

Blue Book on the Development of Ningbo Zhoushan International Shipping Center

(2023)

COMPILED BY CHINA ECONOMIC INFORMATION SERVICE





XINHUA INDICES INSTITUTE

BLUE BOOK ON THE DEVELOPMENT OF NINGBO ZHOUSHAN INTERNATIONAL SHIPPING CENTER

2023

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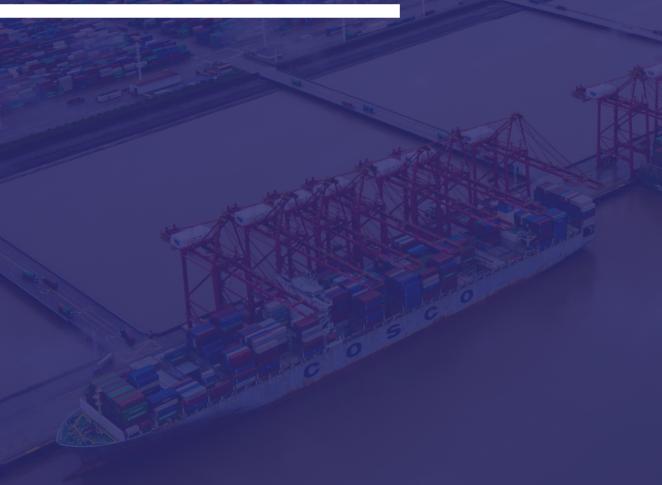
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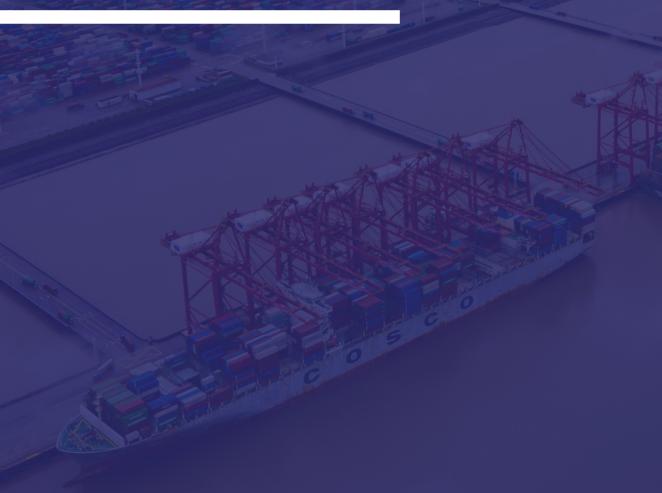
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Introduction 15 Influential Events of 2023





I. Zhejiang Province Mobilization and Deployment Meeting to Deepen the Building of a World-Class Strong Port Was Held in Hangzhou

On December 26, the Zhejiang Province Mobilization and Deployment Meeting to Deepen the Building of a World-Class Strong Port was held in Hangzhou. The meeting clarified that it is necessary to deepen



the integration reform of Ningbo Zhoushan Port, further promote the integration of piloting, port services, and "one-stop" services, and enhance the core competitiveness of Ningbo Zhoushan Port; vigorously promote the integrated development of port, industry, city, and trade, adhere to a holistic approach to development, strengthen overall planning, construction, and management, and focus on the "development" of the shipping service industry and the "innovation" of new port-trade formats and models: collaboratively advance the information integration development of "Four-Port Linkage", promote data sharing and business collaboration between the "Four-Port Linkage" cloud platform and the "single window", and strengthen internal information integration and convergence; accelerate the introduction of a series of supporting policies, enhance element guarantees, leverage various resources, formulate and introduce strong port funding support policies, implement port-land coordinated element guarantee policies, and optimize port enterprise assessment policies to achieve transformative and exponential effects in the building of a strong port.



II. Development Index of Ningbo Zhoushan International Shipping Center Ranked 9th Globally for the First Time

On September 22, the China Economic Information Service and the Baltic Exchange released the *Xinhua-Baltic International Shipping Centre Development Index Report (2023)*, indicating that the global ranking of the Ningbo Zhoushan International Shipping Center climbed one place from 2022 to reach 9th place globally. The latest indicators show that the Ningbo Zhoushan International Shipping Center ranked 1st, 12th and 34th respectively in terms of port conditions, shipping services and comprehensive environment. Among them, the shipping services indicator rose by five places compared to 2022, which is a key factor for the overall ranking improvement, reflecting the further enhancement of the city service level, especially the shipping service capability of the Ningbo Zhoushan International Shipping Center.

排名	2023 年	2022 年	2021 年	2020年	2019 年	2018 年	2017 年	2016 年	2015 年	2014 年
1	新加坡	新加坡	新加坡	新加坡	新加坡	新加坡	新加坡	新加坡	新加坡	新加坡
2	伦敦	伦敦	伦敦	伦敦	香港	香港	伦敦	伦敦	伦敦	伦敦
3	上海	上海	上海	上海	伦敦	伦敦	香港	香港	香港	香港
4	香港	香港	香港	香港	上海	上海	汉堡	汉堡	鹿特丹	鹿特丹
5	迪拜	迪拜	迪拜	迪拜	迪拜	迪拜	上海	鹿特丹	汉堡	汉堡
6	鹿特丹	鹿特丹	鹿特丹	鹿特丹	鹿特丹	鹿特丹	迪拜	上海	上海	迪拜
7	汉堡	汉堡	汉堡	汉堡	汉堡	汉堡	纽约 - 新 泽西	纽约 - 新 泽西	迪拜	上海
8	雅典 - 比 雷埃夫斯	纽约 - 新 泽西	雅典 - 比 雷埃夫斯	雅典 - 比 雷埃夫斯	纽约 - 新 泽西	纽约 - 新 泽西	鹿特丹	迪拜	纽约 - 新 泽西	东京
9	宁波舟山	雅典 - 比 雷埃夫斯	纽约 - 新 泽西	纽约 - 新 泽西	休斯顿	东京	东京	东京	釜山	纽约 - 新 泽西
10	纽约 - 新 泽西	宁波舟山	宁波舟山	东京	雅典 - 比 雷埃夫斯	釜山	雅典 - 比 雷埃夫斯	雅典 - 比 雷埃夫斯	雅典 - 比 雷埃夫斯	釜山





III. Ningbo Zhoushan Port's Second "10-Million-TEU" Container Berth Cluster Was Fully Completed

On December 13, 2023, the No.6 to No.10 container terminal project in Meishan Port Area of Ningbo Zhoushan Port (hereinafter referred to as "Meishan Phase II Project") was fully completed and put into operation, marking Ningbo Zhoushan Port as the world's only port with two "10-million-TEU" single terminals. The Meishan Phase II Project is currently the highest design standard container terminal in China, including two 200,000-ton class and three 150,000-ton class (with hydraulic structures designed to accommodate 200,000-ton container ships) container berths and corresponding supporting facilities, with a designed capacity of 4.3 million TEUs and a total quay length of 2,150 meters, capable of accommodating the world's largest container ships. The completion and operation of the Meishan Phase II Project will further enhance the operational capacity of the Meishan Port Area and support Ningbo Zhoushan Port in building a "worldclass strong port". It is estimated that after the full operation of the Meishan Phase II Project, the annual container throughput of the Meishan Port Area will exceed 10 million TEUs



IV. The 7th Maritime Silk Road Port International Cooperation Forum Was Successfully Held in Ningbo

From July 17 to 19, 2023, the three-day 7th Maritime Silk Road Port International Cooperation Forum was successfully held in Ningbo. The forum was a grand event for the global port and shipping industry in the post-pandemic era, bringing together nearly 400 guests from the port and shipping industry from over 40 countries and regions. The forum, themed "Our Time \cdot Our Road \cdot Our Ports", aimed to reflect the new trends in global economic and trade development, embodying the shared concepts and aspirations of the global port and shipping industry to embrace the times, seize opportunities, understand the core issues, navigate the supply chains, and harness the wings of the era. Based on the new starting point of the tenth anniversary of the Belt and Road Initiative, it also showcased the common vision of the global port and shipping industry to inherit the silk road partnership spirit, promote broader and deeper exchanges and cooperation between domestic and international port and shipping sectors, and build an open port and shipping cooperation relationship. The forum also focused on the new momentum for building world-class strong ports, reflecting the global port and shipping industry's pursuit of creating core port competitiveness, aggregating support capabilities, and driving radiating effects.







V. The Revision of General Regulations of Ningbo Zhoushan Port Passed the Joint Review of Ministries and Provinces

From November 26 to 28, 2023, the Ministry of Transport and the Zhejiang Provincial People's Government held a review meeting in Zhoushan for the Master Plan for Ningbo Zhoushan Port (Revision). This joint review meeting of ministries and provinces was the most crucial and important part in the revision process of the master plan, involving a comprehensive and indepth review of the main contents of the Master Plan for Ningbo Zhoushan *Port*. After this review meeting, the revision of the master plan officially entered the approval stage. Once the plan is approved, Ningbo Zhoushan Port will fully leverage its core strengths in participating in China's Belt and Road Initiative, the development of the Yangtze River Economic Belt, and the integration of the Yangtze River Delta. It will support the construction of the river-sea intermodal transport service center, significantly drive the highquality development of the demonstration zones for common prosperity and for marine economic development in Zhejiang, and effectively lead the transformation and upgrading from a major port in terms of throughput to a world-class strong port.





VI. Ningbo Zhoushan Port's Annual Bonded Marine Fuel Supply Exceeded 7 Million Tons

In 2023, Ningbo Zhoushan Port's bonded marine fuel supply reached 7.046 million tons, a year-on-year increase of 16.95%, maintaining its position as the largest bunkering port in China and among the top four globally. That year, Ningbo Zhoushan Port achieved the first domestic offshore anchorage bunkering of LNG for bulk carriers and the bunkering of biofuel for container ships, becoming the first port in China capable of providing multiple types of clean energy bunkering services at anchorage.





VII. Zhejiang Province Innovatively Established the First Provincial-level Statistical Monitoring System for the Shipping Service Industry in China

To better leverage the unique advantages of Zhejiang Province's shipping service industry and accelerate the construction of a world-class strong port, the Department of Transport of Zhejiang Province and the Zhejiang Provincial Bureau of Statistics innovatively established the first provinciallevel statistical monitoring system for the shipping service industry in China. The establishment of the statistical system marks a further solidification of the standards and norms for the shipping service industry, driving the

realization of statistical monitoring, analytical evaluation, and trackable exposure of shipping services, enhancing the scientific and targeted nature of decision-making in the shipping service industry, and is beneficial for promoting the highquality development of Zhejiang Province's shipping service industry.

序号	类别		(+)			
序写	突剂	一级指标 二级指标		统计频率		
1			营业收入	季度		
2	综合		增加值	年度		
3	指标		税收总额	年度		
4			从业人数	年度		
5		水上运输	航运企业数量(家)	季度		
6		小工运制	营运船队总规模(载重吨)	季度		
7		港口服务	港口货物吞吐量(万吨)	季度		
8		Лация	集装箱吞吐量(万标箱)	季度		
9		多式联运和代理服务	水路货物周转量(万吨公里)	季度		
10]	船舶供应	外轮供应产值(亿美元)	季度		
11		加加快应	保税油供应量(万吨)	季度		
12		船舶维修	船舶工程服务公司数量(家)	季度		
13		עודא⊂ארעע	外轮维修产值(亿元)	季度		
14		船舶检验	船舶检验 国际船级社数量(家)			
15	专项	船舶管理	船舶管理 船舶管理公司数量(家)			
16	マ坝 指标		航运金融与保险机构数量(家)	季度		
17	加加	航运金融	航运经纪产业贷款余额(亿元)	季度		
18			季度			
19			海事仲裁及法律服务机构数量(家)	季度		
20		法律仲裁	国际海事仲裁员数量(人)	季度		
21		7A IH IT 150	涉外法律案件受理数(件)	季度		
22			海事仲裁案件受理数(件)	季度		
23		航运经纪	季度			
24			船舶交易额(亿元)	季度		
25			航运教育咨询研究机构数量(家)	季度		
26		教育咨询	季度			
27			航运软件和信息技术服务企业数(家)	季度		



VIII. Ningbo Zhoushan Port Group Was Selected in the List of World-class Demonstration Enterprises Established by the State-owned Assets Supervision and Administration Commission of the State Council

On March 16, 2023, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) announced the "List of World-class Demonstration Enterprises and Specialized and Sophisticated Demonstration Enterprises", with seven local state-owned enterprises (SOEs) being selected as world-class demonstration enterprises. This is the latest list of demonstration enterprises released by SASAC following the identification of 11 "world-class" pilot central SOEs in 2018, and it is the first time local SOEs have been included in the relevant demonstration enterprise list. Among this significant list, Ningbo Zhoushan Port Group Co., Ltd. was selected as a world-class demonstration enterprise, making it the only enterprise from Zhejiang Province and the only enterprise in the domestic port industry to be included in this list.





IX. Ningbo Zhoushan Port's Major Collection and Distribution Projects Started

On November 28, 2023, the groundbreaking ceremony for Ningbo Zhoushan Port's major collection and distribution projects was held at the construction site of Shugang Avenue and Highway Connecting Bridge, a key infrastructure project of Meishan Port. Wang Hao, deputy secretary of the CPC Zhejiang Provincial Committee and governor of Zhejiang Province, attended and announced the commencement of the projects. The projects that commenced collectively include the 300,000-ton Tiaozhoumen main approach channel, the Meishan Port Shugang Avenue, the expansion and reconstruction of the Ningbo-Taizhou-Wenzhou Expressway, the construction of the Beilun Ash Storage Project, and the Banshan Yard Construction Project. These projects cover various collection and distribution methods, with a total investment of 13.5 billion yuan. Once completed, they will significantly enhance the collection and distribution system of Ningbo Zhoushan Port, accelerate the creation of a world-class strong port, and promote high-quality integrated development of the Yangtze River Delta.



X. The first "Double-deck High Container" Railway in Jinhua-Ningbo Railway Was Officially Opened to Traffic

On December 31, 2023, the first "double-deck high container" railway in Jinhua-Ningbo Railway was officially opened to traffic. The Jinhua-Ningbo Railway is a national Class I dual-purpose double-track railway for both passenger and freight transport, connecting Jinhua and Ningbo. It is the first railway in China to accommodate double-deck high container transport. The Jinhua-Ningbo Railway is a main line of the Yiwu-Ningbo-Zhoushan Open Corridor and a convenient transport route from Ningbo Zhoushan Port to the central and western inland regions. It is also an important project for improving the layout of the regional railway network. After the Jinhua-Ningbo Railway is put into operation, it will achieve interconnectivity between the world's largest port (Ningbo Zhoushan Port) and the world's capital of small commodities (Yiwu), which is of great significance to promote Zhejiang Province's faster integration into the Belt and Road cooperation and boost high-quality economic and social development along the route.





XI. Leading Shipping Service Companies Settled in Zhoushan Xiaogan Island Maritime Service Industrial Park

On March 20, 2023, the Construction Command of Zhoushan International Maritime Service Base held a ceremony on Xiaogan Island for the entry of the RMS Project into the Xiaogan Island



Maritime Service Industrial Park and the formal operation of the project. The Xiaogan Island Maritime Service Industrial Park is an important project for the construction of the Zhoushan International Maritime Service Base. Once completed, it will provide one-stop comprehensive maritime services such as ship supplies, technical services, and crew changes, significantly enhancing Zhoushan's position in the global maritime service industry chain. In the next 3 to 5 years, the industrial park plans to attract around 10 wellknown domestic and international ship supply companies, and more than 100 supporting service companies in the industry chain, achieving an output value of over 5 billion yuan, and facilitating the annual rotation of more than 10,000 international crew members. Additionally, efforts will be accelerated to establish platforms such as the crew assessment center, maritime service industry building, and exhibition center on Xiaogan Island, creating a maritime service industrial city that will drive the aggregation of Zhoushan's international maritime service and shipping service industries.



XII. Ningbo Port Deepened Reforms to Facilitate Crossborder Trade and Created a Model Area for Port Business Environment

Ningbo has deeply implemented the strategy to enhance the pilot free trade zone, focused on key areas such as trade and investment liberalization and facilitation, expanded opening-up of the service sector, and cross-border data flows to carry out pilot trials. The departure port tax refund policy has been approved and implemented, the first intercontinental passenger route and four fifth-freedom all-cargo routes have been opened, and the high-standard opening-up pilot business scale of cross-border trade and investment leads the nation. As of now, 30 reform achievements of the Ningbo area of the Zhejiang Pilot Free Trade Zone have been rated as the best institutional innovation cases at the provincial level, 24 cases have been recognized as national firsts by authoritative third-party institutions, and 14 institutional innovation achievements have been replicated and promoted across the province.





