

# ***Development of A More State-led Approach of Chinese Railway Express During and After the Epidemic***

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**Abstract:** Starting from the decentralization during the reform and opening-up period in 1978, the growth of China's railroad has gone through the process of decentralization and then re-centralization, which is also one of the most special stages. The development process of CR Express is a epitome of the history of China's railroad development. Since its opening in 2011, its transportation volume has been showing a trend of steady growth. Since the epidemic, the China-Europe liner has ushered in a period of extremely rapid development. The fundamental reason for this is that the unexpected demand under the ad hoc situation has shaped the decentralized policy into a more state-led approach to developing the freight train operation. This paper will focus on this phenomenon, analyze the reasons for this trend from various aspects such as politics, economy, international situation, etc., and elaborate the challenges faced by the CR Express in the post epidemic era as well as the implications of this development process for China's infrastructure construction.

**Keywords:** CR Express, Decentralization, Re-centralization, state-led

## **1. Introduction**

The China-Europe Railway Express (CRE) is an international intermodal containerized railroad train organized by China Railway Corporation and running between China and Europe as well as the "One Belt, One Road" co-constructing countries, which is operated according to the fixed number of trips, routes, shifts and the whole operating hours. Since the successful opening of the first CR Express in 2011, the CRE has flourished, with the transportation volume increasing year by year, and the coverage of foreign trade cargoes continuously improving.

During the epidemic, it was a period of extremely rapid development of the China-Europe liner. Every day, a large number of medicines, fresh food, daily necessities, electronic products, etc., were constantly transported to Europe through the CRE liner. In the global supply chain affected by the epidemic, when the express and freight business of other countries were affected to varying degrees, CR Express had remarkable development during this period. We believe the reason behind this is mainly the guidance and support of national policies.

The most special feature of the development of China's railroads lies in the process of decentralization and re-centralization, the decentralization of power during the period of reform and opening up after 1978 completely changed the mode of development of the railroad system, and inevitably brought about some problems. In order to promote economic development, the central will be centralized power gradually decentralized, revitalization of idle assets, in the discovery of the huge benefits and in order to solve the process of decentralization of power "to enrich themselves" and other issues, the central again will be part of the decentralized power recovery. This process of decentralization and re-centralization has also improved the management model of China's railroad system. In the special environment since the 2019 epidemic, the development of the China-Europe liner is a microcosm of this re-centralization process. In the context of the development of China's railroads, the unforeseen demands of the special circumstances caused by the epidemic have transformed decentralized policies into a state-led approach to the development of freight train operations. Although it is always questioned whether "this 'retro trend' of state recycling and re-centralization will have a positive or negative impact on the future development of China's railroad services", there is no doubt that such a development model has had an irreplaceable impact on the China-Europe liner train, allowing it to operate in the era of the epidemic. The development model has indeed had an irreplaceable impact on the China-Europe liner, allowing it to flourish in the era of epidemics, pooling resources in various fields, and leapfrogging the volume and coverage of its freight business.

While the epidemic is under control, the development of CR Express has gradually slowed down and even reached a bottleneck in the post-epidemic era. The development of CRE has become difficult due to the combination of many factors, such as the increasing cost, the weakening of relative advantages, the growing instability of the international community, and the difficulty of cross-border coordination. Facing these challenges, how will the CR Express cope with them. The insights brought by the development process of a more government-led China-Europe liner in the epidemic and post-epidemic era are worth studying in various infrastructure fields.

## 2. Literature Review

### 2.1. The Development Background of China's Railway System

Beginning with the founding of New China in 1949, the Chinese Communist Party took over the fragmented railway from the imperialist state and established the Chinese People's Revolutionary Army Railway Bureau to focus on construction and maintenance work. Since then, the railway sector has been regarded as one of the very important national infrastructures, characterized by a unique institutional history, close military ties, natural monopolistic infrastructure, and low substitutability [2]. Railway services have long been centrally planned in all aspects of scheduling, pricing, staffing, and management, but the formation and true development of this model has been tortuous and lengthy, so scholars prefer to define the history of the development of China's railway system as a process from centralization to decentralization into re-centralization [12].

