Centres (TRMC) were completed on the network, making it possible to transition to the targeted model for managing the transportation process based on operating domain technology. The Traction Resource Management Centre Automation System

On the path to change



Anatoly Krasnozhchek
First Vice President
of Russian Railways

Almost 3,000 new locomotives have been purchased over the last five years, or more than over the previous 15 years. The physical wear of the locomotive fleet has been reduced on average to 68.8%. This has made it possible to accelerate the development of heavy-haul transportation. More than 4,000 trains weighing over 8,000 tonnes and 30,000 coupled trains were in operation in 2015, an increase of 10% from the previous year.

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In 2015, the service speed of freight trains increased to 39.1 km/h, a 3.7% increase compared with 2014.



Based on materials from the final meeting of the Russian Railways Management Board