

CARGO FLOWS BETWEEN UZBEKISTAN AND THE EUROPEAN UNION: OPPORTUNITIES AND CONSTRAINTS FOR RAIL TRANSIT



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INTRODUCTION

Located between the vibrant economies of East Asia and Europe, South Asia and the Russian Federation, the Central Asian region occupies a geostrategic position in the heart of the Eurasian continent. Central Asia (CA) unites five countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

The unique geographical location of Central Asia is an important strategic link between East and West. Favorable conditions for mutual trade have been created between the Central Asian countries within the framework of the following trade relations:

- all the Central Asian countries (except Turkmenistan) are signatories to the CIS
 Free Trade Agreement of 2011, in the context of which participating countries
 agree not to levy customs duties on each other;
- Kazakhstan, Kyrgyzstan and Tajikistan are members of the WTO, Turkmenistan received observer status in 2020 and Uzbekistan is currently negotiating accession;
- As members of the EAEU, Kazakhstan and Kyrgyzstan are in a common customs union, Uzbekistan is an observer country;
- Central Asian countries have bilateral agreements to create favorable conditions for mutual trade.

Geographical factors such as having no access to the sea or being located far from a coastline, as well as the physical features of the countries themselves, represent significant barriers to transport and trade in Central Asia. For this reason, all the countries in the Central Asian region are committed to the joint development of transport and communication links. The main tasks are to create a powerful transport infrastructure, improve transport communications not only within Central Asia, but also between the region, its nearest seaports and its main markets, and provide good transport connectivity.

Kazakhstan and Turkmenistan have access to the Caspian Sea. Since its immediate neighbors are landlocked, Uzbekistan is one of only two countries (Liechtenstein is the other) in the world, in which transport needs to cross the borders of two countries in order to access the global ocean.

When entering global markets, Central Asian countries are dependent upon the transport policies of other countries, since freight carried by road and rail is forced to cross the territories of neighboring countries. The geographical isolation of the countries in the region imposes transit and transportation costs amounting to as much as 70-80% of the value of the cargo exported. Up to 40% of transportation time is lost due to inadequate customs procedures and poorly-developed logistics.

On account of their strategic position between Europe and Asia, the European Union is becoming ever more actively interested in a stable partnership with the countries of Central Asia, and seeks to develop relations not only with Central Asia as a whole, but also with each individual state in the region. It was for this reason that, in 1999, the Partnership and Cooperation Agreement between the EU and Uzbekistan came into force.

DYNAMICS OF MUTUAL TRADE BETWEEN THE EU AND UZBEKISTAN

Over the past ten years, mutual trade between Uzbekistan and the countries of the EU has remained multi-directional, but the total amount of trade has increased many times over. Exports from the EU increased from \$1.5 billion in 2012 to \$3.9 billion in 2022, whilst imports from Uzbekistan increased from \$301 million to \$827 million over the same period. Throughout the entire ten year period, the EU has maintained a significant trade surplus: The value of EU exports is more than five times greater than the value of imports from Uzbekistan.

DYNAMICS OF MUTUAL TRADE BETWEEN THE EU AND UZBEKISTAN, MILLIONS OF US DOLLARS

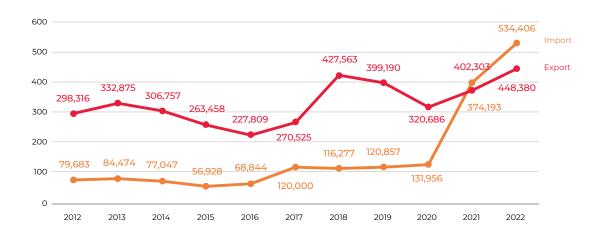


Source: Trade Map

There have been noticeable increases in imports from Uzbekistan since 2021, and in EU exports to Uzbekistan since 2022.

The dynamics of import and export physical cargo flows are also multi-directional and show an upward trend; the EU's net trade surplus is noticeable throughout almost the entire period of study: Up until 2021, the cargo flow from the EU to Uzbekistan was much greater than that in the opposite direction. In 2021, however, the volume of imports to Uzbekistan from the EU began to level off at a little under 400 thousand tons per year; since then, the cargo flow from Uzbekistan has been greater than that from the EU.

DYNAMICS OF MUTUAL TRADE BETWEEN THE EU AND UZBEKISTAN, TONS



Source: Trade Map

The cargo flow from Uzbekistan to the EU tripled during 2021 to a record export figure for the last ten years of 270 thousand tons. The main commodities were:

- 1. Sulfur: exports from Uzbekistan increased by 161 thousand tons in 2021. Sulfur is used in important EU industrial sectors, such as agriculture (for the manufacture of fertilizers), the chemical industry and others. Uzbekistan has its own mineral deposits (at mines such as Uchkuduk, Kamyshlyk and Shurchi) and is one of the main suppliers of sulfur to global markets. In 2021, Uzbekistan began supplying sulfur to Lithuania by rail. In 2022, both Latvia and Poland were added to the list of importers of Uzbek sulfur.
- 2. Fertilizers: fertilizer exports have increased by 81 thousand tons. The fertilizers exported to the EU by Uzbekistan include potassium chloride, urea, ammonium nitrate and ammonium sulfate. Fertilizer cargo flows have increased steadily over the recent past. Both the importing markets and the means of transportation differ widely: fertilizers are supplied by road, rail and sea to 12 member states of the European Union.