As China's economy continues to develop, infrastructure development becomes increasingly strategic whose development becomes the main driver for the reform of China's railway system. As a state-owned sector, the railway freight system has gradually become highly bureaucratic and inefficient according to classical economic theory, and such integration can lead to chain constraints and ineffective monitoring of multi-level principal-agent relationships [6]. Under the planned regime, the railway industry was also embedded with lengthy administrative links that could not be easily reorganized, and these interlocking constraints forced the Chinese railway system to be seen as a bottleneck that hindered economic development [8]. The loss-making railway sector is always looking for external financial assistance from the nation in the form of state subsidies, tax exemptions,

generous credits, and a host of other incentives. Since they do not receive sanctions for poor operations, they can always rest on their laurels, and innovations and reforms will disappear, while the state demand for inputs leads to serious problems such as "soft budget constraints" and a "shortage economy" [3]. Due to the serious economic problems such as the declining market share and shrinking profits for railways continued to be evident, the Chinese government had to propose a cyclical strategic reform of decentralization and recentralization, mimicking the Western model of decentralization from the initial centralization of power. However, in this process, decentralization did not mean privatization, and the property rights arrangement did not change substantially. On the contrary, when power was devolved to local governments, they instead had the capital to negotiate with the central government, thus creating a more ambiguous property rights arrangement [12]. The local railway can coordinate and deploy idle labor and assets without the knowledge of the central government. Through diversification, many businesses not related to transportation have gained significant benefits, such as hotels, restaurants, tourism, and other service industries. These side businesses and the exposed idle assets are very important strategic assets, and in order to make them more beneficial to the development of the country, the central government here centralizes its power under the railway headquarters, thus performing a virtuous circle of local apartments feeding the central government.

To sum up, the development process of China's railroad system reform is a process of decentralization and then re-centralization. Dr. Linda Yin-nor Tjia researched and analyzed the history of China's railroad infrastructure development between 1978-2013 and argues that the planned economy has left many of the country's railroad assets inefficient, idle, and intangible, and that reforms of the state-owned Ministry of Railways are actually designed to encourage local operators to discover and revitalize hidden productive assets, thereby restoring and repositioning strategically important assets [6]. Therefore, whether it is from the decentralization during the reform and opening-up period in 1978 [9] or the asset recovery in 2001, the essential purpose is to revitalize idle resources, promote China's infrastructure and achieve the ultimate goal of economic development in the context of China's planned economy era.

## **2.2. The Operation of China-Europe Freight Trains During and After the Epidemic**

The "Post-Epidemic Era" was first officially mentioned in a June 2020 telephone conversation between Chinese President Xi Jinping and President Rahmon of Tajikistan. According to official and some scholars' research, the "Post-Epidemic Era" is defined as "an era in which the New Crown Epidemic is basically controllable, and all sectors of society are gradually recovering from the sluggish performance of the 2020 Epidemic, but at this point in time, the world order and the pattern of global trade and commerce have already changed dramatically due to the impacts of the Global Epidemic, which continues to have an impact on social, economic, cultural and other aspects of society. continues to have an impact on society, economy, culture and other aspects of the era." [18]

As of January 2024, the cumulative number of CR Express has exceeded 82,000 trains and 7.9 million TEUs, reaching 217 cities in 25 countries in Europe and China. During the epidemic period, China-European liner trains showed the advantages of high timeliness and stability, and with the help of rich cargo sources and multimodal transportation, it played an increasingly significant role as a link in the "One Belt, One Road". During the epidemic, national and local governments have issued policy documents to support the development of CR Express, reduce customs clearance costs and improve customs clearance efficiency. The centralization of China's freight train business also reflects the country's dominant position during the epidemic crisis.

However, the development of the China-Europe liner train in the post epidemic era has gradually slowed down and even suffered a bottleneck. It faces quite serious problems of limited capacity and tight warehousing, and the problem of empty container backhaul is also a major obstacle to its

development [17]. Congestion at ports due to inadequate port infrastructure and low technical grades, imbalance in the number of outbound and return trains, and longer time for foreign trains to return to China's ports all contribute to the large number of railroad trains stranded in China. Shortage of containers, non-normalized changes in logistics demand, and other problems have caused the supply of the liner freight market to fall short of demand. In addition, with the gradual easing of the epidemic, the recovery of domestic and international production capacity, and the return of air and sea transportation to normal, the comparative advantage of the CR Express has begun to weaken, and the cost is rising, compared with the speed of the air potential and the price of the sea potential, the substitution of the China-Europe liner train is diminishing [18]. The international community continues to be unstable, with conflicts and wars occurring one after another, increasing geopolitical risks, and the different policies of the countries along the China-Europe liner train route make it more difficult to coordinate across borders. Such obstacles continue to appear, resulting in the CR Express falling into the bottleneck of development in the post epidemic period.

