

2020

Corporate Social  
Responsibility Report





## Report Specification

### Report Description

For ease of expression and reading, "China State Shipbuilding Corporation Limited" is referred as CSSC or "we/us" for short hereinafter.

### Report Scope

This report covers the economic, environmental, and social performance of China State Shipbuilding Corporation Limited and its member units. The time scope of the report is from January 1, 2020 to December 31, 2020. Part of the content dates back to previous years.

### Standards and Reliability Guarantee

*Guidelines to Central Government-owned Enterprises on Fulfilling Corporate Social Responsibilities* (No.1 [2008]) issued by State-owned Assets Supervision and Administration Commission of the State Council (SASAC)

*Guidelines to State-owned Enterprises on Better Fulfilling Corporate Social Responsibilities* (No. 105 [2016]) issued by State-owned Assets Supervision and Administration Commission of the State Council (SASAC)

*Guidelines on Social Responsibility Reporting* (GB/T36001-2015) issued by Standardization Administration Commission of China

*Guidelines for Compiling Chinese Cooperate Social Responsibility Report* (CASS-CSR4.0) issued by Chinese Academy of Social Sciences

*Sustainability Reporting Guidelines* (GRI-standards) issued by Global Reporting Initiative (GRI)

*ISO 26000 Guidance on Social Responsibility* (2010) issued by International Standardization Organization (ISO)

2030 UN Sustainable Development Goals (SDGs)

For the disclosure of various indicators in this report, please refer to the index at the end of the report. CSSC guarantees the authenticity and accuracy of the reported information.

### Data Source

The data used in this report is from CSSC official documents and reports, and sums of money are expressed in RMB unless otherwise specified.

### Access to the Report

The report is published in simplified Chinese and English, in printed version and PDF electronic version. The report can be accessed or downloaded from CSSC's website [www.cssc.net.cn](http://www.cssc.net.cn) or official WeChat account.



If you need a hard copy of the report, or if you have any suggestions and comments, please contact us in the following ways:

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## A Congratulatory Letter from President Xi Jinping on the Success of 10,000-meter-deep Sea Trial and Return of China's Full-ocean-depth Manned Submarine Fen Dou Zhe

On the occasion of the successful completion of the 10,000-meter deep sea trial and the successful return of the submersible "Fen Dou Zhe", I extend my warm congratulations and cordial greetings to all researchers who are committed to the research and development of deep-sea equipment and scientific research of abyss. The success of the development of the submersible "Fen Dou Zhe" and its sea trials indicate that China has the ability to enter the deepest part of the world's oceans to carry out scientific explorations and research. It also reflects China's comprehensive strength in marine high technology. From "Jiaolong" and "Shenhai Yongshi" to today's "Fen Dou Zhe", with a rigorous and scientific attitude and the courage to be self-reliant, you have practised a spirit of "discipline and practicality, unity and cooperation, struggle and dedication, as well as bravely scaling the world's heights in science and technology". This is the spirit of Chinese manned deep submarine diving.

This spirit has set a model for technological innovation. I hope you will continue to carry forward the scientific spirit, and bravely strive for the peak of deep-sea science and technology. I hope you will continue to work hard to accelerate the process of building China into a strong maritime nation and realize the Chinese dream of the great rejuvenation of the Chinese nation, and make greater contributions to human's understanding, protection and development of the oceans!

Xi Jinping  
November 28th, 2020

## President Xi Jinping Sent a Congratulatory Letter on the Completion of the submarine Fen Dou Zhe's 10,000-meter-Deep Sea Trial and Return

On November 28, 2020, the New Deep-Sea Manned Submersible "Fen Dou Zhe" successfully completed the 10,000-meter sea trial and returned successfully. General Secretary of the Central Committee of the Communist Party of China, President of the State, and Chairman of the Central Military Commission Xi Jinping sent a congratulatory letter to extend his warm congratulations and cordial greetings to all scientific researchers who are committed to research and development of the deep sea and deep-sea equipment.



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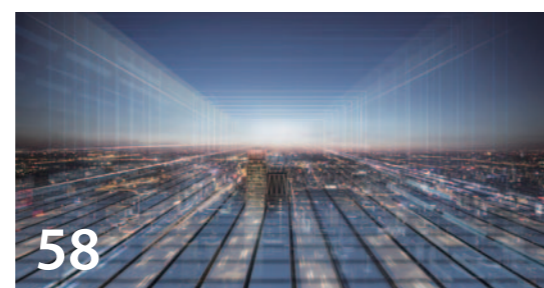


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## Chairman's Speech



**Lei Fanpei**  
Chairman of the Board of  
Directors, Secretary of the Party  
Leadership Group

2020 is an extraordinary year for CSSC to have deepened integration and accelerated innovation and development under severe and complex situations. Over the past year, we followed the important instructions from General Secretary Xi Jinping as the fundamental principle. With the "two overall situations" and the top priorities of the nation in mind, we formulated and implemented high-quality development strategies, coordinating the control of the epidemic with scientific research, business running and production. Giving full play to the advantages of the Party construction, we also made great contributions to the building of a strong army and strong military equipment. We strengthened the development of primary industries and enhanced innovation-driven development. As a result, CSSC's responsibilities and missions are more focused, and the overall strength is more prominent. The operating performance continues to improve, and a solid step has been taken forward to a world-class shipbuilding group.

Keeping in mind the foremost responsibility of strengthening the army, we stay committed to the standard of combat effectiveness, improved the development system of warship equipment, innovate new models of equipment research and development, and strengthened quality control of military equipment. We completed various tasks of equipment development with high quality on schedule, including the development of amphibious assault ships and large destroyers, which strongly supported the construction of a world-class navy.

Focusing on the primary business, we accelerated the upgrading of the marine industry. The large cruise ship was docked to assemble and 23,000-teu dual-fuel-powered container ships have been delivered in batches. Newbuilding order, completion and orderbook ranked the first in the world. We boosted the development of science and technology application industry, accelerated the growth of wind power industry, and expanded the layout of environmental engineering. Besides, we also deepened the transformation and adjustment of the marine industry. As a result, the value creation in leasing, finance, and material procurement became more prominent.

We accelerated innovation and development. The deep-sea manned submersible "Fen Dou Zhe" submersible successfully explored the 10,000-meter-deep sea. For the needs of strategic tasks such as marine safety, deep-sea scientific research and resource development, we planned, demonstrated, and implemented a number of major innovative projects such as deep-sea mineral resource development, deep and far sea aquaculture, offshore LNG industrial chains, large cruise ships, and marine low-speed engines. We continued pushing forward key core technologies.

We deepened reform and adjustment. We completed the reform of the headquarters' structure efficiently and steadily, established a differentiated management and control model, and further promoted the adjustment of industrial structure, optimization of capacity layout, and specialized reorganization. We have basically completed the major special reform tasks for the governance of loss-making companies and the separation of the non-core and non-dominant businesses. Major breakthroughs have been made in reforms in key areas such as market-oriented operating mechanisms and mixed ownership.

We strengthened refined management and launched a three-year action plan to build a world-class management system. We fully implemented the "cost-control project", optimizing the asset-liability structure and further strengthening the reduction and control of accounts receivable and inventory. In addition, we solidly promoted the legal governance, reducing disputed cases and bringing the increase of disputed cases under control. The headquarters' closed-loop management that complies with laws and regulations has basically formed. Member units also actively promoted the closed-loop management pilot program, which resulted in further prominence of auditing and risk management.

We practised the philosophy of green development. Implementing the emission target initiative, we adhered to green shipbuilding and continued developing green industries. We made great efforts to fight against poverty, helped Heqing County, Mengla County, and Qiubei County in Yunnan Province to get rid of poverty. We will continue to consolidate the achievements of poverty alleviation. Moreover, we cared for the professional development of employees, provided high-quality service to customers, and participated in social welfare undertakings. All these have demonstrated that CSSC is a responsible enterprise that takes social responsibilities actively and seriously.

The road ahead is long, and striving is the only way forward. 2021 is the first year of the 14th "Five-Year Plan". Adhering to the guidance of Xi Jinping's Thoughts on Socialism with Chinese Characteristics for a New Era, we will strengthen strategic guidance. We will create sources of original technologies, bravely leading modern industrial chains and boosting the major industries. We will also strengthen refined management and strive to improve quality and efficiency. We will fully fulfill political, economic and social responsibilities. We will carry forward the spirit of willing ox and pacesetters, accelerate the construction of a world-class shipbuilding group, and salute the 100th anniversary of the founding of the Communist Party of China with excellent achievements.

A handwritten signature in black ink, consisting of the Chinese characters '雷凡培' (Lei Fanpei).



# About Us

## Leaders of Party Leadership Group



**Lei Fanpei**  
Secretary of Party  
Leadership Group,  
Chairman



**Yang Jincheng**  
Deputy Secretary of Party  
Leadership Group, Director,  
General Manager



**Qian Jianping**  
Member of Party  
Leadership Group, Vice  
General Manager



**Sun Wei**  
Member of Party  
Leadership Group, Vice  
General Manager



**Jiang Renfeng**  
Member of Party  
Leadership Group,  
Vice General Manager



**Du Gang**  
Member of Party  
Leadership Group, Vice  
General Manager



**Li Jiaying**  
Member of Party  
Leadership Group, Chief of  
Discipline Inspection and  
Supervision Group



**Jia Haiying**  
Member of Party  
Leadership Group, Chief  
Accountant



**Sheng Jigang**  
Member of Party  
Leadership Group, Vice  
General Manager

## Board Members



**Lei Fanpei**  
Chairman



**Yang Jincheng**  
Director



**Li Jianhong**  
Outside Director



**Wu Xiandong**  
Outside Director



**Zhao Xiaogang**  
Outside Director



**Yan Hua**  
Outside Director



**Li Shulei**  
Outside Director



**Zhang Yingdai**  
Employee Director



## Company Overview

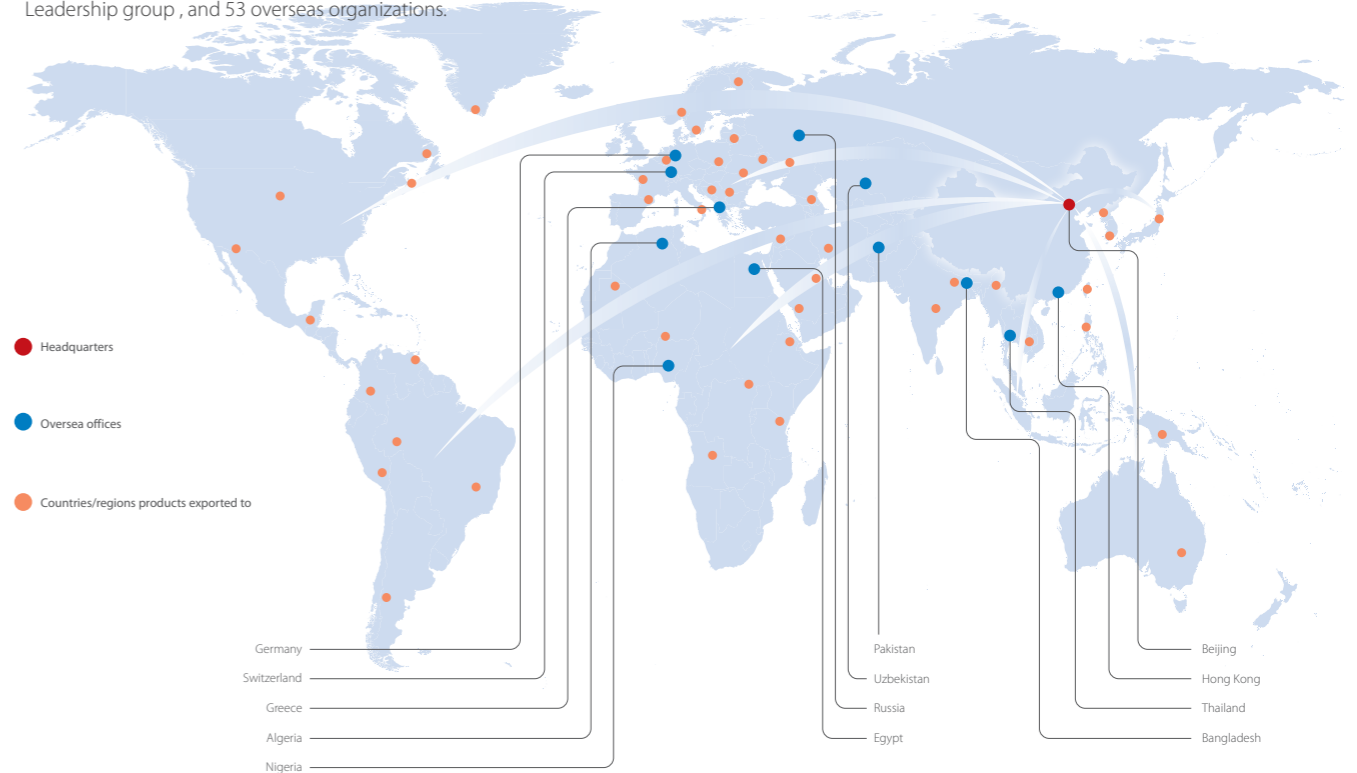
CSSC was established on November 26, 2019 by reforming the former China State Shipbuilding Corporation and the former China Shipbuilding Industry Group Co. Ltd. As a super large enterprise directly governed by the Central Government, the main businesses of CSSC cover industries of marine defence equipment, ship and offshore engineering equipment, science and technology application, and marine service.

In 2020, CSSC's newbuilding order, completion and orderbook accounted for 23.3%, 19.4% and 21%, of the world's total, respectively, and the three major shipbuilding indicators ranked the first in the world.

In 2020, CSSC achieved revenue of 323.2 billion yuan, total profit of 16.7 billion yuan and net profit of 14.5 billion yuan. By the end of 2020, with 861.4 billion yuan assets and 356,000 employees, CSSC has become the world's No. 1 shipbuilding group, with its products exported to more than 150 countries and regions around the world.