XIII. Ningbo Customs Innovated the Supervision Mode of Cross-border E-commerce Bonded Warehouses and Supported the Development of New Business Forms

In 2023, Ningbo Customs supported the establishment of bonded warehouses dedicated to the supervision of crossborder e-commerce export goods, innovatively applied the "inspection before shipment" supervision mode, achieving



"one-stop customs clearance" for goods within the warehouses, including customs declaration, storage, inspection, packing, and release. This enabled the consolidated export of cross-border e-commerce goods, general trade goods, and bonded goods of different attributes, while also benefiting from policies such as "immediate tax refunds upon goods entering the comprehensive bonded zone", promoting high-quality development of cross-border e-commerce. From the successful inspection and release of the first shipment under the bonded warehouse supervision mode on March 31, 2023, to the end of December, a total of 28,500 cross-border export shipments worth 2.271 billion yuan had been cleared. The project was recognized as the best practice case for optimizing and enhancing the business environment in Ningbo.



XIV. Zhejiang Maritime Safety Administration Innovated "One-Stop" Service Model to Facilitate the Opening of the Second Channel into Jiaxing Port

The Zhejiang Maritime Safety Administration has innovated a "one-stop" service model, establishing a cross-department joint consultation system, utilized new measures such as specialized navigation safety meetings for major water-related projects and technical reviews of construction support plans to facilitate the opening of the second channel into Jiaxing Port, and announced the implementation of the Recommended Navigation Method in Yuxingnao Waters. It has coordinated with local port and shipping departments to add four new navigation markers and developed a VTS traffic flow guidance plan. These efforts have comprehensively regulated the navigation order in the waters, minimizing the risk of ship collisions during crossings to the greatest extent possible.





XV. Ningbo Maritime Court Made Significant Progress in Establishing a Preferred Location for International Maritime Dispute Resolution

In 2023, Ningbo Maritime Court lawfully concluded 661 cases involving foreign, Hong Kong, Macao, and Taiwan affairs, with the proportion of foreign-related cases ranking first among courts in the province. The court collaborated with the CCPIT Zhejiang Provincial Committee to establish a cooperation mechanism to support the rule of law in international trade and maritime shipping, exploring new pathways for foreign-related maritime litigation procedures. An innovative general power of attorney mechanism was implemented, significantly reducing the time required for procedural matters in foreign-related trials, and six internationally renowned shipping companies submitted general power of attorney documents. The court established the first diversified resolution center for foreignrelated maritime disputes in China. Through cooperation with entities like the China Maritime Arbitration Commission, the Ningbo Arbitration Court of International Shipping, and the CCPIT Zhejiang Provincial Committee, it promoted models of "arbitration mediation + judicial confirmation" and "special mediation + judicial confirmation". This has facilitated the joint efforts of industry mediation, administrative mediation, and judicial mediation to comprehensively resolve disputes in international shipping trade, international ship finance, and international port services. The diversified resolution center for foreign-related maritime disputes handled 138 disputes, involving 503 million yuan, with parties from 21 countries and regions worldwide. This effort was recognized as a typical case of the three "No.1 Projects" in the service guarantee across the province and as an influential research achievement in the 40th anniversary of national maritime adjudication.

Chapter I

Construction and Development of a Seaport Hub and a Collection & Distribution System



I. Capacity and Scale of the Seaport Hub

(I) Annual cargo throughput and container throughput reached new heights again

In 2023, in the face of an unpredictable global trade environment, Ningbo Zhoushan Port, leveraging its unique geographical advantage, first-class facilities, and outstanding services, continued to establish itself as a strategic pivot for domestic circulation and a strategic hub for both domestic and international dual circulation. It has become a vital global port and shipping logistics center, a strategic resource allocation center, and a modern shipping service base.

In 2023, through the expansion of business layout, optimization of route structures, promotion of intelligent and digital transformation, and enhancement of terminal handling efficiency and service capacity, the port ensured smooth and efficient logistics, achieving stable progress in port transportation and production. The annual cargo throughput reached 1.324 billion tons, a year-on-year increase of 4.94% (with foreign trade cargo throughput exceeding 600 million tons, a year-on-year increase of 7.14%), surpassing 1.3 billion tons for the first time and maintaining its position as the world's largest port for the 15th consecutive year.

Container throughput: The port handled 35.3008 million TEUs in container throughput, a year-on-year increase of 5.85%, surpassing 35 million TEUs for the first time, and firmly ranking third globally.

Dry bulk cargo throughput: The port handled 728 million tons of dry bulk cargo, a year-on-year increase of 1.88%.

Liquid cargo throughput: The port handled 250 million tons of liquid cargo, a year-on-year increase of 9.97%.

No.	Port	2023 (100,000,000 tons)	2022 (100,000,000 tons)	Year–on–year growth	
1	Ningbo Zhoushan	13.24	12.61	4.9%	
2	Shanghai	8.43	7.32	15.1%	
3	Tangshan	8.42	7.69	9.5%	
4	Qingdao	6.84	6.58	4.0%	
5	Guangzhou	6.75	6.56	2.9%	
6	Rizhao	5.93	5.71	3.9%	
7	Singapore	5.92	5.78	2.3%	
8	Suzhou	5.90	5.73	3.0%	
9	Hedland	5.62	5.68	-1.0%	
10	Tianjin	5.59 5.49		1.8%	
Table 2: Top 10 Global Container Throughput Ports in 2023					
No.	Port	2023 (10,000 TEUs)	2022 (10,000 TEUs)	Year-on-year growth	
1	Shanghai	4916	4730	3.9%	
2	Singapore	Singapore 3901 372		4.6%	
3	Ningbo Zhoushan	3530	3335	5.9%	
4	Shenzhen	2988	3004	-0.5%	
5	Qingdao	2877	2567	12.1%	

2486

2207

2102

1397

1669

2.2%

3.1%

5.5%

3.6%

-13.7%

Table 1: Top 10 Global Cargo Throughput Ports in 2023

Special Topic

6

7

8

9

10

Guangzhou

Busan

Tianjin

Dubai

Hong Kong

Global port production shows weak growth, domestic growth outpaces international, northern ports lead over southern ports

2541

2275

2219

1447

1434

Global major ports have maintained weak growth, though signs of improvement have started to emerge. Influenced by economic and trade downturns and multiple strikes, global major port throughput continued its weak growth trend in 2023. The production situation in Asian ports has been BLUE BOOK ON THE DEVELOPMENT OF NINGBO

favorable, with container throughput at Singapore Port and South Korea's Busan Port increasing by 4.6% and 3.1% respectively in 2023. European ports performed below expectations due to inflationary pressures. The Port of Rotterdam saw a total cargo throughput of 439 million tons, a year-on-year decrease of 6.1%, and container throughput of 13.4 million TEUs, a year-on-year decrease of 7.3%. The Port of Antwerp-Bruges handled 271 million tons of cargo, a year-on-year decrease of 5.5%, and container throughput of 12.5 million TEUs, a year-on-year decrease of 7.2%. North American ports saw production improvement in the second half of the year as labor issues were resolved and demand surged due to Black Friday and Christmas shopping. The Port of Los Angeles, after 13 consecutive months of year-on-year declines in container throughput, achieved positive growth for five consecutive months starting in August, with throughput of 830,000 TEUs, 750,000 TEUs, 730,000 TEUs, 760,000 TEUs, and 750,000 TEUs, increasing by 2.8%, 5.4%, 7.0%, 19.4%, and 2.5%, respectively.

Domestic port production growth outpaced that of international ports, with northern ports showing better growth than southern ones. In 2023, China's port growth maintained a high level, achieving a cargo throughput of 16.97 billion tons, a year-on-year increase of 8.2%, and a container throughput of 310 million TEUs, a year-on-year of 4.9%. Northern ports, with a higher proportion of domestic trade, benefitted significantly from internal economic circulation. Additionally, the Belt and Road Initiative boosted trade between northern ports and Central Asia and West Asia. In May, the General Administration of Customs issued the Announcement on Further Expanding the Scope of Cross-Border Transport of Domestic Trade Goods in Jilin Province, further expanding the scope of cross-border transport of domestic trade goods through Russian ports. In 2023, China-Russia trade surpassed 200 billion U.S. dollars for the first time, reaching a record 240.1 billion U.S. dollars, a year-on-year increase of 26.3%. Qingdao Port and Tianjin Port grew by 12.1% and 5.5%, respectively. Southern ports, which rely more on foreign trade, were impacted by lower-than-expected export container orders.

Shenzhen Port experienced a slight decline of 0.5%, while Guangzhou Port grew by 2.2%.



(II) Spatial layout further optimized, and infrastructure further expanded

In November 2023, the *Master Plan for Ningbo Zhoushan Port (Revision)* was reviewed and approved by the joint expert review panel from ministries and provinces. In terms of spatial layout, "one port, four cores, and nineteen areas" was adjusted to "one port, two cores, twenty areas". One port refers to Ningbo Zhoushan Port; two cores refer to the central core area and the northern core area; twenty areas include Qushan, Yangshan, Beilun, Liuheng, Chuanshan, Meishan, Jintang, Daxie, Cengang, Shengsi, Daishan, Baiquan, Zhenhai, and Dinghai as 14 important port areas and Ma'ao, Hangzhou Bay, Xiangshan Port, Shipu, Shenjiamen, and Yongjiang as six general port areas. Hangzhou Bay is the only newly added port area this time.

Meishan Port Area's No.6 to No.10 container terminal project was fully







completed, making Ningbo the only city in China and worldwide to possess two "10-million-TEU" single container terminals, significantly boosting the port's "hardcore strength". The key infrastructure projects at Meishan Port progressed steadily, with the seawall and land formation project reaching the stage of joint closure and water release, reaching more than half of the projected progress, and the terminal engineering, Shugang Avenue, and Highway Connecting Bridge projects started construction. Preliminary preparations for key projects such as the Beilunshan multipurpose terminal renovation, the second phase of Daxie China Merchants International Container Terminal, and the third phase supporting terminal of Zhejiang LNG were steadily advanced. The landmark project Xiaoyangshan North Container Project fully commenced, with an annual investment of 3 billion yuan. The expansion of the Tiaozhoumen Channel began, and once the core port area' s dual channel for ultra-large vessels is completed, it will effectively alleviate the current pressure on the Xiashimen Channel.

In 2023, Ningbo Zhoushan Port completed the construction of 9 new berths above 10,000 tons, bringing the total number of such berths to 214, with 118 in Ningbo and 96 in Zhoushan. Five new container berths above 10,000 tons were built, increasing the total number of specialized container berths to 39, with a total container berth length of 14,463 meters and a throughput capacity of 40 million TEUs. An additional 12 container cranes were added, bringing the total number of container cranes to 189.

Berths above10,000 tons: 9	Container berths above 10,000 tons: 5		Container cranes: 12	
Total:				
Berths above10,000 tons: 214	Specialized large container berths: 39	Total length of container berths: 14,463 meters		Container cranes: 189

Newly added in 2023:





(III) Opening-up and cooperation continued to intensify, and industrial agglomeration effect continued to increase

1. Opening of port berths

The State Council approved the expansion of opening for three port areas: Chuanshan, Xiangshan Port, and Shipu. The expanded open area covers 58.13 square kilometers, adding 1,894 meters of open shoreline and nine berths. By the end of 2023, all eight major port areas in Ningbo Port achieved port opening. Meishan Berth No. 9 was temporarily put into use for the first time, while Chuanshan Berth No. 1 and Shipu New Port Terminal continued temporary openings. Meishan Berths No. 6-8, Guanbao Terminal, and Zhongzhai Iron Ore Terminal Phase II also extended temporary operations. Meishan Berth No. 10 began conducting feeder line operations, effectively increasing Ningbo Port's container throughput capacity by 5 million TEUs per year and cargo throughput capacity by 24 million tons per year.

Zhoushan Port expanded the opening of five port areas: Daishan, Ma'ao, Baiquan, Jintang, and Shenjiamen. The additional open area is 112.5 square kilometers, including new open berths at several terminals such as Yongzhou Terminal, Zhongtian Heavy Industry and Huafeng Shipyard. By the end of 2023, the total open area of Zhoushan Port reached 1,457.3 square kilometers, with 65 supervision points and 20 open anchorages, ranking first nationwide in terms of total open area and number of supervision points among water transport ports.

2. Hinterland expansion and investment cooperation

In terms of hinterland expansion, cooperation was established with hinterlands along the Yangtze River such as Changsha and Yueyang in Hunan, and Wuhan in Hubei. The *Ningbo-Wuhan Port Cooperation Memorandum* was signed with Wuhan Port. Efforts were made to promote port collaboration between the east and west, as well as between mountainous and coastal regions in Liangshan, Sichuan and Lishui, Zhejiang, extending the efficient customs clearance and high-quality services of Ningbo Port to inland cities.



Additionally, the "2+2+x" Hangzhou-Ningbo cross-border trade facilitation cooperation was deepened, jointly promoting the Hangzhou-Ningbo "Twin City Story".

In terms of investment cooperation, Zhejiang Provincial Seaport Investment & Operation Group Co. Ltd. (hereinafter referred to as Zhejiang Seaport Group) completed the acquisition of shares in Ningbo Daxie China Merchants International Container Terminal held by China Merchants Port Group within the province, further enhancing the coordinated container operation capacity of Ningbo Zhoushan Port. The investment layout along the Yangtze River continued to deepen, with Zhejiang Seaport Group completing the acquisition of a 20% share in Yangshan Phase III and a 10% share in Taicang Wujiang. Additionally, Zhejiang Seaport Group established the Jiangxi Provincial Port and Shipping Logistics Development Group with Jiangxi Port Group and Jiujiang Transportation and Shipping Development Group, Henan Yuhai New Channel Operation Management Co., Ltd. with Henan Zhongyu Port Group, and Yancheng International Supply Chain Management Company with Jiangsu Ganglian Shuzhi International Logistics Co., Ltd. The Belt and Road Initiative yielded fruitful results, with Zhejiang Seaport (Vietnam) Supply Chain Management Co., Ltd. being registered and starting operations, and logistics projects in Germany and Sri Lanka progressing in an orderly manner.

3. Agglomeration of port-related service industries

Ningbo has developed nine comprehensive logistics parks across the city, with a total planned area of 47.3 square kilometers. Among them, seven comprehensive logistics parks, including the Meishan Bonded Port Area Logistics Park, have been basically completed, attracting more than 3,600 logistics enterprises and generating revenues exceeding 65 billion yuan. Amazon's first forward bonded warehouse for overseas purchases was established in Ningbo, pioneering a forward warehouse for cross-border e-commerce exports in China. Ningbo hosts 1/9 of the nation's overseas warehouses by number and 1/6 by area. The export volume from special



cross-border e-commerce areas accounts for one-third of the national total, with 67 companies operating 211 overseas warehouses totaling 3.44 million square meters in 22 countries. Ningbo has been designated as the premier landing point for Central and Eastern European (CEE) import goods, approved as the sole pilot port for importing agricultural and food products from the CEE region in China. The city introduced a digital application scenario for streamlined customs clearance of CEE imports, established the first CEE cross-border self-pickup center in China, and opened the second phase of the CEE Year-round Pavilion. The number of CEE product direct sales centers has increased to 54.

In Zhoushan, the agglomeration effect of the maritime service industry on Xiaogandao Island is accelerating. The island is now home to about 200 maritime service enterprises, forming a preliminary industrial scale. Since 2023, eight projects including the second phase of the International Maritime Service Industrial Park, the crew assessment center, and the international shipping center have started construction one after another. It is planned to cultivate and attract around 10 well-known domestic and international shipping supply companies and more than 100 supporting service companies within the industry chain to settle on the island over the next three to five years, achieving an output value of more than 5 billion yuan and facilitating the annual rotation of more than 10,000 international crew members.

Special Topic

Seizing development opportunities, Zhejiang Seaport Group helps Chinese enterprises accelerate their steps to go global

On November 20, 2023, a container loaded with office desks, chairs and other furniture products was shipped from Ho Chi Minh Port in Vietnam to the United States, marking the successful launch of the first batch of business operations by Zhejiang Seaport (Vietnam) Supply Chain Management Co., Ltd. (hereinafter referred to as Seaport Vietnam Company) and officially entering the trial operation stage.



Chapter I Construction and Development of a Seaport Hub and a Collection & Distribution System

Seaport Vietnam Company is a wholly-owned subsidiary established by Zhejiang Seaport Group and Ningbo Zhoushan Port Group in Ho Chi Minh City, Vietnam, dedicated to providing more efficient and convenient logistics solutions for Chinese enterprises operating in Vietnam. In recent years, amid the continuous adjustment and transfer of domestic supply chain industries, more and more Chinese furniture, metal and other manufacturing companies have settled in Vietnam. Seaport Vietnam Company fully utilizes the port operation advantages and business operation experience of Ningbo Zhoushan Port to offer door-to-door, one-stop supply chain management services from China to local destinations in Vietnam for Chinese enterprises, enhancing the brand influence of Ningbo Zhoushan Port locally.



II. Shipping Route Network and Collection and Distribution System

(I) Improving shipping route layout, and connecting the maritime network to the world

Ningbo Zhoushan Port has established shipping connections with over 60% of countries and regions worldwide, linking more than 600 ports. The total number of shipping routes has increased to 302, including 250 international routes and 130 Belt and Road routes, an increase of 78% over the past decade.

(II) Optimizing the collection and distribution system, and continuously enhancing hub capabilities

As one of the first national logistics hubs, Ningbo Zhoushan Port is a crucial transit and distribution hub for major strategic materials in the Yangtze River Economic Belt, handling 45% of the iron ore, over 90% of the crude oil, and one-third of the international container transport for the Yangtze River Economic Belt.

