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## THE TRANS-CASPIAN INTERNATIONAL TRANSPORT ROUTE AND OTHER PROMISING CORRIDORS IN CENTRAL ASIA

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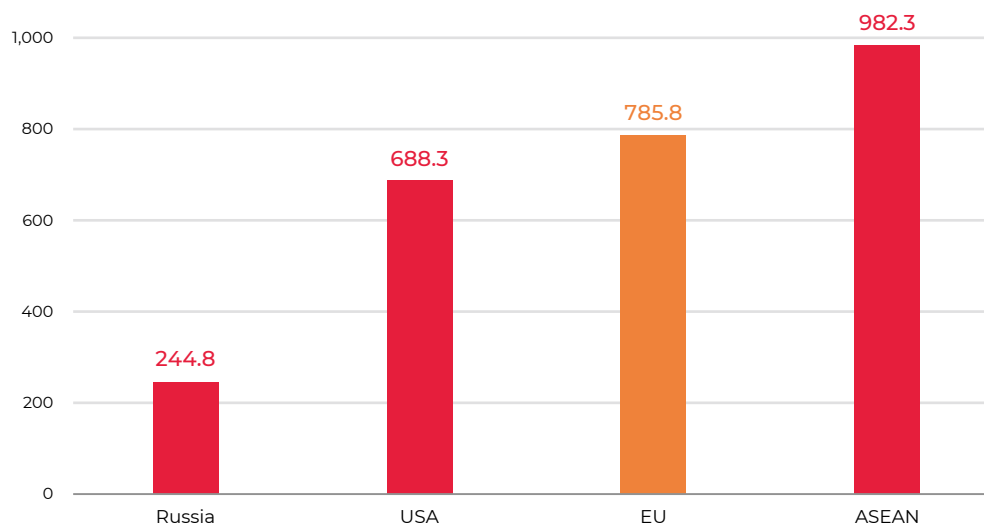
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# THE TITR AS ONE OF EURASIA'S TRANSPORT CORRIDORS

Trade between China and the EU remains one of the key axes of international trade. According to the General Administration of Customs of the People's Republic of China, in 2024, [trade turnover between China and the EU](#) amounted to \$785.82 billion US, exceeding China's trade turnover with the United States by \$97.5 billion. The EU countries are an important trading partner for China and one of the main markets for Chinese products. In this regard, both China and the EU are seeking to diversify their cargo delivery routes by developing various transport and logistics corridors.

## CHINA'S TRADE VOLUME WITH KEY PARTNERS IN 2024, BILLION DOLLARS



Source: [General Administration of Customs of the PRC](#)

The Trans-Caspian International Transport Route (TITR) is a relatively new transport route compared to the established Eurasian route (via Kazakhstan, Russia and Belarus), northern routes across Russia, the Trans-Siberian Railway, or sea shipments via the Suez Canal. Despite its multimodal nature (the need for at least one change in transport mode due to the crossing of the Caspian Sea) the route has received some development in recent years, including through its positioning as an alternative to existing corridors.

However, the use of the TITR as an alternative route is faced with the fact that both China and the EU are inclined to consider alternatives to the TITR itself — primarily using the territories of Kyrgyzstan, Uzbekistan and Turkmenistan (the Southern Corridor). Therefore, the review also presents alternative TITR routes, in addition to the already-proven Eurasian and Trans-Siberian routes — those that are used for primary transit by the countries of Central Asia and the Caspian region.

The Trans-Caspian International Transport Route (TITR) is intended to become another link between China and Europe. It passes through Kazakhstan, the Caspian Sea, Azerbaijan, Georgia and then through the Black Sea or Turkey to Europe. The TITR is also known as the “Middle Corridor”, which is related to the original concept proposed by Turkey. However, in the countries along the route, primarily in Kazakhstan, the name TITR remains more accepted. Each of the countries through which the route passes see in the TITR opportunities for their own development, first and foremost.

For example, for Kazakhstan, which is already one of the key transit countries for Chinese and European cargo on the continent, the TITR provides a way to strengthen its transport and logistics position by diversifying cargo flows passing through the country and developing infrastructure in the western part of the state. Kazakhstan also views the TITR as an export corridor for its own products. For example, in recent years, the importance of the TITR for transporting uranium has increased: 60% of Kazakhstan’s exports of this specific commodity to the West go via this route, [as Sputnik reports with reference to Kazatomprom. According to the information agency Neftegaz.RU](#), the TITR is used by Kazakhstan’s national nuclear energy company Kazatomprom to export natural uranium to Romania. Given that France, the EU’s main uranium consumer, has lost access to African uranium for political reasons, [the interest](#) of European consumers in Kazakhstan’s uranium and controlled routes for its supply is obvious.

No less important is the aspect related to attracting investments and the synergistic effect from the implementation of infrastructure projects for economic growth. TITR functions as a multimodal corridor involving railway, sea transport, and the necessary accompanying infrastructure.

The TITR project was initiated on November 7, 2013 in Kazakhstan within the framework of the «New Silk Road» Second International Transport and Logistics Business Forum. During the forum, an agreement on the establishment of the TITR Development Committee was signed between JSC NC Kazakhstan Temir Zholy, CJSC Azerbaijan Railways and JSC Georgian Railway. In 2014, JSC NC Aktau International Sea Trade Port, CJSC Azerbaijan Caspian Shipping Company, CJSC Baku International Sea Trade Port and LLC Batumi Sea Port joined the project.

The project was supported by China and the European Union, which helped develop technical documentation. For China, the TITR is one of the routes of the One Belt, One Road initiative. China [supports](#) the corridor’s development. At the same time, China is making its main efforts to develop it through interaction with Kazakhstan: in 2023, an intergovernmental agreement was signed aimed at developing infrastructure and attracting cargo to the Trans-Caspian route. Through TITR, it is possible to diversify cargo flow from China to Europe, which is Beijing’s main interest. In addition, one of the TITR branches goes to Turkey, which should contribute to the development of China’s trade with this country. However, China’s direct foreign investment in the TITR infrastructure is not yet envisaged, and the main efforts of the Chinese side are related to [ensuring](#) cargo flow along the route.

