



Trends in Development of Chinese-Russian Relations in the Field of Railway Transport



Teng ZHANG

Teng Zhang*China Railway First Survey and Design Institute Group CO., Ltd. (CRCC), Xi'an, Shaanxi Province, People's Republic of China.*✉ tengteng@yandex.ru

ABSTRACT

The article analyses the nature of transport relations between Russia and China in order to identify the main trends and forecasts regarding development of cooperation between the two countries in this area.

A brief excursion into the history of interaction of partners includes the retrospective of construction of mainlines that served to increase the efficiency of transportation.

The emphasis in the analysis of prospects is on improvement of transit routes within the framework of «One Belt One Road» and «Eastern Polygon» projects. Information is provided on construction of new and modernisation of existing railway lines with involvement of Chinese and Russian investment, including a bridge over the Amur River, the Kerak tunnel, and development of transit transportation through Kazakhstan and Mongolia. The role of transportation for effective cooperation in the energy field is emphasised.

The article considers two types of transportation – freight and passenger. In both cases, there is a steady increase in interaction, since in case of cargo transportation, the partnership has a beneficial effect on energy integration, while the efficiency of passenger logistics is determined by the railway connection between the cities of Russia and China.

The cooperation of Russian and Chinese companies in the field of advanced technologies and investments in the field of high-speed rail transport is noted.

The conclusion is made about the mutually beneficial nature and prospects of strengthening cooperation in the field of railway transport, its role in development of the region and transport infrastructure, as well as in increasing the volume of cargo and passenger transportation.

Keywords: railway transport, logistics, transport infrastructure, freight and passenger transportation, Chinese-Russian transport links.

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INTRODUCTION

Despite the fact that in the history of relations between China and Russia there have been different periods, both of rise and fall, in 21st century they are definitely experiencing the best stage in their history. And in this regard, understanding history is key in predicting further ways of interaction.

Due to the location of economic and political centres of Russia and China at a considerable geographical distance from each other, relations in the field of transport are key in bilateral and multilateral partnership. Land arteries not only played a key role at the dawn of emergence of logistical ties, but also served as the basis for formation of a new paradigm of economic stability and security in the region.

If we turn to the stage of the birth of railway communication between countries, then at the beginning of 19th century, the Russian Empire, in order to strengthen its influence in the region, began the construction of «Great Siberian Way» – the Trans-Siberian Railway. At that time, cargo and passenger transportation was carried out through the territory of China – the country was an important transit point on the way from Europe to East Asia and back.

At the turn of 19th and 20th centuries, the construction of the Chinese Eastern Railway (CER) served as an incentive for development of Manchuria region, where, for example, in addition to infrastructure construction, the city of Harbin was founded. During the Soviet Union, cooperation between Russia and China in the field of railway transport was strengthened. New transport arteries were built. The CER was developed and transformed into the Changchun–Harbin Mainline, which shortened the distance between Eastern Siberia and Northeast China.

Currently, the countries are actively developing cooperation in the field of railway transport, which is reflected in implementation of major projects that contribute to development of railway infrastructure and creation of efficient transit routes between partners. In this regard, it is relevant to consider the main initiatives within which logistics projects are being implemented.

The *objective* of this article is a detailed analysis of cooperation between China and Russia in the field of railway logistics. Platforms for both bilateral and multilateral cooperation are considered, the main initiatives within the framework of which certain logistics projects are being implemented, forecasts are proposed

regarding the directions for development of railway transport in the context of large-scale geopolitical shifts and new global challenges. *Methods* of economic analysis, content analysis of scientific publications, co-logical method were used.

RESULTS

There are several mega-projects aimed at deepening Russian-Chinese cooperation in the field of transport, including on issues of infrastructural development.

The One Belt One Road Initiative¹, proposed by China in 2013 to strengthen economic ties and cooperation between China and the countries of Eurasia (various aspects of the initiative are analysed, for example, in [1–3] and other sources), is considered as a large geo-economic infrastructure project in which Russia and China act in tandem. One of the key components of «Silk Road of 21st century» is development of railway transport. Active work is underway to modernise and build new railway lines that link countries and provide transit routes for goods from China to Europe and back. Besides, China is actively investing in development of transport infrastructure in Russia, contributing to emergence of railways, ports and logistics hubs.