During 2022, the cargo flow from Uzbekistan to the EU increased by a third from its 2022 level. The main commodities fueling the increase were:

- 1. Fertilizers: a growing demand for fertilizers in the member states of the EU has resulted in imports from Uzbekistan increasing by 216 thousand tons.
- 2. Metal products: Uzbekistan has been exporting metal products to the EU for many years, but in 2022 added various types of rod and wire to the flat-rolled products, ferro-alloys and scrap ferrous metals it already supplied. This resulted in the export of metal products increasing by some 14.7 thousand tons. Road transport was primarily used for the supply of this commodity and accounted for 63% of all the metal products exported. A further 36% was delivered by rail and 1% by sea¹. The products are primarily supplied to the Baltic states, Germany and the Netherlands.

Eurostat transport statistics are based only on the means of transportation in use when the goods enter or leave EU territory. A delivery by sea from Uzbekistan would obviously mean the commodity first being taken overland to a seaport and subsequently entering the EU on board ship. Eurostat data does not provide details on the geography of the supply route (https://ec.europa.eu/eurostat/cache/metadata/en/ext_go_detail_sims.htm)

3. Raw commodities: an increase of 14.3 thousand tons. Uzbekistan supplies mineral products (distillates, coal, paraffin) to almost all EU countries mainly by sea (54% of supplies), but also by rail (38%) and, to a lesser extent, by road (9%).

In the first nine months of 2023, the flow of physical cargo increased in both directions, but whilst exports from Uzbekistan rose by 17%, those from the EU went up by only 9%. During 2023, the volume of imports to the EU from Uzbekistan has risen markedly from 358 thousand tons to 420 thousand tons and is likely to set a new record for the year; this will maintain Uzbekistan's current net trade surplus with the EU.

DYNAMICS OF MUTUAL TRADE BETWEEN THE EU AND UZBEKISTAN IN 2023, TONS



Source: Eurostat

The main commodities fueling the absolute increase in physical imports to the EU from Uzbekistan for the nine months of 2023, compared to the same period in 2022 are:

- 1. Potash fertilizers: there was a multi-fold increase in imports by rail (from 7.6 to 62.9 thousand tons), and a two-fold increase in imports by road (from 4.4 to 9.2 thousand tons). Special freight cars are normally used to transport bulk fertilizers, including potash, by rail.
- 2. Nitrogen-based fertilizers: deliveries by rail increased from 35 to 44 thousand tons, whilst deliveries by road decreased from 8.2 to 7 thousand tons.
- Mixed fertilizers: deliveries by road increased from 9 to 14 thousand tons.
- 4. Rolled sheets: deliveries by rail increased from 3.2 to 10 thousand tons.

5. Hot rolled rods: Uzbekistan began deliveries by road in 2023. The volume of export currently stands at 20 thousand tons.

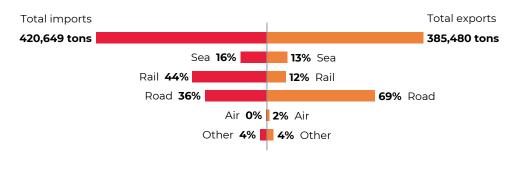
6. Raw zinc: deliveries have increased by 4325 tons; in 2023, Uzbekistan began delivering raw commodities to the EU via routes which include transportation by ship, and the commodities therefore enter the EU by sea².

The major contributors to the increase in physical exports from the EU to Uzbekistan in 2023 are:

In terms of modes of transportation by which goods enter the customs territory of the EU, railway shipments dominated the cargo flows from Uzbekistan to the EU in 2023, accounting for 44% of all physical imports. By comparison, road transportation accounted for 36%, and shipment by sea for just 16%. Almost 70% of the return cargo flow from the EU to Uzbekistan is by road, with deliveries by rail accounting for only 12%. A re-orientation of road shipments to the railways would seem to be the most obvious way of developing transport sustainability, and a study of the possibilities and limitations of such a transition is an urgent recommendation.

- 1. Trailers and their parts: deliveries by road increased from 22 to almost 30 thousand tons.
- 2. Bricks and analogous ceramic products: deliveries by sea almost doubled from 5.4 to 10 thousand tons.
- **3.** Pneumatic tires: up until and including 2022, deliveries were prmarily made by road. In 2023, significant volumes of these products were exported by sea (4.5 thousand tons) and rail (2 thousand tons).
- 4. Freight cars: in 2023, 3.5 thousand tons of freight cars were delivered by rail.

MUTUAL TRADE BETWEEN THE EU AND UZBEKISTAN BY TYPE OF TRANSPORTATION FOR THE 9 MONTHS OF 2023

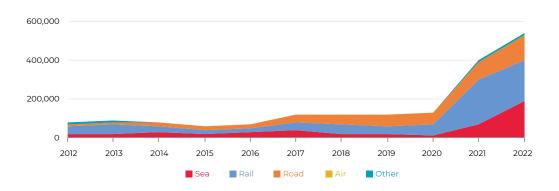


Source: Eurostat

² Based on the current configuration of Eurasian transport logistics, the chosen shipping route may include either the Mediterranean, Black or Baltic Seas.

