

CHAPTER 10

AGILITY

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE17 PARTNERSHIPS
FOR THE GOALS

Material topics covered:



Technological
innovation



Terminal operation
optimisation



Customer
satisfaction

Being a leading ports logistics service provider in the world, the Company has always adhered to the philosophy of customers first. The Company is keen to capture market demand and actively expands its global terminal network, while combining and applying innovative technologies to drive the development of smart ports. At the same time, the Company is committed to strengthening industry chain cooperation, facilitating the overall development of the port and shipping industries and achieving a win-win outcome.

PERFORMANCE HIGHLIGHTS IN 2023

During the year, the Company remained dedicated to proactively enhancing its service standards, resulting in notable achievements benefiting from the synergy between the port and shipping industries. As a result, the business maintained a good and stable total throughput of 135,808,554 TEU, reflecting an increase of 4.4% year-on-year. For details on the throughput for the year ended 31 December 2023, please refer to the section headed "Operational Review" in the 2023 Annual Report of the Company.

During the year, the 5G Intelligent Port Modernisation Project successfully passed the inspection and acceptance of the National Development and Reform Commission (the "NDRC") and the Ministry of Industry and Information Technology (the "MIIT"). The Company vigorously promoted the large-scale application of driverless container vehicles in the port area. The annual operation volume of driverless container vehicles in the Subsidiaries exceeded 210,000 TEU.

In 2023, the Company won a number of awards for its leading industry position, good operational standards, and innovation. Among them, the Company has been awarded the "Most Innovative Port Operator" by International Finance Magazine for six consecutive years.

MANAGEMENT APPROACH

The Company is under prudent and meticulous business management and strictly complies with laws and regulations in respect of products and services in China and places where it operates. During the year, the Group was not subject to any fines or non-economic penalties due to violation of laws and regulations in respect of products and services.

The Company has formulated the Customer Service Management Policy and the Customer Service Hotline Policy to regulate the customer management and retention, customer service guarantee and the handling of complaints and disputes of the Company and its Subsidiaries, with a view to establishing a high level of service standards and strengthening customers' confidence in the Group.

The Company proactively encourages terminal companies to implement sustainable operations, improve service quality management, and engage third party audit agencies to conduct evaluation with the objective to constantly enhance its service standard.

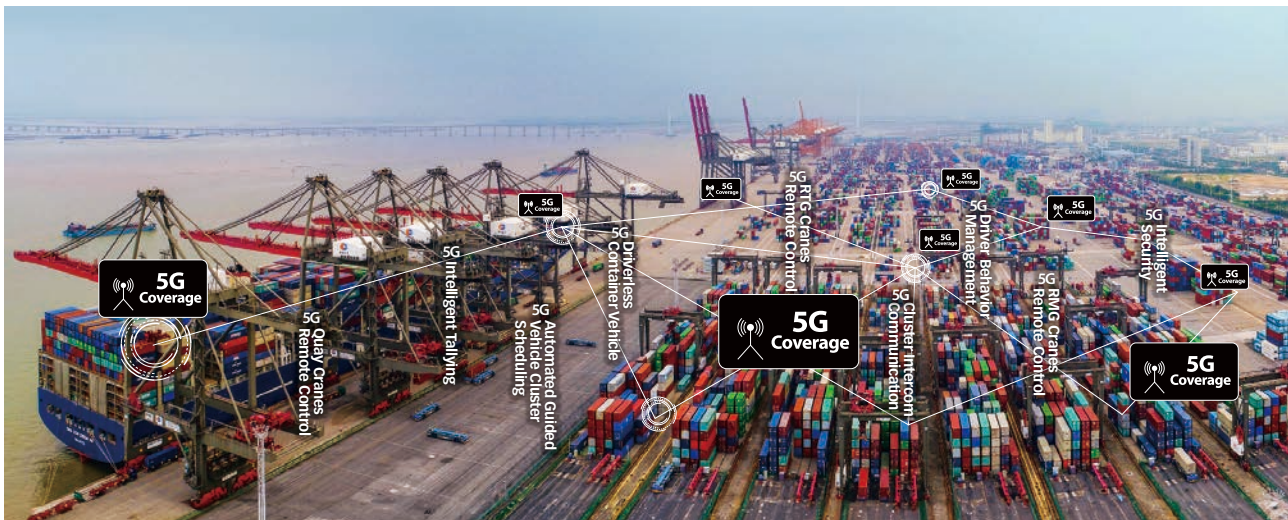
Terminals	Certifications Received
Xiamen Ocean Gate Terminal	GB/T 19001/ISO 9001 Quality Management System Certification
Lianyungang New Oriental Terminal	GB/T 19001/ISO 9001 Quality Management System Certification
Tianjin Container Terminal	GB/T 19001/ISO 9001 Quality Management System Certification
Guangzhou South China Oceangate Terminal	GB/T 19001/ISO 9001 Quality Management System Certification
CSP Abu Dhabi Terminal	ISO 9001 Quality Management System Certification ISO 22301 Business Continuity Management System Certification
CSP Bilbao Terminal	ISO 9001 Quality Management System Certification
Dalian Container Terminal	GB/T 19001/ISO 9001 Quality Management System Certification
Kumport Terminal	ISO 9001 Quality Management System Certification ISO 10002 Quality Management System Certification ISO 28000 Supply Chain Security Management System Certification