## Organization

CSSC is composed of the Party Leadership Group, the Board of Directors, the Managers Group, the Discipline Inspection and Supervision Group and the headquarters and member units. The Party Leadership Group is established with the approval of the Communist Party of China Central Committee to discuss and decide major issues, and play a leading role in steering the direction, managing the overall situation, and promoting implementation of policies. The Board of Directors is the decision-making body responsible to the State-owned Assets Supervision and Administration Commission of the State Council and exercises its powers in accordance with the law. The Managers Group is the executive body which implements the resolutions of the Board of Directors in accordance with regulations and conducts production and operation. The Discipline Inspection and Supervision Group is a disciplinary inspection and supervision institution approved by the Communist Party of China Central Commission for Discipline Inspection and the National Supervisory Commission, performing disciplinary inspection and supervision functions in accordance with regulations and laws. The headquarters has set up 3 working organizations of the Party and 15 headquarters departments. Besides, the company has 36 scientific research institutes, 10 listed companies, a total of 113 member units under the management of the Party Leadership group, and 53 overseas organizations.



Total Assets  
**861.4** billion yuan



Net Profit  
**14.5** billion yuan



Products exported to more than  
**150** countries and regions



Total Profit  
**16.7** billion yuan



Annual Revenue  
**323.2** billion yuan

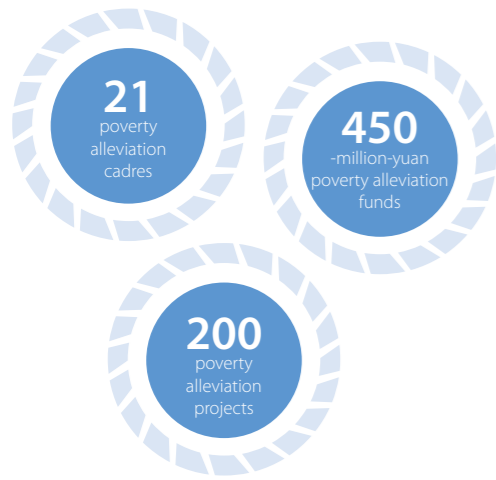


Total Employees  
**356** thousand people





# A decisive battle and a decisive victory, to help win the fight against poverty



CSSC conscientiously implements the important decisions and deployments of the Party Central Committee on winning the battle against poverty, and implements the important instructions of General Secretary Xi Jinping on "True poverty alleviation" with a high sense of political responsibility. CSSC has steadfastly promoted designated poverty alleviation in Heqing County, Mengla County, and Qiubei County of Yunnan Province. During the Thirteenth "Five-Year Plan" period, CSSC sent 21 cadres to assist county construction, invested more than 450 million yuan, and implemented more than 200 assistance projects. More than 40,000 registered poor people had been lifted out of poverty and gained more income. By the end of 2020, Heqing County, Mengla County and Qiubei County, paired assisted by CSSC, have all achieved poverty alleviation. This has made great contributions to the decisive battle against poverty.

## Targeted Poverty Alleviation

In 2020, through "industry, product procurement, education, medical and health support, and infrastructure construction, cadre and technical personnel training", etc., CSSC has helped Qiubei County get rid of poverty from a multi-sectoral, all-dimensional and multi-level perspective, and has consolidated the achievements of poverty alleviation in Heqing County and Mengla County. The achievements have exceeded the targets assigned by the State Council's Poverty Alleviation and Development Leading Group.



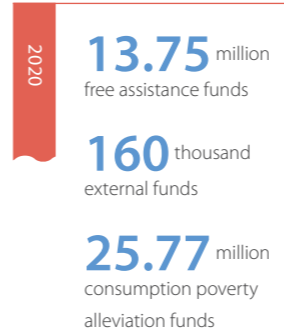
“Lifting all rural residents living below the current poverty line out of poverty by 2020 is a solemn promise made by the CPC Central Committee, and it must be fulfilled on time. It is a tough battle of which greater importance must be attached to in the final push. It can only be achieved through unremitting efforts.”

----- Xi Jinping, General Secretary of the CPC Central Committee, Chinese President and Chairman of the Central Military Commission,



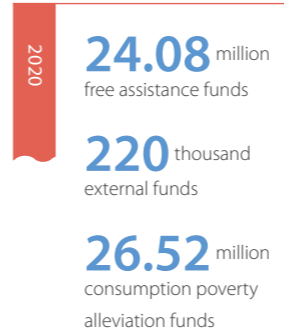
### Heqing County in Dali Autonomous Prefecture, Yunnan Province

Since 2002, CSSC has implemented various poverty alleviation measures and established a series of policy systems such as industrial poverty alleviation, education poverty alleviation and health poverty alleviation, housing security, drinking water safety, infrastructure improvement, and capital integration, and CSSC has achieved remarkable achievements in these respects. A total of more than 78.88 million yuan has been invested into various free assistance funds, and 55.56 million yuan has been invested in consumption poverty alleviation. Moreover, 120 assistance projects have been implemented.



### Mengla County in Xishuangbanna Autonomous Prefecture, Yunnan Province

Since 2002, CSSC has invested 47.34 million yuan in free assistance funds and implemented projects such as the founding of CSSC Mohan Shanggang Hope Primary School and CSSC Nakka Hope Primary School, promoting border market projects and the building of "happy bridges" and "prosperity roads" and donation of medical and health equipment, etc. The total procurement of various agricultural and sideline products is 48.51 million yuan and 100 million yuan was invested to initiate the establishment of Mengla Industrial Poverty Alleviation Fund, for the investment of honey, rubber wood, Pu'er tea and other industrial projects to drive the development of local specialty industries.



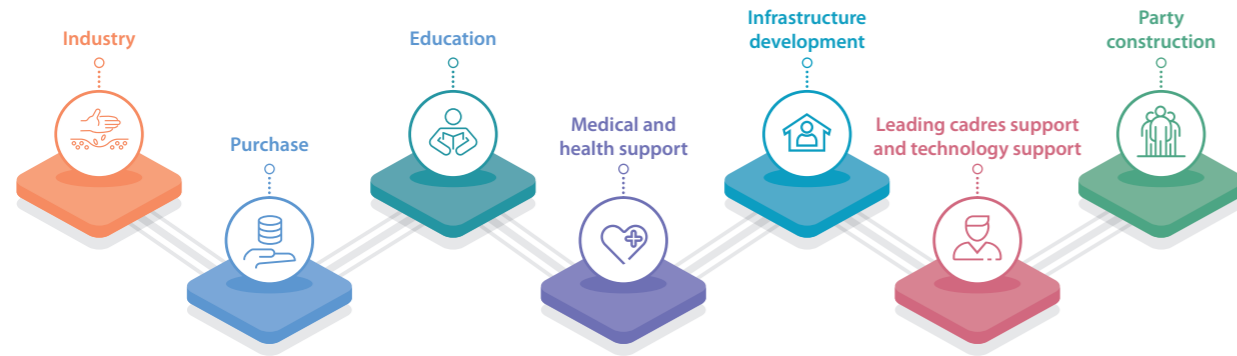
### Qiubei County in Wenshan Autonomous Prefecture, Yunnan Province

Since 2012, focusing on industrial poverty alleviation, CSSC has invested 100 million yuan in establishing the first county-level industrial poverty alleviation funds, and successively invested 94.39 million yuan in leading enterprises such as Yuntai Food, to help the development of distinctive industries. We have also invested more than 22 million yuan in road and traffic infrastructures to improve people's living conditions. Also, CSSC has invested more than 23 million yuan in projects, such as the construction of two Hope Primary Schools and one complex building, to prevent the poverty being passed down from generation to generation. Moreover, we have also vigorously carried out consumption poverty alleviation. In 2020, we purchased agricultural products worth of 45.49-million yuan from Qiubei County, and helped to sell products of 20.15-million yuan, letting the products "go out of the mountains".



## Creating the "CSSC Model" for poverty alleviation

CSSC insists on "True Alleviation of Poverty , Alleviation of True Poverty ". In accordance with the actual local conditions of Heqing County, Mengla County and Qiubei County in Yunnan Province, CSSC integrates multiple resources, promotes internal and external collaboration, and explores the seven-in-one integrated model for precise poverty alleviation , to solve completely the problems related to the basic production and life of the poor.



### Strengthening organization and leadership

CSSC organized nine conferences on poverty alleviation to formulate and advance 40 key tasks and projects for poverty alleviation in 18 areas in 2020. Chairman Lei Fanpei and General Manager Yang Jincheng attached great importance to these tasks and projects. They went to Qiubei County and Mengla County in Yunnan Province to check the progress of poverty alleviation to help coordinate and solve problems.



CSSC strengthened the promotion of targeted poverty alleviation. Achievements and deeds were published in mainstream media and new media, which aroused great repercussions and effectively promoted the positive image of the responsible central enterprises.

### Strengthening publicity

CSSC donated 5 infrared thermometers, 100 hand-held forehead thermometers, 420,000 masks and other epidemic prevention materials to Heqing County, Mengla County, Qiubei County in Yunnan Province and Xishuangbanna Autonomous Prefecture to help win the battle against the epidemic and poverty.

In accordance with SASAC's and other higher-level agencies' deployment, timely arrangements are made to implement anti-epidemic relief and help sell unmarketable agricultural products.

### Strengthening anti-epidemic assistance

### Strengthening immediate arrangements

In line with the objectives and requirements in the Fixed-point Poverty-Alleviation Responsibility Agreement, CSSC took the initiative to pressurize, make arrangements in advance, and increase investment. The annual indicators were fulfilled in advance.



CSSC dispatched 6 personnel to the designated poverty alleviation counties (villages) to take temporary posts, to push the implementation of assistance projects, actively participate in local reform and development , and support the poverty alleviation and local economic and social development.

### Strengthening management of temporary cadres

### Strengthening management and investment of industrial funds

Giving full play of Mengla Industrial Poverty Alleviation Funds and Qiubei Industrial Poverty Alleviation Funds, CSSC signed agreements with Qiubei County Shuanglong Oil Company and Lidaer Company, and invested 15 million yuan in the two companies respectively to support the development of key projects; at the same time, CSSC completed the demonstration of two investment projects in Wanze Agriculture and Yunmen Rubber in Mengla County.

Focusing on the establishment, progress and effectiveness of designated poverty alleviation projects, CSSC sent personnel to go to Heqing, Mengla and Qiubei for supervision and guidance, so as to give prompt feedback when problems are found, and urge the prompt solutions.

### Strengthening supervision and inspection

### Honors and Awards

- ★ CSSC was consecutively rated "excellency" in the designated poverty alleviation assessment by the State Council's Poverty Alleviation and Development Leading Group
- ★ The case of "Continuing to Promote Industrial Poverty Alleviation and Enhancing Endogenous Development Motivation" was selected as one of the 50 best cases of targeted poverty alleviation in 2020 by the State Council's Poverty Alleviation Office.
- ★ Many of the appointed deputy county heads, first secretaries in villages or staff members of designated poverty alleviation counties have been awarded as advanced individuals for poverty alleviation at the provincial, ministerial, prefecture, and county levels for many times.

- ★ CSSC was selected as one of the top 100 Chinese enterprises for poverty alleviation in 2020 China Enterprise Charity Forum.
- ★ CSSC Material Trading Group (Mengla) Co., Ltd. was awarded the "National Advanced Group for Poverty Alleviation".





In 2020, facing the double tests of resolutely winning the battle against the COVID-19 epidemic and the tough battle for scientific research, production and operation, CSSC resolutely and courageously implemented the decision and deployment from the Party Central Committee at critical moments. Where there were more difficulties and challenges, where CSSC stepped forward. In the end, CSSC resolutely won the double victories of epidemic prevention and control as well as scientific research, production and operation. CSSC fulfilled the original mission in the big tests.

### Actively responding to the decision and deployment from the Party Central Committee

At the outbreak of the COVID-19 epidemic, with strong political consciousness, CSSC stepped forward with quick responses, full participation, and careful deployments, demonstrating the strong sense of responsibility.

On January 25, 2020, General Secretary Xi Jinping presided over a meeting of the Standing Committee of the Political Bureau of the CPC Central Committee to make arrangements for epidemic prevention and control. On January 26, 2020, CSSC established a working group of leaders for epidemic prevention and control and founded affiliated offices to conduct research, deployment and implementation of detailed requirements of epidemic prevention and control. Thus, CSSC quickly established a working system for epidemic prevention and control, featuring the unity of the headquarters and member units, group prevention and control, and close coordination.



On February 17, the CSSC Party Leadership Group studies Xi Jinping's important speech on epidemic prevention and control.

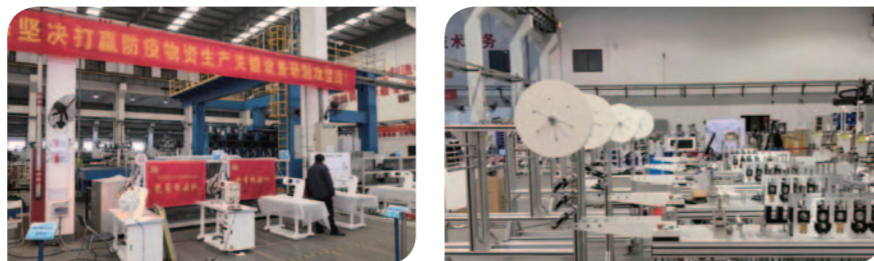
### Taking the industrial advantage, CSSC devoted every effort to fight for prevention and control of the epidemic.

CSSC took the initiative to make contributions to the prevention and control of the epidemic.

At the forefront of medical treatment, 521 medical staff from Hubei No. 672 Hospital Affiliated to CSSC Research Institute raced against time and fought continuously in the front line of the COVID-19 epidemic.



Pengli Technology Group from the Eighth Research Institute of CSSC and Hebei Hanguang Heavy Industry Co., Ltd. undertook the urgent task for research and development of key equipment for the production of medical materials. It took only 11 days to complete the development of prototypes of the N95 mask machine, the flat mask machine and the layering machine. They achieved the continuous supply of mass production equipment within 15 days, fighting the epidemic with a "wartime speed".