In terms of sea-rail intermodal transport, Ningbo Zhoushan Port has promoted leapfrog development in sea-rail intermodal transport through six major projects, including capacity enhancement, innovation in demonstration projects, and paired assistance for common prosperity. To date, more than 100 sea-rail intermodal transport routes have been opened, with a total of 25 fixed train services. The Jindong Platform of the China-Europe Railway Express has operated over 2,000 trains, covering 65 cities in 16 provinces (autonomous regions). The annual container volume for searail intermodal transport has exceeded 1.65 million TEUs, a 13.8% year-onyear increase, ranking second among national ports in total volume and first in foreign trade container volume for sea-rail intermodal transport. The country's first double-deck high-container railway in Jinhua-Ningbo Railway ahs been fully operational, providing a convenient transportation



channel from Ningbo and Zhoushan to the central and western inland areas and achieving interconnectivity between Ningbo Zhoushan Port and Yiwu in Zhejiang. The construction of the double-track section of the Beilun Railway branch line has commenced, and projects such as Ningbo-Zhoushan Railway and Meishan Railway dedicated line have accelerated, further enhancing the urban capacity and transportation hub status of Ningbo.

In the realm of road transport, the Xiangshan Bay Shugang Expressway section from Kunting to Tangxi has officially opened to traffic. The first phase of the Ningbo section of the Hangzhou-Ningbo Expressway and the first phase of the Shiyitang Expressway in Hangzhou Bay New Zone have successfully passed acceptance inspections and are now ready for traffic. A number of port access expressways under construction or newly started, including the second and third phases of the Ningbo section of the Hangzhou-Ningbo Expressway, the first phase of the Liuheng Expressway Bridge project, and the expansion and reconstruction of the Ningbo-Taizhou-Wenzhou Expressway are progressing smoothly, forming the framework for the two major northsouth expressway corridors serving Ningbo Zhoushan Port.

In terms of river-sea-river intermodal transport, in 2023, Ningbo Zhoushan Port fully integrated into the Yangtze River Delta through measures such as Zhejiang-Shanghai cooperation and hinterland expansion, extending its reach to the middle and upper reaches of the Yangtze River. This bolstered the development of the "river-sea-river intermodal transport" network. The container volume for river-sea-river intermodal transport reached 1.836 million TEUs, a year-on-year increase of 23.6%, further raising its share to 5.2%. The total river-sea intermodal volume was 390 million tons, up 5% year on year. The direct shipping routes to the middle reaches of the Yangtze River expanded to seven, with a total capacity increased to 14 vessels and 186,000 tons. The opening of the Xiasha Port in the Qiantang Port Area of Hangzhou Port marked the achievement of full coverage of the river-sea intermodal network in northern Zhejiang, including Hangzhou, Jiaxing, and Huzhou, by Zhejiang Seaport Group and Ningbo Zhoushan Port Group. The inauguration





ceremony for the 64-TEU container shipping route in northern Zhejiang further signified the completion of the interconnection and operational integration of river-sea intermodal transport for 64-TEU container ships within northern Zhejiang and the Yangtze River Delta region.



Special Topic

Solving the "three major problems" to accelerate the building of the collection and distribution capacity of Ningbo Zhoushan Port

In November 2023, Ningbo Zhoushan Port's collection and distribution projects were launched simultaneously, including the 300,000-ton Tiaozhoumen main approach channel, the Meishan Port Shugang Avenue, the expansion and reconstruction of the Ningbo-Taizhou-Wenzhou Expressway, the construction of the Beilun Ash Storage Project, and the Banshan Yard Construction Project, aiming to solve the "three major problems" that have long constrained the development of Ningbo Zhoushan Port.



The "multistory parking lot" solves the problem of "container truck siege". The construction of the supporting parking lots (ash storage) for the third phase container terminal of Ningbo Zhoushan Port and the Banshan Yard and Huazhi Yard projects have commenced, with the Huazhi Yard already completed and in use. These projects will provide the port areas with space for empty and loaded container storage and parking for container trucks, effectively alleviating the chronic shortage of container truck parking and container storage space.

300,000-ton ships now have a "dual channel" for entering the port. Currently, the only available channel for 300,000-ton ships entering and exiting Ningbo Zhoushan Port is the Xiashimen Channel. By upgrading the 150,000-ton Tiaozhoumen Channel to a 300,000-ton channel, a "dual channel" for 300,000-ton ultra-large vessels entering the core port areas will be formed, further enhancing Ningbo Zhoushan Port's critical channel support capabilities.

The "double-deck high container" trains directly access the port areas. Through the construction of related projects such as the double-track section of the Beilun Railway branch line, the "double-deck high container" transport test line in Jinhua-Ningbo Railway can directly reach the Beilun and Chuanshan port areas, solving the "bottleneck" problem of the Beilun Railway branch line and improving the sea-rail intermodal transport capacity of Ningbo Zhoushan Port.





III. Construction of Smart Green Port

(I) Steady and rapid progress in smart port construction

In recent years, Ningbo Zhoushan Port has steadily promoted the construction of the "2+1" smart terminal demonstration project by strengthening technological innovation and accelerating the application of new technologies, making port automation and intelligence a powerful driving force for building a world-class strong port. Two globally unique achievements highlight this progress: the world's only dual 400,000-ton automated bulk cargo terminal operating on an island and the world's only single-unit automated container terminal handling over 10 million TEUs in mixed operations. These milestones provide a "Zhejiang model" for the smart transformation of ultra-large bulk cargo and container terminals worldwide, showcasing Zhejiang Seaport's intelligence.

In 2023, the Ministry of Transport announced the first batch of pilot projects for optimizing and upgrading port functions under the initiative of building a country with strong transportation network. The smart transformation project for traditional container and bulk cargo terminals





at Ningbo Zhoushan Port was successfully selected. The National Office of Port Administration approved Ningbo to carry out a pilot project for the construction of a smart port, making it one of the first eight cities in the country to pilot smart port construction. The project on the "Research and Application of Intelligent System for Full-process Operation of Ultra-large Bulk Cargo Terminal on Islands" by Zhoushan Shulanghu Terminal Co., Ltd. won the Special Award of the 2023 China Ports and Harbours Association Science and Technology Awards, marking the first time that Ningbo Zhoushan Port Group has received this special award. The Meishan Port Area Container Terminal, leveraging the integrated application of digital technologies such as automated port equipment, real-time big data computation, algorithmdriven intelligent dispatching, and digital twin visualization, has transformed the traditional terminal into a "smart terminal with unified command. comprehensive network coverage, integrated operations, and demonstration zones", and received a four-star smart port rating from the China Ports and Harbours Association. The Yongzhou Container Terminal in the Jintang Port Area has established an autonomous driving test zone, aiming to become the world's first open autonomous driving test zone featuring "smart port brain + remote-controlled automated equipment + mixed traffic of intelligent connected vehicles and manually operated container trucks" by 2025.

Improving the smart supervision system for ports and shipping. Ningbo Zhoushan Port has developed an integrated application for a "digital strong port", connecting key data elements such as cargo, ships, containers, and vehicles in ports and shipping. This initiative has established six major modules: port operations, logistics distribution, customs clearance, trade services, industrial ecosystem, and government governance. These modules form a closed-loop system for government monitoring of critical port logistics elements, while also providing value-added services to enterprises, including logistics information inquiries, operational efficiency and service quality displays, and industry analysis reports. A full-chain smart control application for hazardous chemicals has been launched, creating an integrated system for "port safety codes" that spans multiple sectors. This system enables dynamic analysis and control using red, yellow, and green codes, and provides intelligent auxiliary supervision. Currently, the service covers over 60 hazardous goods companies in the city, with a 100% registration rate and 100% weekly active usage. The Deep Blue Smart Maritime Supervision Service Platform has been developed and launched. Since its implementation, ship punctuality has increased by 33%, saving shipping companies over 20 billion yuan annually. Ningbo's maritime rescue success rate has remained stable at 97%. This platform was showcased as a representative achievement of China at the 51st meeting of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).

Special Topic

Digital Shulang—Building the world's only dual 400,000-ton offshore bulk cargo terminal

The Shulanghu ore transfer terminal at Ningbo Zhoushan Port is currently the world's only bulk cargo terminal capable of simultaneously berthing two 400,000-ton ore carriers. In mid-2020, Shulanghu terminal set the goal of "offshore" operations, aiming to create a fully intelligent bulk cargo terminal demonstration and benchmark project for Ningbo Zhoushan Port Group, proposing the "iSLAND+" smart construction solution. The six letters and one "+" symbol encompass seven systems: "smart brain" for production business control throughout the construction process, safety control, digital offshore, automation, green environmental protection, development module, and the "+" sharing.

Starting in 2021, the terminal successfully transitioned from singlemachine automation upgrades to fully automated workflows integrating five operational modes across 164 common operations involving ship unloaders, stacker reclaimers, ship loaders, and conveyor belts. In March 2023, the company's intelligent control center began operations, introducing the 1.0 version of "Digital Shulang". The system's "virtual-real integration" feature ensures that monitored actual scenarios match perfectly with the "digital twin" displays. The system's cockpit panel provides real-time displays of process operations, alarm boards, storage data, ship data, and energy data. This allows managers to remotely monitor the entire Shulanghu Terminal through "Digital Shulang" 1.0 without leaving their offices. On either side of the intelligent control center's large screen are eight remote control stations for ship unloaders and ten for bucket loaders. These stations can automatically control the terminal's and storage yard's equipment, including ship unloaders, ship loaders, and stacker reclaimers, with the push of a button. The operational efficiency has reached 95% of manual operations, shifting from the "one machine, multiple operators" model to "one operator, multiple machines."

(II) Expediting the transformation and capacity enhancement of green ports

In recent years, Ningbo Zhoushan Port has focused on "carbon peaking" and "carbon neutrality", with clean and low-carbon development as its direction. By optimizing the port's energy structures and operational processes, it has increased efforts in the application of green energy, upgrading green equipment, and implementing energy-saving and emission reduction technologies, constructing a clean and low-carbon port energy system, and steadily advancing the construction of green and low-carbon ports. To date, five port units at Ningbo Zhoushan Port have been rated as four-star Chinese green ports.

In 2023, Ningbo Zhoushan Port Group completed the compilation of the Medium and Long-term Development Plan for Group Carbon Peak, continuously expanding the research and application of clean and new energies such as electricity, solar energy, LNG, and hydrogen energy. It accelerated the elimination of old, high-emission port operation machinery and strengthened shore power construction. Several major projects such as the "Water Transport Port - Multi-Energy Integration Technology and



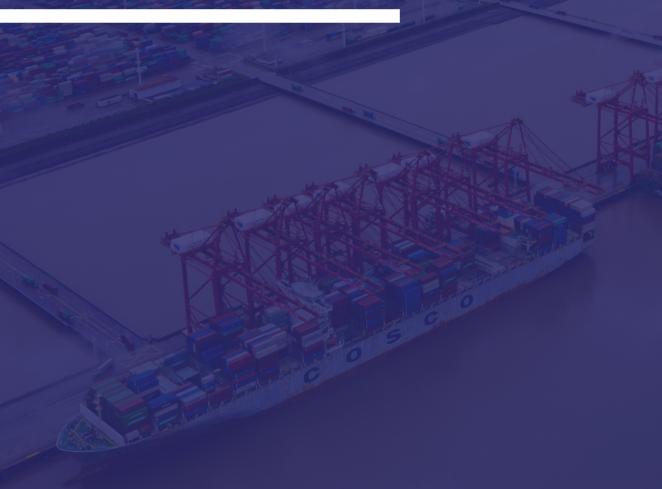


Integrated Application" demonstration project in the Chuanshan Port area and the low-carbon terminal demonstration project in the Meishan Port area were launched. Currently, Ningbo Zhoushan Port has built 34 sets of highvoltage shore power and 313 sets of low-voltage shore power, with a total shore power coverage rate of 94.9% for terminal berths, and a shore power coverage rate of 98% for container and dry bulk berths above 50,000 tons. The total use of shore power increased by 447% year on year. At the same time, Ningbo Zhoushan Port has actively explored green energy alternatives for traditional diesel container trucks, with over 200 electric container trucks, over 500 LNG container trucks, and 50 hydrogen container trucks already in use, along with the industry's first intelligent battery swapping station.



Chapter II

Shipping Service Function System Construction and Development





I. Shipping Operation and Management

In 2023, Ningbo and Zhoushan registered 11 new **international shipping** enterprises, with 10 in Ningbo and one in Zhoushan. By the end of 2023, the total number of registered international shipping enterprises reached 44, with 28 in Ningbo and 16 in Zhoushan. Additionally, there were 386 newly registered **non-vessel operating common carriers (NVOCCs)**, with 348 in Ningbo and 38 in Zhoushan. By the end of 2023, the cumulative number of registered NVOCCs reached 2,103, with 1,948 in Ningbo and 155 in Zhoushan.

As of the end of 2023, there were a total of 520 domestic waterway transport vessels in Ningbo, with a total carrying capacity of 11.31 million deadweight tons (DWT), including 466 coastal transport vessels totaling 11.30 million DWT and 54 river transport vessels totaling 15,000 DWT. In Zhoushan, there were a total of 1241 maritime transport vessels with a combined carrying capacity of 9.027 million DWT, including 217 vessels of over ten thousand tons, with a total capacity of 5.852 million DWT.

Type of Enterprises	Number of Re	Newly Added in 2023				
	Total	Including		Number of Registered		
		Ningbo	Zhoushan	Enterprises		
International shipping enterprises	44	28	16	11		
NVOCC	2103	1948	155	386		

Table 3: Number of Shipping Enterprises in Ningbo Zhoushan International Shipping Center

_								
Scope of Operation			2023		2022		2021	
	Region	Number of vessels	Capacity (10,000 DWT)	Number of vessels	Capacity (10,000 DWT)	Number of vessels	Capacity (10,000 DWT)	
Coastal	Coastal	Ningbo	466	1130	478	1034.2	480	1017.1
	Zhoushan	1241	902.7	1326	851.7	1384	830.6	
	River	Ningbo	54	1.5	54	1.6	25	1.6

Table 4: Waterway Freight Transport Capacity of Ningbo Zhoushan International Shipping Center from 2021 to 2023

Currently, Ningbo and Zhoushan are home to the headquarters of seven shipping companies: Ningbo Ocean Shipping, Aladdin Shipping, Han Chieh Shipping, GlobalField Line, Haiyetong Shipping, Zhijiang Shipping, and Xinhuan Shipping. All top ten global shipping giants have established branches in Ningbo and Zhoushan. According to the 2023 comprehensive evaluation results for capacity control in the coastal interprovincial bulk liquid hazardous goods shipping market, Ningbo and Zhoushan host a total of eight shipowners, representing nearly half of the 18 hazardous goods shipowners nationwide. In October 2023, Zhejiang Shipping Group and Schulte Group (one of the world's top ten ship management companies) signed a ship management project contract. The Schulte Group will leverage its global service network, procurement resources, and advanced ship management expertise to support Zhejiang Shipping Group in managing four 64,000-ton Ultramax bulk carriers (UMX).

Special Topic

Ningbo Ocean Shipping's container ship capacity surpasses 70,000 TEUs, ranking 26th globally in capacity

On October 12, 2023, Ningbo Ocean Shipping's first 3300TEU container ship "Ningyuan Ningbo" was officially delivered, marking the first time Ningbo Ocean Shipping's container fleet capacity has surpassed 70,000



TEUs. According to the latest capacity report released by Alphaliner, Ningbo Ocean Shipping increased its container capacity by 26,983 TEUs, making it the mediumsized container shipping company with the largest capacity growth worldwide.



In the context of the maritime industry's green transformation, Ningbo Ocean Shipping has deeply integrated production operations with green development. Over the past three years, it has completed the construction of 13 green intelligent ships, efficiently promoting ship energy conservation and emission reduction, gradually establishing and improving a green, lowcarbon circular development system. In 2023, five new "Ningyuan" series ships were delivered and put into operation. These ships are all new green intelligent ships, equipped with high-voltage shore power systems and smart ship technologies. They exemplify Ningbo Ocean Shipping's commitment to implementing green and smart concepts, strengthening its core shipping business, and positioning these new vessels as flagship models in its fleet.



II. Ship Brokerage Services

In 2023, Ningbo and Zhoushan registered 36 new international ship agents, with Ningbo adding 6 and Zhoushan adding 30. By the end of 2023, the total number of registered international ship agent enterprises reached 294, with 116 in Ningbo and 178 in Zhoushan.

By the end of 2023, Ningbo and Zhoushan had a total of 5,187 registered international freight forwarding enterprises, with 5,113 in Ningbo and 74 in Zhoushan.

Type of Enterprises	Number of Re	Newly Added in 2023		
	Total	Inclu	Number of Registered	
		Ningbo	Zhoushan	Enterprises
International ship agents	294	116	178	36
International freight forwarding enterprises	5187	5113	74	

According to information released in the *China International Freight Forwarding and Logistics Industry Development Blue Book (2022)*, seven freight forwarding enterprises in Ningbo have entered the top 100 comprehensive rankings in terms of total operating revenue. These enterprises are Ningbo Port Southeast Logistics Group Co., Ltd., Ningbo Youngor International Trade & Transportation Co., Ltd., Safround Logistics Co., Ltd., U.S. United Logistics Inc., Emprise International Transportation Co., Ltd., Ningbo Harbor Lingyu Logistics Co., Ltd., and Ningbo Happyport Logistics Co., Ltd.





