

Research on Countermeasures for High-Quality Development of Railway Logistics in the Yangtze River Delta

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Abstract: In the context of the sweeping logistics system reforms across the national railway network, the development of railway logistics in the Yangtze River Delta has achieved remarkable results and made important contributions to serving national strategies and regional economy. However, facing the new situation of in-depth adjustment of the regional industrial structure and intensifying competition in the logistics market, it still faces severe challenges in corridor network, facilities and equipment, transportation organization, product adaptation and market-oriented operation. Adopting a combination of literature analysis and case study methods, this paper takes the reform of the Logistics Business Department of China Railway Shanghai Bureau Group Co., Ltd. as an example, systematically analyzes the core bottlenecks restricting current development. Combined with the development trends of modern logistics characterized by networking, supply chain integration, digital intelligence and green development, it puts forward systematic countermeasures including deepening market-oriented reform, innovating the product and service system, promoting digital, intelligent and green transformation, and strengthening multimodal transport coordination. The research aims to provide theoretical and practical references for the high-quality development of railway logistics in the Yangtze River Delta and even the whole country.

Keywords: Railway Logistics; High-Quality Development; Yangtze River Delta; Reform of Logistics Business Department; Multimodal Transport

1. Introduction

As one of China's most economically dynamic, most open and most innovative regions, the Yangtze River Delta sees the high-quality

development of railway logistics as a key lever to underpin the new dual-circulation development pattern and advance the national strategy of Yangtze River Delta integration. At present, the regional industrial system is accelerating its evolution toward high-end upgrading, intellectualization and green development, placing higher requirements on the timeliness, accuracy and coordination of logistics services. Meanwhile, as a core area of export-oriented economy, the total import and export volume of the Yangtze River Delta exceeded 17.02 trillion yuan in 2025, accounting for 37.4% of the national total. International logistics corridors such as China Railway Express and sea-rail intermodal transport have become vital links connecting the Belt and Road Initiative. Against this backdrop, promoting the transformation of railway logistics toward marketization, intellectualization and green development is not only an inevitable requirement for serving national strategies, but also an inherent need for improving the quality and efficiency of regional economic development [1].

The high-quality development of railway logistics in the Yangtze River Delta bears remarkable practical significance. On the one hand, optimizing the layout of the railway logistics network can effectively reduce regional logistics costs and serve the real economy. In 2025, railway logistics in the Yangtze River Delta reduced freight expenses for enterprises by a total of 3.8 billion yuan through measures such as freight rate concessions, with the burden-reduction effect continuously emerging. On the other hand, relying on the advantages of railways in large transportation capacity and low energy consumption, it helps advance the adjustment of regional transportation structure. In 2025, the container traffic volume of railways in the Yangtze River Delta increased by 15.6% year-on-year, and the freight carbon emission intensity per unit of GDP was more than 65% lower than that of highway transportation,

strongly supporting the achievement of the carbon peaking and carbon neutrality goals. In addition, the efficient coordination of railway logistics can accelerate the integration of industrial chains and supply chains in the Yangtze River Delta, promote the development of industrial clusters such as electronic information and high-end equipment, and provide solid support for regional integration [2]. As a pilot institution for the reform of Logistics Business Departments across the national railway system, China Railway Shanghai Bureau Group Co., Ltd. (hereinafter referred to as Shanghai Railway Bureau Group) has achieved phased results. Nevertheless, facing the period of the 15th Five-Year Plan, against the backdrop of global supply chain restructuring, advancement of the construction of a unified national large market, and accelerated technological and green transformation, the development of railway logistics still confronts many in-depth challenges. Based on the reform practice of Shanghai Railway Bureau Group, this study sorts out the current development status, draws on relevant special research achievements, deeply analyzes the bottlenecks restricting high-quality development, and puts forward systematic countermeasures. It aims to provide decision-making references for enabling Yangtze River Delta railway logistics to become a benchmark force in serving national strategies and leading industrial transformation.

2. Analysis on the Current Development Status of Railway Logistics in the Yangtze River Delta

2.1 Reform Achievements and Operating Trend

In 2025, taking the reform of the Logistics Business Department as the core driving force, Yangtze River Delta railway realized a leapfrog transformation from traditional transportation to modern logistics. Through the restructuring of the organizational system and the delegation of operating power and responsibilities, a market-oriented operating entity featuring the model of "Logistics Business Department plus Logistics Center" has been established, substantially boosting the development momentum. By 2025, the core freight indicators achieved an overall leap. The freight shipment volume reached 206.46 million tons, a year-on-year increase of 1.8% compared with 2024 before the reform;

freight revenue rose by 2.8% year on year; container traffic volume hit 77.69 million tons, surging by 15.6% year on year and accounting for 37.6% of the total shipment volume, becoming the core growth driver. The number of China Railway Express trips reached 3,225, an increase of 148 trips year on year, highlighting the prominent advantages of international logistics corridors.