Wuchang Shipbuilding Industry Group Co., Ltd., Wuhan Marine Machinery Co., Ltd. and other units took their professional advantages to support the successful construction of Huoshen Mountain and Leishen Mountain hospitals, and fully assisted the transportation of anti-epidemic materials and supported the communities in the fight against the epidemic.



SITC General Aviation Technology Co., Ltd. organized the CSSC Control Anti-epidemic Air Rescue Team. Three helicopters were successively deployed to Wuhan, Wenzhou, Xiantao, Yichang, Huanggang and other places. The flight lasted 40 days, nearly a hundred hours, and transferred more than 100,000 pieces of first-aid supplies.





## Active donations for anti-epidemic public welfare

At critical moments of the battle to prevent and control the COVID-19 epidemic, CSSC actively donated to anti-epidemic public welfare.



During the epidemic, CSSC organized various donations up to

**61,484,700** yuan.

CSSC donated **687,000** masks,

**10,800** pieces of medical protective clothing,

**5.7** tons of disinfectant solution,

**21,000** bottles of hand-washing disinfectant,

and **6** mobile medical waste incineration shelters



CSSC Cruises Technology Development Co., Ltd. sent masks and other anti-epidemic materials to Italian experts who were unable to return to work due to the epidemic.

## National Honors and Awards

On September 8, 2020, the Grand National Honoring Conference for Fighting against the Epidemic was held in the Great Hall of the People in Beijing. The conference awarded advanced individuals, advanced collectives, outstanding national Party members, and advanced grassroots Party organizations nationwide. CSSC won awards for the advanced group and an advanced individual.

Award for National Advanced Group in the fight against the epidemic.<Pengli Technology Group, the Eighth Research Institute of CSSC>



Award for Advanced Individual in the prevention and control of the epidemic in the national health system <Zhang Qi, Head Nurse of the third infection ward of Hubei No. 672 Orthopedic Hospital of Integrated Traditional Chinese and Western Medicine, affiliated to CSSC Research Institute>.



## Steadily promoting the resumption of work and production

Faced with the severe situation, CSSC adhered to the work policy of "unchanged plans, unadjusted targets, undiminished tasks, and increased efforts". CSSC fully implemented measures for normalization of epidemic prevention and control, and made all efforts to resume work and production to catch up with progress and recover losses. CSSC succeeded in the overall return to the level of the same period last year within 3 months. Since the resumption of work and production, CSSC had no case of infection on the job or imported from overseas.



The assembly staff of Chongqing Gearbox Co., Ltd. were inspecting the surface of the box at 3 am.



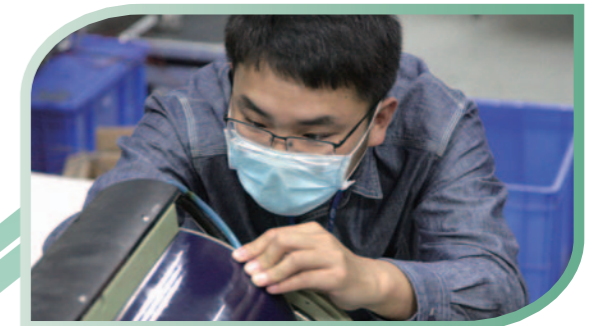
The workshop of Chongqing Hongjiang Machinery Co., Ltd. was brightly lit at 1:30 am.

## We are working in the early morning.

In June 2020, the scientific research and production of CSSC entered the busiest stage of tackling tough problems, and its member units set goals and worked assiduously for their goals. In order to seize the time and catch up with the progress, the majority of employees worked together to achieve the goal and completed the mission regardless of day and night.



An engineer from No. 704 Institute was still working hard late at night



At midnight, the experiment was still on in No. 710 Institute for a 100-hour uninterrupted system copy machine.





## Drawing a Blueprint for Development

Under the guidance of General Secretary Xi Jinping's important instructions, CSSC implements the new development concept and builds a new development pattern based on the new development stage. Keeping in mind with "the national development strategy for two priority areas" and the "priority of the nation's interests", CSSC firmly remembers that the shipbuilding industry is a cause of the Party and the nation. With clear missions, responsibilities and strategic blueprints, we will unify our thoughts and unite our efforts to make greater contributions to the development of the Party and the country.



## Adhering to Leadership of the Communist Party of China

We keep in mind that "the surname of central enterprises is the Communist Party of China". With in-depth understanding of the responsibilities and missions of CSSC in the overall development of the Communist Party of China and the nation, we will resolutely implement the important instructions from General Secretary Xi Jinping and various decisions and deployments from the Party Central Committee. We will try to transform the Party's political advantages into corporate competitive advantages and move forward firmly in the direction specified by the Party Central Committee.

### Studying and implementing the spirit of General Secretary Xi Jinping's important instructions

We will adhere to the "first topic" system and take "improving political standpoint" as the top priority.

Through the study, we will deepen the accurate understanding and thorough implementation of Xi Jinping's thoughts on Socialism with Chinese characteristic for a new era and deployments of the Communist Party Central Committee.



### Persisting in giving full play to the political advantages of the Communist Party of China

With emphasis on the role of CSSC's Party leadership group in steering the direction, managing the overall situation and promoting implementations, We adhered to and improved the decision-making mechanism related to key issues. We held 51 Party Leadership Group meetings throughout the year and studied 402 issues, of which 121 major production and operation issues were discussed in advance and 281 decisions were directly reviewed. We promoted the in-depth integration of Party construction and work. We insisted on Party construction around the central work, and made the completion of the annual goal an important content of Party construction assessment.

We fully implemented in member units the leadership system of "two-way entry and cross-service". In this way, we effectively integrated Party leadership into all aspects of corporate governance, embedded corporate Party organizations into corporate governance structures, and enabled Party organizations to play their roles in an organized and institutionalized manner.



## Strengthening Party Construction

We unwaveringly strengthened Party Construction by deepening the comprehensive and strict governance of the Party and promoting the implementation of the "two safeguards" system and mechanism by focusing on and strengthening Party construction, to further improve the political function and organizational strength of Party organizations, which effectively guaranteed high-quality development.

### Carrying out the construction of the organization, system and team of the Party in an all-round way

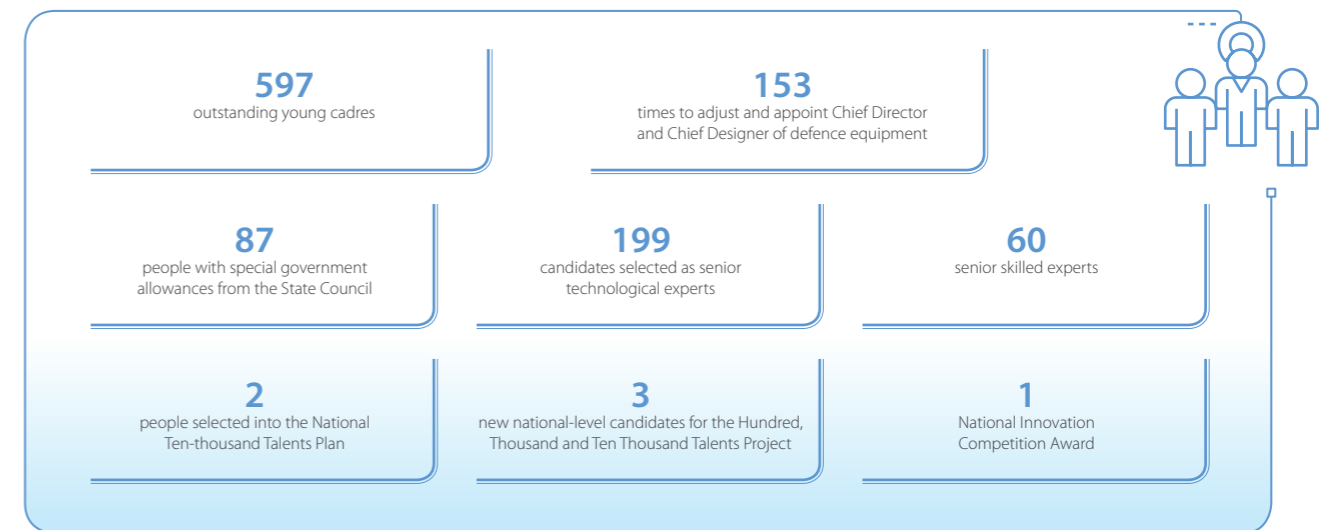
A series of Party construction organization systems such as the "Management Measures for the Party Organization Work of Member Units of CSSC (Trial)" was formulated, and Party construction has become more standardized and efficient. Lei Fanpei, Secretary of the Party Leadership Group, and members of the Party Leadership Group took the lead in giving lectures at the grassroots units. CSSC awarded a group of "Excellent CSSC Party Members", "CSSC Excellent Party Workers", "CSSC Model Party Branch", creating an intense competitive atmosphere.




- ★ Regulations on Management of Member Units' Subject Responsibilities for Strict Administration of the Party
- ★ Administrative Measures for Party Organizational Work of CSSC's Member Units (Trial)"
- ★ Interim Measures for Assessment and Assessment of Subject Responsibilities of the Party Organization of Member Units to Implement Comprehensive and Strict Party Administration
- ★ Administrative Measures for Assessment of Party Committee (or Party Leadership Group) Secretary's Work Report on Grassroots Party Construction (Trial)
- ★ Implementation Measures for Party Leadership Group (Party Committee) Central Group's Theoretical Studies
- ★ Implementation Measures for Democratic-Life Meetings of Party Members and Leading Cadres"

## Strengthening the construction of cadres and talent teams

Adhering to the principle of the Party's management of cadres and talents, CSSC actively built a coordinated, unified, and effective system and mechanism for the selection, employment, education, and retention of cadres and talents. With close attention to the critical minority of leading cadres, CSSC strengthened the functions of the unified whole and optimized the team structure throughout the entire process of arranging the leadership teams of member units. CSSC adjusted and strengthened the leadership teams of 69 member units. Emphasizing the selection and training of outstanding young cadres, CSSC took stock of 597 outstanding young cadres, adjusted and appointed Chief Director and Chief Designer of defence equipment 153 times; 2 persons were added to the National Ten Thousand Talents Program, 3 national candidates to the Hundred, Thousand and Ten Thousand Talents Program, and 1 won the National Innovation Competition Award; 2 teams won the first National Defense Science and Technology Industry Outstanding Contribution Award; 87 people received special government allowances from the State Council; 199 people were selected Senior Technological Experts and 60 Senior Skilled Experts.



## In-depth Development of Comprehensive and Strict Administration of the Party

For further reform of the disciplinary inspection and supervision system, CSSC supported the establishment of the disciplinary inspection and supervision team, which increased investigations and handling of cases, rushed to correct "four tendencies (namely, formalism, bureaucracy, hedonism and extravagancy)" and intensified promotion reform through cases. Also, CSSC intensified the central inspection and rectification and special rectification by carrying out continuous inspections and successfully completing two rounds of inspections of 38 member units.