While China's main interests are economic, for the EU the TITR project is primarily of a political significance and is an attempt to launch an alternative transport corridor under the auspices and with the support of the EU. TITR essentially replicates the route of the Transport Corridor Europe-Caucasus-Asia (TRACECA), an initiative launched in 1993 with funding from the European Commission and with a permanent secretariat. At the same time, since the launch of the initiative, the Russian Foreign Ministry [has noted](#) that TRACECA is in fact a way to bypass Russia and connect Central Asia with the EU. Despite the fact that TITR and TRACECA have different "roots", today both the geography of the routes and the interests of their governing bodies coincide. It should be noted that TITR is at the intersection of the interests of China and the EU, but the EU initiatives of Western countries, such as the EU's "Global Gateway" or the G7's Partnership for Global Infrastructure and Investment (PGII), are largely aimed at creating an alternative to China's "One Belt, One Road" initiative.

Unlike the main Kazakhstan-Russia-Belarus transit railway corridor, TITR does not have a single operator. In this regard, the countries took a different path, having formed the International Association Trans-Caspian International Transport Route (hereinafter — IA TITR) in 2017, with headquarters in Astana. In accordance with the [charter](#), the Association is a non-profit organization. [The permanent members](#) of IA TITR are 8 organizations (5 railway companies and 3 sea ports and carriers) from 5 countries,<sup>1</sup> each of which has the right to participate in the management of the association's affairs with the right to vote in decision-making. Such a structure clearly complicates the negotiation process and does not allow for quick decision-making.

The main objectives of the Association are to attract transit and foreign trade cargo to the route, develop integrated logistics solutions, implement an effective tariff policy, create a unified technology for the transportation process, and reduce administrative and customs barriers. It is noteworthy that the TITR charter openly declares the task of "ensuring the competitiveness of TITR compared to alternative routes." Such goal-setting indicates not only the 'offensive' positioning of TITR, but also the existing competitive advantages of other routes.

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<sup>1</sup> Azerbaijan Railways, Azerbaijan Caspian Shipping Company, Aktau Sea Trade Port, Baku International Sea Trade Port, Georgian Railways, Kazakhstan Railways, Turkish State Railways, Ukrainian Railways.

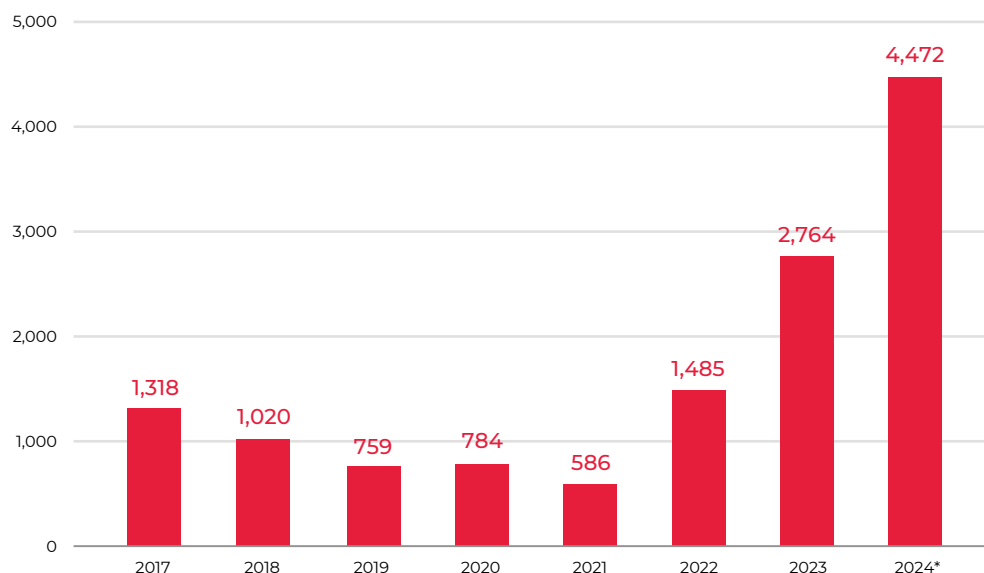
# CURRENT STATUS OF CARGO TRANSPORTATION VIA THE TITR

## Volumes and dynamics of cargo transportation

The current capacity of TITR is 6 million tons. There are plans to increase this to 10 million tons by 2027. The route’s capacity in terms of container transportation is 80 thousand TEUs per year.

The development of TITR as a transport corridor demonstrates a noticeable increase in transportation volumes, especially in relation to the relatively low initial base. Among the main factors for the growth in volumes, it is worth noting the favorable political and economic situation for TITR. The desire of transit countries to develop the route has found a response from extra-regional actors interested in alternative routes in the conditions of international political turbulence.

### DYNAMICS OF CARGO TRANSPORTATION VIA TITR, THOUSAND TONS



Source: Middle Corridor TITR

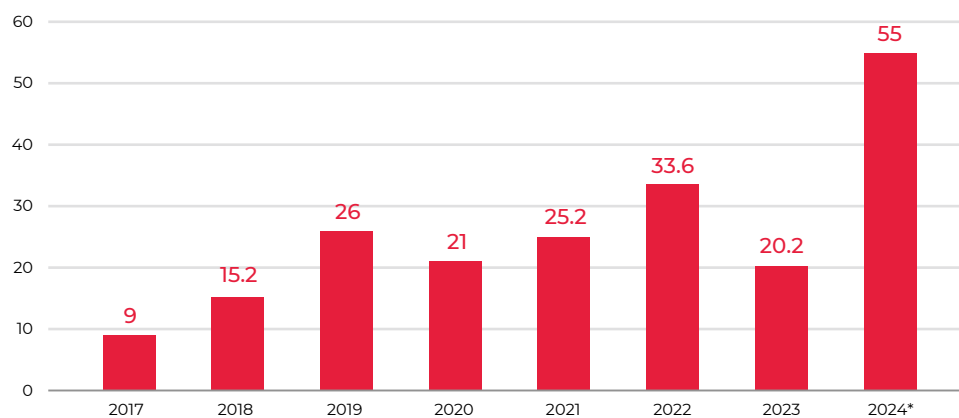
\* Authors’ rating based on 11 months of 2024

In the first eleven months of 2024, the volume of cargo transportation via TITR amounted to 4.1 million tons. The projected volume of transportation for the whole of 2024 is about 4.47 million tons. Particularly significant growth is observed in Chinese transit, which [increased more than 14-fold](#).