Special Topic

Port credit system construction promotes integrity operations in port-related enterprises

The development of the port industry is a barometer of import and export trade, with Ningbo port's sea freight export volume accounting for 98%. The credit evaluation of enterprises in Ningbo's port sector combines government and market information to



construct a credit evaluation indicator system, providing precise profiles for more than 2,800 enterprises in Ningbo. The evaluated enterprises account for more than 90% of the active enterprises in the industry across the city. The dynamic monitoring and analysis of these credit profiles offer critical data for classified and graded supervision, promoting integrity operations among port-related enterprises.

In 2023, the number of enterprises in Ningbo's port sector subject to credit evaluation reached 2,805, a year-on-year increase of 7.7%. Among them were 2,481 international freight forwarding enterprises, 34 international shipping agent enterprises, 235 customs declaration and inspection enterprises, and 55 warehouse and storage yard enterprises. Preliminary evaluation results classified 254 enterprises as Class A, 1,063 as Class B, 1,371 as Class C, 88 as Class D, and 29 as Class E, showing a normal distribution trend in the results.



III. Ship Engineering Services

(I) Booming development of the shipbuilding industry

There are 66 shipbuilding industrial enterprises above designated size in Ningbo, achieving a total industrial output value of 20.30 billion yuan, a year-on-year increase of 9.1%. The industrial sales value reached 17.42 billion yuan, a year-on-year increase of 7.5%. Among them, 40 ship repair and building enterprises above designated size achieved an industrial output value of 5.06 billion yuan, a year-on-year increase of 7.7%; 16 ship supporting enterprises above designated size achieved an industrial output value of 3.93 billion yuan, a year-on-year decrease of 14.0%; 10 marine engineering equipment enterprises above designated size achieved an industrial output value of 11.31 billion yuan, a year-on-year increase of 20.8%.

Zhoushan boasts 93 shipbuilding enterprises above designated size, achieving a total industrial output value of 32.5 billion yuan, reflecting a year-on-year increase of 26.2%. Among them, 92 ship repair and building enterprises above designated size achieved an industrial output value of 25.19 billion yuan, marking a year-on-year growth of 26.0%. Completed shipbuilding reached 1.89 million DWT, showing a year-on-year increase of 44%; new orders amounted to 5.33 million DWT, a year-on-year increase of 173%; and orders on hand totaled 8.01 million DWT, a year-on-year increase of 83%, accounting for 4.5%, 7.5%, and 5.7% of the national totals respectively. Ship repairs totaled 4,059 ships, with an output value of 15.5 billion yuan, up 25.4% year on year. The number of completed ships and output value represented over 35% of the national total, comprising approximately 20% of the global total.

(II) Leading nationwide in ship technology service

By the end of 2023, Ningbo and Zhoushan had a total of 7 international ship inspection agencies; and 29 ship design enterprises, with 6 in Ningbo





and 23 in Zhoushan. In 2023, Zhoushan promoted key ship enterprises to seize the low-carbon development trend in the international shipping industry, increasing investment in independent innovation and research and development. The research and development expenses of ship manufacturing enterprises above designated size reached 490 million yuan, a year-on-year increase of 48.9%, with the growth rate increasing by 27.6 percentage points compared to the previous year.

Zhoushan COSCO Shipping Heavy Industry successfully won the largest 154,000-ton shuttle tanker order in the past decade worldwide, becoming the largest shuttle tanker builder globally. A batch of distinctive and advantageous vessels, such as the 20,000-ton green, smart, autonomous and efficient transshipment barge and the country's first oil-electric hybrid multifunctional maritime service vessel by Zhichuan Technology, were successfully launched and delivered. Simultaneously, Zhoushan COSCO Shipping Heavy Industry, in collaboration with Wuhan University of Technology, established the "Smart Shipyard Innovation Joint R&D Center" to explore the creation of a "smart shipyard" with exemplary significance in the industry. Wison Offshore & Marine undertook the construction of large FLNG topside modules, marking the first time a Chinese shipbuilding enterprise provided turnkey services and successfully breaking the monopoly of European and Korean companies. Yiulian Dockyards (Zhoushan) Limited undertook the upgrade and transformation of the drilling platforms "China Merchants Hailong 5" and "China Merchants Hailong 6", completing the country's first efficient and energy-saving foldable wing sail retrofit project, filling an industry gap. Tsuneishi Group (Zhoushan) Shipbuilding upgraded the traditional boutique Kamsarmax bulk carrier to a methanol dual-fuelpowered vessel. Global Maritime Consultants Group (GMCG) launched expanded its business services in Ningbo, enhancing the city' s portfolio of high-end functional international institutionsenhancing the city' s portfolio of high-end functional international institutions. Ningbo CIMC Logistics Equipment Co., Ltd. was selected for the Ministry of Industry and Information

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Technology's 2023 Green Manufacturing list. Maersk signed the world's first methanol dual-fuel container ship retrofit project with Xinya Shipyard.







IV. Ship Trading

In 2023, the turnover of ships in Zhejiang Shipping Exchange Co., Ltd. reached 8.068 billion yuan. The platform www.shipbid.net added 152 core customers, totaling 863, and completed import and export agency business for 58 ships, with a transaction amount exceeding 250 million U.S. dollars, a year-on-year increase of 38%. More than 50 countries and regions paid attention to or participated in the international auction projects on shipbid. net. On December 12, the opening ceremony of Zhejiang Shipping Exchange Co., Ltd. (hereinafter referred to as www.shipbid.net) was held in the trading hall of Zhejiang Shipping Exchange.

Special Topic

From local to global—the expansion of shipbid.net

shipbid.net is affiliated with Zhejiang Shipping Exchange Co., Ltd. and is the world's first online ship trading platform. Since its official operation in August 2014, it has rapidly developed in the fields of online ship asset transactions,



import and export agency services, evaluation and inspection, and ship financing. As of the end of December 2023, shipbid.net has auctioned more than 900 various shipping assets, with a transaction value exceeding 8.5 billion yuan. It has now become the most comprehensive and largest integrated shipping trading service platform in China.



V. Ship Supply

Taking advantage of the green and low-carbon development opportunities in the shipping industry, Ningbo Zhoushan Port has continued to explore new models for offshore ship replenishment, accelerated the layout of diversified new fuel supply capabilities, and strengthened the Northeast Asia Bonded Ship Fuel Oil Supply Center. By constructing more fuel supply anchorages, expanding the specialized refueling fleet, and cultivating new market entities, it has promoted integrated innovation and coordinated development of the ship refueling industry chain. In 2023, Zhoushan's bonded ship fuel supply reached 7.0464 million tons, a year-on-year increase of 16.95%, ranking first in China and fourth in the world. Among them, the supply volumes at Zhoushan anchorage and cross-customs districts were 2.2736 million tons and 3.7975 million tons, respectively, representing yearon-year growth of 26.25% and 16.39%.



In February 2023, Ningbo successfully obtained its first bonded LNG bunkering qualification. In June, Ningbo Zhoushan Port completed its first bonded LNG bunkering operation for an internationally navigating vessel, becoming one of the few ports globally capable of simultaneous "ship-toship" LNG bunkering services. This marked a significant breakthrough in maritime services and green shipping services. The influence of the country's first local license continued to manifest, attracting companies such as C&D Energy, Hengli Petrochemical, and Mawei Marine Fuel to enter the Zhoushan market, forming a diverse competitive market comprising state-owned, private, and foreign enterprises, increasing the total number of oil supply companies in Zhoushan to 19.

BLUE BOOK ON THE DEVELOPMENT OF NINGBO ZHOUSHAN INTERNATIONAL SHIPPING CENTER 2023

In 2023, the Zhejiang International Oil and Gas Trading Center launched the POZZ (Price Of Zhejiang ZME) system, releasing indices such as the "China Zhoushan Low-Sulfur and High-Sulfur Marine Fuel Oil Bonded Bunker Price", the "Zhoushan Oil Storage Comprehensive Price Index", and the "Zhejiang Region LNG Spot Price". These indices have become benchmarks for China's bonded bunker market prices. Additionally, the center pioneered the delivery of low-sulfur oil futures and introduced the "capacity presale + futures stabilized price order" business model. It also successfully implemented the nation's first bonded oil spot warehouse receipt pledge and the interchanging of spot trading venue warehouse receipts, thus supporting the oil and gas supply chain in the Yangtze River Delta with stable pricing and reliable supply.

Special Topic

"Shared Growth for Oil and Gas Through Discussion and Collaboration" - The 6th International Petroleum and Natural Gas Enterprises Conference was successfully held in Zhoushan

From October 24 to 26, 2023, the 6th International Petroleum and Natural Gas Enterprises Conference was held in Zhoushan, Zhejiang. During the conference, the China Petroleum Circulation Association solemnly released

the 2022 rankings for the "Top 10 Global Bunker Ports" and "Top 10 Global Bunker Companies". China's Zhoushan Port advanced one position from last year, ranking as the fourth largest bunkering port in the world.

The conference was hosted by the Zhejiang Provincial People's Government, attracting over 200 leading enterprises from more than 20 countries in the oil and gas-related industries. The event covered the full oil and gas industry chain, including oil and gas trade, chemicals, new materials, finance, shipping, international shipping and maritime services, consulting, inspection, and warehousing support services, among more than 20 oil and gas-related industries. A total of 19 major projects were signed, involving an agreement amount of 73.7 billion yuan.





VI. Shipping Finance and Insurance

(I) Rapid growth in shipping financing scale

Among the 97 banking financial institutions in Ningbo and Zhoushan, 73 provide loans to the port and shipping economy-related industries. In Ningbo, 45 out of 68 financial institutions provide loans related to the port and shipping economy. By the end of 2023, the loan balance for port and shipping economy-related industries was 84.617 billion yuan, up 19.79% from the beginning of the year, and the loan balance for the water transportation industry was 33.511 billion yuan. In Zhoushan, 28 out of 29 financial institutions provide loans related to the port and shipping economy. By the end of 2023, the loan balance for port and shipping economy industries was 22.325 billion yuan, up 50.83% from the beginning of the year, with the loan balance for the shipping industry reaching 14.384 billion yuan, an increase of 39.34% from the beginning of the year.

Industry classification	Nin	gbo	Zhoushan	
	Loan balance	Year-on-year growth	Loan balance	Year-on-year growth
Port and shipping economy industry	84.617 billion yuan	19.79%	22.325 billion yuan	50.83%
Water transportation industry	33.511 billion yuan	-5.79%	14.384 billion yuan	39.34%

Table 5: Balance of Port and Shipping-related Loans of Banking Institutions in 2023



Special Topic

Deep integration of digital technology and the real economy, empowering the shipping and logistics industry with e-CNY (digital yuan)

Since April 2022, when Ningbo became one of the third batch of pilot cities for e-CNY, the city has steadily constructed an e-CNY ecosystem, combining the pilot with empowering the real economy and promoting financial inclusion. Ningbo Port's "EPORTHUB" platform has become the province's first comprehensive platform in the port and shipping logistics sector to fully implement e-CNY settlement, benefiting a group of 34,000 container truck drivers and achieving e-CNY transactions totaling 5.2428 million yuan. Yungang IoT launched the province's first e-CNY targeted payment platform based on blockchain smart contracts, facilitating freight supervision and intelligent settlement between "shippers (freight forwarding companies), the platform, and carriers", with e-CNY transactions exceeding 36 million yuan to date.

(II) Continuous profit generaton and innovation in marine insurance

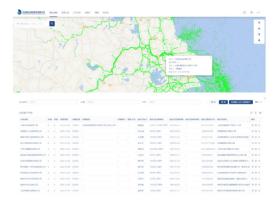
Ningbo and Zhoushan have a total of 30 insurance companies providing marine insurance services. Among them, Ningbo has 17 companies with marine insurance premium income of 752 million yuan in 2023, a year-on-year increase of 8.99%, and the insured amount was 2.11 trillion yuan, a year-on-year increase of 17.88%. Zhoushan has 13 companies with marine insurance premium income of 350 million yuan in 2023, a year-on-year increase of 12.45%.

Ningbo Zhoushan Port's marine insurance enterprises are committed to serving China's Belt and Road Initiative and following the spirit of the directives of General Secretary Xi Jinping on strengthening port capabilities. They actively provide risk protection for the shipping industry and enhance port competitiveness. In November 2023, Ningbo launched the nation's first safety production liability insurance for port enterprises, named "Yong Gang



An", along with supporting accident prevention service standards, filling the current gap in China's port sector for specialized safety liability insurance and accident prevention service standards. In December, the China Export & Credit Insurance Corporation Ningbo Branch underwrote the nation's first container leasing business policy, with an initial insured amount of 1 million U.S. dollars, covering a total of 260 containers, effectively securing the container leasing business.

Donghai Marine Insurance Company has launched an integrated platform for ship business management and risk control. The platform integrates functions such as ship archives, ship dynamic tracking, ship route and behavior backtracking, cargo classification, cargo



information analysis, and ship-cargo relationship identification to achieve ship risk profiles and risk quantification, helping insured enterprises with timely risk warnings. In September 2023, the National Financial Regulatory Administration approved Donghai Marine Insurance Company to expand its business scope to provide comprehensive risk protection for ships, cargo, motor vehicles, enterprises, engineering projects, and personal accidents directly related to shipping and port infrastructure.



VII. Maritime Legal Services

In 2023, Ningbo Maritime Court, as a specialized court handling maritime and admiralty cases, received 4,111 cases and concluded 4,148 cases, ranking first among the 11 maritime courts in the country in terms of the number of cases received and concluded, as well as the rate of satisfaction with judgments. To support the enhancement of international shipping capabilities and ensure the construction of a world-class strong port, Ningbo Maritime Court studied and formulated several implementation opinions aimed at supporting the construction of a strong marine province and improving the business environment. The court efficiently adjudicated 605 shipping-related disputes involving China-Europe Railway Express and multimodal transport, and resolved 788 port-related disputes concerning warehousing operations, wharf construction, and container leasing. This attracted both domestic and foreign parties to choose Ningbo Maritime Court for dispute resolution.

In July 2023, Ningbo Maritime Court established the nation's first diversified resolution center for foreign-related maritime disputes, pioneering a one-stop platform for resolving foreign-related maritime disputes through





mediation, arbitration, and litigation. It appointed 92 experts from the fields of maritime legal services, port logistics, finance and insurance as mediators, achieving comprehensively resolving disputes in international shipping trade, international ship finance, and international port services. That year, the center received 138 cases with a total disputed amount of 503 million yuan, involving parties from 21 countries and regions worldwide. In September, the Beijing Convention on the Judicial Sale of Ships, which was formulated with the deep participation of the judges of Ningbo Maritime Court, was officially signed, contributing Zhejiang's wisdom to the first UN convention in the maritime field named after a Chinese city In December, Ningbo Maritime Court and the CCPIT Zhejiang Provincial Committee established a cooperation mechanism, leveraging the CCPIT's strong international mediation capabilities to explore new paths for foreign-related maritime litigation procedures, including foreign law ascertainment, service of foreign-related legal documents, enforcement assistance, an investigation and evidence collection, effectively improving the handling efficiency of foreign-related cases. At the 35th National Forum on the Rule of Law in Sub-Provincial Cities, Ningbo Maritime Court took the lead in organizing a special forum on "Serving and Ensuring the Construction of an International Strong Port", gathering the wisdom of domestic and international experts to assist in the construction of Ningbo as an international marine center city.

Ningbo Maritime Court has actively built a team of maritime legal service talents, deeply implementing a comprehensive training program for maritime judges who are proficient in foreign trade, shipping, foreign languages, and law. The court has strengthened its foreign-related adjudication team, organized seminars on the Beijing Convention on the Judicial Sale of Ships, and conducted port business practice training, so as to promote the cultivation of legal talents specialized in foreign-related and maritime law.

In March 2023, Ningbo inaugurated the International Commercial Court and simultaneously established the International Legal Service Center to provide comprehensive legal services for foreign trade, maritime commerce,

Chapter II Shipping Service Function System Construction and Development

and major international activities. During its first year, under the guidance of Ningbo International Commercial Court, courts at two levels in Ningbo concluded 438 cases involving foreign, Hong Kong, Macao, and Taiwan affairs, covering 77 different causes of action and involving 41 countries and regions. Four cases were selected as top ten typical cases in the province's courts for commercial and maritime trials involving foreign, Hong Kong, Macao, and Taiwan affairs, ranking first in the province. In July, Ningbo Maritime Court established a diversified resolution center for foreign-related maritime disputes, pioneering a one-stop platform for resolving foreignrelated maritime disputes through mediation, arbitration, and litigation, covering disputes in the three major areas of international shipping trade, international ship finance, and international port services. That year, the court received 138 cases with a disputed amount of 503 million yuan, involving parties from 21 countries and regions worldwide. Zhoushan established the country's first one-stop maritime commercial legal service center, exploring the establishment of a one-stop international maritime commercial dispute resolution platform that organically connects litigation, arbitration, and mediation. This also serves as a distinctive one-stop maritime commercial legal service center with Zhoushan characteristics.