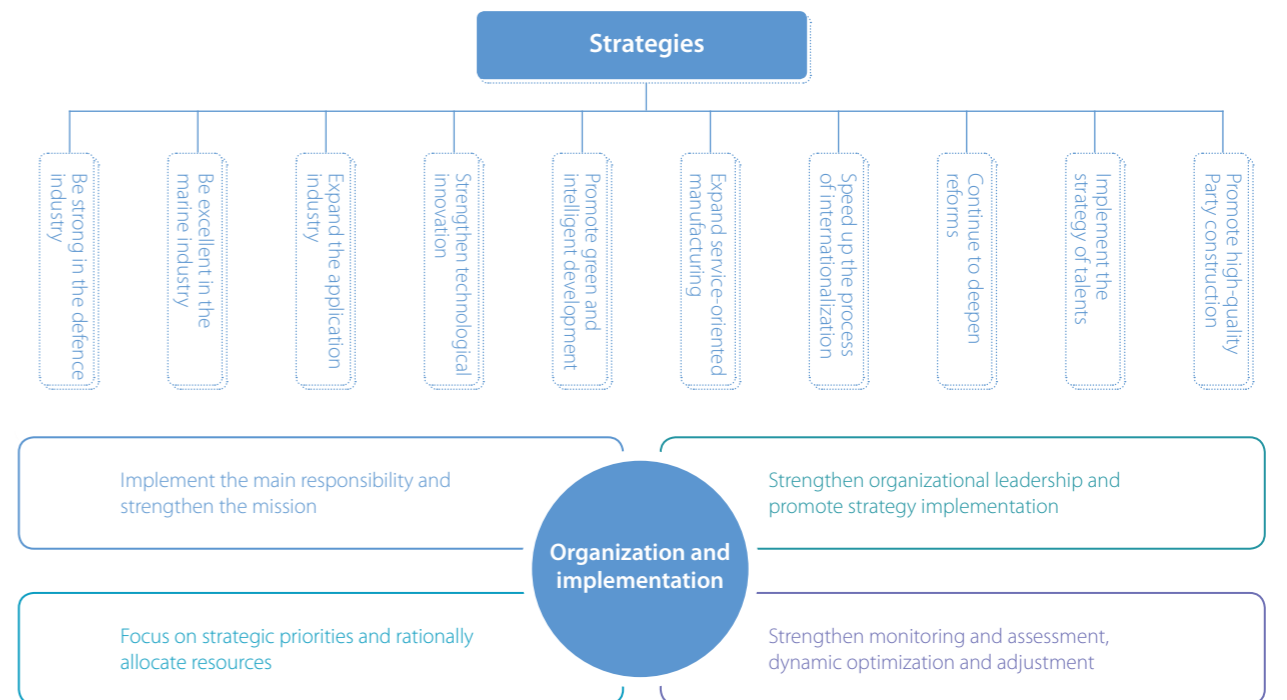
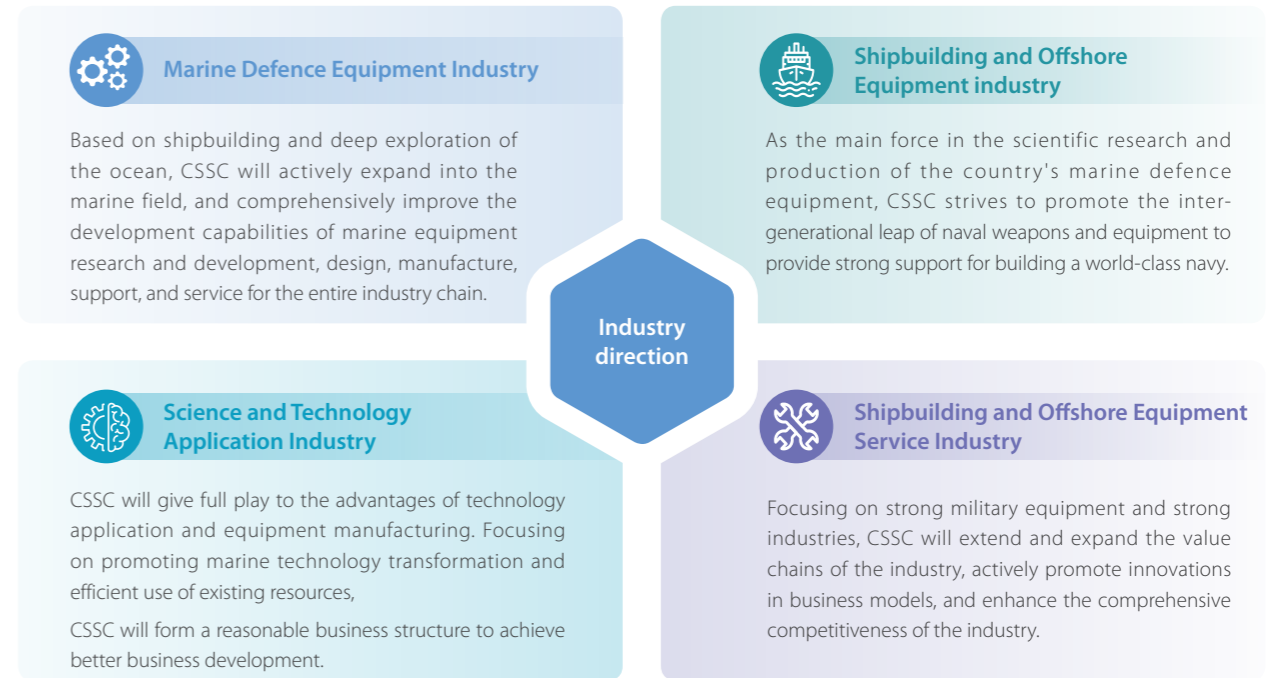
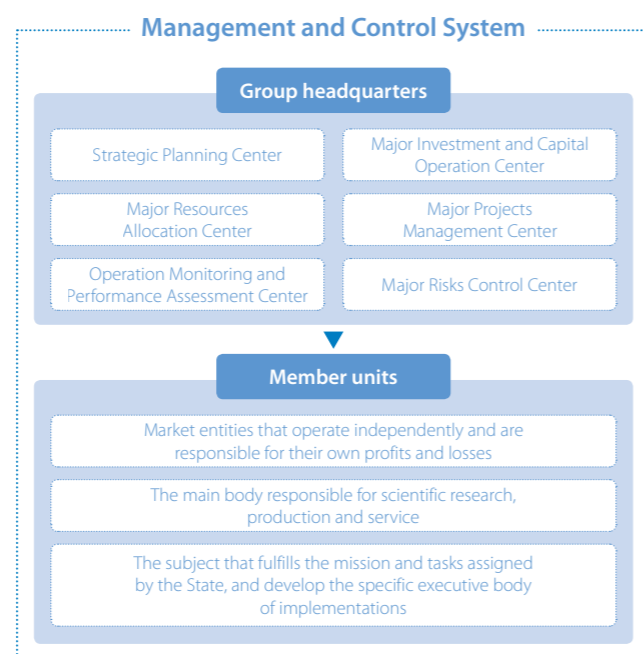
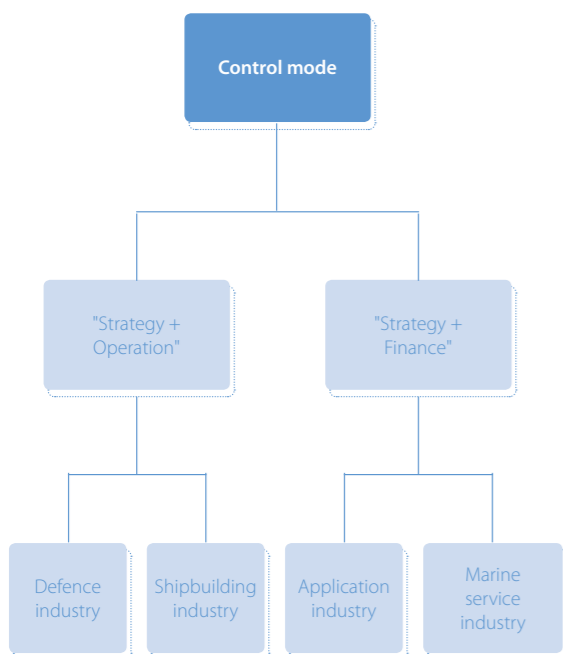
# Building a World-class Shipbuilding Group

We accurately perceived the changes in the internal and external environment. Guided by the important instructions of General Secretary Xi Jinping, adhering to strategic guidance, we issued and implemented the "CSSC High-quality Development Strategy Outline", and strove to start a new journey of building a world-class shipbuilding company.



On June 1, CSSC held its first strategic working conference and officially released the "CSSC High-quality Development Strategy Outline."

## Main contents of the "CSSC High-quality Development Strategy Outline."







# Performing the Primary Responsibility for a Strong Navy

As the main force of PLA Navy weapons and equipment construction in China, CSSC bears in mind the core mission to build strong armed forces and resolutely performs the primary responsibility for a strong army. CSSC will accomplish the military research and production tasks on schedule and with high quality, striving to provide first-class equipment and service guarantee for the construction of a world-class navy.



## Developing New Weapons and Equipment

By developing new management for the military industry, attaching great importance to the quality of military products, and strengthening organization and coordination, we accomplished the development of naval weapons and equipment of multiple models on schedule and with high quality.

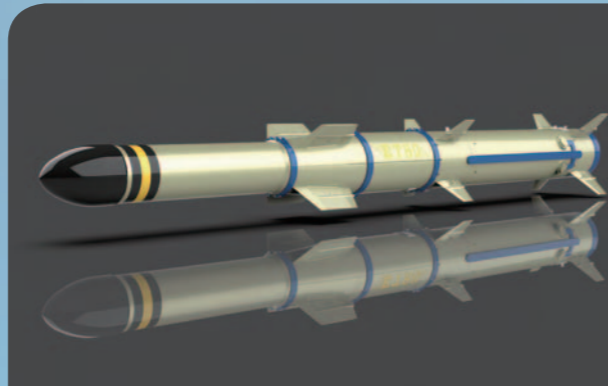


Destroyer



Type 052D destroyer





Accepting orders of aircraft carriers, destroyers, frigates, integrated training ships, torpedoes and other types of naval weaponry

## Undertaking Major Military Tasks

CSSC assisted the PLA Navy's successful accomplishment of numerous tasks, including visits, escort services, practice support by closely following the needs of tasks and strengthening services and safeguards.

### Safeguarding ocean escort

Safeguarding the secure travels of the naval hospital ship Heping Fangzhou and other ships

PLA Navy's 33rd, 34th, 35th and 36th escort missions in the Gulf of Aden and the waters off the Somali coast



### Equipment inspection and sea trials and tests

Taking part in equipment inspection in Shanghai, Zhoushan, Ningbo and other areas in the East China Sea

Services and safeguards of many tasks including warship sea trials, propulsion tests and debugging of weapons and equipment



Escorting fleets to visit United Arab Emirates



The "Yuanwang" series space survey ships have helped China's satellite launch and manned spaceflight



Escorting missions in the Gulf of Aden and the waters off the Somali coast



Safeguarding visit of the naval hospital ship Peace Ark



## Actively Support Shipbuilding Equipment Construction

We gave full play to our professional advantages in R&D, design, construction and support service, pushing forward the development of multi-model and series of official vessels, such as marine surveillance and cruise salvage ships, making positive contributions to developing China into a major maritime power and safeguarding national maritime rights and interests.



### The 10,000-ton patrol vessel "Hai Xun 09" was successfully launched

On September 29, 2020, designed by No.701 Institute and built by CSSC Huangpu Wenchong Shipbuilding Company Co., Ltd, with advanced equipment, comprehensive capacity, and the world's leading level, China's largest 10,000-ton patrol ship "Hai Xun 09" was successfully launched.



### Successful delivery of 60-meter B-class maritime patrol vessels

On May 20, 2020, built by Wuchang Shipbuilding Industry Co., Ltd, "Hai Xun 1110" and "Hai Xun 1111" were successfully delivered. This type of ship is the first medium-sized patrol ship of Hainan Maritime Safety Administration, equipped with a helicopter-lift platform, a bow thruster, a non-retractable fin stabilizer, a online information system and other advanced cruising equipment.



### "Hai Xun 173", a 2000-ton large-size beacon vessel was officially delivered and authorized for service

On July 22, 2020, the 2,000-ton large beacon vessel "Hai Xun 173" built by Wuchang Shipbuilding Industry Co., Ltd was formally delivered and authorized for service in Guangzhou. "Hai Xun 173" is so far the largest and most advanced beacon vessel in China's transportation system.







## Focusing on Major Industrial Business

Based on the industrial service for the country, CSSC advances the concentration of technology, talents, capital and other kinds of resources toward the major industrial business, and continuously expands to the middle and high end of value chains and industrial chains. As a result, the industrial structure is continuously improved and the competitiveness keeps soaring.



### 174,000m<sup>3</sup> LNG Carrier

On August 31, 2020, the 174,000m<sup>3</sup> LNG PHECDA was completed and delivered. The ship adopts a new generation of dual fuel power system, and the product performance is synchronized with that of the world's top LNG carriers.

### World's First 23,000-TEU Dual-fuel Powered Container Ship

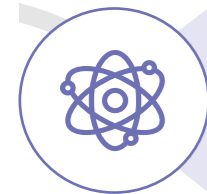
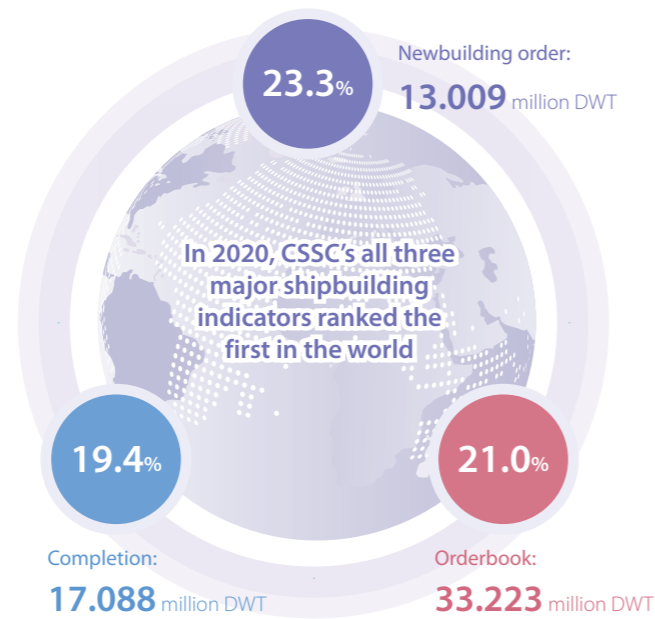
On September 22, 2020, the world's first 23,000-TEU dual-fuel powered container ship, CMA CGM Jacques Saade was completed and delivered. It is the largest LNG-powered container ship in the world, equipped with the world's largest independently developed X92DF dual-fuel power main engine.





## Upgrading to Achieve Efficiency in the Shipbuilding Industry

We continue to push optimization of mainstream ship types, strengthen the research and development of high-tech ships, and accelerate the transformation and upgrade to the middle and high end. This leads to first-class products and services and a first-class brand. In 2020, newbuilding order, completion and orderbook respectively accounted for 23.3%, 19.4% and 21% of the world's total, ranking the first in the world in all three major shipbuilding indicators.



### Research & Development

Focusing on green, intelligent, lightweight and far-reaching concept, we accelerated the improvement and upgrading of traditional ship types, thus launching a number of forward-looking products that lead the development of the market.

Building high-quality industrial chain



### Auxiliary of shipbuilding

Centering around improving the overall added value of shipbuilding business, we accelerated the development of innovation. The world's largest marine dual-fuel low-speed machine was successfully developed independently, achieving batch order acceptance and continuous delivery, with the market share of ship ballast water equipment ranking the first in the world.



### Production and construction

Centering on improving production efficiency and management, CSSC implemented Kanban management on marine business and target cycle management on main shipbuilding models. CSSC ranked the first in the world in the annual volume of shipbuilding completion. The delivery rate on schedule was significantly improved, and the key cycle time of some main vessel types was continuously shortened.



### Marketing

Affected by the COVID-19 epidemic, the decline of demand and the obstruction of personnel traffic, CSSC carried out online and offline marketing simultaneously, and maintained the world's first in the market share of new orders and order book.



### Completion and delivery of 84000 m<sup>3</sup> VLGC

On December 10, 2020, the second 84,000 m<sup>3</sup> VLGC (Very Large Liquefied Petroleum Gas Carriers) built by Jiangnan Shipbuilding(Group) Co. Ltd was completed and delivered.

84,000 m<sup>3</sup> VLGC, with the title of "Shanghai Brand", is the second generation of products independently designed by Jiangnan Shipbuilding (Group) Co. Ltd. This ship is 230.0m in length, 36.6m in molded breadth, 22.2m in molded depth, 11.4m in design draft and 12.0m in structural draft. This is also a typical "three high" (high technology, high difficulty, high value-added) ship type in the market.