The institutional differences before and after the reform have significantly affected the development quality and efficiency. Prior to the reform, the freight system was dominated by "professional management", accompanied by problems such as sluggish market response and inadequate incentive mechanisms. After the reform, the Logistics Business Department adopted the entity-based operation mode of "professional management plus production and operation". A total of 70 professional managers and 95 members of the logistics operation team were recruited through market-oriented selection. Contract-based management and differentiated salary systems were implemented, forming a competition mechanism of "promoting the competent, relieving the mediocre and dismissing the incompetent". The marketing system has shifted from a decentralized pattern to a two-tier structure of "Logistics Business Department – Logistics Center". The frequency of customer visits increased to four times that before the reform, and the marketing success rate doubled. Logistics general contracting agreements were signed with 53 enterprises, generating an additional revenue of 496 million yuan from extended services.

2.2 Infrastructure and Service Capacity

The logistics network of the "Yangtze River Delta on Rail" is taking shape at an accelerated pace, with the scale of infrastructure and service capability improved simultaneously. In 2025, railways in the Yangtze River Delta added 10 newly built or reconstructed freight yards including Shanghuang and Taizhou West. Five dedicated lines such as Yiwu Hub Port of Zhejiang Seaport and Suqian Port along the Grand Canal were completed and put into operation. A total of 57 loading and unloading machines and 56 measuring, safety inspection and monitoring devices were newly added, and the handling capacity of logistics stations rose by 12.3% year-on-year. The functions of key freight yards have been continuously optimized.

For instance, the intelligent transformation of Hangzhou North Freight Yard lifted container operation efficiency by 30%; Fuyang North Freight Yard expanded cold chain warehousing functions with an annual handling capacity exceeding 150,000 tons. By the end of 2025, there were 296 railway stations handling freight business, 173 railway freight yards (logistics bases) and 402 dedicated lines in the Yangtze River Delta, forming a logistics hub pattern featured with railway freight yards as the backbone and dedicated lines as capillary vessels. The train service product system has been increasingly improved, forming a nationwide and globally connected transportation network. By adopting a passenger-train-style operation mode, a stable product matrix consisting of 75 scheduled freight trains at three speed grades has been established. The departure punctuality rate and arrival punctuality rate of scheduled trains have increased by 18 and 35 percentage points respectively, both higher than the national railway average.

Regional characteristic scheduled trains have achieved remarkable results. Premium express freight trains such as Yidi Direct Train, Wan-Yong Europe Train and Wan-Yong Asia Train realize overnight delivery services. The number of sea-rail intermodal train routes has increased to 108, covering major ports including Shanghai Port and Ningbo Zhoushan Port. International logistics corridors continue to expand. China Railway Express services cover 27 cities in the Yangtze River Delta, and Central Asia freight trains maintain regular operation with an average daily volume of 4.7 trains, providing efficient support for the regional export-oriented economy.

Intelligent technologies have deeply empowered the whole process of logistics operations. The independently developed comprehensive freight logistics management platform and freight marketing customer relationship management system have achieved full coverage, enabling real-time monitoring of marketing trajectories and customer distribution. The implementation of digital gate inspection transformation and the construction of a new centralized control system for electric protection signals have continuously improved operational efficiency and safety standards.

2.3 Cargo Source Structure and Market Characteristics

The cargo source structure shows a notable trend of decline in bulk cargo and growth in high-value cargo, and the transformation of transportation products toward high added value is accelerating. In 2025, the shipment volume of light cargo on Yangtze River Delta railways increased by 6.7% year-on-year, accounting for 49.6% of the total freight shipment volume. Of this total, the container traffic volume reached 77.69 million tons, rising by 15.6% year-on-year and contributing 91.6% of the total incremental volume. In terms of light cargo categories, the contract logistics market of fast-moving consumer goods, auto parts, textile and chemical fibers delivered outstanding performance, and the textile and chemical fiber dedicated trains in Zhejiang achieved an incremental volume of 500,000 tons. The proportion of bulk commodities continued to decline. The shipment volume of traditional categories such as coal, non-metallic minerals and grain decreased by 5.88 million tons year-on-year, accounting for 75.9% of the total reduction, reflecting the profound impact of the optimization and upgrading of regional industrial structure.

