CHAPTER 8
CUSTOMERS FIRST

Catering for customers' needs has always been the top priority of COSCO SHIPPING Ports. We seize the opportunities brought by technological development, and improve operational efficiency and optimise service quality through the application of innovative technologies. At the same time, we continue to promote the construction of automated terminals, develop smart ports, expand the development of global ports and shipping by virtue of the Company's influence as an industry leader to develop a well-known brand.

The Group's focus areas in Customers First:

The future of smart ports	Facilitate the transformation towards smart ports and improve efficiency and productivity through digitalised systems and production process improvement projects
Improving service systems	Apply innovative information technology and use digital measures to optimise operations, and facilitate innovation in service models to enhance customer experience
Strengthening external communication	Facilitate in-depth communication with customers and fully satisfy their needs
Information security	Ensure a sound information security management system, and safeguard the safety and privacy of customer information
Boosting the development of the ports and shipping industry	Facilitate the development of a global network in which the Group has controlling stakes; enhance synergies; and optimise efficiency and management

PERFORMANCE HIGHLIGHTS IN 2021

The Group's total throughput in 2021 reached 129,286,375 TEU, representing an increase of 4.4% as compared to last year. For the throughput of the terminal companies of the Company for the year ended 31 December 2021, please refer to the section headed "Operational Review" in the 2021 Annual Report of COSCO SHIPPING Ports.

During the year, COSCO SHIPPING Ports continued to enter into strategic cooperation agreements with suppliers to put the concept of "smart ports" into practice through joint research and development and the application of new technologies in business operations. In addition, we have completed the customer satisfaction survey for this year, and will continue to optimise service quality based on customers' suggestions, and strive to achieve customers' needs and expectations.

MANAGEMENT APPROACH

COSCO SHIPPING Ports and its terminals strictly comply with all relevant local laws and regulations. During the year, we were not subjected to any fines or non-economic penalties due to violation of laws and regulations in respect of products and services.

The Group treats "customers first" as one of its core philosophies, strives to keep abreast of market trends and continues to optimise service quality, in order to protect the rights and privacy of customers, and to provide professional services that can meet or even exceed customer needs. During the year, CSP Abu Dhabi Terminal successfully obtained the ISO 22301 Business Continuity Management System Certification. This certification is a recognition of the Group's stringent quality service and management system, demonstrating our determination to pursue excellence.

THE FUTURE OF SMART PORTS

In order to build efficient smart ports, the Group fully supports technological innovation, and encourages its terminals to proactively develop and apply various new technologies in their operations, to promote the automation of operations in the terminals. During the year, Quan Zhou Pacific Terminal and Jinjiang Pacific Terminal successfully launched the Navis N4 operating system. We plan to gradually extend the system to all of our Subsidiaries in the next three to four years. Through the adoption of Global Shipping Business Network (GSBN) and blockchain technology, we also plan to further strengthen technological and digital development, and optimise the service level of terminal information technology. In addition, the Group uses an MIS system based on Navis N4 and SAP financial system, so as to unify the data standards and processes of each terminal and improve the transparency of production and operation management. In addition to promoting sharing of information between upstream and downstream operations in the terminals, it also improves the operation efficiency of terminals and provides customers with a better service experience.

In order to continuously improve operational efficiency, we also support terminals to introduce more smart port technologies. Xiamen Ocean Gate Terminal has officially launched the commercial operation of "Smart Port 2.0" during the year. Xiamen Ocean Gate Terminal partnered with Dongfeng Corporation and China Mobile to develop technologies and conduct on-site tests, successfully applying various smart technologies, including 5G network commercial applications, intelligent system for unmanned truck fleets and loading and unloading intelligent systems. The Group's "Research and Development Center of Transport Industry of Automated Terminal Technology" has also become the research and development base of this project. Combining resources from different corporations, universities, and research and development institutions, the Group conducted research on automated terminal technology in the areas of design, construction, operation and maintenance, promoting cooperation with different parties and the development of intelligent port technology.

The commercial operation of "Smart Port 2.0" was officially commenced on 21 December 2021.

The Group considers smart ports as the development trend in the industry, thus actively cooperates with all parties to promote smart port technology. CSP Wuhan Terminal and China Mobile Communications Group Co., Ltd. (Hubei-Wuhan Branch) entered into a 5G strategic cooperation agreement for the phase two project of Container Water-Rail Intermodal Transport at the Yangluo International Port, and exchanged experiences and plans in the construction of 5G smart ports. This cooperation focuses on the construction and application of 5G smart ports, and plans to build the phase two project of Water-Rail Intermodal Transport into a "smart, green and efficient" port. Through utilising new technologies to establish 5G smart inland port, Wuhan Yangluo Terminal will become the first automated terminal for railway loading and unloading in China.

IMPROVING SERVICE SYSTEM

In order to continuously optimise the existing service system and meet customers' needs, the Group continues to develop new technologies. So far, the Company has obtained a total of 19 patents, covering equipment such as quay cranes, containers and trailers to provide customers with more advanced and efficient terminal services.

We strive to implement various measures for the development of increasingly large vessels for customers, and proactively introduce technology to assist in the berthing and departure of vessels at terminals. Based on 5G network, high-precision positioning and ship-shore coordination and other technologies, the timing, stability and reliability of berthing and departure of large ships are improved, achieving auxiliary berthing. When ships enter and leave the port channel, the port positioning sensor can accurately sense the ships entering and leaving the port, and transmit the berthing needs of the ship in time. The port and the ship will then transmit data for two-way verification, while using the sensor that is combined with artificial intelligence technology to detect obstacles and eliminate blind spots effectively, to reduce the risk of collision when ships are berthing and leaving. Through manual intervention to complete auxiliary berthing, efficient allocation of port berth resources and ship berthing guidance can be achieved, so as to improve port operation efficiency and resource utilisation to lower operating costs and enhance operation safety.