Cargo flow structures have already undergone significant transformation. The cargo flows from Uzbekistan during the period 2018–2020 were essentially shared between sea and road transportation in a 50:50 ratio. Since 2021, deliveries by sea have increased sharply and there has been a significant absolute increase in deliveries by rail.

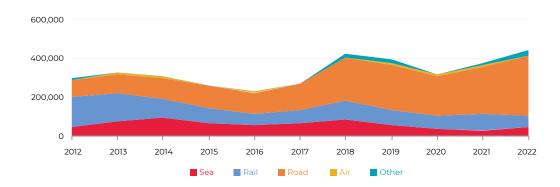
STRUCTURE OF PHYSICAL IMPORTS TO THE EU FROM UZBEKISTAN, TONS



Source: Eurostat

Over the past ten years, European exports have been reaching Uzbekistan by road, rail and sea in relatively similar amounts. Since 2018, there has been a noticeable movement away from sea transportation and in favor of road; deliveries by rail have remained at about 60 thousand tons per year (on average).

STRUCTURE OF PHYSICAL EXPORTS FROM THE EU TO UZBEKISTAN, TONS



Source: Eurostat

Which of the EU-Uzbekistan cargo flows could actually be re-oriented from road transport to rail is largely dependent on the suitability of the goods for shipment by container.

COMMODITY MARKETS IN UZBEKISTAN

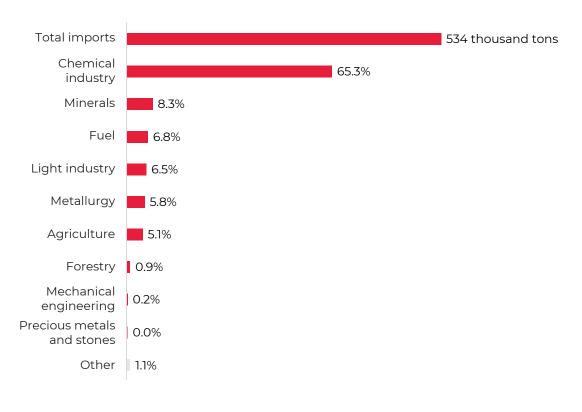
Work begun in 2017 has brought about major changes to the structure of Uzbekistan's economy.

The key sectors of the Uzbek economy are agriculture, manufacturing and the services sector.

The dynamic development of the Uzbek economy can be largely explained by the country having to "catch-up" with its neighbors and a significant increase in the workforce. At the same time, the country's convergence in income levels with Kazakhstan — the economic powerhouse of the region — is relatively slow, and the gap remains significant.

Europe is becoming an important destination for Uzbekistan's agricultural exports. In 2021, the EU and Uzbekistan launched the Multi-Year Indicative Program for Enhanced Cooperation 2021–2027, highlighting the export potential of Uzbekistan's agri-food sector. In 2021, Uzbekistan joined the GSP+ preference system, which allows duty-free export to the EU of 6,200 categories of goods. In 2022 fruit and vegetable exports to the EU amounted to \$31.7 million, or 28% of total food exports; this demonstrates that there are major opportunities for growth.

STRUCTURE OF IMPORTS TO THE EU FROM UZBEKISTAN BY SECTOR, 2022, TONS



Source: Eurostat

Cargo flows from Uzbekistan to the EU are dominated by the chemical industry and include such products as fertilizers and ethylene polymers. In total, chemical products account for 65% of all physical cargo flows and these are transported by road, rail and sea. Mineral raw materials (primarily sulfur) account for a further 8.3% of all cargo flows. Fuel (primarily petroleum products) accounts for 6.8% of exports. Products produced by light industry — including cotton yarn and fabrics — account for some 6.5% of exports. Cotton generally accounts for no more than 4% of the physical cargo flowing from Uzbekistan to the EU.

In Uzbekistan, there is no <u>state regulation of the cotton industry</u>; the industry is completely open to market forces and the price of cotton is therefore determined by the buyers (cotton-textile clusters) and sellers (farmers). The main source of raw material for the textile sector is cotton, which is grown on approximately one third of all irrigated land in Uzbekistan.