Multimodal transport and professional logistics have become new growth engines. The volume of sea-rail intermodal transport reached 3.17 million TEU, markedly improving service efficiency. The transportation volume of finished vehicles exceeded 1.598 million units, up 8.3% year-on-year; cold chain logistics shipment volume stood at 145,000 tons, covering major fresh food markets in the Yangtze River Delta. The cargo value of China Railway Express increased by 12.7% year-on-year, and the loaded return container rate rose to 82%, with high-value-added goods such as cross-border e-commerce products and mechanical equipment accounting for 65% of the total. Remarkable achievements have been made in road-to-rail and water-to-rail freight diversion. Projects including aggregate transportation along the Quzhou-Ningde Railway and coal reloading at Yuxikou Port achieved an incremental volume of 2.66 million tons, further highlighting the advantages of green and low-carbon transportation.

The market competition pattern presents diversified characteristics. The popularization of new energy heavy-duty trucks on highways has cut short-distance transportation costs by 15–20%, impacting the railway's last-mile connection service. The construction of inland waterways along the Yangtze River has diverted

bulk cargo flows, and the transport corridors for west-to-east and north-to-south coal delivery continue to affect the local coal market. Railways have taken proactive countermeasures by optimizing the pricing mechanism, extending logistics services (such as launching the freight loan financial service), and expanding end-to-end logistics business (the proportion of logistics general contracting revenue increased to 18%), maintaining competitive advantages in light cargo and cross-border logistics sectors [3].

3. Challenges Facing the High-Quality Development of Railway Logistics in the Yangtze River Delta

3.1 Intensified Pressure from External Market Competition

(1) Railway logistics in the Yangtze River Delta is confronted with dual competitive squeeze from highway and waterway transportation. With the rapid popularization of new energy heavy-duty trucks, highway transportation has achieved a notable cost reduction. In 2025, the energy consumption cost per kilometer of electric heavy trucks was 0.8 yuan lower than that of diesel trucks, and the one-way transportation cost decreased by 18%–22%, forming a price advantage within a radius of 300 kilometers. Meanwhile, highway enterprises integrate social transportation capacity via the non-asset-based carrier, with a flexible deployment capacity over 30% higher than that of railways, posing a direct threat to the timeliness competition for high-value-added light cargo. The inland waterway network along the Yangtze River keeps improving. After the completion of the 12.5-meter deep-water channel downstream of Nanjing on the Yangtze River, 5,000-ton cargo ships can reach Wuhu directly. The waterway transportation cost of bulk cargo such as iron ore and coal is 15–20 yuan per ton lower than that of railways, resulting in massive diversion of bulk cargo from Yangtze River Delta railways in 2025.

(2) Fluctuations in the international trade environment bring new challenges to international logistics corridors. Against the backdrop of global supply chain restructuring, China Railway Express faced shrinking demand on some routes in 2025, making it more difficult to organize return cargo sources, with the empty container rate on certain routes rebounding to 18%. Affected by port congestion and poor

connection of collection and distribution transportation, the railway port entry proportion of Shanghai Port and Ningbo Port reached 28%, still 1.2 percentage points lower than the efficiency of highway port entry. Competition among regional ports has intensified. Ports such as Lianyungang and Nantong attract cargo sources through subsidy policies, diverting railway container volume.

3.2 Shortcomings of Internal Institutional and Mechanism System

(1) Insufficient organizational coordination efficiency restricts the speed of market response. Barriers exist in cross-departmental collaboration and the connection of some links is not smooth, leading to a long response cycle for customer demands. Some grassroots stations and depots still follow the tendency of valuing production over operation. In the advancement of logistics general contracting projects, there even occurs the phenomenon that internal railway procedures are completed while customer orders are lost [4].

(2) The market-oriented incentive mechanism has not been fully activated. Although the professional manager system has been implemented, contract-based management remains a mere formality in some institutions. The correlation between assessment indicators and market performance is inadequate, and the egalitarian practice in salary distribution still persists, failing to fully reflect the performance-oriented orientation.

(3) There is a structural mismatch between talent structure and market demand. Among existing staff in the freight system, talents specialized in traditional transportation organization account for a large proportion, while compound talents proficient in modern logistics scheme design and cross-border e-commerce operation are insufficient in number. Members of the logistics marketing team lack the ability to apply digital marketing tools, and the penetration rate of new marketing methods such as short video promotion is low. Vocational skill grades are disconnected from market demand, and the coverage of skill certification in intelligent equipment operation and multimodal transport organization is inadequate.