According to forecasts, in 2024, about eight million tons were transshipped through the Kazakh seaports of Aktau and Kuryk; of this volume, the TITR accounted for [4.2 million tons](#). This growth not only reflects an increase in export and transit volumes, but also a significant increase in import cargo flow.

Container transportation via TITR should be considered separately. In 2023, there was a decline in container traffic via TITR: the volume of transported cargo decreased by 39% to 20.5 thousand TEUs. However, already in the first 11 months of 2024, this figure reached 50.5 thousand TEUs. The projected volume of container traffic for the full year 2024 is about 55 thousand TEUs. At the same time, for the first 11 months of 2024, the volume of actual transit container traffic along the China-Europe-China route amounted to 31.5 thousand TEUs, of which 31 thousand TEUs were Chinese cargo being sent to Europe.

### DYNAMICS OF CARGO TRANSPORTATION VIA TITR, THOUSAND TEUS



Source: [Middle Corridor TITR](#)

Despite the growth in TITR transportation, the actual volumes remain significantly lower than the route's capacity, as well as lower than the volumes of cargo transportation along other East-West corridor routes, primarily the route through Kazakhstan, Russia and Belarus. In particular, China-Europe-China traffic along this route in the amount of 358.8 thousand TEUs for the first 11 months of 2024. The projected volume of cargo transportation for the full year 2024 is 381 thousand TEUs. Thus, according to the results of January-November 2024, TITR accounts for 7.8% of all rail-based transit container traffic between China and Europe, while the corridor through Kazakhstan, Russia and Belarus accounts for 89.2%.

According to the plans [announced](#) by the working group on TITR cargo transportation between Kazakhstan and China, up to 600 container trains per year should pass along the route in 2025-2026, and this volume will increase to 1,000 in 2027 and 2,000 trains in 2029. In terms of containers, Kazakhstan plans to handle at least 50,000 TEUs in 2025, increasing this figure to at least 85,000 TEUs in 2026-2029.

\* Authors' rating based on 11 months of 2024

## Travel time

Some of the key factors logistics companies and shippers face in choosing a route are the cost of transportation and transit time. In addition, these indicators allow us to compare the relative attractiveness of different corridors and routes.

As for the speed of transportation, the transit time along the Eurasian route, from the Altynkol and Dostyk railway border crossings to the Belarusian border, is about 7 days. However, according to TITR, the journey from the checkpoint in eastern Kazakhstan to Batumi takes up to 12 days, and to Constanta via Poti/Batumi, Georgia — to 20-22 days. The transit time for goods going from China to the EU via northern routes (the Trans-Siberian Railway) takes 19 days on average.

The main deterrent facing TITR is the need for the multimodal transportation of goods via the Caspian (Aktau/Kuryk—Alyat) and Black (Poti/Batumi—Constanta/Burgas) Seas. Utilizing the potential of containerization, which significantly accelerates multimodal transportation, can partly offset this limitation. However, it is only possible to achieve a change in modality without significant loss of time through the development of a single technology for the transportation process and a radical reduction in cross-border barriers. In this regard, the presence of a single operator on the Eurasian route, operating in the single customs space of the EAEU, sets a high standard for the efficiency of cargo transportation.

In 2024, cargo delivery times from China to Black Sea ports remained at the same level as the previous year. According to the shipping operator Maersk, the current delivery time from Xian, Yiwu or Zhengzhou to the port of Poti, Georgia is 20-23 days, which is comparable to 2023 (18-23 days). At the same time, the expected delivery times from China to Constanta are 31-34 days. As for cargo delivery from Xian, Yiwu or Zhengzhou to major consumers, they are as follows:

- to Baku, Azerbaijan — 12-14 days,
- to Ambarli, Turkey — 23-28 days,
- to Constanta, Romania — 31-34 days,
- to Duisburg, Germany or Budapest, Hungary; to Milan, Italy — 32-37 days,
- to Valencia or Barcelona, Spain — 44-47 days.

### TRANS-CASPIAN INTERNATIONAL TRANSPORT ROUTE



Source: Compiled by the authors based on data from Middle Corridor TITR.



According to Kazakhstan's National Development Plan, there are plans to further reduce delivery times between Europe and China to 10–14 days by 2029. However, these plans are being criticized by the Association of Kazakhstan Railway Carriers. According to the General Director of the association, the most optimistic scenario for the development of TITR assumes this period will be lowered to 15 days before 2040.

## — Cost of transport

Along with speed, the determining factor for shippers is the cost of transportation. To assess the cost of transporting a container and study the position of the TITR, it is advisable to consider the indicators of key routes: The ERAI transit rail transport index, and tariffs set for the TITR route.

Documents approved by the TITR member countries contain information on complex tariff rates for the transportation of goods along the TITR route, which are valid from January 1 to December 31, 2024. Tariffs vary depending on the route and type of transport, including shipments of general-purpose loaded containers via the ports of Baku and Hovsan, as well as transportation using ferries. For example, from January 1 to December 31, 2024, the tariff rate of \$3,948/TFU was approved on the TITR route Altynkol — Aktau — Baku (Alyat) — Boyuk Kesik — Gardabani — Batumi — Constanta.

For the main Eurasian route through Kazakhstan, Russia and Belarus, the ERAI index is an indicative rate, reflecting the cost of transporting a container across the EAEU from border to border. As of December 2024, the ERAI composite index for transit along the Dostyk/Altynkol — Brest/Bruzgi/ Svislač/Kaliningrad route is \$3,269/FEU.