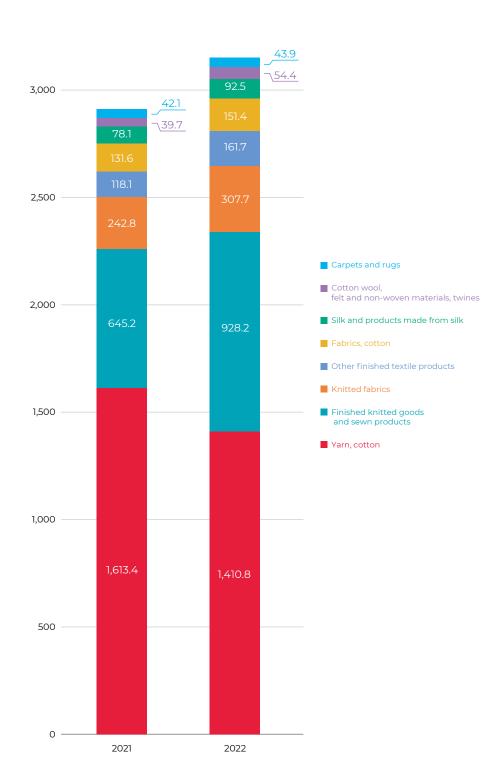
In Uzbekistan, cotton and its derivatives are second only to gold in export value. In 2022, the export to global markets of Uzbek cotton earned the country \$1.6 billion and secured Uzbekistan's place among the top ten cotton exporters worldwide. Cotton also ranks second (fertilizers are first) in the list of products exported to the EU, accounting for about 18% of all commodities. Cotton's relatively low share in the structure of physical exports is explained by its relatively low specific density. Cotton is transported in containers and, according to ERAL statistics, needs on average 11.6 TEU to transport one hundred tons of the commodity (the same amount of steel cable needs just 4.5 TEU). This is why cargo flows should be assessed both in units of weight and volume (TEU).

Based on figures for the 2023 harvest, cotton production is expected to be worth around \$9.6 billion in 2024.

By the end of 2022, and with an export value of \$3,178 million, textile products accounted for 16.5% of all exports — an increase of 8.6% on the 2021 figures.

TEXTILE EXPORT DYNAMICS IN 2021 — 2022, MILLIONS OF US DOLLARS



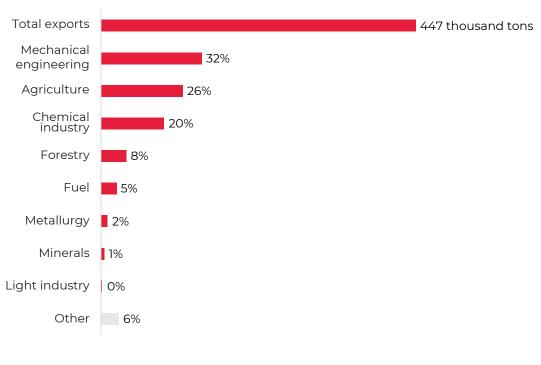


Source: National Statistics Agency under the President of the Republic of Uzbekistan

The main commodities in the textile product export structure are cotton yarn (44.4% of all exports) and finished knitted and clothing products (29.2%). In 2022, Uzbekistan exported 552 types of textile product to 73 different countries. In 2022, the major share of textile exports went to the Russian Federation (\$1,264.9 million) and Turkey (\$519.1 million). EU countries also import textile products from Uzbekistan: Poland — \$78.3 million, Italy — \$38.5 million and Germany — \$28.7 million. Over the ten months of 2023, Uzbekistan exported 607 types of textile products valued at \$2.5 billion to 59 different countries (12.5% of all exports).

The textile industry of Uzbekistan is being increasingly oriented towards the European market. The industry has a number of competitive advantages, such as its own resource base and low labor costs, and is therefore considered to have good investment potential. Experts are also predicting increases in demand for finished products from European importers: A number of major German retailers and clothing brands are currently considering the potential of establishing cooperation with textile companies in Uzbekistan. The Europe-Uzbekistan Association for Economic Cooperation (Eurouz) acts as a bridge between producers in Uzbekistan and consumers in the European Union. Eurouz has created a special electronic platform to help Uzbek manufacturers sell their products on the European market. Uzbekistan is therefore becoming an important supplier of textiles to Europe; in general, goods produced by the country's light industry are now considered to be among the most promising cargo flows from Uzbekistan to the EU.

STRUCTURE OF EXPORTS FROM THE EU TO UZBEKISTAN BY SECTOR, 2022, TONS



The structure of exports from the EU to Uzbekistan is far more diversified than the structure of imports. The three main categories of imports from the EU to Uzbekistan are mechanical engineering, agriculture and the chemical industry, accounting for 32%, 26% and 20% of all imports respectively.

The main engineering commodities: trailers and their parts, tractors and prime movers, trucks and auto parts are delivered to Uzbekistan by road. The most significant exceptions are textile fiber processing equipment (transported by rail) and weaving machines (transported by sea). Agricultural goods, namely foodstuffs (meat, vegetables, fruits) requiring special transportation conditions, are delivered from the EU to Uzbekistan primarily by road. Commodities produced by the chemical industry may be brought in using all three modes of transport, but road transportation remains dominant.

The significant increase in imports of engineering products can be largely explained by the fact that Uzbekistan is currently actively implementing policies to raise the level of competitiveness of the country based on technical and technological breakthroughs in the real sector of the economy, namely the automotive industry. By the end of 2022, Uzbekistan had become the largest car manufacturer in the CIS. In 2022, 333.5 thousand vehicles were manufactured — an all-time record. Western sanctions against Russia have played an important role in the development of the automobile industry in Uzbekistan, due to European, Japanese and Korean brands leaving Russia's economic area. Uzbekistan is now a major supplier of cars to the Russian market.

MODAL SHIFT PROSPECTS AND CONTAINERIZED CARGO FLOW

In order to assess the potential volume of cargo flows that could be shifted from road to railway container transportation, an analysis was made of all the physical cargo flows between the EU and Uzbekistan in 2022. An estimate was made of each commodity item based on current import and export volumes as a TEU equivalent³.

