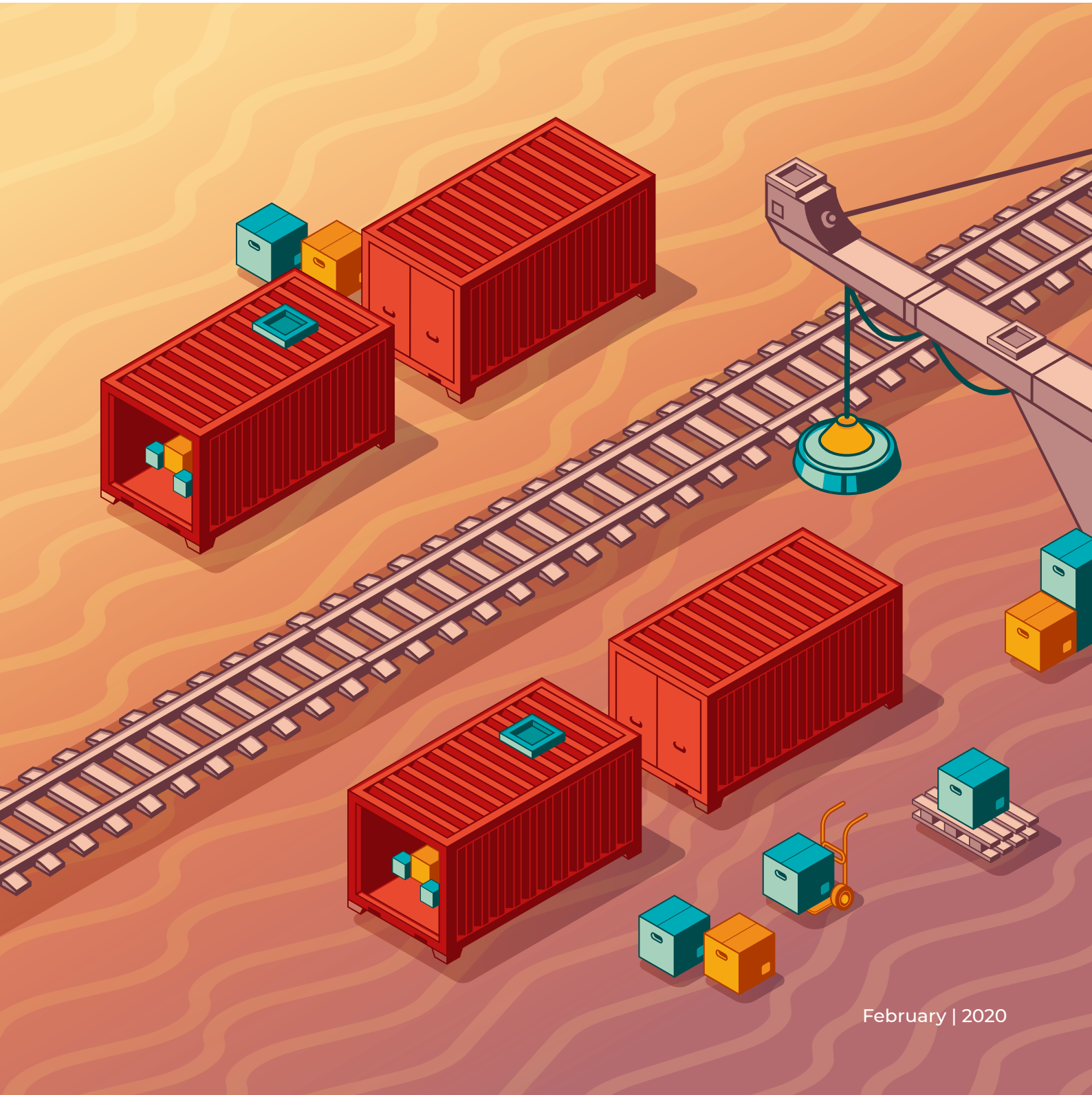
ERAI
Eurasian Rail Alliance Index

Market review

RAIL TRANSPORT IN EURASIA IN 2019



February | 2020

Table of contents

THE CURRENT STATE OF TRANSPORT CONNECTIONS IN THE EURASIAN SPACE

The current state of transport connections in the Eurasian space

The dynamics of the trade between the largest economies of the Eurasian space, i.e. the European Union and China, continues a positive trend in 2019. Following this trend, the logistics market is developing. There are several shipping routes between Europe and China by the way of transportation. Yet shippers prefer the less expensive one, i.e. sea. Nevertheless, the fast-growing and competitive sector of rail container transportation in the China -Europe - China traffic meets the main challenges of the logistics market in terms of safety and reliability of transport, speed and delivery terms: for example, more than 300 thousand TEUs were transported in 2019 due to the record average train speed of 1056 km/day. Results of 2019 show that transportation between Europe and China in the railway corridor through Belarus, Russia and Kazakhstan is six times faster than by sea. It is vital to highlight the reliability of rail, especially during turbulent times when other modes of transport fail to satisfy customer needs. History is the best proof of such resilience to crisis.