To sum up, from the initial need for government subsidies to the booming development of the epidemic period, the CR Express is now subject to more restrictions in various fields and can only move forward slowly. This is the development history and trend of the China-Europe liner train since its development. Overall, China's freight train business has gone through a process of national decentralization and then centralization. The constraints of the post epidemic era have also pointed out the direction for the future development of the CR Express.

### 3. Argument and Analysis

In the global supply chain impacted by the epidemic, other countries' express and freight businesses have been affected to varying degrees. Still, the CR Express has developed significantly during this period. The reason behind which is mainly the guidance and support of national policies. The unexpected demand under the ad hoc situation has shaped the decentralized policy into a more state-led approach to developing the freight train operation.

Why, under such special circumstances, the development of China's freight train business has experienced this "retro trend" of national recycling resources and re-centralization, the following will be explained from three aspects.

#### 3.1. Subsidies

Transporting a large amount of anti-epidemic materials to help the global fight against the epidemic is an important reason for the rapid development of the China-Europe Railway Express since 2020. On January 25, 2021, the X8026 (Yiwu-Marashevich) special train for anti-epidemic supplies of the "Madrid-Yiwu Train" China-Europe Railway train, loaded with 100 teus of anti-epidemic supplies, departed from the west station of Yiwu, Zhejiang Province to Poland [10]. It was also the first China-Europe train for anti-epidemic supplies in 2021. In 2021, the China-Europe freight train (Xi 'an) alone carried 368 carloads of over 3,000 tons of epidemic prevention supplies. The CR Express, which is held in sections and does not involve quarantine, has unique advantages in epidemic prevention and control. Therefore, when other modes of transportation are seriously obstructed, CEB trains run stably, and many sea and air cargoes are also transferred to railroad transportation, which boosts the demand for CEB trains.

According to the data of China's Ministry of Transportation and Communications, since the outbreak of the epidemic after 2019, in addition to road transportation has been occupying the main mode of transportation in the country, the proportion of shipping and railroad transportation has been increasing year by year. In the choice of international transportation modes, although the transportation cost of shipping is about 1/25 to 1/2 that of railroad transportation, the ultra-long

delivery time limit turns out to be a fatal drawback in the special case of urgently needed supplies during the epidemic. Although the transport efficiency of railway transport is not as good as that of air transport, the advantages of large freight volume, low price and strong stability compared with air transport still make railway transport the priority choice in this special period. At the same time, the government has given a series of green lights for the smooth operation of the China-Europe railway services in order to give full play to the value of the China-Europe railway services in the face of bottlenecks in sea and air transportation. The railroad department not only invests more in the repair of infrastructure, overhauling the containers and transport vehicles in time, and designing the fastest program [17], but also the local government provides a series of subsidies for the CR Express.

In fact, at the beginning of the operation of China-Europe freight trains, the freight rates were reduced by means of financial subsidies from local governments, because they had to compete with sea transportation in terms of market resources but were not advantageous in terms of transportation costs. However, due to the scale effect, the cost advantage of railway transportation is always inferior to sea transportation. In response to the central government's promotion of the CR Express, many local governments could only use various subsidy policies to offset the high freight. According to the interviews, government subsidies ranged between 40 percent and 50 percent of the freight cost in 2017 [7]. The rapid growth of China-Europe freight volume was driven by monetary incentives by local Chinese governments of US\$1,000 - \$5,000 per 40-foot container [4]. The Chongqing government subsidizes up to 50 percent of the transportation costs to run the trains, and the total cost of such incentives between 2011 and 2016 is estimated to be about US\$303 million [1].