A summary comparative analysis of TITR and the Eurasian route (via Kazakhstan, Russia and Belarus) in terms of cargo turnover, cost and delivery times, as well as organizational form of work is presented in the table below. The analysis indicates that the Eurasian route retains its competitive advantages in terms of key market indicators. At the same time, the growing market share of transit container transportation indicates demand for TITR from individual shippers and logistics operators.

Table 1.

## COMPARISON OF CHINA-EUROPE-CHINA SHIPPING CORRIDORS

Route	<b>Eurasian route</b> (via Kazakhstan, Russia and Belarus)	<b>TITR</b> (via Kazakhstan, the Caspian Sea, Azerbaijan, Georgia and the Black Sea)	Sea shipping (deep sea) China — Northern Europe
Transit cargo turnover, TEUs (forecast/ final value at the end of 2024)	381 thousand TEUs	36 thousand TEUs	8.6 million TEUs
Cost \$/FEU (from border to border, average value)	\$3,239/FEU  For the Altynkol/Dostyk — Brest route	\$3,948/FEU  For the Altynkol — Aktau — Baku (Alyat) — Böyük Kəsik — Gardabani — Batumi — Constanta route	\$4,940/FEU  On the Shenzhen — Hamburg/Rotterdam route
Cost \$/FEU (from point to point, as of Dec. 2024)	\$6,650/FEU  On the route Xian — Duisburg (SOC)	\$8,200/FEU  On the route Xian — Duisburg (SOC)	\$4,940/FEU  On the route Shenzhen — Hamburg/Rotterdam route
Market share of China-Europe-China container transport rail transit	89.2%	7.8%	–
Delivery time (border-to-border)	Altynkol/Dostyk — Brest/Bruzgi/ Svislač: 7 days	Altynkol — Batumi: 12 days Altynkol — Batumi/Poti — Constanta: 20-22 days	–
Delivery time (point-to-point)	Xian — Budapest: 17 days  Xian — Duisburg: 18 days  Xian — Milan: 20 days	Xian/Yiwu/ Zhengzhou — Baku: 12-14 days  Xian/Yiwu/ Zhengzhou — Ambarlı: 23-28 days,  Xian/Yiwu/Zhengzhou — Constanta: 31-34 days  Xian/Yiwu/Zhengzhou — Duisburg/Budapest/ Milan: 32-37 days  Xian/Yiwu/Zhengzhou —Valencia/Barcelona: 44-47 days	<b>38 days</b> Shenzhen — Hamburg  <b>40 days</b> Shenzhen — Frankfurt

Source: compiled by the authors based on data from ERAI, Container Trades Statistics, Drewry (WCI), Middle Corridor TITR, Maersk sea shipping, and a survey of market participants and open sources.

# TITR DEVELOPMENT TRENDS

## Infrastructure constraints

Like any developing route, the TITR has its “bottlenecks.” First and foremost, they are associated with the limited capacity of the infrastructure along the route, especially at the points of change of modality. According to experts, the capacity of the TITR is about 6 million metric tons per year, including 80 thousand TEUs in terms of container traffic. The main infrastructure constraint at the moment is the port infrastructure, as well as some bottlenecks on the railway. It will be difficult to expect an increase in cargo traffic in the medium or long-term unless these bottlenecks are “resolved.”

A significant limitation of the capacity of TITR is the seaport infrastructure linking the Caspian Sea ports of Kazakhstan (Aktau/Kuryk) with those in Azerbaijan (Baku/Hovsan), as well as in the Black Sea (Poti/Batumi). Mother nature is an additional factor. Storm winds blow over the Caspian Sea approximately 250 days a year, and they are strongest along parts of the Azerbaijani coast including the Absheron Peninsula. When weather conditions are unfavorable in the Caspian Sea, ports in Aktau and Baku stop working. In addition, experts have been reporting an existing shortage of ships for transporting cargo across the Caspian Sea, as well as the movement of existing ships at low speeds between the ports of Aktau and Baku.

In order to eliminate infrastructure constraints and unlock the potential of the route, the TITR member countries, namely Kazakhstan, Azerbaijan, Georgia and Turkey, have developed and approved the “Roadmap for the synchronous elimination of bottlenecks and development of the TITR route for 2022-2027.” This document provides for a set of measures aimed at eliminating infrastructure constraints, increasing throughput and carrying capacity on each section of the route.

Thus, the Roadmap for 2022-2027 highlights projects, the implementation of which will help to eliminate bottlenecks. At the port of Kuryk, there are plans to build “Sarzha”, a multifunctional sea terminal, as well as berths and additional complexes. At the port of Aktau, work is underway to reconstruct and extend berths, as well as build a container hub.

The second phase of construction of the Port of Baku is underway in Azerbaijan. Design work was completed at the end of 2023, and the full-fledged operation of the port is planned to begin in 2026. The port’s capacity is being expanded by two additional loading berths, which will be able to handle 25 million tons of cargo and 500,000 TEUs. In addition, Azerbaijan has the largest merchant fleet in the Caspian Sea, consisting of 52 cargo ships, and the Baku Shipyard can produce all types of vessels for the Caspian. In 2023, Azerbaijani President Ilham Aliyev outlined plans to expand the capacity of the Baku Shipyard, which, after modernization, will be able to build up to 10-15 tankers and dry cargo ships per year, due to the growing demand of shippers from Central Asia. It is also planned to attract a fleet of freight cars for the railways of Azerbaijan; the modernization of railways on the Alyat — Boyuk Kesik section is actively underway.

On the Kazakh side, as part of the development and improvement of the efficiency of the TITR, the construction of the Kazakh terminal at the port of Xian (PRC) has been completed. The construction of second tracks on the Dostyk — Moyynty railway section and a railway line bypassing Almaty is underway. There are plans to build a container hub at the port of Aktau, and Kazakhstan plans to acquire its own ferries, which will run between the ports of Kuryk and Baku.