The development of Russian-Chinese relations plays an important role in implementation of a policy that can be called a «turn to the East» and which was proposed by Russia in the early 2010s. This initiative is seen as a response to the increased risks caused by the unfriendly policies of European partners towards Russia. The policy is not only aimed at reducing dependence on European countries, but also at strengthening Russia's cooperation with Asian and Pacific countries, including China. China acts as a key partner of Russia within the framework of this policy. Both countries adhere to the principles of multipolarity, justice and mutually beneficial cooperation, implementing them through active cooperation in various sectors.

As part of these projects, Russia and China are actively developing bilateral transport links and logistics infrastructure, which includes construction of new railway lines, development of ports, modernisation of transport routes and creation of transit corridors for freight and

¹ Belt and Road Initiative. The World Bank. [Electronic resource]: <https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative>. Last accessed 20.02.2023.



passenger transport. The development of transportation routes makes it possible to facilitate trade between countries and mutual investment and provides more efficient transport links.

So, in 2022, the construction of a railway bridge across the Amur River was completed. The project was implemented within the framework of an intergovernmental agreement through the Russian-Chinese Investment Fund, the main shareholders of the project were also JSC Russian Railways and VEB.DV (56,25 %, 25 % and 18,75 %, respectively). The total amount of investments exceeded 10 billion rubles. Additionally, siding rail tracks were built in the Jewish Autonomous District². The maximum capacity of the railway artery is up to 24 million tons of cargo per year in both directions³⁴.

In general, development of Russian-Chinese relations contributes to strengthening the economic and political cooperation of the entire Eurasian region, to creation of the sustainable and mutually beneficial partnership to ensure peace, stability and prosperity. In the context of cooperation between Russia and China in the field of transport, it is worth highlighting two main types of railway transportation: freight and passenger. Key prospects for interaction in operation and construction of railways include various aspects.

Freight Transportation

Traditionally, the sphere of cargo transportation occupies a prominent place in relations between Russia and China. The development of routes and transit corridors between two countries provides opportunities not only for more efficient delivery of goods, but also strengthens the comprehensive partnership between two countries. The economic power of China makes it one of the largest consumers of energy resources, and Russia has

huge reserves of them. This interdependence determines the availability of long-term contracts for supply of energy resources: coal, oil and gas. The export of Russian energy resources to China and the import of Chinese goods to Russia by rail have great potential for further development. Countries continue to develop rail infrastructure to improve cargo transportation. Joint operation, upgrading, modernisation and construction of new railway lines help to reduce time and cost of delivering goods between two partners, which stimulates mutual economic growth, and also helps to reduce the risks of disruptions in supply chains.

Russia is one of the world's largest producers and exporters of coal. China is also one of the largest consumers of this energy resource. Between two countries, there is an active flow of this resource with railway transportation. Coal is delivered from Russian regions, Kuzbass and Transbaikalia, to Chinese ports and energy enterprises. In addition to coal and ore, other resources are also transported between Russia and China, such as timber and oil. Russian timber is exported for use in construction and manufacturing, while oil is supplied to companies to meet energy demand. Transportation of energy resources between Russia and China is an important component of trade and economic cooperation between the countries. Railways play a significant role in ensuring reliable and efficient delivery of goods, which has a positive impact on economic integration and development in the region.

Since the end of the Covid-19 pandemic, there have been significant changes in global logistics and transport. It is worth noting a sharp increase in the flow of goods from China to Russia after recession of the pandemic period. This phenomenon can be explained by the increased demand for multimodal transportation, which includes railway, road and sea routes.

Growth in the frequency of departure of container trains and the volume of transportation on routes for the period 2011–2016 was analysed by the authors of the report [9].

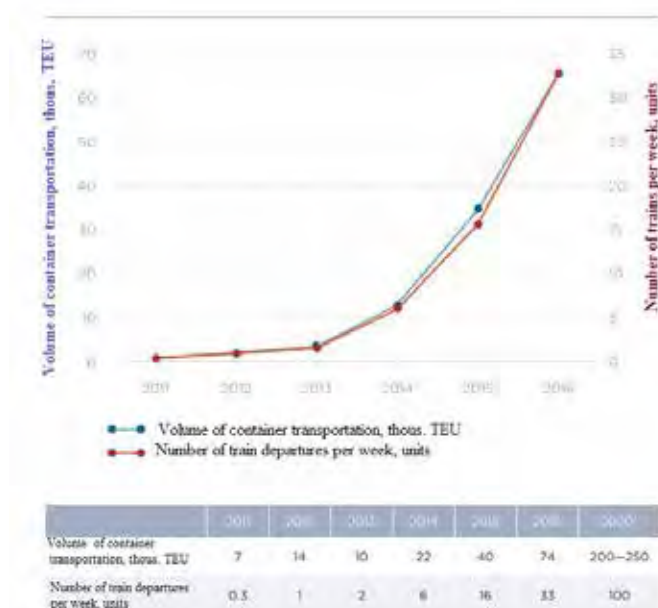
Growth continued in subsequent years. According to JSC IC RZD-Invest⁵, in 2020 it even exceeded the volumes predicted by the