TECHNOLOGICAL INNOVATION

THE DEVELOPMENT OF SMART PORTS

Leveraging the advantages of global terminal network and solid experience in terminal operations, the Company collaborates with upstream and downstream partners along the industry chain to vigorously speed up technology breakthrough and innovation, aiming at boosting the service quality of terminals and their business sustainability. The Company also upholds the development concepts of digitalisation, intelligent transformation, and automation of terminals in promoting technological innovation and enhancing service quality to support the development of green and smart ports.

During the year, the 5G Intelligent Port Modernisation Project successfully passed the inspection and acceptance of the NDRC and the MIIT. Based on the core technology of intelligent vessel loading and unloading + intelligent horizontal transportation + intelligent yard system, the transition from traditional terminals to intelligent terminals has been successfully completed, resulting in a reduction of 25% in energy cost compared to traditional terminals, along with a significant increase in tallying efficiency. In addition, the flat-panel structure design solution without a cockpit, combined with the 5G+BeiDou navigation and positioning technology, has ushered in a new journey of driverless vehicles.



Terminal digitalisation application scenario

The Company is committed to developing the 5G smart port demonstration area in Xiamen Ocean Gate Terminal as the world's first automated terminal with a yard arranged parallel to the terminal shoreline. Xiamen Ocean Gate Terminal enhances terminal operations and port business by deeply integrating technologies including 5G, BeiDou, artificial intelligence, blockchain, Internet of Things, big data and cloud computing with traditional terminal operations, and developing corresponding core applications such as remote control of port machinery, driverless vehicles, smart stowage, intelligent tallying and smart gates, as well as completing projects such as smart logistics platform, container vehicles deployment, appointment system, self-service entrustment, dangerous goods monitoring and smart stowage, thus enabling "electronic business documents, visualised production monitoring, intelligent management of transportation, and online customer service".

Tianjin Container Terminal was awarded the "Remarkable Enterprise" and "Innovative Project in the Technology and Management Category" for the Application and Promotion of Key Technologies for Container Terminal Automation Transformation and Energy-saving Design and Application of Comprehensive Energy-saving Gantry Cranes in the Carbon Peak Carbon Neutral Innovation Project Exchange Conference 2023. The project pioneered the world's first full-process driverless and automated port operations of "automated quay cranes + automated rail mounted gantry cranes + electric driverless container vehicles + smart lock stations", achieving zero emission and zero pollution in the whole operation process of gantry cranes.



The auto-driving demonstration zone in Tianjin Container Terminal.



The power supply system of the comprehensive energy-saving gantry cranes in Tianjin Container Terminal.

The Company vigorously promotes the large-scale application of driverless container vehicles in the port area. The commercial operation and large-scale application of driverless horizontal transportation in Xiamen Ocean Gate Terminal, CSP Wuhan Terminal, Quan Zhou Pacific Terminal and CSP Abu Dhabi Terminal was completed.



In March 2023, the driverless container vehicles in Shihu port area of Quan Zhou Pacific Terminal successfully completed real ship operation for the first time.

To encourage innovation, the Company organises the Technological Innovation Conference annually to evaluate the technological innovation projects of the headquarters and its Subsidiaries. Project teams are rewarded based on the effectiveness of project implementation. In 2023, the Company released the evaluation results of the Technological Innovation Conference 2022 and awarded the first-class award to the Driverless Smart Horizontal Transportation System Project of Xiamen Ocean Gate Terminal. This system realises visual monitoring of the entire operation process, and allows manual collaborative operation when critical. The system can also analyse vehicle operation, failure and charging according to vehicle transportation conditions, charging data, early warning conditions, and early warning history.

INTELLECTUAL PROPERTY MANAGEMENT

With the increasing importance of technological innovation to business operations and industry development, the Company actively strengthens the protection and management of intellectual property rights. During the year, the Company and its Subsidiaries obtained 25 patents. As of the end of 2023, the Company and its Subsidiaries have accumulated a total of 108 patents.

The Company strictly abides by laws and regulations related to intellectual property rights in its daily operations. During the year, the Group did not violate any laws and regulations related to intellectual property rights.