Rail routes providing the flow of goods between the European Union and China

Rail transport has a huge potential in the Eurasian space: every year, rail transportation becomes more and more competitive due to modernization of the terminal and linear infrastructure, development of legal regulation. For example, in November 2019, the 1520 mm track for the Xi'an - Mukran - Mannheim route with UTLC ERA acting as the carrier was the first time to use the unified CIM/SMGS consignment note in multimodal container transportation on the China - Europe - China way.

Currently, railway transport between Europe and China is carried out by four main routes: through Belarus, Russia and Kazakhstan (Kartaly/Kanisai, UTLC ERA route); through Russia (Zabaykalsk); through Mongolia (Naushki); through Russia (ports of the Russian Far East and Grodekovo). In 2019 there was a slump in the volume of transported goods on the routes through Zabaikalsk and Naushki. The route through the territory of Kazakhstan, Russia and Belarus steadily leads among other rail container transport routes. At the same time, 2019 showed a record volume of goods transported by this route, the value of which for the first time reached the level of 300 thousand TEU/year. The total volume of traffic for 2016 – 2019 amounted to more than 900 thousand TEU.

Figure 1.

DISTRIBUTION OF CARGO FLOWS BY ROUTES FROM CHINA TO EUROPE (BY VOLUME OF TEU)

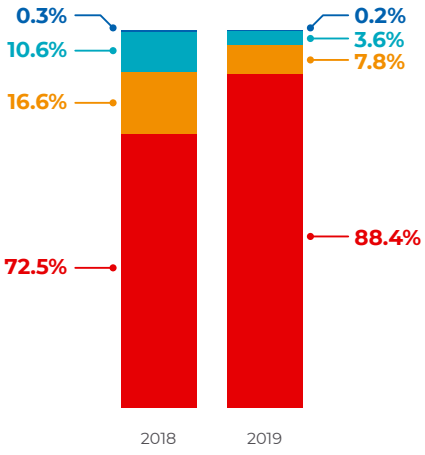
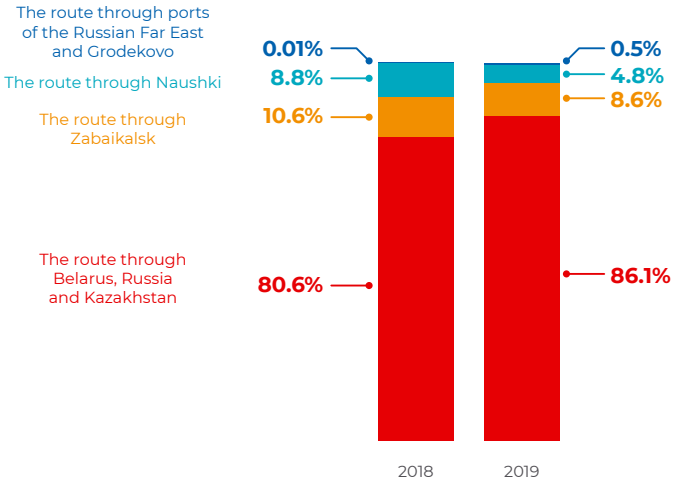


Figure 2.

DISTRIBUTION OF GOODS BY ROUTES FROM EUROPE TO CHINA (BY VOLUME OF TEU)

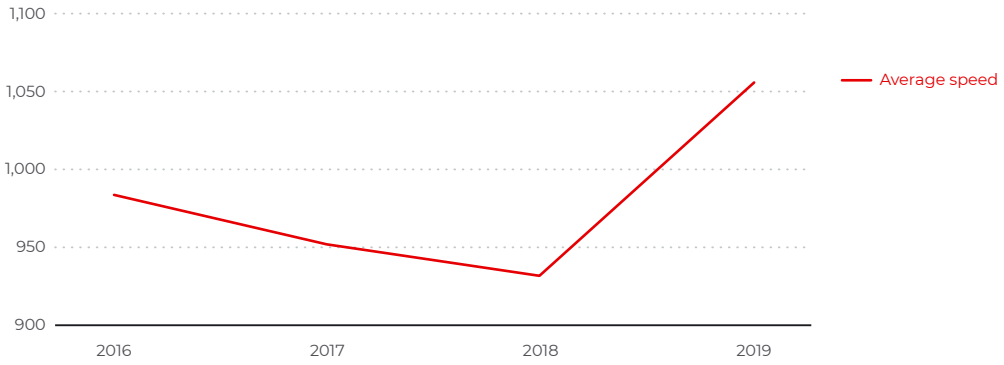


New records in development of trans-Eurasian rail transportation: lower delivery times and increased frequency of departures

