

# Map of significant risks for the Russian Railways Group

Risk category	Risks
<b>External risks</b>	
<b>MACROECONOMIC</b>	<ul style="list-style-type: none"> <li>■ reduction in the volume of freight provided for railway transportation</li> <li>■ risk of unplanned fluctuations in transportation volumes exceeding the carrying capacity of certain railway sections</li> <li>■ deterioration in the structure of industrial and agricultural production shipped using railway transportation</li> <li>■ growth in prices for goods and services consumed by the Russian Railways Group</li> <li>■ decrease in the Company's income from passenger transportation due to a decline in the public's ability to pay</li> <li>■ decline in investment and business activity in industry and agriculture</li> <li>■ changes in the directions and distances of cargo flows</li> <li>■ tightening of tariff and non-tariff restrictions in foreign trade</li> <li>■ lack of government investments</li> </ul>
<b>MARKET</b>	<ul style="list-style-type: none"> <li>■ decrease in the Russian Railways Group's share of highly profitable segments of the transportation market</li> <li>■ growth in intra-industry and cross-industry competition</li> <li>■ risk of the quality and range of services not complying with new customer requirements</li> <li>■ advanced development of alternative types of transportation, including through the accelerated introduction of innovations</li> <li>■ establishment and full-scale operation of international corridors to bypass Russia</li> <li>■ lack of production capacity among product suppliers for the Russian Railways Group</li> </ul>

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<b>FINANCIAL</b>	<ul style="list-style-type: none"> <li>■ credit risks</li> <li>■ currency risks</li> <li>■ interest risks</li> <li>■ risk of liquidity loss</li> <li>■ downgrading of Russian Railways positions by international ratings agencies</li> <li>■ financial implications from property and liability risks</li> </ul>
<b>WORKFORCE RISKS</b>	<ul style="list-style-type: none"> <li>■ increased imbalances in the structure of the workforce represented on the market</li> <li>■ deterioration in the positions of Russian Railways on the labour market</li> <li>■ deterioration in the quality of the workforce</li> <li>■ reduction in the working population in remote regions due to the urbanisation of society</li> <li>■ risk of the diminished attractiveness of professions in the railway transportation industry</li> <li>■ increased competition for skilled personnel, including due to the deteriorating demographic situation in the country</li> </ul>
<b>REGULATORY RISKS</b>	<ul style="list-style-type: none"> <li>■ continued strict government tariff regulation</li> <li>■ stricter legislation (transportation, tax, environmental requirements, etc.)</li> <li>■ lack of legislative regulation for the activities rolling stock operators</li> </ul>
<b>POLITICAL</b>	<ul style="list-style-type: none"> <li>■ impact of international sanctions against the country's economy and activities of Russian Railways</li> <li>■ deterioration in intergovernmental relations</li> <li>■ local military operations</li> <li>■ terrorist impact on facilities of the Russian Railways Group</li> </ul>

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<b>MANMADE, NATURAL AND CLIMATIC</b>	<ul style="list-style-type: none"> <li>■ accidents at facilities that support the work of the Russian Railways Group</li> <li>■ manmade accidents on related types of transportation (primarily in seaport waters and on major highways)</li> <li>■ fires or natural disasters in areas where the Russian Railways Group operates</li> </ul>
<b>SCIENTIFIC, TECHNICAL AND TECHNOLOGICAL</b>	<ul style="list-style-type: none"> <li>■ use of new energy resources and energy-saving modes, technologies and materials on alternative types of transportation and when operating infrastructure facilities</li> <li>■ improving the carrying capacity of vehicles and vessels and their cargo delivery speed</li> </ul>
<b>INTERNAL RISKS</b>	
<b>PRODUCTION AND TECHNOLOGICAL</b>	<ul style="list-style-type: none"> <li>■ lag in infrastructure development compared with the increase in freight and passenger transportation</li> <li>■ disruptions in the organisation of freight delivery logistics schemes and empty rolling stock</li> <li>■ disruptions to the plan for making up trains and the train traffic schedule</li> <li>■ diminished efficiency from the use of rolling stock</li> <li>■ discrepancies in existing technological processes for organising transportation with the quality requirements for transportation services</li> <li>■ discrepancies in technological processes with traffic safety requirements</li> <li>■ diminished reliability of rolling stock, track facilities and structures</li> <li>■ disruption in the parameters of operations in the technological chain used to maintain the life cycle of a transportation service</li> </ul>
<b>TECHNICAL AND RESOURCE</b>	<ul style="list-style-type: none"> <li>■ continued high level of fixed asset deterioration</li> <li>■ breach of the deadlines and conditions for supplies of material resources</li> <li>■ risk of using substandard and incomplete information about consumers of the Russian Railways Group's services</li> <li>■ diminished reliability of technical equipment</li> <li>■ incompatibility of technical equipment and technologies in the transportation process</li> </ul>

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<b>INVESTMENT</b>	<ul style="list-style-type: none"> <li>■ incorrect substantiation and erroneous selection of new investment targets</li> <li>■ diminished return on investment and failure to ensure planned profitability from invested funds</li> <li>■ lack of clear guarantees for transportation volume from freight owners when implementing infrastructure investment projects</li> <li>■ risk of the failure to meet the parameters of the projects implemented (exceeding the budget, failure to meet deadlines or failure to achieve the project objective)</li> </ul>
<b>RISKS OF STRUCTURAL REFORMS</b>	<ul style="list-style-type: none"> <li>■ threat of a disruption to the technological processes of the Russian Railways Group and significant financial losses as a result</li> <li>■ threat of the loss of financial sustainability and the risk of bankruptcy of S&amp;A</li> <li>■ decrease in the profitability of the Russian Railways Group due to the uncompensated spin-off of highly profitable S&amp;A</li> <li>■ decline in asset value and capitalisation of the Russian Railways Group in the event of the ineffective work of S&amp;A</li> </ul>
<b>HUMAN RESOURCES</b>	<ul style="list-style-type: none"> <li>■ lack of compliance of the professional level of personnel with the requirements of the Russian Railways Group</li> <li>■ risk of a further increase in the number of employees approaching retirement age</li> <li>■ outflow of highly skilled personnel due to insufficient motivation and the decreased competitiveness of salaries for employees of the Russian Railways Group compared with other industries</li> <li>■ professional risks: injury or occupational disease</li> <li>■ risk of ineffective recruiting, placement and management of personnel</li> <li>■ violations of labour discipline</li> <li>■ deterioration in the corporate culture of employees</li> </ul>
<b>MANAGEMENT</b>	<ul style="list-style-type: none"> <li>■ reduced manageability of Russian Railways Group structures</li> <li>■ adoption of unsubstantiated management decisions</li> <li>■ failure to execute decisions by the required deadlines</li> <li>■ failure to achieve target economic and production performance results of the Russian Railways Group</li> </ul>