### 3.2. Security

China's "One Belt, One Road" and other policies have provided political support for the smooth operation of China-Europe freight trains. In 2013, Chinese President Xi Jinping proposed the "Silk Road Economic Belt" and "21st Century Maritime Silk Road" initiatives, referred to as the "One Belt, One Road" initiative. By 2020, the Initiative had received responses from 138 countries and 31 international organizations, and 202 cooperation documents had been signed [13]. In the context of "One Belt, One Road," the volume of China-Europe trade trains connecting China with Europe and the cargo volume soon saw rapid growth. By the end of 2020, China-European Liner departures and cargo volume increased by about 50% and 56%. The number of overseas cities increased to 92, with a growth rate of 80%, and 67 cities in China, with 73 operating routes [13]. According to the data, the import and export trade of goods between China and the EU-27 countries has increased during the epidemic. The largest trade partner of the EU has changed from the US to China, which speaks for itself about the global impact of China-EU relations. Against the backdrop of a global economy that was all massively hit by the epidemic, total trade between China and Europe still saw favorable growth rates of 2% and 4% in 2019 and 2020 (UNdata).

During the epidemic, policy documents have been issued at national and local levels to support the development of China-EU trains, reduce customs clearance costs, improve customs clearance efficiency, and ensure customs clearance facilitation. On April 3, 2020, the Ministry of Commerce issued the Notice on Further Playing the Role of China-EU Trains in Coping with the New Coronary Pneumonia Epidemic to Do a Good Job in Stabilizing Foreign Trade, Stabilizing Foreign Investment and Promoting Consumption (《进一步发挥中欧班列作用应对新冠肺炎疫情做好稳外贸稳外资促消费工作的通知》) [14], putting forward 11 specific initiatives and work requirements to play a strategic channel for China-EU trains role to cope with the impact of the epidemic.

In the post-COVID-19 era, national and local governments have also provided a lot of policy support for the sustained and vigorous development of CR Express services. The outline of the 14th Five-Year Plan for 2021 further proposes to promote the construction of assembly centers for China-



EU trains, improve the quality of China-EU trains, and promote the formulation of international land transport trade rules. We will improve the capacity of railway container transport, promote the expansion and transformation of CR Express transport channels and ports, build special railway lines such as large-scale logistics parks, and fully realize the policies of railway entry into the main ports of the Yangtze River trunk line [17]. It can be seen that, in the post-epidemic era, Railway transportation is still an important way for China to carry out international trade transportation. After undergoing a series of development and improvement, CR Express not only provided security for international transportation during the epidemic period, but also still has a new significance in the new era.

### 3.3. Efficiency

Country-led international transport cooperation has facilitated and improved the efficiency of customs quarantine and international clearance conditions for China-Europe trains. In order to improve the efficiency and facilitation of customs clearance for the entire CR Express, the customs authorities of the countries along the route have implemented new customs clearance models such as "Safe and Smart Trade" (安智贸) and "Customs-Railway Link" (关铁通). "Safe and Smart Trade" is a major cooperation project of China-EU Customs, aiming to establish a safe, convenient and intelligent international trade transportation chain through the cooperation between China Customs, European Customs and Customs and Enterprises. Under this system, the goods of CR Express can only need one customs declaration and one general inspection, and realize the digital monitoring of the whole process of container transportation, which not only improves the transportation efficiency and guarantees the safety of the goods, but also greatly reduces the contact of the transnational personnel flow, and plays an important role in the international transportation during the epidemic period [18]. "Customs-Railway Link" aims to carry out data sharing through the application of the data exchange platform and the security smart lock in line with the jointly formulated standards, accelerate the pace of information exchange and mutual recognition of supervision of the customs of the countries along the CR Express Line, enhance the mutual benefit and border supervision cooperation between the countries along the CR Express Line [15], and at the same time, to improve the efficiency and facilitation of the customs clearance of the CR Express. By the end of 2021, 11 railroad ports along the China-European Liner were included in the pilot "Safe and Smart Trade" program, and China has signed cooperation agreements with several countries and customs authorities. A number of pilot routes of the "Customs-Railway Link" project have also already been signed and promoted in several countries.

During the pandemic, national customs play an important role. In dealing with the demand for medicines and other particular goods, the state provides special assistance to enterprises subject to export restrictions by sea and air, such as door-to-door contact with customs staff, communication between enterprises and China-Europe freight train operating companies, and cooperation between the two sides. At the same time, the customs sent special personnel to provide "one-to-one" customs clearance services to guide enterprises to make full use of the policy dividend to ensure fast customs clearance of goods [11]. Compared with sea freight, the transportation time of China-Europe freight trains during the epidemic has been shortened by nearly 20 days on average, saving about 5,000 yuan per TEU.