² Russia opens first cross-border railway bridge to China [V Rossii otкрыli pervyy transgranichnyy zheleznodorozhnyy most v Kitai]. [In Russian]. IA «RIA Novosti», 27.04.2022. [Electronic resource]: <https://company.rzd.ru/ru/9401/page/78314?id=202297>. Last accessed 20.02.2023.

³ Potaeva, K. On the Amur the largest long-term construction is completed [Na Amure zavershili samyy masshtabnyy dolgostroy]. [In Russian]. «Vedomosti». [Electronic resource]: <https://www.vedomosti.ru/business/articles/2022/04/27/920079-na-amure-zavershili>. Last accessed 20.02.2023.

⁴ ERAI – Eurasian Rail Index Alliance. Review. November 2022. Euroasian railway route: prospects for expanding exports from Russia to China. [Electronic resource]: https://index1520.com/upload/medialibrary/c7e/ijppl258ghzgmknjwd16gntf0qbrnjii/221218_OTLK_Rus.pdf. Last accessed 20.02.2023.

⁵ Dynamics of railway container transportation of the countries of space 1520 on the routes China–Europe–China, thousand TEU. Analytics of JSC RZD-Invest specially for the forum PRO//MOTION.1520. [Electronic resource]: https://gudok.ru/Аналитика_МеждународныеТранспортныеКоридоры_РЖД-Инвест.pdf. Last accessed 21.02.2023.



Pic. 1. Data on volume of container transportation and number of train departures on the route China–Europe–China [9].

authors (Pic. 1 [9]) and reached 550,8 thousand TEU (Pic. 2).

Supply chain disruptions caused by the Covid-19 pandemic have forced countries to intensify development of transport infrastructure. There is also a tendency to diversify the directions of new transport routes. Thus, as part of One Belt, One Road initiative, several transport corridors are being built.

The cumulative result of this interaction is that, according to JSC Russian Railways, 2022 was a record year in terms of railway transportation, and in the first months of 2023, the volume transported towards Chins increased by an additional 85 % compared to the same period last year. Thus, in 2022, it was possible to achieve a volume of 123 million tons of cargo, and in January–February 2023–26,9 million tons⁶. If the current pace is maintained, the volume can reach up to 160 million tons.

Speaking about the prospects for development of this sector, it is worth mentioning the importance of not only the direct cross-border transportation between Russia and China, including reconstruction and construction of additional new railway checkpoints on the border between Russia and China (for example,

Zabaikalsk⁷), but also interaction through the transit corridors of Mongolia and Kazakhstan. For example, construction of a third checkpoint on the China-Kazakhstan border with the adjoining Ayagoz–Bakhty railway line⁸.

Passenger Transportation

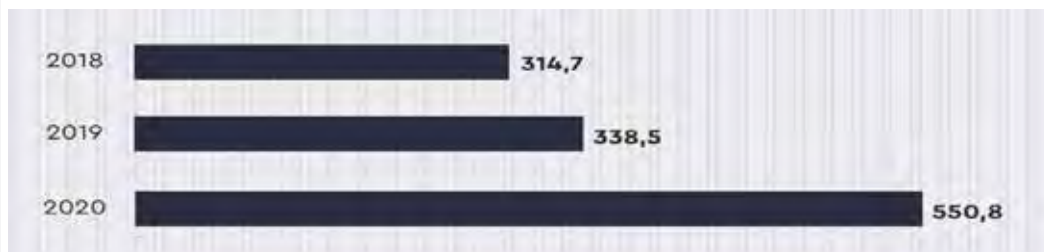
There is an active development in this area of cooperation between Russia and China since passenger trains connect the cities of both countries and provide comfortable and convenient movement of people. Strengthening partnerships in this area provides more opportunities for development of tourism and international transportation. As part of construction of new railway lines and modernisation of existing routes, Russia and China continue to improve the infrastructure for passenger transportation logistics, which includes development of new high-speed railway projects, improving comfort and safety conditions for passengers. The prospects for cooperation in operation and construction of railways between Russia and China in cargo and passenger transportation promise further development of transport

⁶ Russian Railways recorded an increase in cargo transportation between Russia and China by 85 % since the beginning of the year [in Russian]. IA Prime. [Electronic resource]: <https://company.rzd.ru/ru/9401/page/78314?id=208617>. Last accessed 21.03.2023.