Based on the results of the analysis, the conclusions are as follows.

Firstly, of the 302 thousand tons of European exports to Uzbekistan delivered by road, at least 238 thousand tons (79%) are containerized cargo. Taking into account the current commodity structure, transporting this amount of products would require some 21 thousand TEUs, with goods such as trailers and their parts, tractors and prime movers, and live plants accounting for the largest container volumes. The largest commodity items have been ranked by potential TEU volume and are presented in the table below.

To assess potential volumes in TEU, the specific weights (weight-to-volume ratio) of various commodity items were calculated based on ERAI cargo transportation statistics ERAI (https://index1520.com/statistics/).

Table 1.

TOP 20 CONTAINERIZED CARGO EXPORTS FROM THE EU TO UZBEKISTAN, TRANSPORTED BY ROAD, BY POTENTIAL VOLUME IN TEU

HS4	Containerized commodity item	Industry	Export by road, 2022, tons	Specific weight, tons/TEU	TEU
	Total		238,131		21,212
8716	Trailers and parts thereof	Mechanical engineering	31,653	12	2,571
8701	Tractors and prime movers	Mechanical engineering	11,315	7	1,560
0602	Live plants	Agriculture	7,222	7	1,039
2710	Petroleum products	Fuel	8,212	12	662
3004	Prepackaged medicines	Chemical industry	5,847	11	521
3208	Anhydrous synthetic paints and varnishes	Chemical industry	2,714	8	329
2004	Other frozen cooked vegetables	Agriculture	3,692	11	323
1805	Cocoa powder	Agriculture	3,001	9	320
4810	Coated paper and cardboard	Forestry	3,996	13	317
2309	Ready-made animal feed	Agriculture	3,760	12	310
4811	Paper and cardboard, impregnated or laminated	Forestry	3,718	12	301
3824	Other chemical products	Chemical industry	3,649	12	300
4802	Uncoated graphic paper and cardboard	Forestry	3,465	12	284
3402	Detergents and cleaning products	Chemical industry	3,751	13	281
2106	Other food products	Agriculture	3,153	12	274
3302	Flavorings	Chemical industry	2,493	10	254
2202	Non-alcoholic beverages	Agriculture	2,818	11	250
1901	Other flour or milk based products	Agriculture	2,684	11	244
4011	Pneumatic tires	Chemical industry	2,763	12	234
8445	Textile fiber processing equipment	Mechanical engineering	1,897	8	226
	Other		190,151		10,609

Source: Eurostat

Secondly, of the 130 thousand tons of European imports from Uzbekistan delivered by road, at least 118 thousand tons (91%) could be made container-adaptable. Taking into account the current commodity structure, transporting this amount of products will require some 10 thousand TEUs. Calculating the potential volume of the goods delivered in TEU confirmed the hypothesis that the products of light industry would constitute the most promising cargo flow: goods such as cotton yarn and fabrics, knitted fabrics, tanned leather and others are the most suitable container-adaptable EU imports from Uzbekistan currently transported by road. The total export of light industrial goods to the EU by road in 2022 amounted to 29 thousand tons; taking into account the relevant commodity structure and specific weight, up to 3,000 TEU may be required to transport this amount of products.

Fertilizers (nitrogen-based and mixed) are another important commodity. In 2022, 32 thousand tons of fertilizer were delivered by road from Uzbekistan to the EU. The authors of the study have calculated that transporting this amount of fertilizer will require some 2,725 TEU. The largest commodities have been ranked by potential TEU volume and are presented in the table below.

Table 2.

TOP 20 CONTAINERIZED CARGO IMPORTS TO THE EU FROM UZBEKISTAN, TRANSPORTED BY ROAD, BY POTENTIAL VOLUME IN TEU

HS4	Containerized commodity item	Industry	Import by road, 2022, tons	Specific weight, tons/TEU	TEU
	Total		118,869		10,179
5205	Cotton yarn with more than 85% cotton	Light industry	17,121	8,607	1,989
3102	Nitrogen-based fertilizers	Chemical industry	18,249	11,73	1,556
3105	Mixed fertilizers	Chemical industry	14,312	12,24	1,169
0813	Dried fruits, mixtures of nuts and fruits	Agriculture	2,226	2,431	916
7214	Unalloyed hot rolled rods	Metallurgy	6,420	11,1815	574
5208	Cotton fabrics up to 200 g/m2	Light industry	4,842	11,6385	416
7010	Glass containers	Others	4,905	12,876	381
7604	Aluminum bars and profiles	Metallurgy	3,047	12,405	246
7801	Untreated lead	Metallurgy	2,684	11,3065	237
4706	Non-wood pulp	Forestry	2,560	12,22	209
7210	Unalloyed rolled sheets with coatings	Metallurgy	2,118	11,239	188
6006	Other knitted fabrics	Light industry	2,132	12,987	164
5503	Synthetic fibers	Chemical industry	1,800	11,4555	157
4104	Tanned cattle and horse leathers	Light industry	1,461	9,36	156
6004	Wide knitted fabrics with elastomeric or rubber threads	Light industry	1,697	11,669	145
0713	Pulses	Agriculture	1,552	11,294	137
0712	Dried vegetables	Agriculture	1,435	10.9	132
7403	Refined copper	Metallurgy	1,407	12,5445	112
3404	Artificial and ready-made waxes	Chemical industry	1,229	11.2	110
3901	Polyethylene	Chemical industry	1,608	16.5	97
	Other		13,032		1,086

Source: Eurostat

Based on the structure and volumes of current mutual trade in physical terms between the EU and Uzbekistan, the potential for the transition from road to rail transportation in the EU-to-Uzbekistan direction is at least twice as high as the equivalent potential for cargo flowing in the reverse direction.