3.3 Bottlenecks in Technological Empowerment and Safety Management and Control

(1) The depth and breadth of digital and intelligent application need to be further expanded. The coverage rate of intelligent logistics stations remains low, and automated gantry cranes, digital gate inspection and other facilities have not been fully popularized, with manual operations still accounting for a large share of operational workload. The problem of data silos is prominent. Data interface standards are inconsistent among railway freight systems, ports, customs and cargo owners, resulting in inadequate information sharing and a low implementation rate of full-process tracking under the single waybill system. The application of AI algorithms is limited to simple scenarios, while advanced functions such as intelligent pricing and demand forecasting have not been put into practice, leading to insufficient intelligent marketing decision-making [5].

(2) The safety management and control system is confronted with new challenges. Overload and eccentric load detection equipment is aging, and manual recheck is still adopted in some freight yards. The aging of equipment and facilities restricts the improvement of operational efficiency. Some freight stations were built in earlier years, and certain loading and unloading machinery has exceeded its service life with a high failure rate.

4. Countermeasure Suggestions for High-quality Development of Railway Logistics in the Yangtze River Delta

4.1 Deepen Market-Oriented Reform and Stimulate Vitality of Business Entities

(1) Optimize the organizational structure and improve collaborative efficiency. Centering on the Logistics Business Department, promote the transformation of organizational structure toward strategic control plus business collaboration. Implement three-level flat management, streamline the management hierarchy into Business Department – Logistics Center – Project Team, and delegate part of business approval authority to logistics centers to shorten the response cycle of customer demands. Adopt a grid-based marketing system, divide marketing grids by region and industry, assign exclusive customer managers, and establish a service model of one grid, one strategy, one team, achieving a 100% coverage rate of visits to key enterprises. Optimize the functional setup of logistics centers, integrate

functions such as logistics scheduling, marketing and customer service, and set up cross-departmental working groups to solve the dilemma of completing internal railway procedures while losing customer orders.

(2) Innovate the incentive mechanism and build a professional talent team. Improve the four professionalization mechanisms mechanism for professional managers to stimulate the endogenous motivation of the team. Expand the scope of market-oriented recruitment, and focus on introducing professionals in logistics planning, supply chain management and other fields. Implement a differentiated salary system of basic salary + performance salary + excess profit sharing, further widen the gap of performance-based pay, and grant special rewards to teams that complete major projects. Establish a contract-based management mode of monthly assessment + annual evaluation. Those failing to meet standards for two consecutive years will be transferred or dismissed, forming a dynamic adjustment mechanism enabling personnel to move up and down in position.

(3) Establish a cross-system joint assessment system to break internal departmental barriers. Build a joint assessment mechanism covering freight, train operation, locomotive, scheduling, rolling stock and other systems. Incorporate indicators such as customer demand fulfillment rate and train punctuality rate into the KPI of each department with a weight of no less than 20%. Carry out three-dimensional evaluation covering marketing team – production department – customer service, and directly link the performance of marketing personnel with transportation efficiency and service quality. Set up a special reward fund for reform and innovation, and grant substantial rewards to teams that make breakthroughs in process optimization and model innovation.

4.2 Innovate Product and Service Supply to Foster New Growth Drivers

(1) Focus on segmented light cargo markets and implement customized development strategies. Targeting the segmented light cargo markets with high added value and high growth potential in the Yangtze River Delta region, adopt customized development with one policy for one industry. In the field of fast-moving consumer goods, relying on the consumer market advantages of urban agglomerations, launch cross-regional circulating cold chain scheduled

trains and promote new-type refrigerated containers to improve the end-to-end service capacity for time-sensitive goods such as fresh products and dairy products [6]. In the field of auto parts, centering on key automobile industry clusters, organize direct dedicated trains and provide integrated logistics general contracting services covering trunk transportation, warehousing and distribution, and terminal delivery. In the field of photovoltaic new energy, in view of the transportation characteristics of components, design seamless road-rail intermodal transport schemes, build professional distribution centers at key nodes, and equip supporting special loading and unloading facilities to further expand the market share of railways in light cargo transportation.