The past year was indicative in terms of reducing the time of cargo delivery due to a sharp increase in the speed of trains travelling by the routes: the speed increased by 13.3 %, reaching 1,056 km/day. As a result, the average travel time was reduced proportionally. The trains have particularly accelerated in the Kazakhstan part: currently goods travel across the territory within two and a half instead of three days. Currently. The average total transit time through Belarus, Russia and Kazakhstan is 5.14 days.

Figure 3.

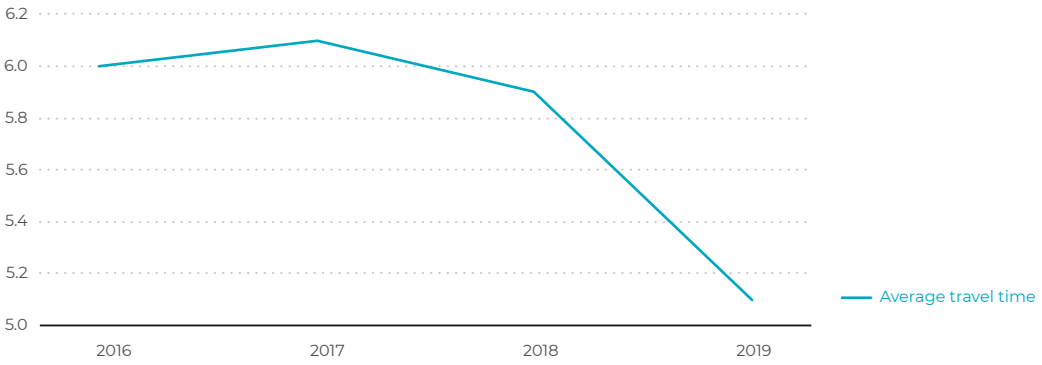
AVERAGE SPEED OF CONTAINER TRAINS, KM/DAY



Source: drawn according to UTLC ERA

Figure 4.

AVERAGE TRAVEL TIME THROUGH BELARUS, RUSSIA AND KAZAKHSTAN, DAYS



Source: drawn according to UTLC ERA

Trains from China to Europe in 2019 were almost fully loaded (the empty share was 1% of the total physical volume of goods transported), and for the way back the trains continued to be underloaded, but in 2019 the share of loaded containers in the total volume of goods transported reached its maximum level for the past four years (71 %). In general, in 2019, for the both directions of the route through Kazakhstan empty containers amounted to 11 % of the total physical volume of the cargo turnover, which is half the level of 2018.

Figure 5.

RATIO OF LOADED AND EMPTY CONTAINERS FOR THE CHINA - EUROPE DIRECTION

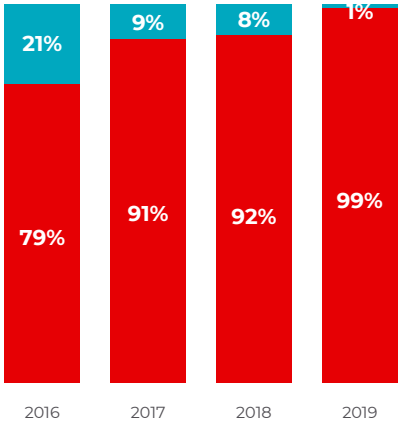
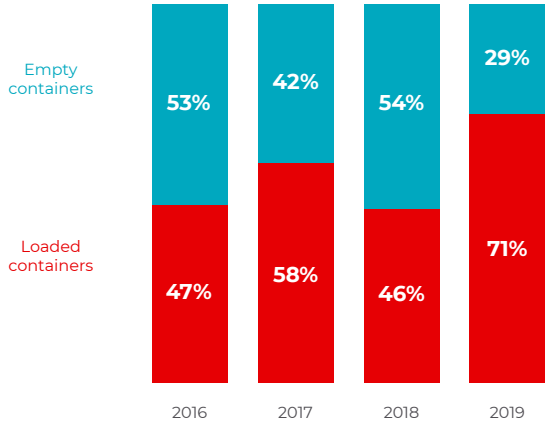


Figure 6.