Efforts were made to expand and improve the quality of the talent pool for distinguished lawyers in Ningbo, focusing on selecting, cultivating, and introducing lawyers specializing in international and maritime commerce fields. A total of 24 lawyers were cultivated in the maritime commerce field (including 4 "leading" lawyers, 7 "core" lawyers, and 13 "growing" lawyers). Seventeen lawyers were selected for the national foreign-related lawyer talent pool (accounting for about one-third of the province), 53 lawyers were selected for the Zhejiang Province's foreign-related lawyer talent pool, and four were included in the arbitrator roster of the China Maritime Arbitration Commission. One maritime lawyer was awarded the inaugural Ningbo Shipping New Youth. Several lawyers were included in the foreign-related lawyer team of the Ningbo International Legal Service Center.



VIII. Shipping Information and Consulting Services

Deepening the full-process transformation in port and shipping logistics. The construction of the four port linkage smart logistics cloud platform has been promoted. This platform integrates core business functionalities such as data interconnection, logistics management, and logistics marketplaces. It aims to achieve "one-point access, four-port interconnection, one-time query, full-process visibility, and seamless cargo flow". As of now, the four port cloud platform has registered over 10,000 enterprises and has been recognized as a significant application achievement in the innovative development of Zhejiang Province's digital economy. Additionally, the sub-application "Easy Parking 1.0" of the "Smart Orderly Port City" scenario has been launched. This application facilitates appointment-based parking for container truck drivers, reducing empty runs





and effectively improving the turnover rate of container truck parking lots. Currently, it boasts over 12,000 registered users and has handled more than 146,000 parking appointments.

Cultivating new business forms in the port and shipping industry. The launch of the "YongeTong" international trade one-stop service platform has been instrumental in this regard. This platform integrates five key application scenarios: international trade trend analysis, one-stop customs declaration for enterprises, one-stop quarantine and health processing, traceability of imported key commodities, and credit services for port-related enterprises. Under the "one-stop customs declaration for enterprises" scenario, the customs declaration coverage for enterprises has reached 100%, and the paperless clearance rate for exports has reached 100% as well. The time taken for enterprises to declare a single shipment has been reduced from 20 minutes to just 1 minute.

Promoting the construction of a digital platform for bulk commodities. The first full-process online blockchain electronic warehouse receipt financing business of the seaport bulk cargo digital supply chain service platform was successfully implemented in the Longwan Port Area of Wenzhou Port. TradeGo became the first electronic bill of lading platform in China and the tenth globally to receive international certification. Additionally, 66 Yunlian successfully connected with the Shanghai Clearing House, completing the first digital warehouse receipt online delivery business in the domestic oil and gas industry.

Shipping consulting services continue to deepen. The Maritime Silk Road Index developed by Ningbo Shipping Exchange has been adopted by the Baltic Exchange and leading international shipping research and consulting institutions, establishing itself as an index system for measuring trends in the international shipping and trade markets. In 2023, the China-Central and Eastern European Countries Trade Climate Index was compiled and released.





Chapter III

Construction and Development of Software Environment for Shipping Business

I. Institutional Reform and Innovation

In the realm of deepening institutional reform, Zhejiang Province has established its Marine Economy Development. This department is responsible for coordinating maritime and port-related activities, advancing the marine economy, and implementing strategies, plans, and major policies for marine economic development. It also oversees significant platforms and projects, accelerates the province's marine industry and technological innovation, promotes the development, construction, and management of marine ports, coordinates the integrated development of Ningbo Zhoushan Port, and fosters land-sea coordinated and integrated development.

In terms of management and monitoring systems, the Department of Transport of Zhejiang Province and the Provincial Bureau of Statistics have innovatively established the country's first provincial-level statistical monitoring system for the shipping service industry (hereinafter referred to as the "statistical system"). This system clarifies the three major fields covered by the shipping service industry: the basic layer, the auxiliary layer, and the derivative layer, as well as 11 categories including water transportation, port services, multimodal transport and agency services, ship supply, ship maintenance, ship inspection, and shipping brokerage, thus enhancing the industry's structural framework to ensure comprehensive and clear boundaries for statistical coverage. The establishment of this Statistical System signifies a foundational enhancement in the standards and regulations of the shipping service industry, driving the realization of statistical monitoring, analytical evaluation, and trackable exposure of shipping services, and enhancing the scientific and targeted nature of decision-making in the shipping service industry, which has urgent practical needs.

In terms of building a world-class strong port, Ningbo has established a high-level leadership group, led by the top officials, to spearhead the

construction of a world-class strong port. A new round of working teams has been set up for substantive operations, and the *Mechanism for Promoting the Construction of a World-Class Strong Port in Ningbo* has been issued to comprehensively and multidimensionally advance the construction of a world-class strong port. The *Action Plan for Building Core Strength and Accelerating the Construction of a World-Class Strong Port (2023-2027)* has been revised and completed, and fundamental documents such as the *Indicators and Targets Table for the Core Strength of a World-Class Strong Port, the List of Ten Landmark Projects for the Construction of a World-Class Strong Port, the List of Ten Leading Reforms, and the List of Ten Major Policies* have been formulated and issued. These documents focus on key and difficult issues in port-city interaction, indicator systems, hinterland expansion, and port services, conducting forward-looking research on major topics to provide intellectual support for decision-making in the construction of a world-class strong port.

In terms of port integration reform, the Action Plan for Building the "Hub Free Trade Zone" in the Ningbo Area of the China (Zhejiang) Pilot Free Trade Zone has been prepared and issued, significantly accelerating the construction of the "Hub Free Trade Zone". The Key Points of Work for the Integrated Development of Ningbo and Zhoushan and the Joint Construction of a Modern Marine City in 2023 and the list of key projects have been released, implementing a weekly reporting system for key projects, enhancing departmental coordination and interaction, and forming a coordinated, tiered advancement framework involving both cities working together comprehensively. Ningbo and Zhoushan have signed the Mutual Recognition Agreement on Cross-Port Supply of Domestic Trade Marine Fuel Oil and the Ningbo-Zhoushan Pilot Station Pilot Integration Cooperation *Agreement*, simultaneously advancing the integration of port emergency rescue resources, significantly improving the capacity for resource coordination, sharing, and service assurance. The innovative mechanism of "one-stop multi-certificate processing without stopping" has expanded from





Ningbo to the whole country, achieving "processing without stopping" for ships relocating to Ningbo from other places.

Special Topic

Development goals of the "14th Five-Year Plan" for the development of Zhejiang Province's marine economy

By 2025, the building of a strong maritime province will be comprehensively advanced, with notable accomplishments in the areas of marine economy, marine innovation, marine ports, marine openness, and marine ecological civilization. Key indicators will show significant improvement, fostering new advantages in international maritime competition and cooperation on all fronts.

The strength of the marine economy will remain in the leading group. The province will strive for the gross marine product to exceed 1.28 trillion yuan, accounting for 15% of the provincial GDP. The added value of emerging marine industries will account for 40% of the gross marine product, and the added value of the tertiary industry will account for 65% of the gross marine product. A number of world-class advanced manufacturing and modern marine service industry clusters will be established.

——Maritime innovation capability will rank among the top in the nation. The intensity of investment in marine research and experimental development will reach 3.3%. One marine discipline (field) in Zhejiang's universities will meet the "Double First-Class" construction standards. The number of provincial-level and above marine scientific research institutions will reach 43, along with 35 provincial marine key laboratories, engineering research centers, and other innovation platforms. The number of provincial-level and above marine industry-education integration bases will reach 3, and the provincial marine big data center will be established. There will be breakthroughs in provincial laboratories in the marine field.

——Marine port service levels will reach world-class standards. A world-class strong port will be basically established, with coastal port cargo

throughput reaching 1.6 billion tons and container throughput reaching over 40 million TEUs. Ningbo Zhoushan Port's cargo throughput will reach 1.3 billion tons, maintaining its global top position; container throughput will reach 35 million TEUs, remaining among the top three globally, further solidifying its role as a crucial global port and shipping logistics hub. The number of automated terminal berths will reach 5. The comprehensive development level of Ningbo Zhoushan International Shipping Center will rank among the top 8 globally.

The dual-circulation strategic hub will take the lead in forming. Profound participation in the Belt and Road Initiative, the Yangtze River Economic Belt, the integration of the Yangtze River Delta, and other national strategies has yielded remarkable results. Ningbo-Zhoushan Port will achieve 260 container shipping routes and operate 3,000 China-Europe freight trains. The river-sea intermodal throughput will reach 450 million tons, and the container rail-water intermodal throughput will reach 2 million TEUs. Additionally, 42 inland ports will be established to the west, forming a pattern of opening-up that coordinates the coastal and inland areas and connects the eastern and western regions.

Marine ecological civilization construction will become a benchmark. Comprehensive implementation of marine ecological red line protection and control will improve the average quality rate of nearshore waters by 5 percentage points compared to the "13th Five-Year Plan" period. Four ecological coastline demonstration sections and ten provincial or higher-level island parks will be established. The retention rate of natural coastline on the mainland will be no less than 35%, and on islands no less than 78%. The area of nearshore coastal wetlands will not decrease, and the accuracy rate of marine disaster early warnings will reach over 84%.

By 2035, a strong marine province will be basically built, significantly enhancing comprehensive marine strength. The gross ocean product will double compared to 2025, and a national and future-leading marine technology innovation source will be fully established. The marine central city



will advance to the forefront of the world city system, forming a port-centered industrial cluster with significant international influence. The construction of a world-class strong port will be completed, achieving internationally leading levels of opening-up and cooperation, marine resource and energy utilization, and marine and island ecological environment quality. The province will possess significant international discourse power in global marine development and cooperation.



II. Optimization of Port Services

Since 2023, Ningbo has introduced a version 6.0 plan to continuously deepen reforms that facilitate cross-border trade. The city has rigorously implemented "mandatory actions" at the national level while boldly exploring Ningbo-specific "optional actions", launching 29 significant facilitation measures. This move marks another stride towards establishing Ningbo as a national exemplar for port business environments. Over a period of five months, the special action to promote cross-border trade facilitation in Ningbo has achieved interim results, with all 29 tasks completed. According to statistics, the overall efficiency of import and export customs clearance at Ningbo Port ranks first among coastal ports in the Yangtze River Delta.

(I) Deepening reform and innovation to further elevate the level of service guarantee

Pioneering the "Benefit Expansion" for advanced certified enterprises by customs. Firstly, by adhering to multi-department collaboration and focusing on high-frequency business operations, the scope of benefits for advanced certified enterprises has been expanded from solely customs-related matters to encompass 12 business areas closely related to corporate operations, customs clearance, and logistics, including maritime affairs, border inspection, human resources, social security, market regulation, and taxation. A total of 35 convenience measures across 10 aspects have been introduced. Secondly, the coordination mechanism for issues faced by advanced certified enterprises has been solidified, creating a closed-loop process where credit information is shared across departments, and incentives are integrated and fed back from decentralized departments. Thirdly, the "AEO Advanced Certification Cultivation Information Assistance Service" is provided to enterprises, offering online guidance for the "assessment-improvement" phase, thus enhancing the interaction efficiency







between enterprises and customs. Throughout the year, 18 new AEO enterprises were added at Ningbo Port, bringing the total to 124.

Actively supporting the development of cross-border e-commerce. Firstly, a pioneering new model for forward warehouse supervision of crossborder e-commerce exports has been introduced nationwide. Two customs supervision sites for export forward warehouses have been established, piloting the 1210 supervision model. This model enables "inspection before shipment" within the warehouse, facilitating "one-stop" customs clearance for declaration, storage, inspection, loading, and release, reducing clearance time from 2-3 days to 1 day. Secondly, efforts have been made to secure a pilot for the return of cross-border e-commerce retail export goods across customs districts, further smoothing the "reverse" logistics of cross-border e-commerce export goods. Thirdly, financial support elements have been strengthened by guiding enterprises to be among the first in the country to try innovative cross-border e-commerce products of China Export & Credit



Chapter III Construction and Development of Software Environment for Shipping Business



Insurance Corporation (SINOSURE), and insuring "overseas warehouse sales risk insurance", thereby improving business quality and efficiency. Fourthly, four "fifth-traffic right" air routes have been opened to strengthen the construction of air logistics channels for cross-border e-commerce.

Strengthening the integrated business development of ports across the province. Firstly, the customs clearance efficiency of water-towater transshipment has been improved. Efforts have been made to fully implement the paperless transshipment operation, combine the water-towater transshipment "departure confirmation" model and the "inspection before loading" supervision model for consolidated cargo, support the flexible arrangement of feeder vessel schedules at seaport terminals within the province and pilot the Ningbo-Wenzhou "Sea Shuttle Bus" to increase the customs clearance efficiency of internal feeder lines across the province, achieving full coverage within Zhejiang Province. Secondly, the same-ship transportation of domestic and foreign trade cargo has been implemented. Eligible ships are encouraged to conduct domestic and foreign trade cargo BLUE BOOK ON THE DEVELOPMENT OF NINGBO

transportation and operations on the same ship simultaneously, enhancing ship space utilization and port operation efficiency. Thirdly, the "Smart One-Stop Port Supervision Service Platform" has been put into operation. A total of 200 services, including digital ports, have been integrated to achieve 100% one-stop processing of port declaration business items and common service items, reducing the processing time for enterprises from 1 hour to within 30 minutes. Fourthly, the pilot program for integrated ship customs clearance reform has been initiated. The nation' s first paperless port for ship entry and exit customs clearance has been built, aggregating over 3,000 maritime, ship, and port-related data items, totaling more than 1.6 million records. Efforts have been made to pioneer the implementation of the "single window" system for international trade, allowing for simultaneous multiple declarations with a single submission. This reform has reduced ship clearance times from 16 hours to 2 hours, and cargo clearance times from 4 hours to as fast as 1 minute and 28 seconds, maintaining national leadership in clearance efficiency for several consecutive years.

Innovating the convenient customs clearance model for new energy vehicles. By addressing the biggest bottleneck in the export of new energy vehicles, customs, maritime, border inspection, commerce, public security, and other departments have collaborated to create the province's first dedicated container yard for new energy vehicle exports. This provides cross-departmental "one-stop" supervision and services, including vehicle consolidation, transfer, export license processing, inspection, and containerization, effectively alleviating the issue of limited specialized container yards. The daily containerization capacity has increased from 180 vehicles to over 1,000 vehicles, saving approximately 1,000 yuan per container and reducing time by 2-3 days. Additionally, a new export channel via "collapsible vehicle-specific frames" was successfully opened, making Ningbo port capable of handling three major mainstream channels: rollon/roll-off ships, container ships, and multi-purpose ships with collapsible vehicle-specific frames.



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Continuously improving the customs clearance efficiency of international navigation ships. Firstly, the "No Inspection Before Departure" mechanism has been pioneered. Maritime authorities implemented an exemption mechanism for foreign-flagged ships that are about to depart, allowing them to leave without inspection. From January 1, 2023, this mechanism has been extended to 21 member countries and regions in the Asia-Pacific region, with nearly 60 ships benefiting each month, reducing unnecessary delays by approximately 200 hours. Secondly, remote "noncontact" inspections have been enhanced. Remote verification of electronic ship certificates is conducted before regular onboard inspections, with more than 30 ships benefiting each month, saving nearly 40 hours of inspection time. Thirdly, temporary port changes for international navigation ships are allowed, with border inspection departments implementing "one ship, one policy" measures for ships in need, facilitating flexible ship schedule arrangements. Fourthly, the "Five Stations in One" border inspection system has enhanced the efficiency of ship entry and exit procedures, providing "one-time" processing of entry and exit formalities for international navigation ships. Fifthly, the innovative border inspection "Maritime Administrative Corridor" has been implemented by conducting helicopter maritime patrols and exploring the pre-clearance of ship entry procedures at anchorage points to enable immediate operations upon docking. Sixthly, a collaborative evaluation framework among maritime, enterprises, and professional appraisal institutions has been established, reducing the evaluation period for new hazardous goods from six months to two weeks. Companies like Risen Energy, Wanhua Chemical, Henghe Materials & Science, and Jinhai Chenguang have benefited, enabling the rapid import and export of raw materials and new products worth hundreds of billions of yuan through maritime ports.





Special Topic

Port business environment continues to optimize, and export car customs clearance enters "countdown era"

New energy vehicles, as one of the "new trio" products in foreign trade, have seen sustained popularity. In 2023, Ningbo Port exported over 68,000 new energy vehicles with a total value of 9.46 billion yuan, marking yearon-year increases of 46.1% and 60.6%, respectively, both reaching historical highs. Their "global reach" has now extended to 101 countries and regions. According to statistics, Ningbo Port exported 3.74 billion yuan worth of new energy vehicles to Belgium, reflecting a year-on-year increase of 9.8%; 1.49 billion yuan worth to the Netherlands, a year-on-year increase of 23.1 times; and 1.24 billion yuan worth to the UAE, a year-on-year increase of 0.43%. These three destinations collectively accounted for 68.4% of the total export value of new energy vehicles from Ningbo Port during the same period.