During the process of smart port construction, we use new technology to improve the efficiency and safety of terminal on-site operations to provide better customer service experience. During the year, Piraeus Terminal introduced quay crane remote control system and implemented a "smart core" for the first time to achieve remote semi-automatic operation of quay cranes. The remote control system is equipped with various intelligent technologies, such as truck guidance system, container number identification system, among others, to improve the loading and unloading capacity of port container terminals. CSP Abu Dhabi Terminal cooperated with domestic leading artificial intelligence companies to introduce unmanned truck projects, and used unmanned driving technology to expand the development of automated terminals. Vehicles are equipped with binocular artificial intelligence cameras, lidars, millimetre-wave radars and other technologies, which can scan the surrounding environment in real time and make real-time decisions during automated driving, improving the efficiency of on-site operations.

CSP Abu Dhabi Terminal cooperated with domestic leading artificial intelligence companies to introduce unmanned truck projects.

In addition, by setting up a collection warehouse in the port area, users of Guangzhou South China Oceangate Terminal and Guangzhou Nansha Stevedoring Terminal can apply for unpacking and warehousing immediately after the goods arrive at the port, and allow the goods to be picked up after the release of the separate bill of lading. Through streamlining the process of cargo handling, logistics costs are reduced, efficiency is improved, and cargo collection becomes more convenient, resulting in the enhancement of customer service experience.

STRENGTHENING EXTERNAL COMMUNICATION

COSCO SHIPPING Ports constantly maintains close communication with its customers to gain an in-depth understanding of customer needs and improve the service system. Our Subsidiaries seek customers' opinions and suggestions on the quality of our terminal services regularly through various channels such as questionnaires, meetings, business visits, promotional events and seminars. During the year, the Company had not received any customer complaints, while terminal companies received 41 service-related complaints, and achieved a 100% response rate. In addition, the Company and terminal companies completed customer satisfaction surveys during the year, 100% and 82% interviewed customers responded 'satisfied', respectively, which shows that customers highly recognise our terminal service quality. To further motivate employees to serve customers more diligently, the Group includes customer evaluation in the performance appraisal of employees and the management. We will continue to endeavour to deliver caring service to our customers.

The Company has gradually increased the number of regional marketing representatives and adopted a one-to-one marketing system, allowing regional headquarters to communicate closely with customers and make tailor-made improvements to maintain long-term business relationships. In addition, our terminal companies have set up customer service hotlines for customers to speak up. In case a complaint is received, the Group will properly handle it according to internal guidelines and continuously improve the business operations. The marketing personnel of our headquarters also regularly visits the headquarters of major shipping companies. In 2021, facing the challenges brought by the epidemic, the Group continued to provide online services to ensure smooth communication with customers, while, in countries and regions where the epidemic is under control, we maintain face-to-face visits to serve customers with sincerity.

INFORMATION SECURITY

The Group is committed to protecting the security and privacy of customer information by strictly requiring our terminal companies to follow the Confidentiality Administrative Measures. We also require all employees at the headquarters to sign the Non-disclosure Agreement for Employees of COSCO SHIPPING Ports before joining the Group. In order to minimise the information security risk, the Company has confidentiality committees in place and monitor the information security management system and ensure that customer information can only be reasonably used within the scope of business. Any person who discovers any breach of confidentiality or leakage of information due to mistakes in work shall immediately stop such actions and take remedial measures, and then report to the Confidentiality Management Committee.

Cyber security is also a major focus of information security. The Corporate Management Department and the Information Technology Development Department of the Company assists in daily cyber security work. The departments continuously promote various cyber security knowledge within the Company, and strengthen the management and staff's awareness on cyber security. During the year, we carried out promotion and trainings on the universality of cyber security and profession-specific learning for all staff and information technology personnel, respectively. Information on cyber security awareness was conveyed through multiple meetings, online courses and emails, among others. In order to improve the cyber security awareness of information technology personnel, we held a seminar on the information technology development of CSP Wuhan Terminal, and invited cyber security companies to conduct online meetings for the information technology personnel of our Subsidiaries to discuss and exchange ideas on cyber security management and awareness of safeguarding information.

The Group complies with relevant laws and regulations in the places where it operates. During the year, we were not involved in any cases of leakage of customer information.

Promotional materials on cyber security

The seminar on the information technology development of CSP Wuhan Terminal

BOOSTING THE DEVELOPMENT OF THE PORT AND SHIPPING INDUSTRY

COSCO SHIPPING Ports aims at becoming a leading ports operator by capturing investment opportunities around the world to optimise its global terminal portfolio. During the year, we were invited to participate in the 2021 APEC Smart Port Development Forum to share innovative ideas of building a "smart port" with the audiences, including physical innovation, technological innovation and model innovation. Aligning with the theme of the forum "Developing Smart Ports and Promoting Supply Chain Interconnection", we have fully promoted cooperation in the port and shipping industry, and carried out new technology applications and forward-looking technological research. We have also encouraged upgrading and transforming traditional terminals into intelligent terminals on a global scale, expanded the port logistics chain, industrial chain and value chain, and provided high-quality services for the port and shipping ecological chain. Xiamen Ocean Gate Terminal was awarded the 2021 APSN Green Port (GPAS) during the year, showing that our performance in continuing to build green and low-carbon terminals is recognised by the market.

The Company shared its insights, experience and achievements of the "Smart Port" construction of COSCO SHIPPING Ports during the keynote speech on "Development Trends and Practices of Smart Ports", and put forward the development direction and vision on the development trend and the challenges faced.