Industrial growth is a key vector in the development of Uzbekistan's economy. In the recent past, 19 free economic zones and more than 400 small industrial zones have been created, with some 10 trillion Uzbek soms (about \$812 million) being allocated for their construction. The main drivers of economic and industrial zones development are industries such as textiles, chemistry, building materials, leather, pharmaceuticals and electro-technology. Uzbekistan's desire to increase its means of production will ensure a steady increase in demand for imported raw materials, machine tools, components and other equipment already being delivered by the EU, but primarily by road. The industrial and regional development of Uzbekistan, as well as the intensifying of trade relations with European suppliers and importers, implies a gradual shifting of cargo transportation from road to rail.

Changes made in 2023 did not affect the structure of the cargo flows in terms of transportation. The volume of rail transportation continues to decline in the EU-to-Uzbekistan direction and expand in the Uzbekistan-to-EU direction, so the problem of balancing container flows must be addressed when goods are transferred to the rails.

TRANSPORTATION ROUTES

The geostrategic position of Central Asia poses challenges to the countries of the region in respect of access to maritime transport, reducing costs associated with the crossing of state borders, and accelerating the region's integration into the global system of transportation corridors.

In recent years, Uzbekistan has been actively taking practical measures to develop its existing multi-modal transport corridors and create new ones, in order to improve the transportation and communication links between Central Asia and Europe. This is largely due to the tasks of deepening the country's integration into the global transport and logistics network and increasing the potential of Uzbekistan's national transport system being provisioned in the updated version of the Uzbekistan 2030 strategy document.

The workloads of Uzbek carriers are gradually being re-oriented to destinations in the south. Upon joining the TRACECA International Transport Corridor Program "Europe-Caucasus-Asia", Uzbekistan gained access to the Black Sea via the Caspian. Freight from Uzbekistan is now being directed through the Trans-Caucasus Corridor (TRACECA) and the European road transport transit routes.

In February 2021, the leaders of Uzbekistan, Pakistan and Afghanistan agreed to the construction of the "Termez — Mazar-i-Sharif — Kabul — Peshawar" Trans-Afghan railway. The new transport corridor is intended to connect the EU, Russia, Uzbekistan, Afghanistan, Pakistan, India and other countries of the South-east Region. Project "Trans-Afghanistan" is already under development, but initiatives are already being put forward to create a "Belarus — Russia — Uzbekistan — Afghanistan — Pakistan" multi-modal route. For Uzbekistan, which is landlocked, a transit corridor through Afghanistan would provide the shortest route to ports in Pakistan, thereby giving access to the global ocean for cargo export and the importation of goods. Implementation of the project will in the future give access through Afghanistan to seaports in Iran (Chabahar) and Pakistan (Chaman). According to the Minister of Transport of Uzbekistan, the project will allow Central Asian countries to benefit from new and shorter transit corridors with access to the rail network of Pakistan and the ports of the Arabian Sea, thereby reducing transportation times and cutting export costs by 30-40%.

In July 2022, Uzbekistan and Pakistan signed a declaration establishing a strategic partnership. The agreement has contributed to an increase in transport volumes between the countries, and also to an increase in the volume of shipments using Pakistan's Indian Ocean seaports of Karachi, Gwadar and Qasim.

In January 2023, negotiations took place between Turkmenistan, Kyrgyzstan, Russia and Uzbekistan on the creation of a new multi-modal Southern Transport Corridor, which will connect Russia via the Caspian Sea with the countries of Central Asia. The multi-modal route is intended to run from the south of Kyrgyzstan through Uzbekistan to the port of Turkmenbashi on Turkmenistan's Caspian Sea coast, before heading north to Astrakhan. At the beginning of November 2023, a Memorandum of Understanding was signed in respect of the creation and development of the "Russia — Caspian Sea — Turkmenistan — Uzbekistan — Kyrgyzstan" international multi-modal transport corridor. Once implemented, the Southern Transport Corridor should be able to absorb some of the transit traffic from the Trans-Caspian International Transport Route.

In November 2023, a Memorandum of Understanding was also signed in respect of the creation and development of the "Belarus — Russia — Kazakhstan — Uzbekistan — Afghanistan — Pakistan" international transport corridor (ITC).

By participating in the creation of these transport corridors, Uzbekistan is actively pursuing policies to overcome its geographical isolation. In November 2023, Uzbekistan, Turkmenistan, Iran and Turkey signed a protocol on the formation of an "Uzbekistan — Turkmenistan — Iran — Turkey" multi-modal transport corridor linking Asia and Europe. The protocol also provisions unified, competitive tariffs for the delivery of goods using the rail networks of the four countries. In order to implement the project, however, it will first be necessary to complete construction of the China-Kyrgyzstan-Uzbekistan railway.