⁷ The largest railway checkpoint on the border with China was opened in Zabaikalsk after reconstruction [in Russian]. [Electronic resource]: <https://mintrans.gov.ru/press-center/news/10223>. Last accessed 20.02.2023.

⁸ Russian Railways are considering creation of new checkpoints on the border with China [in Russian]. «Interfax». [Electronic resource]: <https://www.interfax.ru/russia/874657>. Last accessed 21.02.2023.





Pic. 2. Dynamics of railway container transportation of the countries of space 1520 on the routes China–Europe–China, thousand TEU⁹. Source: data of the Organization for Cooperation between Railways, analysis by RZD-Invest JSC.

cooperation, facilitating transit and increasing the efficiency of movement of passengers and goods between the two countries.

The Covid-19 pandemic has made some adjustments to the dynamics of development of railway transport. The implementation of the «zero tolerance» policy as a restrictive epidemiological measure has somewhat slowed down the pace of China's economic development. The closure of borders also affected the volume of passenger and freight transportation, caused its decrease. For example, due to the presence of restrictive measures, the bridge across the Amur River was opened only in 2022, although its construction was completed in 2019.

Multilateral Cooperation

Further conjugation of the efforts of Russia and China is promising, in particular, in the field of railway transport, in the format of international organisations. The expansion of such a regional organisation as the Shanghai Cooperation Organisation is most noteworthy. The attraction of new partners, such as Pakistan and Iran, contributes to strengthening of Chinese-Russian relations not only in a bilateral, but also in a multilateral format. This is due to the increase in the reputation of the organisation, the ideological inspirers of which were, first of all, Russia and China. This further strengthens the economic and logistical security of the entire region [10]. Cooperation in the field of transport is not considered as a new phenomenon, joint coordination in the field of infrastructure has been stipulated by the SCO charter, which determines the basis for the organisation's activities.

As part of the One Belt, One Road initiative, China is actively participating in various infrastructure projects not only in Russia, but also in Mongolia and Uzbekistan, in order to increase and stabilise the flow of goods from

China to Europe. These projects are carried out to diversify sales markets and reduce risks, as well as to develop transport corridors and improve the efficiency of trade between China and Europe. Some Chinese state-owned corporations that are investing in infrastructure projects in Mongolia and Uzbekistan are:

1. China Communications Construction Company (CCCC): one of the largest Chinese state-owned companies specialising in infrastructure construction. CCCC is actively involved in implementation of projects for construction of railways, roads, bridges and ports in Mongolia and Uzbekistan, which contribute to development of transport links and an increase in the flow of goods⁹.

2. China Railway Group Limited (CREC): a leader in the construction industry in China, specialising in construction and operation of railways. The company takes part in projects for construction and modernisation of railways in Mongolia and Uzbekistan, including development of a joint investment project for construction of the transport corridor «China–Mongolia–Russia».

Financial and Monetary Settlements in National Currencies between Russia and China

New geopolitical realities dictate new trends in logistics partnerships. The basis of the agenda is implementation of the policy of financial and monetary settlements in national currencies [11–15].

The use of national currencies in transport and logistics calculations and settlements not only contributes to diversification of risks, but also stimulates payment systems alternative to

⁹ Top largest Chinese construction companies in Russia. [Electronic resource]: https://raspp.ru/business_news/top-chinese-construction-companies-in-russia/. Last accessed 20.02.2023.

SWIFT. Mutual settlements between the Russian Federation and the PRC in national currencies have reached structurally new levels. Thus, according to the Ministry of Commerce of China, the volume of foreign trade transactions of the PRC in yuan in 2022 increased by 37 % and reached \$1,17 trillion, or about 17 % of the total volume of foreign trade transactions¹⁰. The Russian Federal Customs Service reports that the foreign trade turnover of the Russian Federation in 2022 amounted to \$850,5 billion. According to information of the Bank of Russia of March 2023, the share of yuan in external trade settlements has grown from 0,5 to 16 %, and the share of ruble from 12 to 34 %¹¹. Since August 2022, Russia has been ranked 3rd in terms of the use of yuan in cross-border trade¹². Thus, strategic security is multiplied by reducing risks caused by external factors.