Ningbo has introduced a series of policies, including the *Ningbo New Energy Vehicle Industry Development Plan (2023-2030)*, the *Several Opinions on Accelerating the Creation of a New Energy Vehicle City, and the Management Measures for Special Funds Supporting Foreign Trade Roll-on/ Roll-off Shipping Routes in Ningbo*, with a strong emphasis on bolstering and expanding the export business of new energy vehicles. Regarding port customs clearance, aside from implementing facilitation measures such as "advance declaration" and "24/7 appointment for overtime services", Ningbo has actively developed intelligent gateways and implemented "contactless customs clearance", enabling rapid identification and automatic release of car carriers, thereby enhancing vehicle collection efficiency at the port. As a result, export car customs clearance has entered the "countdown era".

(II) Enhancing enterprise-related services and further improving the corporate experience of customs clearance

Continuously tapping into the potential of customs clearance

services. Firstly, at seaports, 24/7 green customs clearance channels have been opened, prioritizing the inspection of fresh and perishable goods such as chilled meat and seafood. Services such as "5+2" appointment inspections and online pre-inspections by border control ensure "zero waiting time" customs clearance for special goods. The "24/7, zero delay" customs clearance system at ports has been optimized, implementing 24/7 approval for the inspection of ships engaged in international navigation, with an application rate of 100%. Secondly, at airports, a "inspection upon arrival" policy has been implemented, achieving "zero delay" customs clearance for cargo aircraft, and for foreign cargo aircraft that do not stay overnight, crew members undergo inspections without disembarking, reducing the average customs clearance time per flight by 40 minutes. The "144-hour visa-free transit" policy for foreigners facilitates the travel of business personnel, with dedicated inspection areas and channels and pre-acquired personnel information, ensuring smooth entry and exit for temporary visitors. Additionally, the use of large container inspection equipment and the innovative application of intelligent image analysis have been further strengthened. Currently, this application can effectively identify 296 types of goods, with a coverage rate exceeding 90%, effectively reducing the overall inspection time by approximately 50%.

Continuously enhancing the convenience of handling cross-border tax and insurance business. The Ningbo Taxation Bureau has launched the "Tax Road Pass - Ningbo" brand, introducing 12 service measures to establish a long-term mechanism for cross-border investment tax services, providing high-quality services for enterprises to "bring in" and "go global". It has implemented the comprehensive application of the digital management system for filing documents, and promoted measures to stabilize foreign trade such as treating insurance compensation as foreign exchange earnings, continuously accelerating the progress of export tax refund for high-credit enterprises. Starting from September 1, the policy of tax refund for overseas tourists shopping before departure has been implemented in Ningbo. SINOSURE Ningbo Branch has continuously expanded the coverage of export credit insurance, fully leveraging the role of export credit insurance as a policy-based financial instrument, vigorously promoting the fast claims settlement mechanism "Easy Claims". Throughout the year, a total of 711 claims cases were settled, with a payout amount of 750 million yuan, fully assisting foreign trade entities in risk prevention, market expansion, and order stabilization.

Fully unleashing the benefits of RCEP. Firstly, RCEP workstations have been established to provide consulting services on certificate issuance, import benefit enjoyment, and compliance management. Convenient measures such as "intelligent review" and "self-service printing" of certificates of origin have been implemented, with a machine review pass rate of over 73% and a self-service printing rate of 93%. Secondly, 17 enterprises have been cultivated to become "certified exporters" and be guided in independently issuing declarations of origin. Thirdly, policy publicity has been intensified by focusing on key RCEP commodities such as textiles and agricultural products, providing precise guidance on untapped free trade agreement benefits to over 100 enterprises, helping them enjoy tariff preferences. Ningbo RCEP High-level Opening-up Cooperation Demonstration Zone ranks first in the province.

Strengthening the supervision and management of port fees. Firstly, specialized training was conducted on port, freight forwarding, and container truck fee regulation practices to enhance grassroots price regulation capabilities. Secondly, a comprehensive special inspection was launched on container yards, with investigations being initiated into suspected units involved in price violations. Thirdly, Ningbo's "single window" port fee disclosure and query statistics system was continuously promoted, guiding fee-charging entities in import and export processes to disclose their fee catalog lists, with a total of 93 companies, 378 fee items, and 1,189 fee details disclosed. Fourthly, national fee reduction policies were implemented to help enterprises reduce costs and increase efficiency in customs clearance and

logistics. Throughout the year, customs inspection fee exemptions for issuefree foreign trade enterprises amounted to over 43 million yuan, and the base rate for pilotage (berthing) fees was reduced by over 56 million yuan.

Integrating online and offline efforts to promote governmententerprise communication. Efforts have been made to fully leverage online service hotlines such as the Customs hotline 12360, the "single window" hotline 95198, and the National Immigration Administration's hotline 12367, along with various unit websites and WeChat official accounts, and enhance the roles of policy interpretation, announcements, business acceptance, query responses, and processing. Simultaneously, the functions of offline one-stop service platforms have been continually improved, including the international shipping service center, the airport clearance center, the seaport clearance center, and the international mail exchange center, collectively known as the "One Body, Three Wings" offline one-stop port clearance service platform. These platforms strengthen service guarantees for enterprises.

Deepening the "one-stop multi-certificate processing without stopping" service. By leveraging data sharing, tolerance for missing documents, and notification commitment-based services, the ship certification process has been restructured, transforming the sequential processing by multiple departments into a parallel mode where applications are received and processed simultaneously. This allows for multiple tasks, such as obtaining ship certificates and documents, to be completed in a single visit without halting ship operations. The average processing time has been reduced by more than 90% compared to the legally mandated time, saving shipping companies tens of thousands of yuan in daily operating costs, with a 100% satisfaction rate from enterprises. This initiative was recognized as a national exemplary case of credit commitment in 2023 and was shared as a best practice at a national conference. As of September 1, 2023, its application has expanded from the Yangtze River Delta to the entire country.





Fully implementing paperless operations for port business. The overseas warehouse registration process has been optimized for paperless operation, achieving "online acceptance, full paperless process, singlesite registration, and nationwide applicability". To date, nearly 200 enterprises have completed the registration for the overseas warehouse model, accounting for approximately one-tenth of the national total. A new port business WeChat mini-program has been launched, enabling paperless operations for functions such as heavy container lifting, inspection appointments, and four modifications. The electronic rate for container equipment interchange receipts, packing lists, and delivery orders has reached 95%, 99%, and 100%, respectively. Additionally, Ningbo Zhoushan Port has launched a fully digital electronic invoice service platform, successfully issuing the first "Direct Natural System Connection" fully digitized electronic invoice (FDEI). This platform enables the unified issuance of special and general FDEI through a single interface, and synchronously launches electronic signatures and electronic bills, reducing invoice processing time to mere seconds.



III. Improvement in Business Environment

In the realm of governmental service environments, efforts were made to advance Government Services 2.0 and further promote the "one-stop online service". Presently, the citywide rate for "one-stop online service" has reached 97.91%, with the "zero trip rate", "commitment compression rate", and "immediate handling rate" at 97.79%, 92.93%, and 82.90%, respectively. In promoting the comprehensive reform of the "one-stop" approach throughout the construction process of engineering projects, several key reforms have been deepened, including the "parallel pre-review" of project approval and initiation, "proactive service" for design reviews, "streamlined and expedited review" for construction permits, and "joint acceptance" for project completion. The number of approval items has been reduced from 153 to 93, achieving a reduction rate of 39.2%. The processing time for enterprise investment projects has been shortened from 172 days



to 47 working days. Efforts to simplify entry and exit procedures have also been promoted, with the comprehensive implementation of the business entity registration confirmation system, expansion of the scope for simplified deregistration, and full implementation of the business suspension system. Currently, 67.3% of enterprises utilize the simplified online registration process for business establishment and deregistration.

In terms of the legal environment, the legislative research on the Regulations on Optimizing the Business Environment in Ningbo has been conducted. A one-stop service iteration and upgrade plan for resolving disputes involving enterprises in litigation has been formulated, and the construction of a business environment complaint and supervision center is being promoted. To date, over 700 legal and policy consultations and suggestions have been provided to various market entities, with a complaint follow-up satisfaction rate exceeding 98%. The compliance reform for enterprises involved in cases has been deepened with the issuance of documents such as the *Guidelines for Handling Compliance Cases Involving* Enterprises. The establishment of the Ningbo International Commercial Court and the launch of the province's first "one-stop" foreign-related legal service platform, the Ningbo International Legal Service Center, and the establishment of a one-stop resolution platform for mediation, arbitration, and litigation - Ningbo Maritime Court's diversified resolution center for foreign-related maritime disputes, aim to make Ningbo a preferred location for resolving international maritime and commercial disputes. The "One-stop Services for Litigants" integrated reform has been advanced, with research leading to the formation of implementation details for special adjudications, such as intellectual property and financial trials. Promoting the construction of the "One-Stop Ship Execution" integrated application system has enabled the online handling of ship seizures and disposals, as well as the online delivery of legal documents. The quality and efficiency of judicial ship disposals have continued to improve, effectively responding to the public's demand for efficient and standardized handling of execution properties.

This initiative was the only case from maritime courts nationwide to be included in the *Blue Book of Rule of Law: Annual Report of Informatization of Chinese Courts*. The handling of cases involving enterprises is strictly regulated, ensuring the accurate application of "no penalty for first-time violation" and "exemption from penalty for minor violations" policies for minor infractions by businesses. Ningbo is pioneering solutions for the legal challenges associated with reasonable disclosure of commercial secrets by enterprise personnel. A criminal risk early warning and perception system for commercial secrets in manufacturing enterprises has been developed, covering over 5,540 manufacturing enterprises.

In terms of market environment, efforts were made to deepen the "separation of permits from business license" reform, implement dynamic management of the list of business-related licensing matters, and advance the classified reform of the approval system for business-related licensing matters. The "one-stop" service for enterprise relocation has been implemented; in 2023, the "one-stop" reform for market access and operation was promoted 9 times, and 3,268 enterprises have relocated within the city under the "one-stop" service. Innovative and precise regulatory measures have been introduced, clearly defining responsibilities for 14 new business regulation matters. The "Internet + Supervision" platform of the province is continuously used to conduct dual random inspections, with the city's dual random inspection ratio reaching 47%. The province's "comprehensively integrated" law enforcement and regulatory digital application has been fully promoted, and the "one-stop" law enforcement and supervision has been actively expanded, with each district (county, city) averaging 80 thematic scenarios. Network market regulation services have been deepened, with the number of online business entities exceeding 169,000, a 33% increase. "Service-oriented regulation" in market supervision has been explored, innovatively constructing a new law enforcement model characterized by "pre-regulation, optimized services, and flexible enforcement". The fair competition review system has been fully implemented, conducting third-



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party evaluations of the implementation of the fair competition review system in government procurement and bidding fields. Cross-checks on behaviors that abuse administrative power to exclude or restrict competition have also been carried out.

In terms of economic and ecological environment, the *Management* Measures for Special Funds Supporting Foreign Trade Roll-on/Roll-off Shipping Routes were issued to encourage and guide foreign trade rollon/roll-off ships to call at Ningbo. The Several Measures to Promote High-Quality Development of Ningbo's Shipping Industry were implemented, successfully attracting 22 shipping companies and 4 domestic ship management companies. The "361" Trillion-Level Industry Cluster Action Plan was formulated, the Several Opinions on Accelerating the Creation of a New Energy Vehicle City were issued, and the Implementation Plan for Accelerating the Pioneer Zone Construction of Future Industries in Ningbo was compiled. The construction of the social credit system was promoted, the Social Credit Regulations of Ningbo were formulated, and the optimization and upgrade of credit platform system functions was implemented. The platformhas accumulated 13 billion pieces of information and provided over 25 million credit inquiries, objections, and repair services. Ningbo has successfully secured national-level pilot programs such as the departure port tax refund pilot and the unified bank account for both domestic and foreign currencies. The "Ten Thousand High-Tech Enterprises Cultivation Project" has been implemented, establishing a five-tier cultivation system for techinnovation enterprises. The number of effective high-tech enterprises has reached 5,337, marking a growth of 36.2%. Efforts were made to promote the cultivation and development of iconic industrial chains, advance 150 projects for strengthening, supplementing, and extending industrial chains, and complete a total investment of 15.82 billion yuan.

Special Topic

Official implementation of the departure port tax refund policy at Ningbo Zhoushan Port

According to the *Notice on Expanding the Scope of the Pilot Program of Tax Refund Policy for Ports of Shipment* jointly issued by the Ministry of Finance, the General Administration of Customs, and the State Administration of Taxation, Ningbo Zhoushan Port began implementing the departure port tax refund policy as a departure port starting April 1. This initiative adds momentum to Ningbo's efforts to build a world-class strong port and establish itself as an international open hub city.

The departure port tax refund policy is an innovative reform measure in the export tax refund procedure. Typically, export enterprises need to transport goods to the export departure port and complete customs clearance procedures before applying for tax refunds from the tax authorities. With the implementation of the departure port tax refund policy, for goods that meet the specified conditions, it is considered an export once they are shipped from the departure port, allowing enterprises to apply for tax refunds from the tax authorities promptly. Provided that the export enterprise meets the criteria, goods departing from Ningbo Zhoushan Port can enjoy the convenience of the departure port tax refund "at their doorstep", as long as they initiate or stop at one of the 25 designated ports nationwide. These 25 ports include Tianjin Port, Qingdao Port, Taizhou Port, Wenzhou Port, and Taicang Port in Suzhou, among other major ports in the Yangtze River Delta and across the country.

In terms of the human environment, the iterative upgrade of the "Ningbo Model" for "1+3+1" cordial and clean government-business relations has been carried out. Ningbo has taken the lead in exploring the comprehensive evaluation practice of the "Cordial and Clear Health Index", forming a comprehensive evaluation index system for both the city level

and district (county, city) level, composed of 29 quantitative indicators and 8 satisfaction evaluation indicators. A special key township indicator system has also been established, achieving full coverage of the "Cordial and Clear Health" evaluation at the city, county, and township levels. Regular activities such as "Cordial and Clear Express: Government-Enterprise Symposiums", "Cordial and Clear Thought Exchange Meetings", and "Inviting You to Consult: Face-to-Face with Secretaries, Committee Members, and Entrepreneurs" were conducted, along with the ongoing "10,000 Cadres Helping Enterprises Overcome Difficulties" precise service activity. The issuance of Several Opinions on Encouraging Cadres to Take on Responsibilities and Make Strides in Building a First-Class City and Joining the First Echelon has fostered a strong atmosphere where cadres dare to lead, places dare to innovate, enterprises dare to act, and people dare to create. Efforts to actively build a high-level modern circulation network are also underway.

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Special Topic

Significant achievements in optimizing and enhancing the business environment "Number One Reform Project"

In September 2023, the E-government Office of the General Office of the State Council released the *2023 Survey and Evaluation Report on Integrated Government Service Capabilities of Provincial Governments and Key Cities.* The report evaluates the integrated government service capabilities of provincial governments and key cities from five aspects: service effectiveness, handling maturity, method completeness, item coverage, and guideline accuracy. Ningbo's overall index for integrated government service capability has been rated "very high" for five consecutive years, with an approval item simplification rate of 39.2% and an average compression rate of 72.7% for the processing time of enterprise investment projects.

In December 2023, the All-China Federation of Industry and Commerce released the 2023 annual survey conclusions on the business environment of ten thousand private enterprises. The survey analyzed data from ten



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thousand private enterprises across five dimensions: elements, government services, market, legal environment, and innovation, and derived a total score for the business environment. Ningbo ranked in the top 10 among provincial capital and sub-provincial cities, maintained its position in the first tier of major cities nationwide for five consecutive years, and made the top 10 for best reputation among provincial capital and sub-provincial cities for the first time.







IV. Talent Cultivation and Aggregation

(I) Crew workforce

As of March 2024, Ningbo boasts 14,780 registered crew members, marking a year-on-year increase of 2.5%. Among these, 4,450 are international maritime ship crew members, 9,553 are domestic ship crew members, and 777 are river ship crew members. The average age of registered crew members stands at 44.1 years, which is roughly on par with the national average for seafarers. Approximately 18.27% of registered crew members possess a technical secondary school education or higher, and 11.98% have a background in maritime professional colleges.

In Zhoushan, there are 49,517 registered crew members, all of whom are maritime ship crew members, accounting for 55.39% of the province's maritime ship crew members and 4.97% of the national maritime ship crew members. The number of senior crew members is 39,510. There are eight crew service agencies registered with Zhoushan Maritime Safety Administration and five crew dispatching agencies registered with Zhejiang Maritime Safety Administration. In 2023, a total of over 4,900 crew members were dispatched.

(II) Talent aggregation and cultivation

In October 2023, the 17th China (Xiangshan) Ocean Forum and the 2023 "Youth and the Sea" Innovation and Entrepreneurship Conference were successfully held in Xiangshan, Ningbo. The event focused on young talents, the theme of the marine economy, and the main line of innovation and entrepreneurship, extending a sincere invitation to global youth and jointly drawing a new blueprint for the high-quality development of the coastal city.