Cooperation with China on construction of the Uzbekistan-Kyrgyzstan-China railway will allow goods to be transported all the way from China through Uzbekistan to Europe and, via the Southern Corridor, to the countries of the Persian Gulf. It will effectively transform Uzbekistan from an inland state into an important Central Asian communications hub.

With China's help, Uzbekistan is diversifying its export destinations, modernizing infrastructure, re-orienting investment flows and increasing their potential.

In September 2022, at the Shanghai Cooperation Organization Summit in Samarkand, an agreement was signed to promote the construction of a railway connecting China, Kyrgyzstan and Uzbekistan.

The Kyrgyz section of the railway will begin at the Torugart Pass and from there run in a northwesterly direction through Arpa and Makmal to Jalal-Abad, where it will then connect with the Uzbek rail network. In order to facilitate this, the track gauge will have to be changed from the standard 1435mm gauge used in China and Europe to the 1520mm gauge used in Central Asia; the track change will probably take place at the town of Makmal, where a gold refinery is located.

The length of the Kyrgyz section of the railway, which will pass through rugged mountainous terrain and require the construction of at least 90 tunnels, will be around 280 km. The total cost of the project has been estimated at between \$3 and \$5 billion. In addition, China will need to build around 160 km of roads, in order to give access to the new railway network.

The line will run through Kyrgyzstan's "Torugart — Arpa — Makmal — Jalal-Abad" corridor and connect with terminal stations in Kashgar, China and Andijan, Uzbekistan. Once this section has been completed, the railway could then be extended westwards, passing through Turkmenistan and Kazakhstan, the countries of the Southern Caucasus and Turkey, before eventually reaching Europe. The new railway is expected to reduce the total distance from China to Turkey by some 900 km.

From Uzbekistan, it is expected that the railway will connect with the Turkmen rail network before running through either the Caspian ports of Turkmenbashi or Baku in Azerbaijan, thus making it possible for these countries to access the markets of Georgia, Turkey and even Bulgaria and the other nations bordering the Black Sea.

The railway would then become the central component of a rail transportation network connecting China with Iran, Turkey and Europe.

Kazakhstan and Uzbekistan have already moved to new levels of cooperation. Work is underway on construction of the Darbaza— Maktaaral— Jizzakh, railway line and modernization of its border checkpoints. The countries agreed to begin construction of the Kyzylorda-Uchkuduk, line starting in 2025. Kazakhstan is already showing interest in the Trans-Caspian international transport route, and particularly the North-South corridor, which will increase the volume of goods flowing through Uzbekistan, Turkmenistan and onward to the Iranian ports and the markets of Southern Asia.

In August 2023, representatives of the Ministry of Transport of Uzbekistan and the USAID Trade Central Asia project discussed the possibility of including Kazakhstan in the Trans-Caspian International Transport Route (TITR). The transport corridor will pass through the Caspian Sea states of Kazakhstan and Azerbaijan, thereby linking these countries to Georgia, Turkey and the countries of South-eastern Europe. However, an alternative route for the TITR has been proposed, which would take it from China through Kyrgyzstan, Uzbekistan and Turkmenistan to the ports of the Caspian Sea. In order to benefit from this route, Uzbekistan would need to have its own ships in the Caspian Sea to be able to transport goods between the ports of Aktau in Kazakhstan and Baku in Azerbaijan. Uzbekistan has already therefore signed an agreement with Azerbaijan on the construction of a cargo terminal in the port of Baku, entered into a contract with the Chinese company China Shipbuilding Industry Corporation (CSIC) for the supply of four new ships, and started negotiations with Kazakhstan and Turkmenistan on the joint use their port facilities. There is also an option, according to the Minister of Transport of Uzbekistan, of interconnecting the Trans-Caspian and Trans-Afghan international transport routes, which would then boost the export of goods from Asia to Europe.

Uzbekistan is therefore getting ready to become a key bridge between Europe and Asia. In November 2023, ministers at a meeting of the SCO forum agreed to a transport corridor project beginning in China and passing through neighboring countries to the Caspian Sea, before then continuing on through Azerbaijan, Georgia and Turkey and the countries of South-eastern Europe. In addition, Uzbekistan is to be given a 70 percent discount on international transportation along the corridor, which would make the republic very competitive in cargo flow markets and especially attractive to clients. The corridor would become a bridge between Europe and China, and would provide Uzbekistan with an excellent opportunity to export its products to a wealth of new regions.

PROSPECTIVE ARCHITECTURE OF THE TRANSPORT CORRIDORS CROSSING UZBEKISTAN



Source: ERAI

In summary, most of Uzbekistan's trade with the countries of the EU currently flows to the north through Kazakhstan, Russia and Belarus, through the Trans-Caucasus transport corridor (transiting Kazakhstan, Azerbaijan and Georgia) with access to the Black Sea, and through TITR (transiting Kazakhstan, Azerbaijan, Georgia and Turkey).