Georgia has completed work on the modernization of the Baku-Tbilisi-Kars (BTK) railway line and increased capacity. As of September 2024, the electrification of the main line was fully completed and the reconstruction of the Akhalkalaki station was carried out. The Georgian side is completing work on the modernization of the pass railway and plans to purchase additional locomotives by the end of 2025, which are also designed to increase the carrying capacity on the route. The construction of a container terminal in the port of Poti has begun.

At the end of 2022, regular container shuttle trains were launched from Altynkol station. The operators are KTZ Express, ADY Container and GR Logistics and Terminals. The trains run strictly according to the established schedule along the route Altynkol — Aktau port — Baku port — Poti/Batumi port and Akhalkalaki station (Georgia). The train travels from Altynkol station to Poti and Batumi in 11-13 days.

Thus, the TITR member states pay great attention to the development of transport and terminal infrastructure in order to increase the throughput capacity of the TITR, which is currently significantly limited by infrastructure constraints.

The [23<sup>rd</sup> Ministerial Conference](#) of the Central Asia Regional Economic Cooperation (CAREC) program was held in Astana from 7 to 8 November. The Trans-Caspian International Transport Route International Association took part in this event. The participants discussed the CAREC Corridor 2 project, aimed at increasing transport sustainability and stimulating economic growth in the region. The creation of a container hub at the Kazakh port of Aktau and projects to modernize railways in Uzbekistan, Turkmenistan and Azerbaijan were also touched upon.

On June 22, 2023, Kazakhstan, Georgia and Azerbaijan signed an agreement aimed at reducing operational delays, eliminating bottlenecks and optimizing the tariff process. The states took measures for fast transportation and the throughput capacity of the Georgian section of the Baku-Tbilisi-Kars line, which was increased to five million tons; the modernization was completed in May 2024. These measures led to a reduction in transit time to 19-23 days.

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## Key players and development patterns

In addition to infrastructure issues, a key factor in the development of the TITR is the removal of barriers to the movement of goods, given the fact that they need to cross several borders. [The World Bank study](#) «The Middle Trade and Transport Corridor: Policies and Investments to Triple Freight Volumes and Halve Travel Time by 2030» notes that there are complaints about high tariffs for transportation across the Caspian Sea, as well as a lack of pricing transparency, with constantly changing prices for transportation.

One of the essential features of the TITR participants is their desire to create a single economic entity (operator) ensuring the smooth functioning of the corridor with uniform tariffs. The best example in this regard is operator of the Eurasian railway route through Belarus, Russia and Kazakhstan (JSC UTLC ERA). The company independently carries out cargo transportation; the railway tariff on the Kazakhstan, Russian and Belarusian railways, customs administration services, a fitting platform and loading and unloading operations are included in the cost of cargo transportation. As a result, a convenient platform for interaction with a single operator is provided for forwarding agents and other interested parties, which prevents the need for requests for extra services from each participant along the route. The presence of a single operator is especially important for forwarding agents, as it reduces transaction costs. The operator is partly owned by state-run companies, which serves as an indicator of reliability for foreign partners, as it testifies to the stability of the corridor.

In October 2023, the railway companies of Georgia, Azerbaijan and Kazakhstan agreed to establish a joint organization for cargo transportation via the Middle Corridor. At the end of 2023, the company [Middle Corridor Multimodal](#) was registered at the Astana International Financial Center (AIFC), the registration process is currently underway, the start of operations is planned for the end of 2024. The railway companies of Georgia, Azerbaijan and Kazakhstan, namely Kazakhstan Railways (KTZ), Georgian Railway and Azerbaijan Railways, took part in the establishment of the organization. The main objectives of Middle Corridor Multimodal are to provide services on a one-stop principle, guarantee delivery times, as well as implement a coordinated policy for the development of multimodal services in the direction of China — Europe/Turkey — China.

Thus, the further development of cargo transportation along the TITR corridor largely depends on the efficiency of the future single operator of TITR ([Middle Corridor Multimodal](#)). The company should become a link between the national operators of rail, sea and road transport of Kazakhstan, Azerbaijan, Georgia and Turkey. In particular, the key role is played by the successful harmonization of requirements (organization of standards for logistics processes, including the coordination of schedules, types of containers and documents), a common tariff policy and the development of uniform tariffs for the entire route to simplify the calculation of the cost of transportation; organization of 'end-to-end' logistics, including rail transportation, sea crossings across the Caspian Sea, road transportation and cargo handling in ports; implementation of a single-stop system for shippers, where all operations (documents, tracking, booking) are carried out through one platform, as well as the digitalization of all related procedures.

The activity to attract non-regional players to the route is noticeable. On May 22, 2023, at the Kazakhstan-Singapore Business Forum in Astana, PSA International<sup>2</sup> and Kazakhstan Railways (KTZ) signed an [agreement](#) to establish a joint venture called KPMC Ltd. for the further development of the TITR. In May 2024, during the state visit of Kazakhstan's President Kassym-Jomart Tokayev to Singapore, a memorandum on further cooperation was signed between KTZ, PSA, KPMC Ltd and G-trans Service to attract freight turnover. Currently, KTZ operates railway terminals in the dry port of Xian and the seaport of Lianyungang in China. The assets of the PSA group of companies include sea terminals in six ports and railway terminals in thirteen cities.

In June 2024, USAID (the United States Agency for International Development) and Maersk entered into a partnership [agreement](#) to improve the efficiency and sustainability of the Middle Corridor and expand Georgia's transit potential. USAID and Maersk Georgia LLC will jointly support the development of the transport and logistics sector in Georgia and promote the TITR through conferences and meetings with government and commercial partners.

In November 2024, Kazakhstan's President Kassym-Jomart Tokayev [met](#) with the head of the French shipping company CMA CGM. During the conversation, the TITR was discussed, as well as investment opportunities in the logistics infrastructure of the Aktau seaport. In addition, the leaders discussed the construction of container ships designed for operation in the Caspian Sea to improve maritime connectivity and efficiency.

In early 2024, the EU-Central Asia [Global Investment Forum](#) on Transport Connectivity announced €10 billion in funding for Central Asian transport links, including €1.5 billion from the European Commission and the European Investment Bank.