Capacity Building and Optimisation of the Use of Transport Infrastructure

The structurally established flow of containerised cargo from China is unidirectional – to Russia. To optimise cargo transportation, it is worth paying attention to certain problems, first of all, to the use of empty trains to send goods from Russia. So far, the carrying capacity of the Russian Railways network, in the opinion of the author, is insufficient to send empty trains for subsequent loading in those regions of Russia that export ore and timber to China, which, in turn, limits the possibility of increasing traffic volumes and complicates the effective use of the railway infrastructure. The same applies to the loading of container trains.

However, the problem of reverse loading should be solved within the framework of the Eastern Polygon project. The current projects of Russian Railways include completion of modernisation of the Trans-Siberian and Baikal-Amur railways. Due to comprehensive

modernisation of two mainlines, the throughput of the railway network should almost double, from 75 to 180 million tons, transit container traffic should grow by four times, and the time of delivery of goods by rail will be significantly reduced¹³.

The development of the «Eastern Polygon» is underway as part of implementation of the national project «Comprehensive Plan for Modernisation and Expansion of the Trunk Infrastructure» (KPMI)¹⁴. The first achievement of this project was opening of the Baikal Tunnel of the East Siberian Railway in July 2021¹⁵. The second stage of creation of the «Eastern Polygon» should be completed in 2024 with the construction of a new double-track Kerak tunnel on the Kovali–Ulrichi section, which will increase the speed of trains and capacity on the Trans-Baikal section of the Trans-Siberian Railway. To increase the transit capacity of the most important hub at the Eastern range in Khabarovsk region, the construction of a third track on Khabarovsk I–Khabarovsk II section of the Far Eastern Railway has begun. Its length will be 9,9 kilometers¹⁶.

The development of transport infrastructure within the framework of this project has the following advantages:

1. Increasing the potential of transportation: new opportunities for development of railway and road transport between Russia and China, reducing time and cost of delivering goods and increasing cargo turnover and transportation efficiency.

2. Initiatives to build joint container handling centers will help simplify logistics processes, speed up cargo operations and improve coordination between Russian and Chinese transport companies.

3. Promoting cooperation between Russia and China in the economic sphere, developing trade,

¹⁰ The volume of yuan transactions in China's cross-border trade in 2022 increased by 37 %. ITAR-TASS. [Electronic resource]: <https://tass.ru/ekonomika/16783537>. Last accessed 20.02.2023.

¹¹ The share of yuan in the calculation of exports from Russia in 2022 jumped from 0,5 % to 16 %. «Interfax». [Electronic resource]: <https://www.interfax.ru/business/890332>. Last accessed 09.03.2023.

¹² Russia ranked third in the use of the yuan in international settlements. RIA «Novosti». [Electronic resource]: <https://ria.ru/20220819/yuan-1810649090.html>. Last accessed 20.02.2023.

¹³ Construction of 21st century. «Gudok». [Electronic resource]: <https://gudok.ru/newspaper/?ID=1622859&archive=2022.12.22>. Last accessed 20.02.2023.

¹⁴ Comprehensive plan for modernization and expansion of the main infrastructure for the period up to 2024. Decree of the Government of the Russian Federation of September 30, 2018 No. 2101-r. [Electronic resource]: <http://static.government.ru/media/files/MUNhgWFddP3UfF9RJASDW9VxP8ZwcB4Y.pdf>. Last accessed 20.02.2023.

¹⁵ New Baikal Tunnel opened at BAM. [Electronic resource]: <https://vszd.rzd.ru/ru/1900/page/104069?id=265010>. Last accessed 20.02.2023.

¹⁶ Eastern perspective. How the modernization of BAM and Transsib will change life in Russia. [Electronic resource]: <https://company.rzd.ru/ru/9401/page/78314?id=202824>. Last accessed 20.02.2023.



investment and tourism, strengthening ties between the regions of two countries.

4. Creation of new jobs. The implementation of the KPMI national project is part of a large project «Decent, efficient work and successful entrepreneurship»¹¹.