RATIO OF LOADED AND EMPTY CONTAINERS FOR THE EUROPE - CHINA DIRECTION

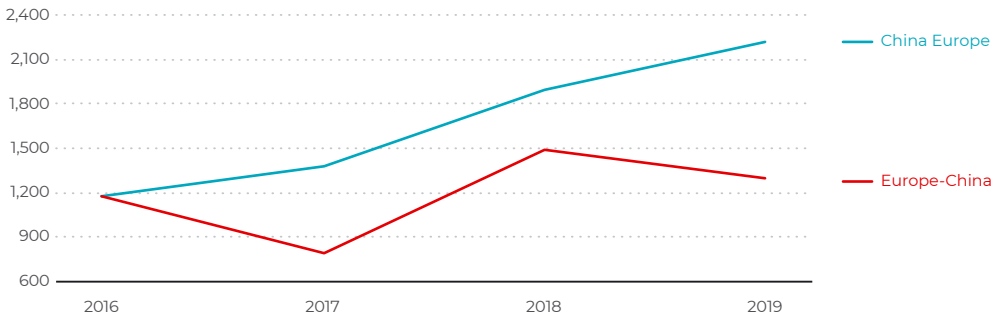


Amid the increase in freight traffic on the route through Russia, Kazakhstan and Belarus in 2016 – 2019 the change of the average train load shows a general growth trend. At the same time, the increase in the number of loaded containers traveling both directions and the increase in the volume of TEU transportation between Europe and China proves increasing demand for the rail route.

To meet the needs of the market in response to the increased demand in 2019, more trains were sent in Europe - China and China - Europe directions. Moreover, in November 2019, a record number of 404 trains from China was recorded.

Figure 7.

STABLE GROWTH IN THE NUMBER OF TRAINS SENT FROM CHINA TO EUROPE, PCS.



Commodity structure of rail container transportation

The nomenclature of goods transported in containers by rail, for the most part, consists of high-tech goods. All major product groups have appreciated in volume in 2019 compared to 2018. More than 90 % of goods are transported in 40-foot dry cargo containers.

It should be noted that the total value of goods transported through the Kazakhstan - Russia - Belarus corridor in 2019 amounted to more than $ 25 billion, of which more than $ 14 billion were accounted for by mechanical equipment and machinery. In 2019, more than $ 6 billion-worth of electronics and communications equipment, and more than $ 2 billion worth of automotive products were transported. The value of the remaining goods (sewn products and knitwear, furniture and lighting equipment, plastics and products made of them) did not exceed $ 1 billion per their respective group. The brands whose goods are transported through the Russia, Belarus and Kazakhstan corridor include HP, Sony, LG, Lenovo, Volvo, Mercedes-Benz, Audi, Porsche, IKEA, Decathlon, Versace, Adidas, etc.

Geographic expansion between the collection points and cargo dissipation points in Europe and China

The geography of services in the transit corridor for the previous year expanded to 33 cities in the European Union, with 11 new cities joining, including Barcelona, Liège, Luxembourg, Budapest, Verona, etc. Also, 27 cities in the territory of China were involved in the general railway freight communication between Europe and China. There exist more than 55 routes (with the key ones in TEU terms including Chongqing - Duisburg, Xi'an - Malashevich and Chengdu - Lodz) between various points in Europe and China. One example of a new route is Xi'an – Neuss, which covered the whole way in just 12 days.

THE COST OF TRANSIT CONTAINER TRANSPORTATION IN THE EURASIAN RAILWAY CORRIDOR

The cost of transit container transportation in the Eurasian railway corridor

Reduced cost of transit container traffic between China - Europe and Europe - China

The development of the trans-Eurasian railway transportation market is impossible without increasing its openness. The Eurasian Rail Alliance Index (ERAI) is an instrument for assessing the railway transit market.

In 2019, the change in ERAI showed a more stable trend compared to 2018. The total increase in ERAI for the year was only 3% in 2019, whereas in 2018 it was 11%. In 2019 transportation by the Trans-Eurasian railway through Russia, Belarus and Kazakhstan route cost less than in 2018, namely $2,724/FEU against $2,818/FEU.

In a more thorough assessment of factors that have shaped the ERAI in 2019, certain metrics have been found to impact the index substantially, namely those are: east-(Europe – China) and west-bound (China – Europe) freight volumes, proportion between the said volumes, proportion of loaded containers to empty, and volatility of the WCI.

That said, over January – February ERAI has increased slightly to $2738/FEU, which could be attributed to a drop in the proportion of east/west-bound freight volumes by around 7.5% and surge in the ratio of loaded containers to empty. The changes correlate with amendments to the Chinese state subsidy programme.