Ningbo Maritime Court has innovated to build a high-quality talent training base for foreign-related maritime adjudication, enhanced collaboration with educational institutions, and jointly established two



national talent training programs with Dalian Maritime University and Ningbo University, which were selected as bases for foreign-related legal talent training by the Office of the Commission for Overall Law-Based Governance of the CPC Central Committee and the Ministry of Education. In collaboration with Zhejiang Seaport Group, the court has established a talent training mechanism, organizing young talents to participate in port business practice training at Ningbo Zhoushan Port. Additionally, the court has hosted discussions with the International Group of P&I Clubs, regularly held maritime judicial and foreign-related legal construction salons, and invited scholars from institutions like City University of Hong Kong, experts from port and shipping sectors, and judicial practice experts for discussions and exchanges, benefiting nearly 500 professionals in the foreign-related maritime field.

Currently, there are 8 institutions in Ningbo offering maritime-related disciplines, including Ningbo University, NingboTech University, and Ningbo University of Technology. These institutions offer six undergraduate programs and 13 specialized fields related to shipping, including Naval Architecture and Ocean Engineering, Nautical Science, and Logistics Engineering, as well as two vocational programs in modern logistics management. There are over 4,000 students currently enrolled. In Zhoushan, there are three high-level talent cultivation institutions: Zhejiang Ocean University, Zhejiang International Maritime College, and Zhoushan Maritime School. These institutions have established a clear and rational structure for maritime education and training, combining undergraduate, vocational, and secondary vocational education. In 2023, a total of 1,043 training sessions were held, training 33,121 participants.

In 2023, Ningbo University's Faculty of Maritime and Transportation established two first-level disciplines: Naval Architecture and Ocean Engineering and Transportation Engineering, both of which were listed as key disciplines at the provincial and municipal levels and obtained firstlevel discipline master's degree points. Additionally, there is a second-level discipline doctoral point in Fisheries Facilities and Equipment, and a firstlevel discipline doctoral point in Naval Architecture and Power Engineering. The established Nautical Science major is a national first-class, provincial key, provincial advantageous, and school key major, while the Marine Engineering major is a provincial first-class and municipal key major. The Logistics Management major is a national first-class, provincial, and municipal characteristic, and a school key construction major. It is also one of the first logistics undergraduate majors established in Zhejiang Province. The Naval Architecture and Ocean Engineering major is a national first-class major, and all four undergraduate majors have passed international professional certification. The "Shipping and Port Logistics" discipline cluster is a key service-oriented education major in Ningbo.

Relying on majors such as Intelligent Construction, Materials Science and Engineering, Mechanical Engineering, Control Engineering, Civil Engineering, Computer Science, E-commerce, Logistics, Business English, Network and New Media, and Industrial Design, NingboTech University has constructed a smart port and service discipline cluster. In the areas of portrelated industries (petrochemicals, new materials, equipment industries, etc.), port trade (foreign trade, cross-border e-commerce, transportation logistics, etc.), and port cities (smart cities, urban planning, civil construction, port city culture, etc.), the university has established various academic and professional layouts. Additionally, the university hosts the Zhejiang Provincial Engineering Research Center for Smart Ocean Ranching Equipment Technology.

The School of Naval Architecture and Marine Engineering at Zhejiang Ocean University has three departments: the Department of Naval Architecture and Ocean Engineering, the Department of Marine Engineering, and the Department of Navigation Engineering. It offers eight undergraduate majors related to port and shipping, including Naval Architecture and Ocean Engineering, Marine Engineering and Technology, Navigation Technology, Transportation Management, Marine Engineering, and Energy and Power Engineering. The Naval Architecture and Ocean Engineering and Transportation majors have master's degree programs. The Naval Architecture and Ocean Engineering major, in cooperation with Russia, is a national first-class major, a national characteristic major, and a provincial advantageous major under the "13th Five-Year Plan". The Marine Engineering and Technology major is a provincial advantageous major under the "13th Five-Year Plan" and a key provincial major. The Marine Engineering major is a provincial characteristic major under the "13th Five-Year Plan" and a key provincial major. The Marine Engineering major is a provincial characteristic major under the "13th Five-Year Plan". The Navigation Technology and Marine Engineering majors are provincial applied pilot major groups. The school has a national experimental teaching demonstration center (Ship and Harbor Engineering Experimental Teaching Demonstration Center) and a national off-campus practice base for college students (Zhejiang Ocean University - Yangfan Group National Off-campus Practice Base for College Students).

Special Topic

Craftsmanship Dreams in the New Era, Sailing Towards a New Journey – The 6th China Seafarer Skills Competition successfully held in Zhoushan

From June 26 to 29, the 6th China Seafarer Skills Competition was successfully held in Zhoushan, Zhejiang. The event began with the reading of a letter from Li Xiaopeng, minister of transport, to seafarers nationwide. Fu Xuyin, vice minister of transport, vice president of the All-China Federation of Trade Unions, Shi Qinghong, deputy secretary-general of the Zhejiang Provincial People's Government, Xu Renbiao, mayor of the Zhoushan Municipal People's Government, and other leaders attended and addressed the opening ceremony. Themed "Craftsmanship Dreams in the New Era, Sailing Towards a New Journey", this year's competition was co-sponsored by the Maritime Safety Administration of the Ministry of Transport and the National Committee of the Chinese Seamen & Construction Workers' Union, and organized by the Zhoushan Municipal People's Government, the Zhejiang



Maritime Safety Administration, and the China Maritime Service Center. A total of 48 teams, comprising 504 participants from maritime companies and navigation schools nationwide, competed in nine different events.

V. Scientific and Technological Innovation

(I) Significant results in policy implementation, comprehensive acceleration of high-quality development

Ningbo has successively introduced policies such as the Action Plan for Building Core Strength and Accelerating the Construction of a World-Class Strong Port (2023-2027) and the Management Measures for Special Funds for Marine Economic Development in Ningbo. The implementation opinions on high-quality development of Ningbo's manufacturing industry also clearly support breakthroughs in product innovation, industrial digital transformation, and characteristic cluster development in the shipbuilding industry, fully promoting the high-quality development of the shipbuilding industry.

A number of projects, including the CSSC HZ Windpower Xiangshan Large-Scale Offshore Wind Power Equipment Industrial Park, have started construction. The rapid development of wind power equipment, offshore engineering equipment, and marine electronics industries has formed a specialized industrial cluster of high-end ships and offshore engineering equipment. This cluster drives the development of the offshore engineering equipment industry and promotes energy structure adjustment and industrial structure upgrading. Efforts are focused on cultivating "large, excellent, and strong" enterprises in the shipbuilding and offshore engineering sectors, supporting large marine-related enterprises such as Orient Cable, Riyue Heavy Industry, and MedicalSystem Biotechnology to grow larger and stronger through technological transformation and digital enhancement.

Special Topic

Official implementation of the departure port tax refund policy at Ningbo Zhoushan Port

Ningbo's Xiangshan County is located on the coast of the East China



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Sea, at the southern edge of the Yangtze River Delta and the eastern coast of Zhejiang Province. The offshore area to the east of Xiangshan is vast and is considered a golden area for wind energy development by industry experts due to its abundant wind resources along the Zhejiang coast. Guided by the strategy of "eight superiorities" and "eight acts", Xiangshan continually leverages its mountain and sea resources, seizes the development opportunities of the "dual carbon" strategy, and transforms ecological energy advantages into development momentum. The county accelerates the layout and cultivation of the new energy industry, constructing a clean energy system. In addition to central enterprises like CSSC HZ Windpower and CGN that have been introduced, Xiangshan has seen the emergence of a number of new energy equipment manufacturing enterprises such as Day Star Cast Industry, Ginlong Technologies, Yuxi Corrosion, Kingpont New Material, and HRV Electric. These companies drive the extension of the industrial chain, initially forming a marine new energy industrial cluster dominated by offshore wind power and marine energy equipment manufacturing.

The CSSC HZ Windpower Xiangshan Large-Scale Offshore Wind Power Equipment Industrial Park Project is located in Hepu Town, Xiangshan County. It covers a total area of approximately 750 acres and has a total investment of about 10.2 billion yuan. The construction content mainly includes eight bases: an offshore wind turbine equipment assembly base, a smart operation and maintenance company, a blade production base, a blade testing center, a nacelle cover production base, a tower tube production base, an engineering installation company, and an offshore wind power inverter production base. These bases encompass the entire industrial chain of offshore wind power equipment manufacturing and provide full lifecycle engineering services in offshore wind power infrastructure construction, turbine installation, and smart operation and maintenance.

(II) Continuous emergence of innovative achievements, accelerated formation of new quality productive forces

Zhoushan COSCO Shipping Heavy Industry Co., Ltd., as the main completing unit, jointly applied with the China Classification Society (CCS), Nanjing University of Aeronautics and Astronautics, Ruanzhu Communication Technology (Ningbo) Co., Ltd., and several other enterprises for the project "Research and Application of Key Technologies for Remote Ship Inspection", which won the "First Prize of the 2022 Science and Technology Progress Award of China Institute of Navigation". The "5500HP Pure Electric Intelligent Tug Design Project" received the Approval in Principle (AiP) certificate from the China Classification Society. The "Methanol Dual-fuel 154,000DWT Shuttle Tanker" design project received the AiP certificate from DNV.

Ningbo C.S.I. Power & Machinery Group Co., Ltd. had 9 projects, including marine high-power medium-speed diesel engines, rated as the first (set) in the province. The 22,500-ton bulk carrier "Zunhai Development", powered by C.S.I. Power's NL8340CR electronic control high-pressure common rail diesel engine, successfully completed its trial voyage in Huanggang, Hubei. This marks the industrialization of high-power high-pressure common rail diesel engines independently developed by CSC Holdings. Meanwhile, the self-developed high-pressure common rail high-power medium-speed diesel engine (maximum power 7,300 horsepower) that meets IMO Tier III emission regulations rolled off the production line; the new generation NL8300 engine, with a power of up to 5,400 horsepower, meeting the national standard Stage II emission regulations without the need for SCR exhaust after-treatment, successfully ignited.

Ningbo Kairong New Energy Co., Ltd. focuses on the production of liquefied LNG storage and transportation systems. Since 2005, it has provided stainless steel supporting products for China's first LNG transport ship. It is currently the only enterprise in China certified by France's GTT to produce NO96/MKIII/GST membrane-type tank stainless steel prefabricated parts. It has also been awarded the first MARK III membrane-type cargo containment



system primary barrier component factory recognition certificate by the China Classification Society.

Zhejiang Donghong Shipbuilding Co., Ltd. successfully launched the 20,000-ton international marine special transport ship "Dongfang Haigong 07", built for Orient Marine Engineering Co., Ltd., a subsidiary of Ningbo Orient Wires & Cables Co., Ltd.. This ship is primarily used for the transportation of submarine cables and large deck cargo. It is a non-power deck transport ship with an all-steel spacious deck and dual cable loading turntables, capable of carrying 20,000 tons of submarine cables. It features semi-shallow barge loading and unlimited navigation area towing transport modes, and is the first deep-sea dynamic simulation integrated test platform in China.





VI. International Cooperation and Exchange

(I) Active and deep participation in international affairs

Ningbo Maritime Safety Administration deeply participated in the Tokyo MOU Permanent Working Group, New Inspection Regime Intersessional Working Group, and Concentrated Inspection Campaign (CIC) Working Group deliberations. They submitted five high-quality proposals to the International Maritime Organization and the Tokyo MOU, including *Measures to Avoid Unnecessary Delays of Ships Due to Port State Control and Comments on the Amendments to the Ballast Water Record Book*, both of which have come into effect. The *Report of the 2022 Concentrated Inspection Campaign (CIC) on STCW* was reviewed and approved at Tokyo MOU's 34th Meeting of the Port State Control Committee, marking the successful completion of the global concentrated inspection campaign led by China and undertaken by the Ningbo Maritime Safety Administration. This provides important



guidance for future PSC (Port State Control) crew certificates and operational inspections. Additionally, Ningbo Maritime Safety Administration has conducted cooperative exchanges with the flag state governments of the Marshall Islands, as well as the maritime authorities in Hong Kong, China, extending the "Port State-Flag State" cooperation mechanism. Collaborations with Liberia, South Korea, Cyprus, and other countries have enhanced the coordination and safety of commercial and fishing vessels.

Ningbo Maritime Court has actively engaged in the drafting and research of the *Beijing Convention on the Judicial Sale of Ships* under the United Nations Commission on International Trade Law (UNCITRAL). The court submitted written reports on key topics such as "defining the scope of interested parties" and "feasibility of judicial sale notices", contributing Zhejiang's wisdom to the formulation of the convention. The *Beijing Convention on the Judicial Sale of Ships* was officially signed on September 5, 2023. This marks the first UN convention in the maritime field named after a Chinese city, reflecting the international community's high recognition of China's leading role in its development. It also exemplifies China's commitment to genuine multilateralism.

Ningbo Zhoushan Port signed a Memorandum of Understanding for cooperation with DP World, Vietnam Maritime Corporation, and Pelindo of Indonesia. It deepened cooperation and exchanges with international large classification societies such as China Classification Society (CCS), American Bureau of Shipping (ABS), and Det Norske Veritas (DNV), as well as domestic and foreign shipping enterprises.

Ningbo Customs strengthened internal cooperation, jointly promoting cooperation and information sharing in areas such as SPS cooperation between China and Africa, cooperation within the SCO (Shanghai Cooperation Organization), and regional cooperation among China and the five Central Asian countries.

(II) Accelerated creation of shipping exhibition brands



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From May 15 to 18, the 5th China (Ningbo) International Shipping and Logistics Fair series of events were successfully held. This year's fair saw a record high in the number of participating enterprises, visitors, and intended transaction amounts. For the first time, a special exhibition area for Central and Eastern European countries" shipping and logistics was set up, featuring nine exhibitors from seven countries including Poland, Czech Republic, and Romania. This added shipping service trade functions to the China-CEEC Expo. During the Ningbo International Shipping Development Forum, the China-CEEC Trade Climate Index, jointly compiled by the General Administration of Customs and the Ningbo Municipal People's Government, was released for the first time, comprehensively showcasing the annual bilateral economic and trade cooperation developments between China and Central and Eastern European countries.

From May 31 to June 2, the 2023 China (Ningbo) Export Cross-border E-commerce Expo was successfully held at the Ningbo International Convention and Exhibition Center. The expo received 63,700 professional





visitors and hosted over 80 concurrent events, facilitating the announcement and signing of five significant projects. The 5th Cross-border E-commerce Development Conference was also held, attracting over 700 offline participants and covering over 500,000 people through live streaming.

From July 17 to 20, three major events were held: the Maritime Silk Road Port International Cooperation Forum, the International Marine Economy and Maritime Services Forum, and the Ocean Expo Ningbo (collectively referred to as "Two Forums and One Expo"). Among them:

From July 17 to 19, the 7th Maritime Silk Road Port International Cooperation Forum was successfully held. This year's forum, themed "Our Time \cdot Our Road \cdot Our Ports", was the first major global event organized by China for the port and shipping industry in the post-pandemic era. It received strong support and co-hosting from both domestic and international port and shipping entities. The forum was unprecedented in size, featuring over ten meetings and activities across various themes and linked sections, including "1+1+4+N." The main forum had an offline attendance of 400 people, with representatives from significant domestic and international port units in attendance. Nearly 1,000 representatives from the port and shipping sectors from more than 40 countries and regions participated throughout the conference.

From July 17 to 19, the 2nd International Marine Economy and Maritime Services Forum was successfully held in Ningbo. This forum, themed "Developing Blue Partnerships to Boost the Marine Economy", was hosted by the China Council for the Promotion of International Trade (CCPIT) and organized by the Ningbo Municipal People's Government. It was coexecuted by the Commercial Legal Service Center of CCPIT, the China Maritime Arbitration Commission, the CCPIT Ningbo Committee, the Ningbo Development and Reform Commission, and the Ningbo Economic and Technological Development Zone (Zhejiang Free Trade Zone Ningbo Area). At the opening ceremony, Vice Chairman Yu Jianlong of CCPIT, Norwegian Ambassador to China Signe Brudeset, World Wildlife Fund (WWF) envoy



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Marco Lambertini, and Deputy Director of the Standing Committee of the Ningbo Municipal People's Congress Song Yueshun delivered speeches. The conference included a main forum and five sub-forums. The main forum focused on the development of the international marine economy, while the sub-forums discussed topics such as "Maritime Law and Sustainable Development of the Blue Economy", "Blue Carbon Economy and Green Development", "Reduction of Shipping Risk Management and Increase of Safety Assurance Supply", "International Cruise Economy and Supply Chain Construction", and "Resolution of Maritime Disputes and Optimization of Business Environment."

On July 18, the first Ocean Expo Ningbo opened at the Ningbo International Convention and Exhibition Center. The Marine Expo was jointly initiated by the Ningbo Municipal People's Government and Informa Markets. The first Marine Expo attracted over 300 exhibitors from more than ten countries, including Singapore, Denmark, the Marintec pavilion, and the Shipping Innovation Alliance, along with 12 joint exhibition groups. The expo focused on showcasing the achievements in the marine economic circle of Ningbo and the Yangtze River Delta, maritime shipping, marine engineering equipment, shipbuilding and repair, and smart oceans, contributing to the development of the marine economy.