(2) Upgrade the train product matrix and build differentiated competitive advantages. Continuously optimize the operation quality and network layout of scheduled trains, and build a rationally graded and rapidly responsive train product system. Increase the frequency of characteristic trains such as textile and chemical fiber trains in key regions, promote the market-oriented pricing mode of base price plus floating price, and consolidate time-efficient service brands such as overnight delivery. Focusing on emerging demands such as the upward circulation of agricultural products, expand themed trains for rural revitalization, construct front-end service facilities including origin cargo collection and pre-cooling shuttle transportation, and build railway logistics corridors serving the upgrading of rural industries [7].

(3) Deepen the single waybill system reform of multimodal transport to reduce costs and improve efficiency for end-to-end logistics. Focusing on major ports, further advance the single waybill system reform to realize one-time entrustment, one-order whole-process delivery, and one-bill settlement, so as to improve customers' full-process service experience. Innovate integrated logistics and financial services, and develop supply chain financial products for small and medium-sized customers to alleviate their capital turnover pressure. Expand integrated transportation plus trade business, explore the construction of futures delivery warehouses in key hub freight yards, and provide integrated services integrating transportation, warehousing, delivery and financing, so as to strengthen the value chain integration capability and market

competitiveness of railway logistics [8].

4.3 Promote Digital and Intelligent Transformation to Improve Operational Efficiency

(1) Build an integrated freight management and control platform to realize full-process digitalization. Integrate the data resources of existing freight systems, complete the upgrading of the comprehensive freight logistics management platform in 2026, and add functional modules such as customer profiling, demand forecasting and intelligent pricing to realize the full-process online operation of marketing, scheduling and settlement. Develop the "Shanghai Railway Logistics" APP to provide services including online order placing, waybill tracking and electronic invoicing. Establish a big data analysis center to monitor cargo flow changes in real time, dynamically adjust transportation capacity allocation, and improve the full-load rate of scheduled trains.

(2) Accelerate the construction of intelligent stations and promote automated operation technologies. Popularize intelligent container station systems in 10 key freight yards including Fuyang North and Ningbo North, and deploy automated gantry cranes and AGV unmanned transport vehicles to increase the efficiency of loading and unloading operations by 30%. Adopt the cloud-based intelligent monitoring and control system to conduct real-time video analysis of freight yard operations, automatically identify and warn against illegal operations, and improve the detection rate of potential safety hazards. Launch pilot unattended weighing stations, and greatly shorten the weighing time through license plate recognition and automatic weighing technologies.

(3) Promote data interconnection and interoperability to break information silos. Jointly build a data sharing platform with Shanghai Port and Ningbo Zhoushan Port to realize real-time interaction between railway waybill data and port operation information and shorten container pickup time. Connect with the national single window of customs, and implement the synchronous declaration of railway manifests and customs declaration forms to improve customs clearance efficiency. Establish API interfaces with key manufacturing enterprises such as SAIC and Chery to share production plans and logistics demands, and realize JIT (Just-In-Time) precise distribution of

raw materials [9].

(4) Upgrade technical equipment to drive green and intelligent development. Promote new energy reach stackers and stackers in freight yards including Hefei North and Paihe Port to increase the proportion of new energy equipment and reduce carbon emissions. Deploy intelligent overload and eccentric load detection equipment to enhance the accuracy of dynamic detection and reduce the workload of manual rechecks. Apply 5G and Beidou positioning technologies to realize the whole-process tracking of containers.

4.4 Strengthen Multimodal Transport Coordination and Build an Efficient Transportation Network

(1) Optimize sea-rail intermodal transport corridors and improve port collection and distribution efficiency. Increase the frequency of sea-rail intermodal trains serving Shanghai Port and Ningbo Port, adopt the fixed-point, fixed-route and fixed-time operation mode, and raise the full-load rate of scheduled trains. Implement the box-based pricing mechanism for loaded containers in sea-rail intermodal transport to enhance price competitiveness. Closely monitor the construction quality and progress of eight key freight yards including Lujiabang, Paihe Port, Wuxi South and Fuyang North, coordinate and resolve construction problems in a timely manner, and ensure the commissioning and operation of all projects on schedule.

(2) Further promote the shift of freight from road to rail and from water to rail to stabilize the basic market of bulk cargo. Promote the water-to-rail transportation of coal in the Lianghuai area, construct coal storage and distribution bases at Kouziji and Shuidihe Port, and realize the seasonal storage and peak-season transportation of thermal coal. To meet the iron ore demand of steel mills, launch direct scheduled trains from southern Shanxi and northern Henan to steel mills in the Yangtze River Delta, implement a tiered freight rate policy, and strive to divert highway freight volume. Advance the green transportation model of transporting construction minerals into urban areas and disposing of construction waste, launch special aggregate freight trains along the Quzhou-Ningde Railway, and expand the annual freight increment.