In March – April volumes coming from Europe started to recover, with loaded and empty consignments appreciating equally. ERAI drops by 1.1% amid decrease in the WCI and freight rate cutbacks by UTLC ERA in the key corridor through Kazakhstan.

During May – June an upswing in freight volumes, with China especially driving the growth, has propelled the index to $2714/FEU. Typically, predominance of Chinese orders translates into higher average freight rates, hence the upward pressure on ERAI.

The growth in consignments continued unabated over July – August, wherein the west/east-bound balance stays unchanged from the previous period. Surges in the fitting platform costs and WCI push ERAI up by 1.5%.

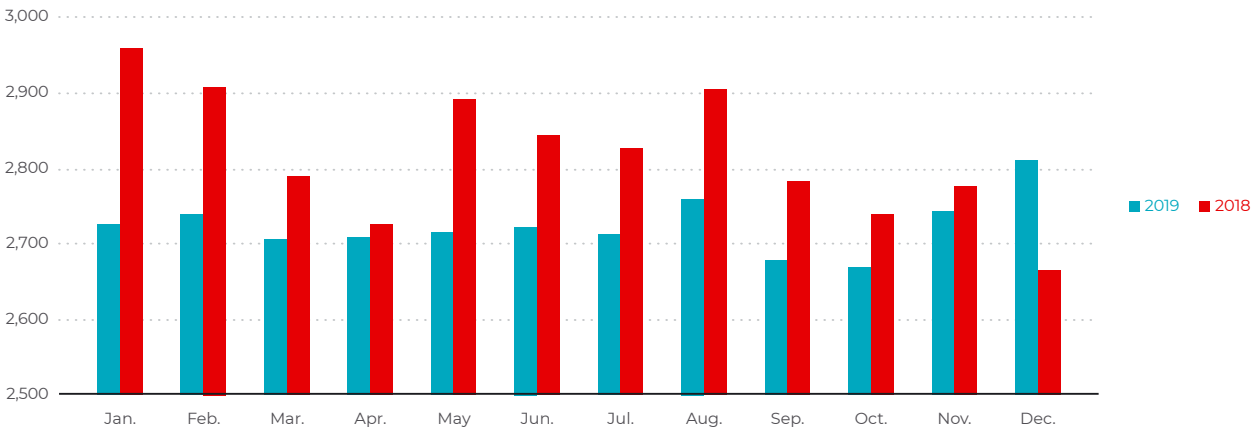
In September freight volumes kept level, although deliveries from Europe fell by 15% despite growth in the number of empty containers. Combinations of these observations could be linked to the National Day festivities in China, mounting holiday season and the return of container capacities before upcoming worldwide sales periods.

East/west-bound balance has sharply increased in October, supported by solid growth of loaded container volumes emerging from Europe. In turn, such trends neutralize WCI's downward movement and ERAI stays mid $2600/FEU. In November east/west balance ratio continues the trend of the previous period, whereas new IMO fuel regulations send WCI up, hence ERAI closes 3% up.

In December the IMO fuel requirements scheduled effective in January 2020 mounted even higher pressure, WCI surged by 16% compared to November. ERAI, however, only grows by 2.4%, finishing the year at $2809/FEU.

Figure 8.

CHANGES IN THE INDEX OF THE RAILWAY TRANSIT RATES IN 2018 AND 2019, IN $/FEU



Source: drawn up according to the Eurasian Rail Alliance Index (ERAI) Internet portal

Web-portal ERAI: Increasing Transit Market Transparency

Information on the ERAI index and factors impacting its dynamics is accumulated on the ERAI Internet portal (https://index1520.com/). The portal was launched in December 2019 and serves as a single information and analytical resource, including analytical materials, current events with the opportunity to search for a specific topic of interest. The "Statistics" section on the portal allows the user to receive full information about the existing transit railway routes and goods transported to the Europe - China and China - Europe directions. In addition to these functions, an information guide on the terminal infrastructure of the transit routes can be found on the ERAI portal, which includes a description of the features and technical capabilities of railway stations, transport and logistics terminals and seaports.

The ERAI portal also provides shippers with an opportunity to compare the indicative cost of transporting goods by sea and rail, taking into account the parameters of the cost of cargo, the number of containers and the financing rate. This feature contributes to the decision in favor of a particular way of transport, if transportation of goods is required in the western or eastern directions.

Thus, the ERAI portal, providing a wide range of functionality, serves as an effective tool for participants of the trans-Eurasian container shipping market to access industry information and analytical resources, which ultimately contributes to the development of the market itself.

ERAI

Eurasian Rail Alliance Index

www.index1520.com