The European Union is actively supporting the development of the TITR, and sees it as a key transport artery for the delivery of goods from Asia. New highways are being built in Europe to connect Istanbul with Bulgaria, Romania, Hungary, Slovakia, Poland and Lithuania, including the [Via Carpathia](#) highway, which is scheduled to be completed by the end of 2025. As part of the C5+1 diplomatic platform, which unites the United States and five Central Asian states (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), the United States is actively promoting Tajikistan's integration into the TITR.

The launch of the Coordination Platform with the participation of the European Commission in June 2024 contributed to the growth of investment interest in the TITR. The platform is aimed at developing the functionality of the route and turning it into a competitive multimodal corridor.

The [Digital Trade Corridor](#) digital platform, developed by the Singaporean company Global DTC, was presented at the Ministry of Transport of Kazakhstan. One of the key modules of the platform, Tez Customs, began operating in pilot mode on the Kazakh-Chinese border in early 2024. This module allows for the automation of the process of electronic customs clearance of goods transiting along the TITR, which reduced the time for declaring transit goods to 30 minutes. The platform was launched in pilot mode on the Altynkol — Saryagash railway routes in the direction of Uzbekistan and Dostyk — Brest Severny in the direction of the European Union with transit through Belarus.

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<sup>2</sup> A Singapore-based port operator and supply chain manager.

In addition, in May 2024, Kazakhstan signed an [agreement](#) with Turkey on the simplification of international combined cargo transportation. The agreement provides for the simplification of cargo transportation by various modes of transport through the ports of the Caspian Sea and via the Baku-Tbilisi-Kars railway. An important aspect is the development of piggyback traffic and the introduction of a single shipping document for rail and sea transport, which will be issued electronically through an automated digital platform.

It is expected that the ratification of the agreement will reduce the transportation time of goods along the TITR [to 5 days](#) and will contribute to an increase in cargo flow between Kazakhstan and Turkey. However, the agreement will only come into force after ratification by the Turkish side and the launch of a system for issuing single digital documents. Azerbaijan and Georgia will also have to accept this document, since the route passes through their territories.

Finally, on December 5, 2024, a [framework agreement](#) on strategic cooperation was signed in Chongqing between the International Association «Trans-Caspian International Transport Route» and the Chinese logistics platforms Chengdu International Railway Port Investment & Development (Group) Co., Ltd. and Yuxinou (Chongqing) Supply Chain Management Co., Ltd. In accordance with the agreement, the parties agreed to coordinate activities to attract transit and foreign trade cargo from China to Europe and in the opposite direction.

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# ALTERNATIVE TRANSPORT CORRIDORS IN CENTRAL ASIA

The Trans-Caspian route is one of the Eurasian continental routes that utilizes the transit potential of Central Asia and the Caspian region, primarily for the transportation of goods from China and Europe. In this regard, the TITR is a relatively new route that is striving to take its place among the already established routes of the East-West corridor, including the Eurasian route.

The development of transport routes and the ambition to increase cargo traffic dictate the need to connect with the cargo base of other Central Asian countries: Tajikistan, Turkmenistan, [Kyrgyzstan](#) and [Uzbekistan](#). However, these countries are also striving to diversify their cargo flows, taking into account their own development goals.

In this regard, the [ambition](#) of the TITR, as the project develops, to include cargo from Tajikistan, Kyrgyzstan and Uzbekistan in the route — with further transit through Kazakhstan and onward to Azerbaijan — overlaps with the existing transport corridors and alternative projects of regional and external players, such as China and Russia. Despite some limitations inherent in the cargo base of these countries, the choice of certain routes by shippers of these countries can have a significant impact on the volume of transported cargo.

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## Southern Transport Corridor to Russia

In early November 2023, in Tashkent, on the sidelines of the First Transport Forum of the SCO Member States, the Minister of Transport of Uzbekistan Ilkhom Makhkamov, Deputy Minister of Transport of the Russian Federation Dmitry Zverev and the Minister of Transport and Communications of Kyrgyzstan Tilek Tekebayev signed a memorandum on the formation and development of the international land-sea route Kyrgyzstan — Uzbekistan — Turkmenistan — Russia through the Caspian Sea (Southern Transport Corridor).



## SOUTHERN CORRIDOR: MULTIMODAL ROUTE KYRGYZSTAN — UZBEKISTAN — TURKMENISTAN — RUSSIA



Source: Compiled by the authors using data from [Sputnik News](#)

The idea of a new transport corridor arose in the context of the peculiarities of Russia's international economic relations with the Central Asian countries, which were greatly affected from the sanctions wars between the Russian Federation and the Western countries. Against the backdrop of the threat of secondary sanctions, some countries, such as Kazakhstan, have decided to adhere to a [policy of neutrality](#) in matters of sanctions against Russia. Given Kazakhstan's transit position with respect to Russia, other countries, such as Kyrgyzstan, a member of the EAEU, or the region's most populous country, Uzbekistan, have expressed a desire to find ways to directly connect with Russia through the territory of Turkmenistan and the Caspian Sea.

If Kyrgyzstan and Russia share a common customs territory within the EAEU, then for Uzbekistan the importance of ties with Russia is difficult to overestimate, given that the country carries out 80% of its trade through the territory of Russia and Kazakhstan. As for Turkmenistan, this country is interested in better using its transit potential associated with access to the Caspian Sea. In this regard, a shipping line will be created between Astrakhan and the Turkmen port of Turkmenbashi. The relevant negotiations took place in early 2023.

However, as in the case of the TITR, the Southern Transport Corridor has infrastructure limitations. The capacity of the port of Turkmenbashi, represented by a ferry crossing for cargo that is sent to the Russian cities of Astrakhan or Makhachkala, is limited. There are also certain limitations in choosing the route through Astrakhan due to the single-track railway. The route through Makhachkala faces the problem of limited-capacity railway infrastructure due to the load on the North Caucasus Railway.