### Delivery of the World's First Self-propelled FPSO

On August 31, 2020, built by Shanghai Waigaoqiao Shipbuilding Co. Ltd, the world's first self-propelled FPSO, also the second of the world's original Fast4Ward® "general-purpose" FPSO, was completed and delivered.

Compared with the first one, the biggest feature of this vessel is that it needs to design 2 separate propeller compartments in the aft part of the engine room, two more 3860Kw main generators and related auxiliary systems in accordance with the requirements of sailing vessels. It should conform to relevant maritime norms and requirements in overall arrangement, system configuration and equipment selection, making it the world's first large tonnage FPSO that can sail.







### Delivery of 325,000-ton Ultra-large Ore Vessel



On April 20, 2020, built by Dalian Shipbuilding Industry Co. Ltd, the new generation of 325,000-ton ultra-large ore vessel "Tie Shan" was completed and delivered.

The pipes of the ballast system of the whole vessel are made of FRP, equipped with an exhaust sulfur-oxide scrubber and a LNG fuel reserve tank. The vessel is environmentally friendly, energy saving, safe and sturdy. With outstanding highlights, the overall performance reaches the world leading level.



### Delivery of 300,000-ton Ultra-large Oil Carrier

On November 12, 2020, built by Dalian Shipbuilding Industry Co. Ltd, the 300,000-ton ultra-large oil carrier "Yuan Gui Yang" was completed and delivered.

With excellent hull lines, the ship is equipped with the G-type main engine (which is more energy-saving) and new large-diameter high-efficiency propellers, as well as the paddle front energy-saving device (which owns independent intellectual property rights). The energy-saving effect is obvious.



### Delivery of 49,000-dwt duplex stainless steel chemical tanker

On April 22, 2020, the completion and delivery of the 49,000 dwt duplex stainless steel chemical tanker built by Hudong-Zhonghua Shipbuilding (Group)Co. Ltd marked the perfect closing of the construction project of four vessels in the same series.

The ship is 182.88m in length, 32.2 m in molded breadth, 19.8 m in molded depth, 11.0 m in design draft, a maximum full load cargo weight of 1.67 tons per cubic meter and a ship capacity of 54,000 m<sup>3</sup>. It has 33 duplex stainless steel cargo holds, each with a pump, which can carry nearly a thousand chemicals and petroleum products, including petrochemicals, oleo-chemicals, vegetable oils, and lubricants.



### Delivery of 210,000-ton Bulk Carrier

On April 16, 2020, the 210,000-ton bulk carrier "ATLANTIC TIGER" built by Shanghai Waigaoqiao Shipbuilding Co. Ltd was completed and delivered.

The ship, which was classed by BV, adopted a new green and energy-saving design and had obvious advantages in speed, fuel consumption and cargo capacity compared with traditional Cape of Good Hope bulk carriers.







### Delivery of the largest LNG bunker in the world



On April 30, 2020, built by Hudong-Zhonghua Shipbuilding (Group) Co. Ltd, the largest LNG bunker in the world was completed and delivered.

This ship is 135m in length, with the capacity of full service to the world's largest 23,000-TEU LNG-powered container ship and can cover 19,500 nautical miles from Europe to the Far East and back in a single bunkering. It is also capable of bunkering other dual-fuel powered cargo ships of various types.



### Construction of the world's first 100,000-ton intelligent fishery large-scale breeding vessel started

In December 2020, Wuchang shipbuilding industry Co., Ltd held a ceremony to launch the construction of "Guoxin 1".

"Guoxin 1" is the world's first 100,000-ton intelligent fishery large-scale breeding vessel, upholding the concept of green breeding and adopting the leading domestic and world-class vibration and noise reduction technology, which organically integrates the breeding space with the ship overall, and builds an ecological, efficient and intensive cabin breeding space.



### Delivery of CJ50 Jack-up Drilling Platform



On January 15, 2020, the CJ50 jack-up drilling platform designed and built by Shanghai Waigaoqiao Shipbuilding Co. Ltd was completed and delivered.

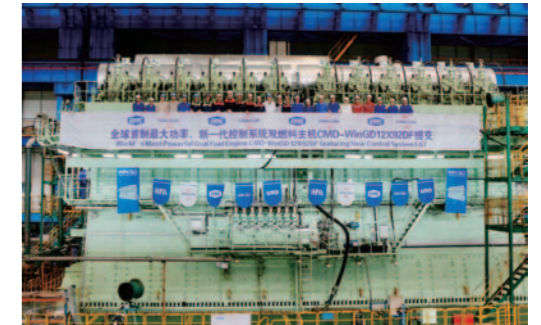
The CJ50 jack-up drilling platform is one of the current mainstream jack-up drilling platforms, which is mainly used in offshore oil and natural gas exploration and extraction engineering operations. The platform has a pile leg length of 165m, a large hook load of 908 tons, a maximum drilling depth of 35,000 feet and an operating water depth up to 400 feet, and is listed in the American Bureau of Shipping (ABS).



### Release of world's largest marine dual-fuel low-speed engine

On May 26, 2020, the world's largest marine dual-fuel low-speed engine developed by Winterthur Gas & Diesel Ltd was released online in the world.

Lei Fanpei, Chairman of CSSC, said that the WinGD X92DF main engine released to the world is the world's largest marine dual-fuel low-speed engine developed independently by CSSC, in response to the developing trend of green energy saving and low-carbon environment protection in global marine industry, closely focusing on customer needs. This marks a new step in CSSC's power development, manufacturing and service capabilities, thus injecting new momentum into the development of the global marine shipbuilding industry. In the future, CSSC will strive to provide more efficient, energy saving and green ship products and better services to global customers, further deepen and expand cooperation with all parties, jointly promoting the sustainable and healthy development of the global maritime industry.



The rated power of the model reaches 63,840 kilowatts. Integrating ultra-high power, intelligent control and green environment protection, its performance and emission indexes reach the world-class level. By adopting advanced technologies such as the Otto cycle principle and low-pressure gas intake in gas mode, this model can meet the most stringent International Maritime Organization (IMO) Tier III NOx emission standards.



### Delivery of the largest fin stabilizer in China

In November 2020, the ultra-large fin stabilizer developed by No.704 Institute was successfully delivered, which marks the official launch of the largest fin stabilizer on the international market.

After more than 10 years of research and development by No.704 Institute, the ultra-large fin stabilizer broke through a number of key technologies and developed the flap fishtail fin, which generates 8% more lift than the flap fins commonly used abroad in the same area and speed, owning independent intellectual property rights and reaching the international advanced level.







### First LGIP dual-fuel low-speed engine in China completed the entire production and assembly process

In August 2020, the LGIP dual-fuel low-speed machine produced by Chongqing Hongjiang Machinery Co., Ltd completed the entire production and assembly process, and was successfully shipped to the OEM for installation.

The LGIP dual-fuel low-speed machine is a new type of marine engine which is mainly fueled by clean energy LPG. It can reduce NOx emissions by nearly 80% and SOx emissions by 90% -100% after installation and operation. Thus, it can meet the latest sulfur restrictions without installing a desulfurization tower. In addition, its particle emissions can be reduced by 90%, CO<sub>2</sub> emissions by 13%-18%, and the ship's Energy Efficiency Design Index (EEDI) can be improved by 13%-20%, which has significant advantages in green emission reduction.



### Successful development of deep sea battery for Fen Dou Zhe (a deep-sea manned submarine)

On November 28, 2020, the deep-sea manned submarine Fen Dou Zhe completed the ten-thousand deep sea trial and returned successfully. The 11,000m deep-sea battery developed by No. 712 Institute is one of the key technologies of the ten thousand-meter manned submersible, which provides the power required for the operation of the submersible.

The safety and reliability of the 11,000m deep-sea battery has been fully tested. Its success has solved the basic theoretical problems of the deep-sea battery from common technology to system integration, which systematically improved China's deep-sea battery design, manufacturing and testing capabilities, and filled the gap of lithium-ion battery for China's all-seas deep submersibles.



### Successful development of high efficiency permanent magnetization drive system for electric anchor capstan

On December 28, 2020, No.712 Institute's successful development of high efficiency permanent magnetization drive system for electric anchor capstan enabled China to achieve independent innovation in the new generation of key drive equipment for berthing large ships.

This type of high efficiency permanent magnetic machine is used in the power unit of the anchor capstan of large luxury cruise ships, which can realize constant tension operation according to the requirements of winch throwing, raising and closing anchors, with the remote control function. Compared with the traditional hydraulic winch, the electric winch is smaller and lighter, with many other features such as high system efficiency, simple structure and easy maintenance.



## Cloud Agreement Signing



### CSSC signed an agreement with Qatar Petroleum to build LNG carriers

On April 22, 2020, CSSC and Qatar Petroleum jointly signed the Deed of Agreement of Ship Construction Capacity and Options to Purchase LNG Carriers in Beijing, Shanghai and Doha in the form of "Cloud Signing", with the total order volume of more than 20 billion yuan.



### Signing Contract for Construction of Two of World's Largest VLEC Vessels

On January 9, 2020, Jiangnan Shipbuilding (Group) Co., Ltd. held the signing ceremony for the construction contract, leasing agreement and ship charter for the project of two 98,000m<sup>3</sup> B-compartment VLEC in Shanghai. The VLEC is the largest VLEC ship with the largest cabin capacity in the world, as well as the largest liquefied gas ship capable of navigating the Houston waterway, with a maximum capacity of 99,000 m<sup>3</sup>.







### Signing Contract for Construction of Three 174,000m<sup>3</sup> LNG carriers

On June 30, 2020, Hudong-Zhonghua Shipbuilding (Group) Co., Ltd. and United Liquefied Gas Shipping Hong Kong Co., Ltd. signed the contract for the construction of three 174,000 m<sup>3</sup> LNG carriers. The signing ceremony was successfully held in the form of "Cloud Signing" via video link between Beijing and Shanghai.



### Received Order of Twelve 120,000-dwt Dual Fuel Tankers.

On April 29, 2020, CSSC Trading Co., Ltd., Shanghai Wai Gaoqiao Shipbuilding Co., Ltd., Guangzhou Shipyard International Company Limited and Bocom Financial Leasing Co., Ltd., the division of Bank of Communications Co., Ltd., signed the contract in the form of Cloud Signing for the construction of twelve 120,000-dwt dual fuel tankers in Beijing, Shanghai, Guangzhou, Hong Kong, and the total contract volume is about 4.6 billion yuan.

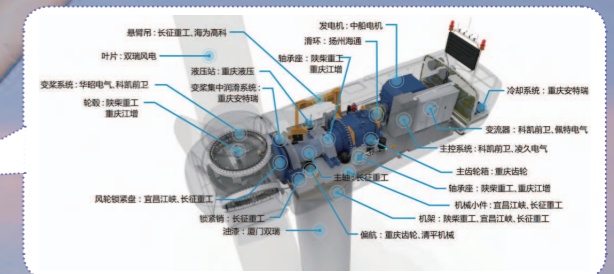


## Acceleration of the Development and Expansion of the Science and Technology Application Industry.

We gave full play to the advantages of technology reserves, facilities and equipment, human resources and customer groups in the defence industry and marine shipping industry, and actively promoted the open sharing and collaborative innovation of military and civilian technologies. Through strengthening, cultivating, incubating and withdrawing, significant progress was made in clean energy equipment, emergency equipment, electronic and informational equipment, environmental protection equipment, infrastructure and engineering equipment, and new materials, etc.



## Summary of wind power industry



### CSSC Contribution to Green Mountains and Clear Water -- A Glance of CSSC Wind Power Industry

With a strong mechanism for independent research, development and production in China, CSSC is strong in manufacturing and serving integrated equipment of machinery, power, hydraulic and control. It has a full range of manufacturing capabilities from blades, gearboxes, generators and control systems to frames, racks, tower drums and hubs, as well as resource development, parts manufacturing, machine research and development, engineering installation, operation and maintenance services and other whole industry chain guarantee ability. CSSC is the only professional corporation in China which has a more complete guarantee system for research, development, production, and service of wind power equipment.

- Huaneng Offshore Wind Power Project II at Zhuanghe, Dalian
- CSSC Offshore Wind Power Equipment Industrial Park at Xingcheng, Liaoning Province
- Huaneng H3 Offshore Wind Farm at Rudong, Jiangsu Province
- Jingneng Sunit Project in Inner Mongolia
- Tianshan Power Qianyuan Kunyu Project in Xinjiang Province
- Xiyang Project in Shanxi Province
- CSSC Guangxi Offshore Wind Power Industry Base in Guangxi Province
- Large-scale Offshore Wind Power Intelligent Equipment Industrial Park at Xiangshan, Ningbo, Zhejiang Province





### Construction of the First Offshore Wind Power Industrial Base in Guangxi Province

On November 26, 2020, the construction of the offshore wind power industrial base of CSSC Guangxi was officially started in Qinzhou. The project mainly constructs two 100,000-ton gravity wharves. It is planned to be completed and put into operation in June 2022, with a 40,000-ton slide and a 20,000-ton slide, supporting the construction of steel pretreatment lines, structural workshops, process pipeline workshops, etc.

The industrial base covers all core elements of offshore wind power equipment, including research and development, design, key equipment manufacturing, accessories, assembly integration, offshore installation and construction, and life-cycle operation and maintenance. The base covers an area of about 2,640 mu, with a total investment of about 12.9 billion yuan. The annual capacity of the base will be 1.5 million kilowatts of offshore wind power equipment manufacturing, installation, construction, operation and maintenance, and is expected to reach an annual output value of about 50 billion yuan.



### Signed Framework Agreement for Hydrogen Energy Projects

In November 2020, No.718 Institute and Dongfang Electric Co., Ltd signed an agreement which indicates that the two parties would carry out regional cooperation in fields of hydrogen energy development, investment, construction and transportation, equipment production and manufacturing, to jointly promote high-quality development of the hydrogen energy industry, to establish long-term strategic partnership, and to further deepen the development of the hydrogen energy industry.