### 3.4. New Features & Comparison

Overall, why should we say that the operation of CR Express become more state-led in the context of epidemic. From the below three aspects, the previous decentralized business model in which CEB trains searched for their own customers and sources of cargo and only sought to accomplish their

goals and reduce costs is over. The new subsidy policy and a series of policy dividends introduced by the state under the epidemic have provided conditions for safe and efficient operation of the CEB trains. Driven by the new era and policies, China's freight train business, exemplified by the China-Europe liner train, has new features: the timeliness and stability of train transportation have been guaranteed to the greatest extent; the cargo sources of railroad transportation services have been gradually enriched, not only confined to special items during the epidemic; the CR Express, which has been supported by the strongest policies, has gradually gained a larger market share through multimodal transportation. In terms of the number of issues, the cumulative number of China-European liner trains from January to June 2020 was 5,122 trains, an increase of 36%. In June alone, 1,169 trains were issued, a record high. From the perspective of issuance routes, round-trip transportation has been realized, and more "private customized" routes have been opened for enterprises, which has made profound changes in the global logistics pattern and expanded the global logistics industry chain [16]. Even though the national government has gradually withdrawn from this field after the epidemic, it is undeniable that the special policy in this special period has provided a hotbed for the development of CR Express and China freight train business. The reclaiming and centralization of rail resources by the state will be presented in a special way and without any complaints, because it reflects the "dominance" of the state in the crisis.

In general, from 1978 to 2013, China's freight train business has been experiencing the process of decentralization of national power, discovery of idle assets and re-centralization. However, it is clear to see that in the context of a global pandemic, the centralization of China's freight train business has become even more pronounced, especially in the case of the CR Express, which is fully supported by national and local policies. However, is this policy of centralization and continued subsidization in special circumstances necessarily beneficial? It is difficult to have an accurate yes or no answer because, undeniably, whether the state is motivated by the control of important strategic resources or by special requirements during epidemics, it is a means for the state to control its assets and economic development.

#### **4. Challenges & Limitations**

During the epidemic, it developed at a rapid pace, delivering materials to countries all over the world. In the global supply chain that was seriously affected by the epidemic, the China-European liner seemed to be a clear stream that brought hope to people all over the world, and made outstanding contributions to people's livelihood. However, when the epidemic was under control and the world began to resume production and work, returning to normal production, the development of China-EU liner suddenly slowed down or even stagnated. Through a large amount of information inquiry and analysis, we believe that the development of China-Europe liner train in the post epidemic era is facing great challenges, which are roughly divided into the following points:

##### **4.1. Costs in All Aspects Become Bigger**

As we mentioned above, owing to the effects of the pandemic, air and sea travel are essentially at a standstill, while railroad travel is becoming the "dark horse" of international travel due to its affordability and speed. However, now that the virus is under control, air and maritime travel are returning to normal, as is domestic and worldwide industrial capacity recovery. In order to compete for orders lost during the epidemic, make up for business losses, and enhance corporate profitability, the majority of traditional shipping and maritime enterprises will reduce prices, increase frequency, or use other techniques. As a result of the steady recovery of a number of associated businesses, the China-Europe liner train's position as a substitute is currently significantly diminished. E-commerce is growing quickly once more, and the associated express delivery market is also rebounding. These

two sectors will share resources with the railroad sector. As a result, every expense for the China-European liner is rising. Furthermore, the official stated that "Madrid-Yiwu Train" will see a constant increase in volume in the future, albeit at a potentially slower growth rate, as a result of the accelerating regional integration.

#### **4.2. The Efficiency Advantage Is Seriously Weakened**

During the epidemic period, in order to support the development of the China-European Railway Express, the national government introduced a customs clearance policy, and all ports of entry were also dominated by CRE freight trains, which greatly improved the efficiency of loading and unloading of goods, customs clearance and inspection at the ports, as well as customs clearance. In the post epidemic period, the railroad transportation liner continued to show a trend of high-speed growth, the number of inbound trucks increased, and the traffic was seriously blocked. The imbalance between the number of China-European liner trains on the way to and from China, and the long time taken to return to China's ports have resulted in a large number of stranded railroad wagons in China, and the foreign railroads and ports have imposed restrictions on the transportation of China's liner trains. In addition, some ports in developing countries along the "One Belt, One Road" route have backward infrastructure, which to a certain extent restricts the entry of China-EU liner trains and the efficiency of loading and unloading goods. Sometimes, due to prevention and control policies, the liner can pass through, but the cargoes to the neighboring countries will be detained.