Despite all the difficulties, the project can be implemented due to the common interests of the countries involved. The corridor can help Russia increase cargo traffic and ties with the countries of the region. For Uzbekistan, it provides alternative access to the Caspian Sea. The project is also beneficial to Kyrgyzstan, as it will help to level out border issues with Kazakhstan. Turkmenistan, due to its advantageous geographical location, will be an important link in ensuring the uninterrupted supply of goods, and the development of this route can benefit from synergy amid the development of the North-South International Transport Corridor, where Turkmen infrastructure will be involved.

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## Southern Transport Corridor to Iran

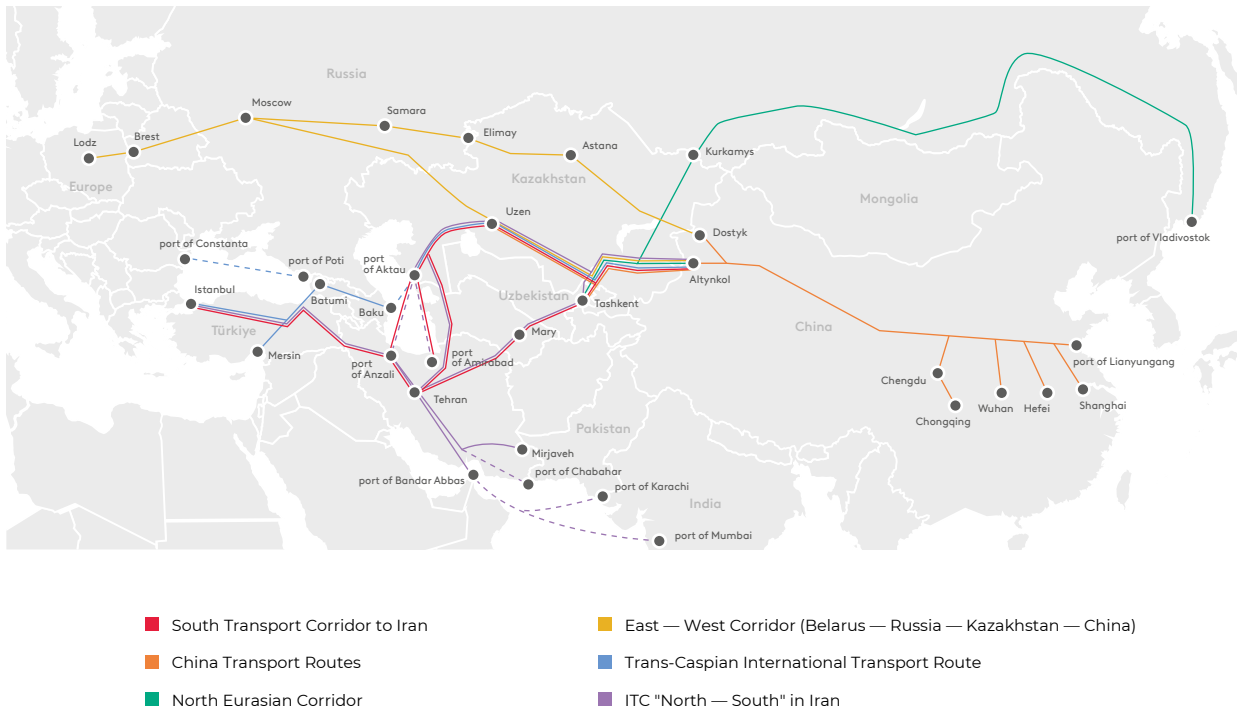
There is one more southern corridor in the Central Asian region, connecting China with Iran. In October 2023, the Central Asian countries discussed the signing of an agreement on the creation of a new transport and transit corridor from China through Iran to the EU countries. At Uzbekistan's initiative, negotiations were held in the format of a video conference between representatives of the transport and railway departments of Kazakhstan, Turkmenistan, Iran and Turkey. It was assumed that the ITC would look like this: China — Kazakhstan — Uzbekistan — Turkmenistan — Iran — Turkey — Europe.

It is assumed that the 4,749 km distance from the Kazakh railway station of Altynkol to Tehran could be covered in 12-15 days. Then the goods would be sent to Turkey for further distribution throughout Europe. At the same time, the Altynkol — Tehran route can pass both through the territory of Turkmenistan (via Uzen — Bolashak) and through Uzbekistan. The possibility of a direct connection between Kazakhstan and Iran through the ports of the Caspian Sea is also noted, but the sea-leg would significantly complicate the process of cargo delivery.

In July 2024, the official opening ceremony of the first stage of the China-Iran-Europe railway corridor was held in the dry railway port of Tehran (Aprin), and a two-way freight train was launched on [the Iran-China route](#).

However, it should not be forgotten that Iran is the second-most-affected country in the world in terms of the number of sanctions. The potential of this route may be restrained by pressure from the United States, as well as due to possible intra-regional conflicts in the Middle East.

## TRANSPORT ROUTES OF CENTRAL ASIA INVOLVING IRAN



Source: created by the authors using data from the [Samruk Zazyna annual report](#)

## China-Kyrgyzstan-Uzbekistan Railway

In late January 2024, experts discussed the prospects for developing the China-Kyrgyzstan-Uzbekistan transport corridor at a meeting of the CIS Transport Business Dialogue. The China-Kyrgyzstan-Uzbekistan (CKU) railway project was launched with the signing of an agreement between the three countries in Beijing on June 6, 2024. Construction was supposed to begin in October 2024 and take just over 6 years, according to preliminary agreements. With a [total length of 523 kilometers](#), the railway will run 260-280 kilometers through Kyrgyzstan, 50 kilometers through Uzbekistan, and 213 kilometers through China.

The China-Kyrgyzstan-Uzbekistan railway will connect the railways of the three countries and expand the possibilities for transporting goods by rail to the Persian Gulf countries, the Republic of Turkey, and further onward to Europe. Starting from Kashgar in Western China, the railway will run to Torugart-Arpa-Makmal, then to Jalal-Abad in Kyrgyzstan and reach Andijan in southeastern Uzbekistan, where the route will connect to Uzbekistan's existing railway system, with access to Turkmenistan and then Iran. The project is expected to shorten the existing land route from China to Europe by 900 kilometers and save up to 7-8 days.