(3) Innovate the cooperation model among railways, ports and enterprises to build a

logistics ecosystem. Promote the joint venture project of Paihe Port Phase II, establish an operating company through joint investment by railway departments, local governments and port enterprises, and explore the coordinated development model of railway-port-industry integration. Set up joint ventures with logistics enterprises such as COSCO SHIPPING and Sinotrans to jointly develop cross-border logistics products and increase the proportion of full-process logistics services for China Railway Express [10]. Explore the construction of railway off-stations in industrial cluster areas such as Suzhou and Wuxi, and realize full coverage of door-to-door services by connecting short-distance highway shuttle transportation with railway trunk lines.

(4) Advance the standardization of multimodal transport and improve the coordination mechanism. Popularize the one-order transport model to achieve one contract, one payment and one whole-process order delivery. Establish a standard system for multimodal transport in the Yangtze River Delta, unify specifications including waybill formats, information interfaces and responsibility division, and realize mutual recognition and interconnection with provinces along the Yangtze River and coastal areas. Set up a regular joint meeting mechanism for railways, ports and enterprises, hold monthly transportation coordination meetings to solve problems such as container allocation and transportation capacity guarantee, and improve container turnover efficiency.

4.5 Build a Solid Safety Defense Line to Ensure Sustainable Development

(1) Improve the dual prevention mechanism and enhance risk management and control capability. Establish a risk management and control system featuring professional judgment plus intelligent early warning. Organize professional teams to dynamically identify freight safety risks, form risk lists and formulate corresponding control measures. Develop an intelligent early warning system for safety risks to conduct real-time monitoring of key links such as overload, eccentric load and dangerous goods transportation, and shorten the early warning response time. Implement the snap-and-report mechanism to encourage staff to report potential hazards, offer rewards for valid reports, and raise the rectification rate of hidden safety hazards [11].

(2) Strengthen safety supervision over loading and unloading operations and standardize on-site operational behaviors. Carry out standardized training for loading and unloading operations, and only allow certified employees to take up posts. Popularize the intelligent video analysis system to conduct random real-time inspection on loading, unloading and hoisting operations in freight yards, so as to improve the recognition rate of irregular behaviors.

(3) Strengthen the safety management of equipment and facilities to eliminate potential safety hazards. Conduct regular health inspections on freight equipment, and renovate or replace over-aged loading and unloading machinery and testing equipment. Reinforce safety supervision over dedicated railway lines and urge relevant enterprises to rectify hidden safety risks. Promote intelligent fire protection systems, install smoke detectors and automatic sprinkler facilities in key freight yards, enabling fire hazards to be detected within 30 seconds after ignition.

5. Conclusion and Outlook

The high-quality development of railway logistics in the Yangtze River Delta takes systematic reform as the engine, innovation-driven development as the core, and collaborative cooperation as the basic path. Deepening market-oriented reform is the key to activating endogenous driving forces. Through organizational restructuring of the Logistics Business Department, innovation of the professional manager mechanism and cross-departmental collaborative assessment, traditional management barriers can be broken down and a market-oriented business entity can be established. Dual innovation in products and technologies serves as the core driver of growth cultivation. Focusing on segmented light cargo markets to implement industry-specific customized solutions and promoting the construction of digital and intelligent stations as well as data interconnection can effectively upgrade service capacity and operational efficiency. Strengthening multimodal transport coordination underpins the construction of a modern logistics network. Optimizing sea-rail intermodal corridors, further advancing road-to-rail freight diversion, and innovating railway-port-enterprise cooperation will facilitate the formation of an efficient corridor - hub - network integrated transportation system.

Looking ahead to the 15th Five-Year Plan period, Yangtze River Delta railway logistics should target the construction of a leading regional freight bureau. It is expected to achieve a total freight shipment volume exceeding 230 million tons, raise the proportion of light cargo to 55%, and maintain an average annual growth rate of over 12% in container traffic volume. Efforts should be made to strengthen the leading position in multimodal transport, increase the national proportion of sea-rail intermodal volume to 30%, and achieve over 4,000 China Railway Express trips annually, so as to build a nationally leading modern railway logistics service system. Through continuous reform deepening, innovation-driven empowerment and in-depth collaborative cooperation, Yangtze River Delta railways will evolve into a benchmark force for serving national strategies, supporting regional economic development and leading industrial transformation, and provide solid logistics support for building the new dual-circulation development pattern.

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