VII. Maritime Culture

Ningbo, known as the "famous city of the Maritime Silk Road", has been renowned since ancient times for its "port connectivity with the world", boasting rich underwater cultural heritage and historical relics. The China Port Museum in Ningbo opened in October 2014 and is the largest and highest-grade port-themed museum in China, with a collection of over 15,000 cultural relics, including more than 1,000 items classified as national level three or above. In 2023, the Port Museum received 536,000 visitors, provided over 2,000 guided tours, hosted 100 visits from social dignitaries and scholars, and signed a friendly museum co-construction agreement with the Genoa Maritime and Immigration Museum in Italy. This collaboration has elevated the exchange and cooperation between Ningbo and Genoa to a new level, promoting friendly relations between China and Italy.

In 2023, the Port Museum organized various port and maritime-themed cultural activities and promoted maritime culture. In January, the "Messenger from Across the Atlantic: Nouiri Mohammed Oil Painting Exhibition" showcased the works of Moroccan artist Nouiri Mohammed, broadening the avenues for cultural exchange along the Belt and Road. In March, the Port Life Festival was launched, featuring 26 different types of cultural and artistic interactive experiences, including avant-garde theater, music, escape room games, exhibitions, and trendy toys, attracting thousands of tourists and being selected as one of the top ten innovative events by national museums in the first quarter of 2023. In December, the annual exhibition "Sailing on the Zhejiang Sea: Zhejiang and the Maritime Silk Road during the Song and Yuan Dynasties" brought together exhibits from 25 cultural and museum institutions inside and outside the province, providing a platform for the public to closely explore the "Maritime Silk Road" history of Zhejiang and to perceive the spirit of Zhejiang. The museum also played its role as a National Science Popularization Base for Transportation, promoting "Maritime Silk





Road Culture into Campuses", carrying out port and maritime-themed social education and research activities, and holding 12 sessions of the "Port Museum Forum" to popularize port and maritime historical and cultural knowledge. The museum designed and developed 16 kinds of cultural and creative products in the series "Sailing on the Zhejiang Sea" and "Impressions of the Grand Port". On China Maritime Day, it launched the digital cultural creation "Zheng He's Voyages to the West Fleet" digital blind box, which was highly popular, creating a significant impact within the industry.









Chapter IV

Achievements in Promoting Landmark Projects for Building a World-Class Strong Port



I. Meishan Port Area 10-Million-TEU Container Berth Cluster Construction Project

In December 2023, the third phase of the No.6 to No.10 container terminal project in Meishan Port Area of Ningbo Zhoushan Port (hereinafter referred to as "Meishan Phase II Project"), successfully passed the completion inspection, marking the full completion of the Meishan Phase II Project. It is estimated that after the Meishan Phase II Project is put into operation, the annual container throughput of the Meishan Port Area will exceed 10 million TEUs. This means that Ningbo will become the only international shipping center in China and even the world with two "10-Million-TEU" throughput capacity terminals.

The No.6 to No.10 container terminals in Meishan Port Area are responsible for the transshipment and transportation of domestic and international trade materials in Zhejiang Province, the Yangtze River Delta, and the regions along the Yangtze River. The project involves constructing two 200,000-ton and three 150,000-ton container berths. The main construction





elements include terminals, approach bridges, land formation, foundation treatment, seawalls and revetments, rear roads and yards, production and living auxiliary buildings, and corresponding supporting facilities. The total length of the terminal shoreline is 2,150 meters, designed to handle 4.3 million TEUs, with a total investment of approximately 7.8 billion yuan.

The project commenced construction in December 2015 and was divided into three phases. The first phase, which included the construction of two 200,000-ton container berths (No. 6 and No. 7) and the corresponding hinterland facilities such as roads and storage yards, was completed and accepted in November 2020. The second phase, involving two 150,000-ton container berths (No. 8 and No. 9) and the related hinterland infrastructure, was completed and accepted in April 2022. The third phase, which comprises the construction of the 150,000-ton container berth No. 10 and its corresponding hinterland facilities, has now been completed and accepted. This marks the comprehensive completion of the Meishan Phase II project.





II. Shugang Railway Construction Project

On December 31, 2023, the first C695 train from Ningbo Station to Jinhua Station in Zhejiang departed, marking the official opening of the Jinhua-Ningbo Railway. The Jinhua-Ningbo Railway is a Class I national railway with dual-track electrification for both passenger and freight transport within Zhejiang Province, primarily focusing on freight while also accommodating passenger services. It is the country's first pilot line for double-stack container transport and a strategic port access route for Ningbo Zhoushan Port. The railway starts at Jinhua Station on the Shanghai-Kunming Railway in the west and ends at Ningbo Station on the Hangzhou-Ningbo Railway in the east. The newly constructed line spans 188 kilometers with a total investment of 28.678 billion yuan. It includes nine stations: Yunlong, Fenghua, Xikou, Xinchangbei, Shengzhou Xinchang, Shengzhouxi, Dongyangbei, Suxi, and Yiwu. The designed speed is 160 kilometers per hour, with provisions for 200 kilometers per hour, making it the first railway in China capable of accommodating double-stack container transport.





Chapter IV Achievements in Promoting Landmark Projects for Building a World-Class Strong Port

The construction of port railway branch lines such as the double-track section of the Beilun Railway branch line and the Meishan Railway branch line has been accelerated. The double-track section of the Beilun Railway branch line involves constructing approximately 15 kilometers of double track between Qiu' ai and Daqi sections, with about 3.5 kilometers of the ascending connection line on the North Ring Line, expanding the Chuanshan Port Station, and upgrading to meet the conditions for double-stack container operation. The design speed is 100 kilometers per hour, with a total investment of approximately 2.7 billion yuan. The main track of the Meishan Railway branch line is about 16.7 kilometers long, with a design speed of 80 kilometers per hour, including the construction of a new Meishan Port Station, with a total investment of 5 billion yuan, planned for completion in 2026.





III. Key Passage Construction Projects for Ningbo-Zhoushan Integration

The Ningbo-Zhoushan Railway and the Ningbo-Zhoushan Expressway double line are being accelerated. The first and second phases of the Liuheng Highway Bridge project have completed overall progress of 77% and 22.6%, respectively. The Ningbo Beilun Zhitou Car and Passenger Ferry Terminal project has been completed, with 60% of the station finished. The third phase of the Zhoushan Mainland Water Supply Project has been completed.

The Ningbo-Zhoushan Railway starts from Ningbo East Station, passing through Yinzhou District and Beilun District of Ningbo, Jintang Island, Cezi Island, and the main island of Zhoushan, ending at Baiquan Town in Dinghai District. It has seven stations: Ningbo East, Yunlong, Qiuga, Beilun West, Jintang, Ma'ao, and Zhoushan. The total length of the line is about 77 kilometers, with a designed speed of 250 kilometers per hour.

The Ningbo-Zhoushan Expressway double line is a highway within Zhejiang Province that connects Ningbo City and Zhoushan City. It links



109 NINGBO ZHOUSHAN Ningbo, Jintang, and Dinghai of Zhoushan, forming a crucial part of the Shanghai-Zhoushan-Ningbo Cross-Sea Channel (G92 Hangzhou Bay Area Ring Expressway). The Ningbo-Zhoushan Expressway double line is approximately 45.7 kilometers long and consists of three sections: the Ningbo Haosifang to Qijiashan section, the Qijiashan to Zhoushan Jintang section, and the Jintang to Dasha section.

The Ningbo Zhoushan Port Liuheng Expressway Bridge Project is part of the construction efforts in Zhejiang Zhoushan Archipelago New Area and Zhejiang Marine Economy Development Demonstration Zone. It aims to improve the Ningbo Zhoushan Port's sea-land coordinated collection and distribution network, connecting the important port areas of Liuheng and Meishan. The first phase of the project spans from Meishan Interchange to Chaibiao Junction, covering a total length of approximately 10.81 kilometers. It is being built to expressway standards with six lanes in both directions, with a total investment of 4.36 billion yuan. Construction began in 2021 and is expected to be completed by 2024.





IV. Jintang Subsea Tunnel of Ningbo-Zhoushan Railway

The Jintang Subsea Tunnel is a key control project of the Ningbo-Zhoushan Railway in Zhejiang Province. It starts from the west side of Qingzhi Chemical Wharf in Beilun District, Ningbo, and extends east to the waters between Muao District on Jintang Island, Zhoushan. The tunnel spans a total length of 16.2 kilometers (with the underwater section being 11.2 kilometers), has a maximum burial depth of 85 meters, a diameter of 14 meters, and can withstand a maximum water pressure of approximately 0.85MPa. It is the longest and the highest water pressure-bearing submarine high-speed rail tunnel in the world. For the first time in the world, two 14.57-meter superlarge diameter shield machines were used to excavate towards each other from the Ningbo and Zhoushan ends, achieving precise underwater docking with an error of no more than 20 millimeters. The new construction method involves dismantling the shield machines within the tunnel. Currently, the Ningbo end has completed the construction of the deepest super-large diameter shield working shaft in China, with a depth of 58.13 meters, laying a solid foundation for the assembly and launch of the shield machines.



V. Shugang Expressway System Construction Project

The Ningbo Zhoushan Port National Logistics Hub Infrastructure Construction Project is the first intelligent and three-dimensional container truck parking lot and yard project in China. The total investment is 15.8 billion yuan, involving four collection and distribution base projects: Beilun Port District Gray Depot, Suanshan North Plot, Chuanshan Port District Huazhi Plot, and Meishan Port District Beita Plot. The total land area is approximately 2,000 acres, equipped with container truck parking lots, empty container yards, and heavy container yards. It is expected to provide 15,450 container truck parking spaces and a storage capacity of 257,500 TEUs. Currently, the Beilun Ash Storage and Banshan Yard and Huazhi Yard projects have commenced, with the Huazhi Yard completed and put into use. The Hengpu, Zhainan, and Meishan (North Dam) temporary parking lots, providing a total of 4,800 parking spaces, have also been put into use.





VI. Meishan International Cold Chain Logistics Base

The Meishan International Cold Chain Supply Chain Project is located in the only bonded port area in Zhejiang Province—Meishan Comprehensive Bonded Zone. It is a national backbone cold chain logistics base and is included in the 2022 National Comprehensive Freight Hub Supplement and Strengthen Chain Project List. The project covers an area of about 387 acres with a total investment of approximately 3.6 billion yuan and a floor area of about 725,000 square meters. It is equipped with 13 modern multi-temperature warehouses, including 2 fully automated stereoscopic warehouses, 1 ultra-low temperature cold storage, and 2 processing warehouses. The expected cold storage capacity can reach 300,000 tons, with an annual turnover rate exceeding 1.2 million tons, covering a full temperature range from -60°C to 20°C .

The project is being constructed in two phases. Phase I commenced full-scale construction in December 2021 and is expected to be completed and put into use in the first quarter of 2024, covering a floor area of about 320,000 square meters, including 290,000 square meters of storage cold



storage space (with a capacity of about 150,000 tons). Phase II is planned to start construction in 2024 and be completed and put into use by the end of 2025, covering a floor area of about 405,000 square meters, including 297,000 square meters of storage cold storage space (with a capacity of about 150,000 tons). This project leverages the advantages of the Internet and information technology to establish a one-stop supply chain platform, creating the largest, most capable, and most modernized primary international import and export cold chain supply base in the country.

The overall functional layout of the project encompasses "seven centers": a trade distribution center, a bonded warehousing center, a customs clearance and inspection center, a food circulation and processing center, a cross-border e-commerce transaction center, an exhibition, transaction, and settlement center, and a cold chain technology R&D and testing center. Once completed and operational, it will fully leverage the comprehensive benefits of the supply chain platform, effectively establish an industrial cluster and coordination mechanism for upstream and downstream supply chain industries, and vigorously attract trade, circulation processing, e-commerce, and logistics service enterprises, thereby significantly advancing the development of the Ningbo Free Trade Zone.





VII. Ningbo West Comprehensive Hub Construction Project

Ningbo West Hub is the primary "air-rail integrated" hub connecting Ningbo Lishe International Airport with Ningbo West Railway Station. It is a leading project that drives Ningbo's urban space restructuring, improves urban functions, optimizes urban quality, and enhances the city's development level. It is also a landmark project for building a modern coastal metropolis. The planning area of the West Hub extends north to Huishi Road, east to Hangzhou-Ningbo Expressway, Fenghua River, Airport Road, south to the high-voltage power corridor south of Fangqiao Rujiang Road, and west to Pansha Road, Yongjin Expressway, and the Ring Expressway, covering an area of 108.3 square kilometers.

Currently, the main project of the Ningbo Hub air-rail integrated comprehensive transportation center (GTC project) has completed the feasibility report and the preliminary results of the foundation pit enclosure design construction drawings. A total of 303 survey holes (about 78.3%) have been completed, with the remaining points located in collective residential areas. The preliminary design preparation and collective residential relocation are ongoing.





Special Topic

Ensuring smooth logistics and global port connectivity through four port linkage to enhance hardcore strength

Zhejiang Four Port Linkage Development Co., Ltd. is a mixed-ownership technology and investment company jointly funded by state-owned and private enterprises. It was established on September 28, 2021, with the mission to implement the Zhejiang Provincial Party Committee and Provincial Government's decision on four port linkage development and digital reform. By creating the four port linkage smart logistics cloud platform (hereinafter referred to as the four port cloud platform), it aims to empower multimodal transport with digital intelligence, reduce costs, and increase efficiency, promoting the construction of a digital logistics ecosystem that integrates all logisticsrelated entities.



I. Construction Status of the Four Port Cloud Platform

The four port cloud platform is built around the "1+3+6+X" system architecture. It continuously solidifies a single logistics big data foundation while accelerating the improvement of the user system. The platform also deeply develops three types of application services: "integrated interaction", "four-port intermodal transport", and "operation monitoring". It focuses on creating six major functional modules: industry data middle platform, standard incubation factory, multimodal transport business, logistics digital products, logistics operation monitoring, and industry decision support. A series of sub-scenarios centered around "one-time query, whole-process visualization" have been released and launched. Currently, the cloud platform has achieved phased results in the aggregation of four port logistics data and the development of multimodal transport information products. It has essentially formed capabilities in computing, security, digital exchange, big data analysis, business combination, and mobile services. It has officially launched on "Zheliban", providing one-stop logistics query services to the entire industry. As of now, the platform has 21,000 registered users.



Special Topic Ensuing smooth logistics and global port connectivity through four port linkage to enhance hardcore strength



In 2022, the four port linkage smart logistics cloud platform won major application achievements in digital economy innovation and development from Zhejiang Province, best practices in transportation digital reform at the grassroots and societal levels, and excellent applications in the digital reform of state-owned enterprises in the province. In 2023, it received the Excellence Award in the Zhejiang Division of the 29th Intelligent Transportation World Congress Innovation Competition and the first "Gusu Cup" Yangtze River Delta Intelligent Transportation Innovation Technology Application Competition.





II. Major Product Construction Achievements

(I) One-time query, whole-process visualization

"One-time query, whole-process visualization" serves as the unified service portal for multimodal transport, providing the industry with an endto-end one-stop international logistics solution through the implementation of five key functions: "one-click booking, one-code box appointment, oneform customs declaration, one-stop intermodal transport, and one-way visibility". This initiative helps Zhejiang accelerate its transformation into the province with the highest efficiency, lowest cost, and best service in comprehensive logistics nationwide. Leveraging the intelligent services of "one-time query, whole-process visualization", operational efficiency along the business chain is increased by 50%, reducing the time required from Hangzhou and Ningbo from three days to one and a half days, achieving seamless customs clearance. In the first quarter of 2024 alone, over 200,000 TEUs of multimodal transport operations were completed.

In 2023, "one-time query, whole-process visualization" received the second prize in the Industrial Collaboration category of the State-owned



119 NINGBO ZHOUSHAN Enterprises Digital Scene Innovation Professional Competition from the State-owned Assets Supervision and Administration Commission of the State Council, and was recognized as a best practice case in the first batch of "Di Gua Economy" capability enhancement and upgrading "No. 1 Open Project" in Zhejiang Province. It was also selected as a typical case in the promotion and enhancement of the three "No. 1 Projects" in the transportation field across the province and won the Excellence Award in the inaugural "Navigator Cup" Zhejiang State-owned Enterprises Innovation Competition. In 2024, the four port linkage, one-time query, whole-process visualization demonstration project was included in the first batch of four port linkage demonstration project creation list in Zhejiang Province.

(II) Logistics Hub

Logistics Treasure provides the industry with features such as full-process visibility, container truck inquiries, shipping indexes, Zhejiang ship schedules, aviation services, cargo source analysis, container entry announcements, terminal ship schedules, pricing services, intelligent customer acquisition, and customs inquiries, supporting "one-time inquiry, full-process visibility" for container logistics.

Currently, "Logistics Hub" achieves a data query accuracy rate of 95%

with 100% feedback within three minutes, leading the industry. During the Hangzhou Asian Games, "Logistics Hub" successfully ensured the smooth entry of 18 batches of Asian Games materials through Ningbo Zhoushan Port. At present, the total number of application subscriptions exceeds 60,000 orders.

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