## NEW RAILWAY PROJECTS FROM CHINA



Source: [The Economist](#)

Besides the railway lines, additional infrastructure will be built, such as new warehouses, terminals and stations. One of the most difficult tasks will be the construction of a station where trains can switch from the Chinese standard gauge (1435 mm) to the Russian (1520 mm) one, which is used in Kyrgyzstan and Uzbekistan.

The implementation of the CKU project will require large-scale financing, which will be provided mostly by China. While the total cost of the project is about [8 billion US dollars](#), the construction of the Kyrgyz section alone will cost about 4.7 billion US dollars. The loan for the construction to Kyrgyzstan is being provided by China, which is interested in diversifying continental logistics routes. In addition, the difficult terrain in Kyrgyzstan requires the construction of more than 90 bridges and 50 tunnels from scratch. Many analysts have pointed out the seismic and avalanche hazard of the mountainous terrain: more than 13,000 earthquakes are registered in Kyrgyzstan every year. Landslides are also quite common.

Nevertheless, all three countries are eager to implement the project. Beijing is looking for any opportunities to expand its chances for free and unrestricted trade around the world. Tashkent views the project as another opportunity to expand its trade, economic and transport ties. And Bishkek expects the CKU project to bring investment in infrastructure, become a driver of economic growth and strengthen the country's international position.

# CONCLUSIONS

## ARCHITECTURE OF EURASIAN TRANSPORT CORRIDORS



- Eurasian transport route (China — Kazakhstan — Russia — Belarus — EU)
- Trans — Siberia Railway
- North — South (Russia — Azerbaijan — Iran)
- Uzbekistan — Port of Nakhodka
- Trans-Afghan International Transport Route (Uzbekistan — Afghanistan — Pakistan) [at the stage of development]
- South Transport Corridor (Kyrgyzstan — Uzbekistan — Turkmenistan — Caspian Sea — Russia) [memorandum]
- Transport Corridor Uzbekistan — Kyrgyzstan — China [construction]
- Transport Corridor Uzbekistan — Turkmenistan — Iran — Turkey [protocol on the establishment of ITC]
- Trans-Caspian International Transport Route (Uzbekistan — Kazakhstan — Azerbaijan — Georgia — Turkey)
- Trans-Caucasian International Transport Route (Uzbekistan — Kazakhstan — Azerbaijan — Georgia) [active]
- Transport Corridor Uzbekistan — Kazakhstan — Russia — Belarus — EU
- Corridor Eastern Ports of China (Uzbekistan — Kazakhstan — China) [active]
- Corridor Port of Nakhodka (Uzbekistan — Kazakhstan — Russia) [active]

Source: Compiled by the authors

Continental routes have become important for trade between China and Europe. Transit communications through the countries of the region speed up the delivery time of goods and provide a continental alternative to sea shipments. The Trans-Caspian International Transport Route has developed significantly in recent years as one of the routes for freight traffic between China and Europe. However, it is also worth noting the importance of the TITR for trade and economic relations between the countries of the Caspian region.

The rapid development of the TITR in recent years is due to the fact that the development of the corridor has become a point of intersection of the interests of external actors - both economic and political. China is interested in developing the TITR in order to diversify its supply routes to Europe. The EU, meanwhile sees the TITR as a project that can provide the Union with direct access to supplies of key resources of Central Asia along a 'friendly' route. At the same time, given the often-competing initiatives of Western countries and China, such a coincidence of interests may turn out to be tactical rather than long-term.

Nevertheless, the TITR is intended to become a source of growth and development for the countries along the route, primarily Kazakhstan, Azerbaijan and Georgia, which are seeking to benefit from the attention of external forces in terms of attracting investment in infrastructure and creating growth for their own economies. Despite the desire of the TITR association to bring Chinese cargo to Europe, cargo of regional origin is significant for the TITR. For example, the export of goods from Kazakhstan and [Azerbaijan](#), account for a proportion of the non-containerized cargo flow. The TITR is an alternative to the already established corridors, primarily routes running further north. China-Europe-China shipping along this route amounted to 358.8 thousand TEUs in the first 11 months of 2024. The projected volume of cargo transportation for the full year 2024 is 381 thousand TEUs. Thus, according to the results of January-November 2024, the share of TITR in the transit container flow between China and Europe by rail reached 7.8%. Despite lagging behind the volumes going along the main routes, TITR has shown impressive growth over the past two years.

The total volumes of transported cargo demonstrated even greater growth in terms of tonnage. Over the first eleven months of 2024, the volume of cargo transportation along TITR amounted to 4.1 million tons. The projected volume of transportation for the whole of 2024 is about 4.47 million tons. At the same time, 2.8 million tons were transported by the end of 2023.

The challenge for the route is its geography — the need for multimodal transportation with the crossing of the Caspian and Black Seas. To ensure seamless multimodal transport, it is necessary to develop both 'hard' and 'soft' infrastructure. The key constraints for the TITR are: the limited capacity of the Caspian Sea ports of Azerbaijan and Kazakhstan, the presence of 'bottlenecks' in the railway infrastructure of Kazakhstan and Georgia, and a shortage of sea vessels to transport increasing volumes of cargo. TITR transportation does not yet have a single operator or a single service. Further integration is required by the information systems of the transit countries. Unlike other routes, in the conditions of multimodal transportation, seamlessness of modality change and border procedures will be of key importance for the competitiveness of the TITR.

The southern transport corridors through Russia or Iran are in their early stages of development. Projects for new routes are also being assessed — the Trans-Afghan Corridor and the China-Kyrgyzstan-Uzbekistan railway line. The states through which the routes pass are interested in implementing such large-scale initiatives, and they are joined by key external players — depending on the corridor.

The interests and strategic priorities of various external actors intersect in the region. This increases the importance of finding consensus in the implementation of international transport and logistics projects and creates conditions for cooperation in the development of transport corridors. It is important for the Central Asian states to ensure the harmonized development of the transport and logistics potential of rail transport.