TERMINAL OPERATION OPTIMISATION

BOOSTING THE DEVELOPMENT OF THE PORTS AND SHIPPING INDUSTRIES

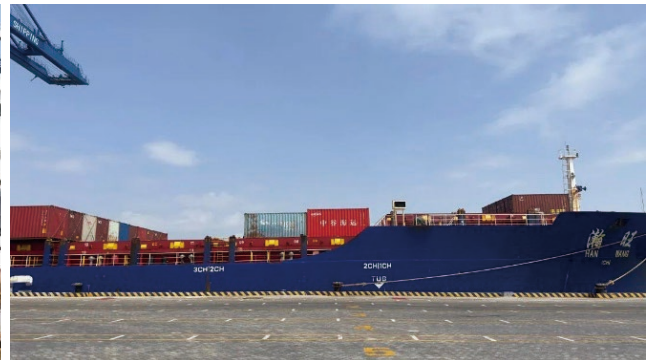
Leveraging the advantage of its global terminal portfolio and the close partnership with shipping alliances and terminal operators, the Company is dedicated to exploring new shipping services, assisting shipping companies in building a dense service network and strengthening ports and shipping collaboration.

During the year, the Subsidiaries have successfully added new shipping services, for example, the East-South America service (ESA), the Mediterranean-North Africa service (MED), the Australia service (PANDA/ZAX), providing customers with more direct shipping services options, thus further enhancing the soft power of the terminals.

The Company also actively pursues new cargo types, offering customers new import and export options that align with their specific needs. Moreover, the Company attracts customers to engage in joint marketing between the port and shipping industries, jointly developing new market opportunities.



During the year, Jinjiang Pacific Terminal developed new cargo and export services, and officially launched the export of pre-packaged food to Manila, the Philippines.



Quan Zhou Pacific Terminal has deepened cooperation with logistics companies to improve its terminal container services.

STRENGTHENING COOPERATION ALONG THE INDUSTRY CHAIN

While promoting business development, the Company also proactively maintains close cooperation with the upstream and downstream partners in the industry chain to actively drive mutual sustainable development and the development of a sustainable "global shipping ecosphere," in order to support the overall development of the industry.

During the year, the Ministry of Foreign Affairs of the People's Republic of China, the Xiamen Municipal People's Government and COSCO SHIPPING jointly organised the 5th Silk Road Maritime International Cooperation Forum and "Global Insights into Chinese Enterprises" serial activities under the theme of "Connecting the World". During the event, the ambassadors and consul generals of various countries in China visited Xiamen Ocean Gate Terminal to observe the operation of the fully automated container terminal and the virtual reality lifting container simulator. The representatives of COSCO SHIPPING Ports had in-depth discussions with the diplomats and the media on topics such as "cross-border green and low-carbon cooperation, the advantages of driverless container vehicles over manned container vehicles, and international cooperation and exchanges on smart terminals".



The representatives of COSCO SHIPPING Ports accompanied the delegates to observe the operation of the fully automated container terminal of Xiamen Ocean Gate Terminal.

CUSTOMER SATISFACTION

The Company and its Subsidiaries provide updates on the latest business development to customers on a regular basis and gain an in-depth understanding of customers' needs, expectations and recommendations through various channels such as surveys, phone interviews, meetings, business visits, seminars, and expositions. In 2023, the Company and its Subsidiaries conducted customer satisfaction surveys, and all interviewed customers expressed their satisfaction, demonstrating high recognition of the Group's service quality. During the year, the Company and its Subsidiaries did not receive any major complaints relating to products and services.

During the year, Jinzhou New Age Terminal organised the Container Ship Owners Symposium 2023 to conduct in-depth exchange with various shipping companies in terms of market development and new shipping services. Jinzhou New Age Terminal also expressed gratitude to its customers for their support and trust over the years and aimed to create a fair and positive business environment and foster cooperation.



Jinzhou New Age Terminal had in-depth exchange with shipping companies in the Container Ship Owners Symposium 2023.

In order to further deepen customer service, provide real-time and comprehensive business information, and continuously improve customer service experience, the Company has launched the “COSCO SHIPPING Ports Service Account” on the WeChat platform. This account provides three service functions on “Global Network”, “CSP Product” and “e-Port”, which visualise the Company’s global terminal network layout as well as the information related to the Subsidiaries, port logistics and the digital intelligent information services provided. Through the service account, customers can access the basic information about the Company’s Subsidiaries such as geographical situation, number of berths, and designed handling capacity, as well as obtain local real-time weather updates, vessel berthing conditions and vessel information, so as to facilitate shipping companies and cargo owners to plan follow-up pick-up and transportation arrangements.