### Delivery of China's first Floating LNG Storage and Regasification Unit Project

On September 15, 2020, Hudong-Zhonghua Shipbuilding (Group) Co., Ltd completed and delivered China's first LNG-FSRU (Floating LNG Storage and Regasification Unit) Project. This is the first time that a Chinese shipbuilding company has entered the field of refitting large and difficult LNG offshore equipment in the world.

Through a series of technical and structural modifications, Hudong-Zhonghua Shipbuilding (Group) Co., Ltd. successfully upgraded and equipped the original ship with five major systems, thus transforming it into a high-quality LNG-FSRU special carrier with multiple functions such as LNG reception, storage, transport, regasification and export.



### The 100MW photothermal power generation project in Urat Middle Banner achieved full load power generation

On December 16, 2020, CSSC New Energy Co., Ltd. 's 100MW trough photothermal power station project at Urat Middle Banner successfully achieved full load power generation.

Ulat 100MW solar thermal power generation project started construction in July 2018. It was one of the first 20 demonstration projects of the National Energy Administration. It is also the largest truss-type solar thermal power station with the largest installed capacity and the largest heat storage scale in China. The total area of the project is about 7500 mu, and 375 trough heat collecting loops were installed.



### Success of the First Set of Domestic Acetylene Screw Compressor Unit

In October 2020, the first set of domestic acetylene screw compressor unit developed and produced by No.711 Institute was successfully put into operation.

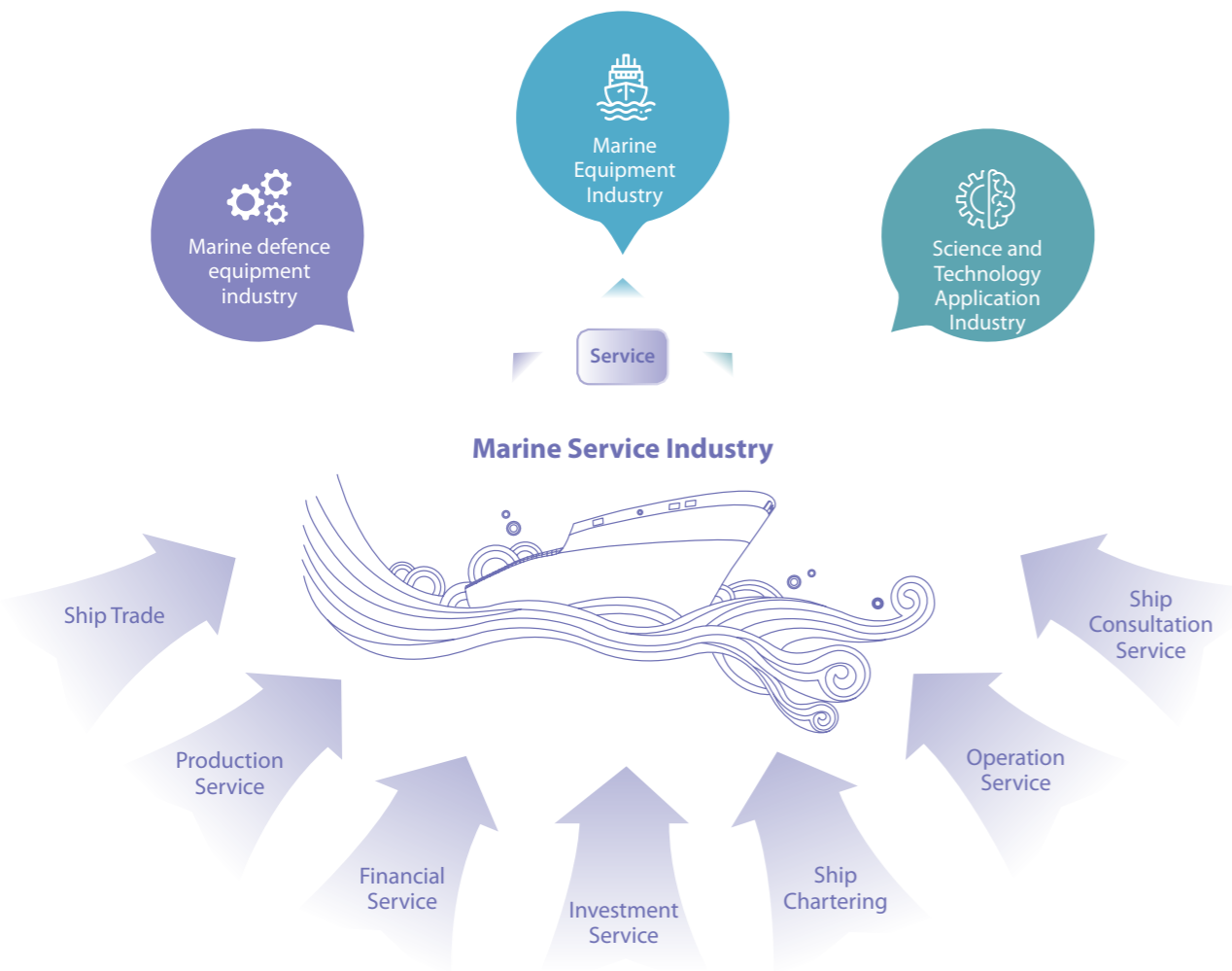
No.711 Institute worked on imported acetylene cracked gas compressors and vacuum compressors for domestication and targeted at designing a new model suitable for acetylene gas to end the long-term monopolization of imported acetylene screw compressors.





## Actively Promoting Marine Service

Closely focusing on and serving the defence industry, the marine industry and the science and technology application industry, we actively developed marine services, such as ship trade, financial services, investment services, leasing services, production services and shipping operation, and continued to extend and expand the industrial chains and value chains.



### Ship Lease: Combining Products and Finance, Serving the Main Business

In 2020, CSSC (Hong Kong) Shipping Release Company Ltd (with joint ventures and associated companies included) signed contracts for 31 new ships, with contract value of US\$1.122 billion.



### Production Services: Cost Reduction and Efficiency Increase by Centralized Procurement

CSSC Supply Co., Ltd. has 10 storage-and-distribution bases and 4 steel-process-and-distribution centers. In terms of steel for high-performance offshore platforms and steel for deep-sea pressure equipment, we have cooperated with domestic iron and steel enterprises to make technical breakthroughs, to establish professional platforms for ensuring supply and service, to reduce the cost of steel procurement, warehousing and handling, pre-processing, logistics and transportation, to lay a good foundation for the overall competitiveness of the industrial chain from the source, and to promote the transformation of shipbuilding to the international advanced shipbuilding model of final assembly.



### Financial Investment: Enabling Entities to Feed Back Industry

In order to fully support the resumption of work and production at member units of CSSC and strengthen the financial assistance to enterprises, CSSC Finance Company reduced the loan interest rate and increased the deposit interest rate. Intermediary services such as bill acceptance, letter of guarantee and entrusted loan are free of fees and margin, providing low-cost financial support to member units to the maximum extent. While supporting and safeguarding the competitiveness of the industrial entities, CSSC Finance Company obtains a sustained and stable return from investment.



### Engineering Construction: Innovating Business Model to Serve Regional Economy

CSSC Ninth Design and Research Institute (NDRI) Engineering Co., Ltd. has completed a number of urbanization and affordable housing projects in Shanghai, Shandong, Jiangsu, Zhejiang, Fujian and other places, which has achieved good social and economic benefits.



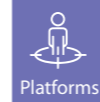




## Commitment to scientific and technological innovations

Always placing scientific and technological innovation at the core of building a world-class shipbuilding corporation, through implementing significant scientific and technological innovation projects, CSSC insisted on the course of independent innovation. To achieve this, CSSC intensified research and application of core technology and deepened the transformation of scientific and technological achievements to promote and upgrade industrial transformation, and ultimately to strengthen the national strategic science and technology of the shipbuilding industry. We will strive to build the "source of original technology" and extend the length of "chains" for China's shipbuilding industry, and make contributions to the self-reliance and self-improvement of the shipbuilding industry and the construction of a powerful country in science and technology.

CSSC has 36 research institutes and 63 national innovation platforms. It has already basically covered basic research, scientific experiments, overall design, assembly manufacturing, system integration, equipment manufacture, testing and calibration, experimental verification and service security of the whole innovation chain of the shipbuilding industry, leading to a relatively perfect system of science and technology innovation.



Platforms

CSSC has **63** national-level innovation platforms, including **1** national key laboratory, **2** national engineering research centers, **6** national engineering laboratories, **4** national engineering research centers, **29** national enterprise technology centers, **4** national-level research and development centers, **11** key laboratories of national defence science and technology, **4** innovation centers of national defence science, technology and industry, and **2** national innovation bases.



## Implementing Key Innovation Projects of Science and Technology

Aiming at the world's forefront of science and technology, in the field of economics, for major national needs, CSSC took initiatives to coordinate the demonstration and implementation of 16 key innovation projects of science and technology, with the constant emphasis on the role of key projects of science and technology as the driving force.

<p>CSSC Listed "Offshore LNG Industry Chain Upgrading Project" into the special tasks of the 14th Five-Year Plan for High-tech Ships</p> <p><b>Offshore LNG equipment industry chain</b></p>	<p>CSSC implemented demonstration projects in cooperation with coastal provinces.</p> <p><b>Deep-sea aquaculture industry</b></p>
<p>CSSC made major breakthroughs in the development of 130,000-ton ships, key technology, construction technology and system integration, supporting the construction of the first large-scale cruise ship in an all-round way</p> <p><b>Large cruise ship project</b></p>	<p>CSSC signed cooperation agreements on LNG power transformation projects for inland ships with Guangdong Province and China National Offshore Oil Corporation (CNOOC), and fully launched the green Pearl River project.</p> <p><b>The green Pearl River</b></p>
<p>CSSC completed the three-year action plan for promoting the green development of inland river shipping, and carried on the development of standard inland river ships.</p> <p><b>The green Yangtze River</b></p>	<p>CSSC completed the verification of key technologies of hydrogen fuel powered ships, which supports the formulation of regulations on hydrogen fuel powered ships in China.</p> <p><b>Marine hydrogen</b></p>

### The deep-sea manned submersible "Fen Dou Zhe" successfully completed its 10,000m sea trial and returned victoriously

Starting from October 10, 2020, the deep-sea manned submersible "Fen Dou Zhe" developed by No. 702 Institute carried out a 10,000m sea trial in the Mariana Trench. On November 10, it successfully landed at a depth of 10,909m, setting a new record for China's manned deep-sea submersible and marking that China has reached the world's leading level in the field of large depth-manned deep-sea submersibles.

CSSC fully mobilized and co-ordinated all research forces in the process of developing "Fen Dou Zhe" and made breakthroughs in key technology related to the overall design and integration on deep manned submersibles, design of rapid dive and integrated optimization of underwater navigation performance, and long-life stable power supply. CSSC overcame all kinds of challenges such as the deep high pressure under extreme conditions, with the overall domestication rate of over 96.5%. During the sea trials, 24 dives of 10,000m were made from "Fen Dou Zhe", accounting for 50% of the world's total 10,000m dives.

### Establishment of World's first civil extremely-low-frequency high-power electromagnetic wave transmitter

In January 2020, the world's first civil extremely-low-frequency high-power electromagnetic wave transmitter was completed. It was designed and built by the collaboration of China Ship Research Institute, No. 722 Research Institute and other corporations.

The transmitting station has a detection radius of thousands of kilometers and a detection depth of 10 kilometers, forming a signal source of electromagnetic waves with a high signal-to-noise ratio (SNR), and extremely low frequency that can cover all China's lands and seas.



## Strengthening Research on Key Technologies

Focusing on research and development of technology, CSSC increased investment in research and development of technology, deepened research on key technologies such as light weight, high energy efficiency and new energy application for civil marine engineering products, and created high-quality mainstream ship types.

### Awarded the Title of "Shanghai Smart Factory"

On February 22, 2020, Shanghai Waigaoqiao Shipbuilding Co., Ltd. was awarded "Shanghai Smart Factory", as one of the first 20 factories that received the title.







### Most Advanced Lifting-lug Intelligent Workstation in Shipbuilding Industry



In July 2020, Jiangnan Shipbuilding (Group) Co., Ltd. officially launched the first robot-operating intelligent production line, namely the lifting-lug intelligent workstation.

Jiangnan Shipbuilding (Group) Co., Ltd's lifting-lug intelligent workstation is the most advanced production line in the shipbuilding industry, which integrates robot vision recognition, intelligent gripping and intelligent welding technologies for the first time in the shipbuilding industry. The production line can significantly reduce the labor demand, compressing the original team of 27 members to 5, while maintaining the stability of the production quality of the lifting lug.



### Two New Ship Types Awarded Digital Ships and In-Principle Approval Certificate from Lloyd's Register of Shipping

On October 16, 2020, the intelligent VLGC and NH<sub>3</sub>-powered VLGC developed by Jiangnan Shipbuilding (Group) Co., Ltd. were awarded Digital Ships and Approval In-Principle Certificate (AIP) respectively by Lloyd's Register of Shipping (LR).

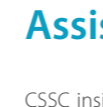


#### Intelligent VLGC---"intelligent JNIS system"

Adopting an integrated platform for data collection and processing, equipped with reliable intelligent APPs for ship energy efficiency management, intelligent navigation, health status diagnosis of cabin equipment and liquid tank enclosure system, and comprehensive monitoring of electrical system, the system can effectively help shipowners improve ship safety, reduce energy consumption, and simplify shipping management.

#### New energy fuel - "NH<sub>3</sub> fuel" power certification

NH<sub>3</sub>, as a nitrogen-hydrogen compound, is easy to be stored and transported. It has a stable supply, and does not produce the greenhouse gas--carbon dioxide when burned. Therefore, NH<sub>3</sub> fuel-powered LPG carriers can effectively reduce carbon and sulfur oxide emissions and achieve true "zero" emissions. This NH<sub>3</sub>-powered VLGC certification is the latest attempt of Jiangnan Shipbuilding(Group) Co.,Ltd. after the development of LNG, LPG and ethane dual-fuel powered LPG carriers.