Following the signing of the protocol on the creation of the Uzbekistan — Turkmenistan — Iran — Turkey international transport corridor, the prospect of a new international corridor connecting Asia with Europe has come into view. The alternative route offered by the TITR (China — Kyrgyzstan — Uzbekistan — Turkmenistan — Azerbaijan — Georgia — Turkey) is also an attractive one, since not having to pass through Kazakhstan would make it shorter. However, shipments along the alternative route would not be able to commence before completion of the China — Kyrgyzstan — Uzbekistan railway, since Uzbekistan does not have a border with China.

The Trans-Afghan international transport route (via Afghanistan and Pakistan) will not only open new markets to goods from Uzbekistan, but will also offer new transportation options to the seaports of Iran and Pakistan.

Clearly, the creation of alternative routes for the shipment of the country's export cargo is of great importance to Uzbekistan. Uzbekistan's participation in the "Southern Transport Corridor" project (Kyrgyzstan — Uzbekistan — Turkmenistan — Caspian Sea — Russia) and in the memorandum of the Belarus — Russia — Kazakhstan — Uzbekistan — Afghanistan — Pakistan ITC is helping increasing the country's transit potential.

Uzbekistan's external trade has, up to the present, been primarily focused on transportations routes to the north of the country, but the memorandums, agreements and projects, in which it is now participating, will open trade routes to the south.

Table 3.

COMPARISON OF TRANSIT TIME ON THE UZBEKISTAN-EU ROUTE BY MODE OF TRANSPORT

Name of the transport corridor	Delivery time by rail, days	Delivery time by road, days
Uzbekistan – Kazakhstan – Russia – Belarus – EU	15-17	18
Uzbekistan – Turkmenistan – Iran – Turkey – EU	16	7
Uzbekistan – Turkmenistan – Azerbaijan – Georgia – Turkey — EC – EU	25-30	18-24

Source: Ministry of Investment, industry and trade Republic of Uzbekistan $\,$

Rail transportation on the Uzbekistan-EU route in terms of delivery time is advantageous to carry out along the Uzbekistan— Kazakhstan — Russia — Belarus — EU transport corridor. Regarding the road transportation, it is mainly faster to get through the Uzbekistan — Turkmenistan — Iran — Turkey — EU and Uzbekistan — Turkmenistan — Azerbaijan — Georgia — Turkey — EU transport corridors.

The average transportation cost on the Uzbekistan-EU route varies depending on the direction of the route:

- Northern route (land transport) \$2,300 -\$2,500 per FEU;
- Western route (multimodal transport) \$4,500-\$4,900 per FEU;
- Southern route (multimodal transport) \$4,000-\$4,300 per FEU.

OPPORTUNITIES

Uzbekistan fully supports the development of international multi-modal transportation and cargo flow corridors throughout the territories of Eurasia, since one of the main problems for the country, as indeed for Central Asia as a whole, has been the lack of direct access to the global ocean. The rapidly changing international environment is demanding that countries make comprehensive and coordinated efforts to improve their transport infrastructures and create new trade routes for the shipment of their export cargo. Currently, Uzbekistan is close to implementing construction of the China — Kyrgyzstan — Uzbekistan and Uzbekistan — Afghanistan — Pakistan railway lines. The feasibility study for the construction of the proposed Uzbekistan — Kyrgyzstan — China railway has already been completed. Work is underway to implement construction of the Termez — Mazar-i-Sharif — Kabul — Peshawar railway line connecting Uzbekistan to the ports of the Indian Ocean.

The Eurasian transport framework is intended to be a solution which will not only improve links between the landlocked states of Central Asian, but will also allow those countries to connect to trading partners beyond the region's borders.

A deepening of the levels of cooperation between Uzbekistan and the European Union has already increased the volume of trade to some \$4.5 billion in 2022. European investment projects in the various sectors of the Uzbek economy are currently valued at more than 20 billion euros, half of which is linked to German companies.

The volume of cargo transportation by rail in the EU-to-Uzbekistan direction continues to decrease, whilst that flowing in the Uzbekistan-to-EU direction continues to increase. The shifting of cargo flows between Uzbekistan and the EU from road to rail remains a viable option. Based on the physical volumes of containerized cargo, about 21 thousand TEU would be required to cover exports to Uzbekistan, and some 10 thousand TEU to cover imports from the EU.

The European Union has extended Uzbekistan's access to the GSP+ system of preferences for the duty-free supply of goods for another four years, i.e. until the end of 2027. In 2022, the GSP+ program made it possible for Uzbekistan to increase its volume of exports to the EU by a factor of four. GSP+ beneficiary status has allowed the Ministry of Investment, Industry and Trade of Uzbekistan to predict export figures of \$1 billion in 2023.

Despite improvements in trade and economic cooperation between Uzbekistan and the European Union, difficulties still remain in the transport and logistics sector. Despite the geopolitical intentions of the countries in respect of trading routes through Eurasia, the main corridor for the shipment of cargo is still the Trans-Caspian International Transport Route. Due to the absence of a coordinated approach to transit corridor development, together with the levying of high tariffs, the option of increasing shipment volumes on this route is, by contrast to alternative corridors, extremely problematic.