#### **4.3. Difficulty of Cross-border Coordination**

The China-European liner train travels through too many nations and regions due to the fact that various nations have different working languages and cultures, as well as different interests. As a result, the nations along the route have different standards and requirements for trade protection, taxation, customs declaration, and inspection policies. The effectiveness of liner shipping is significantly impacted by the high cost of cross-border coordination caused by geopolitical risks, which make it impossible to achieve complete information sharing and inconsistent cooperation between regulatory and law enforcement agencies in different nations. Particularly the geopolitical risk posed by shifting global conditions. For instance, the "Madrid-Yiwu Train" direct international liner train route passes through Russia and Ukraine, a dangerous and uncertain transit route given the ongoing armed conflict between the two countries.

#### **4.4. Limited Transportation Capacity and Empty Warehouses in the Return Trip**

Compared with sea transportation, China-European liner has limited capacity, insufficient port infrastructure, insufficient technical grade and other hard defects, therefore, the speed of capacity supply cannot catch up with the speed of demand surge, and it is difficult to meet the market demand under the situation of sudden increase of trade volume in the post-epidemic era. When compared to air travel, aviation's rapidity of travel offers unique benefits that cannot be replaced. For the goods that must be delivered in a short time, such as urgently needed goods and fresh goods that cannot be kept for a long time, the China-Europa liner is obviously out of reach. In addition, in this scenario, the China-Europa liner also faces problems such as shortage of space and containers, congestion on the routes, and extraordinary changes in logistics demand.

It is very obvious that the development of China-Europe liner in the post epidemic era is limited by many factors. Whether it is the competition of shipping and air transportation, or the force majeure brought about by the resumption of work and production in various industries, they are all the great challenges it faces, and also the factors that must be considered in the future.



## 5. Conclusion

The development process of China-Europe Railway Express is a historical epitome of China's railroad development. China's railroad system has gone through very strategic changes from 1978-2013, and the process of decentralization and then recentralization has perfected the management mode of China's railroad system and promoted the economic growth of various industries. Under such a systematic model, the China-Europe liner train used a more centralized operation to support the lifeline of the Central Asian continent during the epidemic, until the post epidemic era, when the role of the state gradually weakened or even withdrew altogether in its development.

While the global supply chain was affected, the Chinese freight train business emerged from it to make a significant contribution to the global supply of goods covering almost all ranges. Its development has gone through a "retro trend" of national recycling and re-centralization, and we will elaborate the whole process of the development of the China-Europe liner train from three aspects. The financial subsidies of local governments have solved the practical problems for the development of CR Express, and the low freight charges have improved the relative advantages of the liner. The policies of the central government have provided political support and security guarantee for the smooth operation of the China-Europe liner, and hundreds of countries, regions and international organizations have responded to the "One Belt, One Road" initiative. State-led international transport cooperation has improved customs and quarantine efficiency and international clearance conditions, and digital monitoring and data sharing have not only improved transport efficiency but also ensured cargo safety.

Compared to the decentralization and recentralization of power in 1978-2013, the centralization of power in China's freight train business has been more pronounced in the epidemic and post-epidemic eras. However, the decentralization and re-centralization of China's railroad reforms were a means for the state to control its assets and economic development, whether out of a concern to control important strategic resources or a special requirement under the crisis. In the particular context of the epidemic, a re-centralized and more state-driven approach to freight train operations may be reasonable, but not permanent and sustainable. It is even more difficult to give a completely positive answer as to whether the benefits outweigh the disadvantages or the disadvantages end up outweighing the benefits. But whichever the outcome, it is undeniable that the state's subsidies and policies have provided a safe and efficient environment for the operation of China-EU trains during the crisis. No matter whether the state is motivated by the control of important strategic resources or by the special needs during epidemics, the China-EU liner has indeed played an irreplaceable role and made indelible contributions in the era of epidemics. However, what is more necessary for the China-Europe liner is to find its own differentiation in the fierce market competition after the epidemic, attract customers and really go to the market.

For the challenges that must be faced in the post epidemic era, although it does hinder the development of China-Europe liner, it also provides a good direction for its future. The formulation of new policies for the development of the CR Express, the support of tax incentives, as well as how to optimize the foreign trade logistics network and combine artificial intelligence with e-commerce should be the future direction of research.

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