Among other transport projects implemented jointly by Russia and China, Moscow–Kazan high-speed railway project stands out. It was developed with participation of the leader in the field of high-speed railway technologies – China Railway Engineering Corporation¹⁷. CREC is actively involved in development, design and construction of high-speed railways around the world. This project involves construction of a high-speed rail line between Moscow and Kazan, which will significantly reduce travel time and provide a more efficient connection between two cities.

As part of the initiative to build high-speed railways Moscow–Kazan and Moscow–St. Petersburg (HSR «Moscow–St. Petersburg»), interest was expressed in implementation of this project together with Chinese companies and the possible attraction of financing¹⁸. The main goal is to create a modern high-speed rail link between two major Russian cities, which will significantly improve transport accessibility.

Given the extensive experience in construction and operation of high-speed railways in China [16], cooperation with Chinese companies provides access to advanced technologies in the field of high-speed rail transport.

High-speed rail projects involving Chinese companies reflect the desire of Russia and China to cooperate in development of transport infrastructure and improved communication between cities. This allows creation of modern and efficient transport routes that contribute to growth of the economy and increase the mobility of people.

CONCLUSIONS

The prospects for development of Russian-Chinese relations in the field of railway logistics are encouraging. It is worth paying attention to the following trends and forecasts:

1. Increase in cargo traffic. Every year there is an increase in container cargo transportation between Russia and China. This is due to the growth of economic cooperation, the increase in trade turnover and the expansion of mutual investment activity. The increase in containerised cargo indicates the growing need for reliable and efficient transport logistics between two countries.

This factor requires creation of additional container terminals and infrastructure to ensure efficient logistics processes.

To ensure more efficient transportation of containerised cargo between Russia and China, construction and modernisation of railway lines, terminals and logistics centers is underway. An example is the initiative put forward by the South Ural Railway.

2. Use of national currencies. Russia and China are working to strengthen the use of national currencies in foreign trade, which reduces dependence on the US dollar and facilitates settlements between countries. The transition to yuan contributes to simplification and acceleration of financial transactions, including in the field of container transportation.

One of the vectors is development of digital currencies, which provide new opportunities for safe and efficient financial transactions in the field of international trade and transportation. This could have a positive impact on container transportation by providing more convenient and transparent financial arrangements.

In general, further development of container cargo transportation between Russia and China is expected in the future due to the growth of trade turnover, development of infrastructure, strengthening of the use of national currencies and the possible introduction of digital currencies. These factors create a favourable environment for further strengthening of cooperation in the field of railway container transportation.

3. Increasing throughput. Countries understand the importance of increasing the capacity of railways to ensure efficient movement of goods. Both countries are expected to invest in upgrading and developing their rail networks to increase capacity and facilitate transportation.

4. Growth of cooperation in the field of railway infrastructure. The partners will continue active interaction and cooperation in harmonising plans and strategies for development of railway logistics, which will allow both countries to optimise the flow of goods, coordinate infrastructure projects and

¹⁷ China and Russia set up a working group on Moscow–Kazan high-speed rail project. [Electronic resource]: <https://company.rzd.ru/ru/9401/page/78314?id=153444>. Last accessed 20.02.2023.

¹⁸ Russia and China agreed to cooperate in the field of high-speed rail. [Electronic resource]: <https://company.rzd.ru/ru/9401/page/78314?id=122847>. Last accessed 20.02.2023.

reach agreements on customs procedures and traffic regulation.

5. Collaboration on high-speed rail. A possible area of joint work between Russia and China is implementation of HSR projects. Chinese companies, such as CREC, can actively participate in design, construction and financing of such projects, which will serve as a new stage of cooperation and contribute to rapid and efficient development of rail logistics between two countries.

The development of interaction between two countries in the field of railway logistics can be attributed to a favourable area for further cooperation, as the partners are making efforts to increase cargo traffic, enhance capacity and improve infrastructure. Another important factor is that the mutual interests of two countries in the energy sector, where Russia is a supplier and China is an important consumer of raw materials, can be useful to each other for development of trade and economic cooperation. This aspect is extremely important in view of the global change in the political architecture.

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Information about the author:

Teng Zhang, Ph.D. (Psychology), Managing Engineer, Specialist in International Relations of China Railway First Survey and Design Institute Group CO., Ltd. (CRCC), Xi'an, Shaanxi Province, People's Republic of China, tengteng@yandex.ru.

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