## Assistance in transformation and upgrade of the main industry

CSSC insisted on leading the high-quality development of the main industry with scientific and technological innovations, solidly promoted the transformation and upgrading of ship and offshore equipment products and breakthroughs in the research and development of advanced equipment. CSSC continuously improved the quality of scientific and technological supply and accelerated the advancement of ship and marine equipment to the middle and high end of the global value chain.



### Released the Action Plan for Upgrading CSSC Shipbuilding and Marine Products (2020-2022)

The *Action Plan for Upgrading CSSC shipbuilding and Marine Products (2020-2022)* clearly states that the target of upgrading shipbuilding and marine products is to reduce the empty ship weight of main ship types by 1-3%, reduce the number of structural components by about 5%, reduce fuel consumption by more than 5%, and make all ship types meet the second stage of EEDI requirements. Civilian ships should complete the R&D and upgrade of 64 types of products in 5 categories, including the three mainstream ship types and liquefied gas carriers. Marine engineering equipment should complete the R&D and upgrade of 18 types of products in 4 categories, including jack-up and FPSO.



On 23<sup>rd</sup> June, 2020, CSSC released the Action Plan for Upgrading CSSC Shipbuilding and Marine Products (2020-2022)



### China's First Large Cruise Ship Moves to a New Stage of Continuous Loading and Assembly in Dock

On November 10, 2020, the much-anticipated China's first large cruise ship reached a milestone in Shanghai Waigaoqiao Shipbuilding Co.,Ltd. It moves to a new stage of continuous loading and assembly in dock.

The cruise ship has a total length of 323.6 meters, a width of 37.2 meters, 2125 staterooms, and a maximum capacity of 5246 passengers. As the "jewel on the crown" in the shipbuilding industry, the large cruise ship is the only high technology and high value-added shipbuilding product that has not been exceeded in China, and shipbuilding of this cruise is a veritable giant system project.



### The World's Largest and Most Environment-Friendly Luxury ro-ro Passenger Ship

On June 2, 2020, the world's largest and most environment-friendly luxury ro-ro passenger ship built by Guangzhou Shipyard International Co., Ltd. started operation.

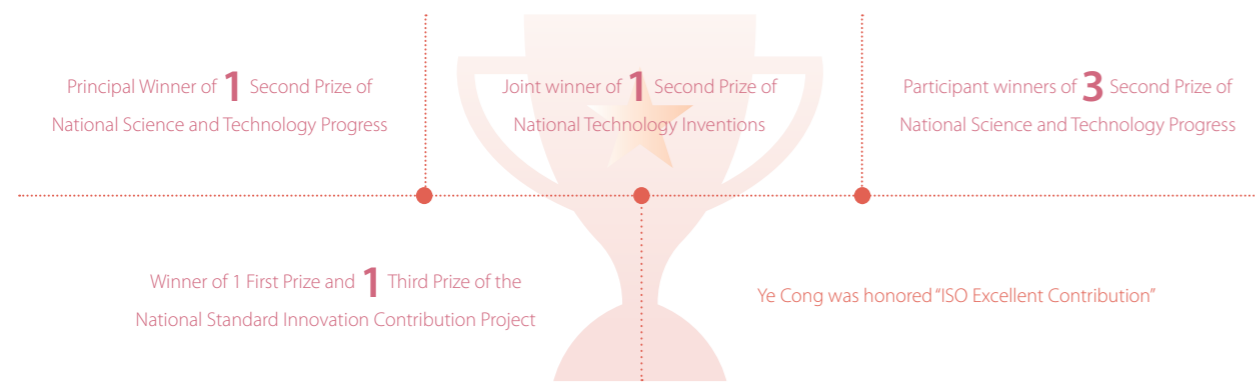
The ship is 237m long, 33m wide, with a service speed of approximately 23.5 knots and is classed by RINA; it has 534 cabins with a capacity of 2,370 passengers and a cargo lane of 3,850m. Designed with a series of green systems, it is equipped with the latest generation of hybrid scrubber system, and it can be converted into a LNG-powered ship.





## Consolidating the Basic Capacity of Innovation in Science and Technology

CSSC increased its efforts in applied basic research, accelerated the layout of research on forward-looking technology, made major breakthroughs in leading original achievements, and actively acted as a national strategic force of science and technology for the shipbuilding industry.



## Formation of Scientific and Technological Committee

On August 10, 2020, the Science and Technology Committee of CSSC was formally established, with 31 academicians of the Chinese Academy of Sciences and the Chinese Academy of Engineering, 4 senior experts in related fields serving as advisors and special advisors.

The establishment of Science and Technology Committee is an important work of CSSC to comprehensively implement the spirit of important instructions of General Secretary Xi Jinping and the decision and deployment of the central government and to promote the joint restructuring and integration of former China State Shipbuilding Corporation and former China Shipbuilding Industry Group Co., Ltd. It is an objective requirement for the company to adhere to the new development concept and promote high-quality development; it is a practical need for the company to adhere to the problem-oriented approach, strengthen the bottom and make up for the shortcomings. It is also an important measure to strengthen the control of the main industry and improve the construction of the control system of the parent and subsidiary companies, which is of great significance to the construction of a world-class shipbuilding group.



## Huang Xuhua Won the Highest National Science and Technology Award



In January 2020, Huang Xuhua received the highest National Science and Technology Award. Huang is Chief Designer of China's first generation nuclear submarine, Academician of the Chinese Academy of Engineering, Honorary Director of No.719 Institute, and Recipient of the Medal of the Republic.

## National Honor for "Fen Dou Zhe" 10,000m manned submersible R&D team

In December 2020, the research and development team of 10,000-meter manned submersible "Fen Dou Zhe" of CSSC was awarded the title "Model of Central Enterprises" by the Party Committee of State-owned Assets Supervision and Administration Commission of the State Council, and the "Chinese Youth May Fourth Medal Collective" by the Central Committee of the Communist Youth League and the All-China Youth Federation. Zhang Wei, a senior engineer of No. 702 Institute was also awarded the "Chinese Youth May Fourth Medal".







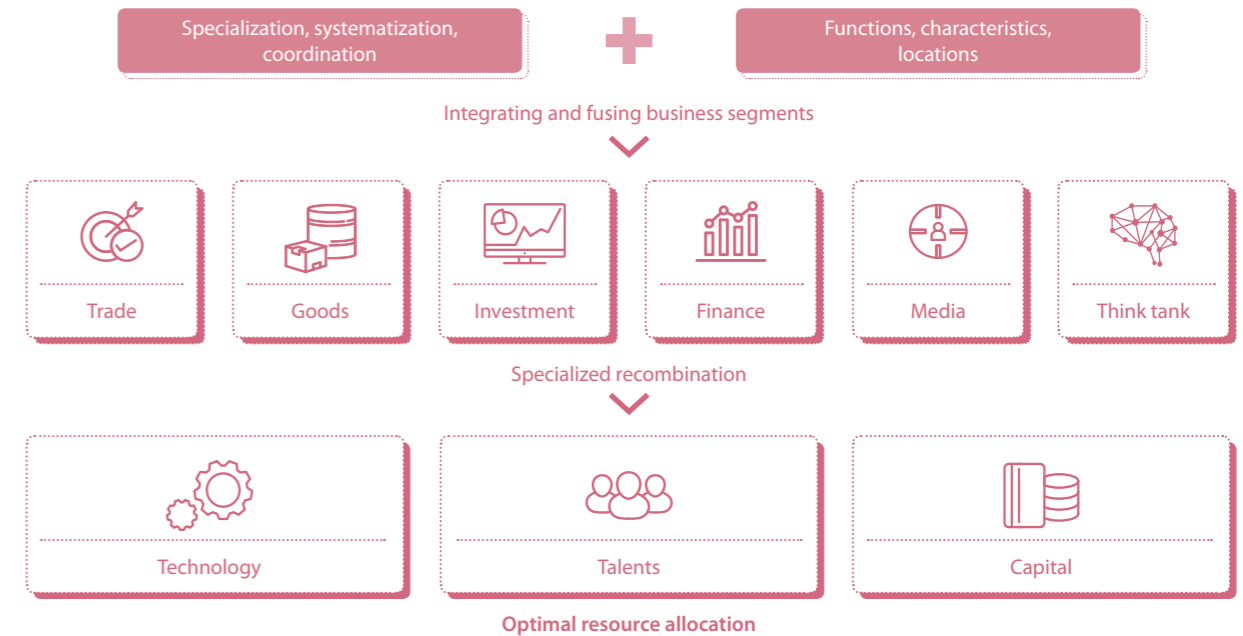
## Deepening All-round Reform

CSSC took it as an important task throughout 2020 to steadily and efficiently promote restructuring and integration. Hence, led by the general strategy, CSSC deepened integration and fusion by taking full advantage of the restructuring effect of "1+1>2" to achieve high-quality development.

## Reorganizing and Integrating Resources, Cohering Development Synergy

In accordance with the philosophy of development by professionalization, systematization and coordination, CSSC integrated and fused business segments according to the functions, characteristics and locations of each member unit. In this way, CSSC promoted the optimal allocation of various resources, such as technology, talents and capital, through regionalization and recombination reforms of entities in the fields of trade, materials, investment, finance, media, and think tank.

The number of enterprises and institutions was reduced from **147** to **113**.



### Special Rectification of "Institutionalization of Headquarters" Problem

To build a professional, capable and efficient first-class headquarters, in combination of the special rectification of "institutionalization of headquarters", CSSC established the positioning of the Strategic Planning Center, the Major Decision-making Center, the Capital Operation Center, the Major Project Management Center, the Operation Monitoring and Performance Evaluation Center, and the Major Risk Control Center.

CSSC completed the reformation of headquarters institutions smoothly and efficiently, reducing the number of headquarters departments by **18%** and the size of headquarters staff by **17.8%**, which ultimately resulted in a headquarters cadres and talents team with moderate size, reasonable structure and integrated culture.

### Launching the Reform Program

In November 2020, to implement the major decision of the State-owned Assets Supervision and Administration Commission of the State Council on the three-year action plan for the reform of state-owned enterprises, CSSC issued the *Three-Year Implementation Plan for Comprehensively Deepening Reform (2020-2022) of CSSC*. According to the Plan, by 2022, the main task of recombination and integration will be basically completed, the staged development target of the 14th Five-Year Plan will be accomplished, the economic indicator will be steadily increased and the development quality will be greatly improved.

The Plan specified **10** aspects, **33** fields and **200** reform measures, of which all **80** reform tasks included in the 2020 plan will be completed.



## Accelerating Mechanism Innovation, Releasing Development Vitality

CSSC had made positive progress in improving the modern enterprise system, perfecting the legal person governance structure, and promoting the implementation of mixed ownership reform and mid-and-long term incentive mechanism. CSSC consequently effectively stimulated and released the vitality of enterprise development.

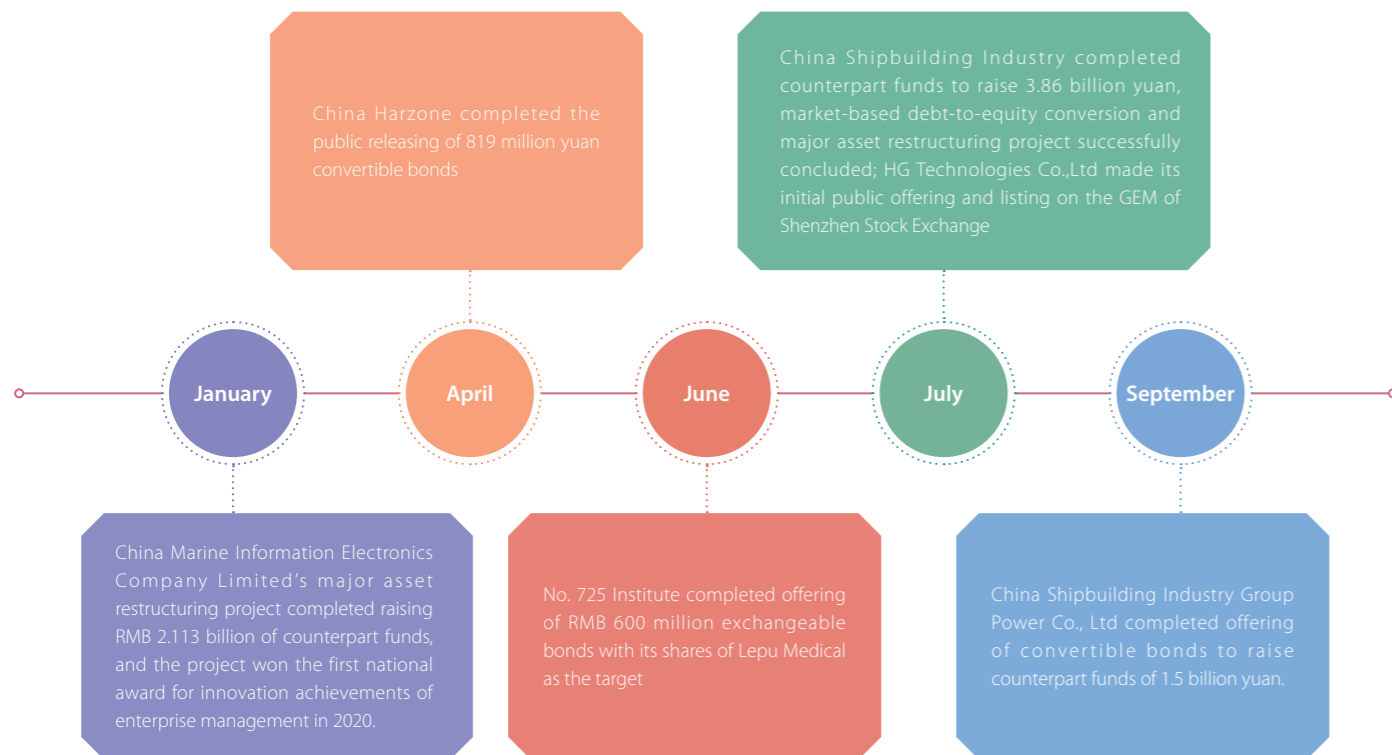
CSSC completed the task of reducing **20** enterprises, controlled the legal person level within five levels.

**7** "zombie enterprises" achieved clean-up and withdrawal, the surviving **3** enterprises met the governance standards in general.

**16** key loss-making sub-enterprises reduced losses by **85%** compared to 2019, and **10** enterprises completed the three-year governance goals ahead of schedule.

## Deepening Capital Operation

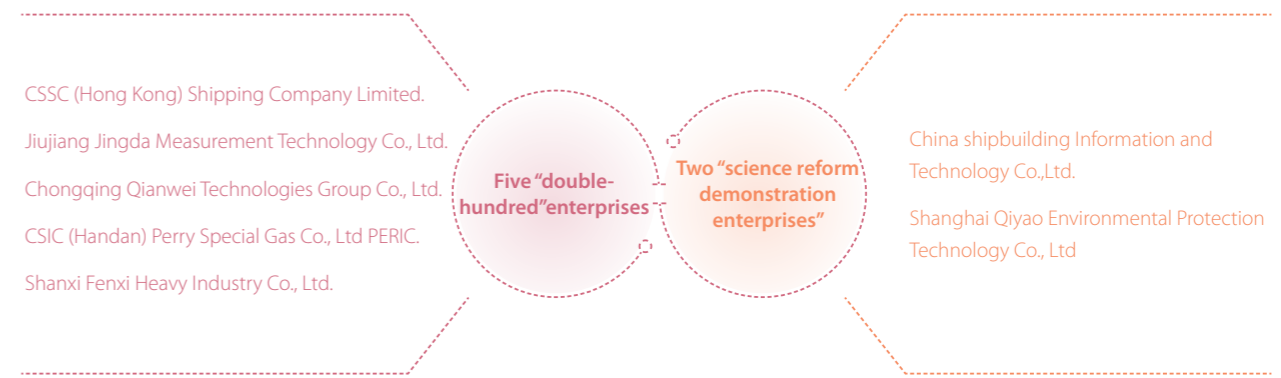
CSSC holds ten listed companies: China Shipbuilding Industry Co., Ltd., China State Shipbuilding Co., Ltd., China Shipbuilding Industry Group Power Co., Ltd., CSSC Offshore & Marine Engineering (Group) Co., Ltd., China Marine Information Electronics Co., Ltd., CSSC Science & Technology Co., Ltd., CSSC (Hong Kong) Shipping Co., Ltd., China Harzone Industry Co., Ltd., Jiuzhiyang Infrared, and HG Technologies Co., Ltd.. We have overcome the severe impact of coronavirus epidemic last year. We have completed a number of market-based debt-to-equity capital operations, the first offering of HG Technologies for example, and achieved capital market financing of more than RMB 10.6 billion. We have continued working on the five priority tasks of cutting overcapacity, reducing excess housing inventory, deleveraging, lowering costs, and strengthening areas of weakness, and carrying out the supply-side structural reform policy. We thus have managed to deliver good outcome in facilitating the high-quality development of defence businesses and shipbuilding and offshore businesses through the operation of state capital.



## Mixed Ownership Reform

<p><b>Shanxi Fenxi Heavy Industry Co., Ltd.</b></p> <p>Shanxi Fenxi Heavy Industry Co., Ltd. adopted different mixed ownership reform measures according to business types to achieve main loss-making business out of trouble, main advantageous business accelerating development, and non-advantageous business auxiliary exiting.</p>	<p><b>No. 718 Institute, Zhongdian Anzhi, Hongfan Technology</b></p> <p>No. 718 Institute, Zhongdian Anzhi, Hongfan Technology advanced mixed ownership reform through the implementation of equity incentives and thus realized shareholding of key employees</p>	<p><b>CSSC Haishen Medical Technology Co., Ltd.</b></p> <p>The newly mixed-ownership enterprise was established to promote the development of the medical service equipment industry</p>
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## "Double Hundred" Enterprise Reform



## Market-based Business Mechanism

<p><b>Market-based Selection and Recruitment of Cadres</b></p>	<p>Subsidiaries of "Double Hundred Enterprises" fully implemented the tenure system and contractual management for the members of the managerial layer, PERIC and Jiujiang Jingda Measurement Technology Co., Ltd. implemented the professional manager system</p>
<p><b>Total Wage Classification Management</b></p>	<p>According to the functional positioning of the unit, these companies determined the differentiated policy guidance and salary structure ratio.</p>
<p><b>Mid-and-long Term Incentive System</b></p>	<p>6 types and 10 mid-and-long term incentive methods were defined, 6 units carried out equity incentive, post bonus and excess profit sharing of state-owned science and technology-based enterprises, and 3 units applied for equity incentive of listed companies, project income dividend of state-owned science and technology-based enterprises and project follow-on investment.</p>





## Strengthening Management

CSSC continued to improve its management system, optimized its management process, and continuously improved its basic management level in the areas of Board of Directors construction, quality and efficiency improvement, compliant operation and safe production, with the ultimate aim to strengthen the foundation of the Group's high-quality development.

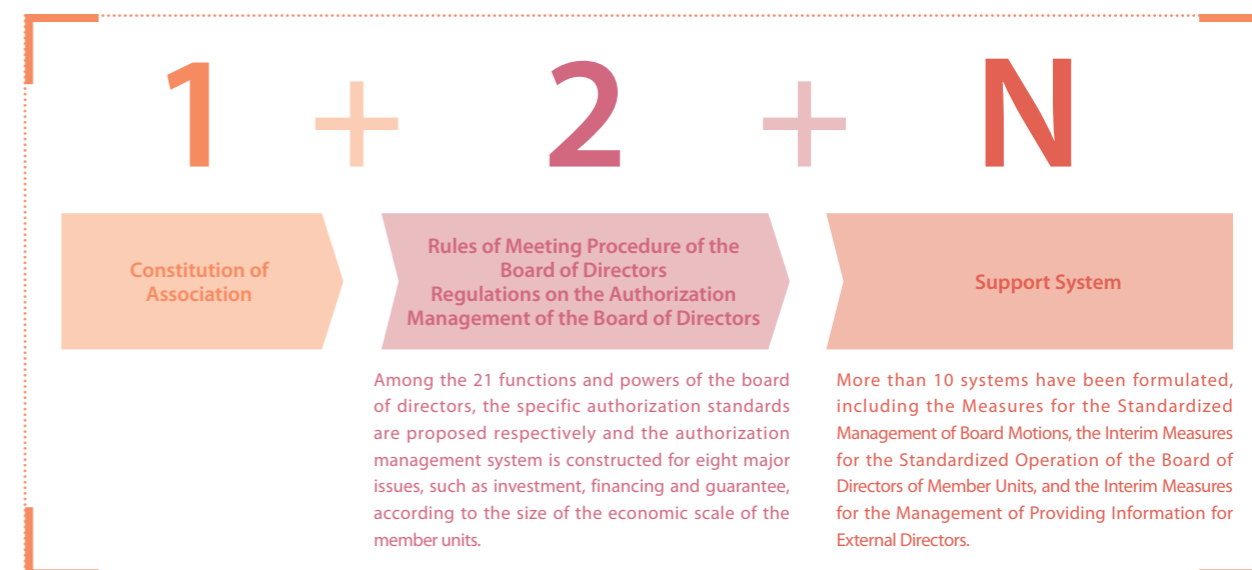
## Standardizing Construction and Operation of the Board

CSSC continuously strengthened the construction of the Board of Directors, standardized the operation of the Board, and constantly improved the corporate governance structure of state-owned enterprises, in which each performs its own duties, assumes its own responsibilities, operates in a coordinated manner, and checks and balances in an effective way. At present, there are eight members on the Board of Directors, including five external directors appointed by SASAC of the State Council. Under the Board of Directors, there are five special committees (i.e. the Military Industry Committee, the Strategy and Investment Committee, the Nomination Committee, Payment and Assessment Committee, and Audit and Risk Control Committee) as well as the secretary and office of the Board of Directors.

In 2020, CSSC held 12 meetings of the Board of Directors with 67 proposals reviewed, 23 special committee meetings with 66 proposals reviewed, and promoted a series of major decisions in strategic restructuring, deepening reform, capital operation, resource integration, etc.



The board of directors conscientiously implemented the latest requirements of the Party Central Committee to accelerate the construction of the modern enterprise system, and gave full play to the role of the Board of Directors in "developing strategies, making decisions and preventing risks". The Board formulated the Outline of High-Quality Development Strategy of CSSC and Administrative Measures for Authorization by the Board of Directors of CSSC, and constructed a "1 + 2 + N" system of the Board of Directors.

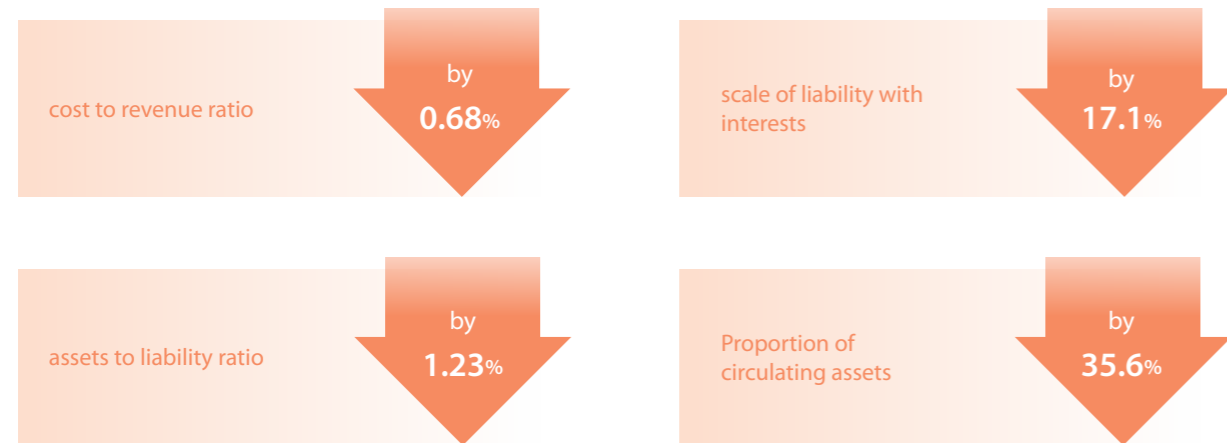


The board of directors has placed the in-depth front-line investigation in an important position and formulated the annual research plan. In 2020, the external directors carried out 12 field-investigations in Beijing, Shanghai, Guangdong, Hubei, Hebei, Jiangsu, Yunnan, Heilongjiang, Liaoning, Hainan and other provinces and cities, 36 member units and 5 departments of the headquarters.



## Further cost reduction, quality improvement and efficiency

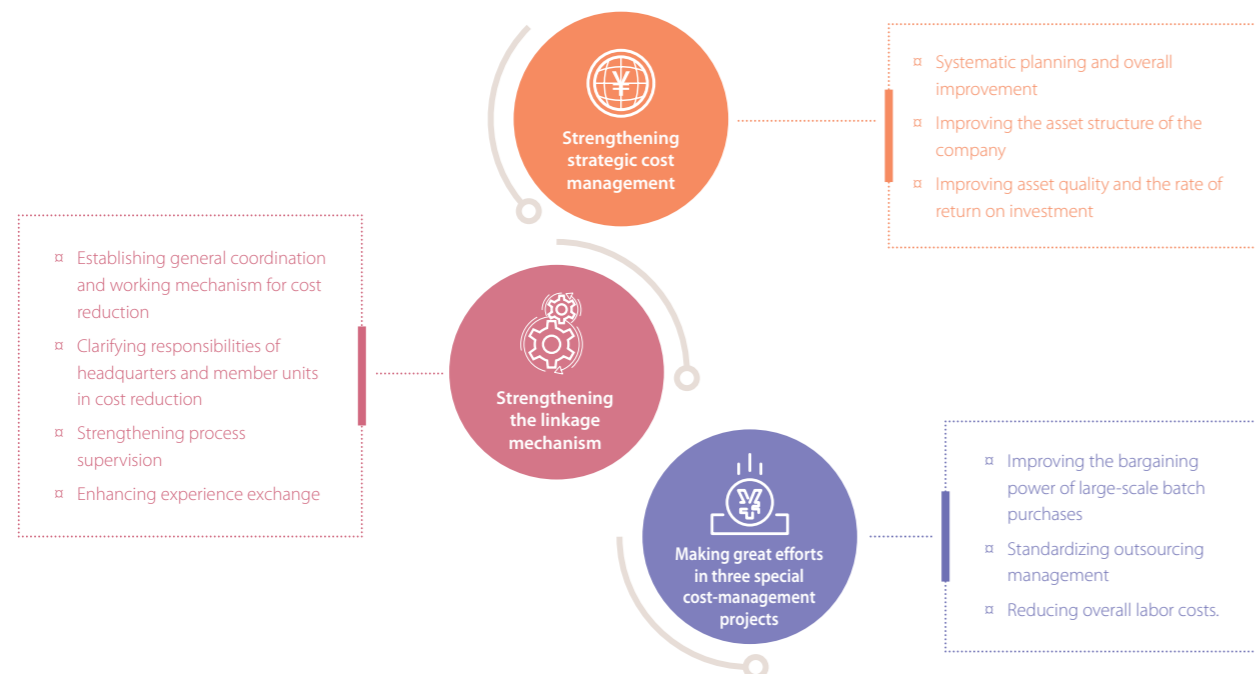
With cost reduction as an important starting point, CSSC strengthened the target cost management by leading the construction of the cost control and cost management system of member units. Thus, CSSC systematically improved the management and control ability in all aspects, continuously promoted cost reduction, quality improvement and efficiency enhancement, and continuously improved the market competitiveness and overall economic benefits of products.



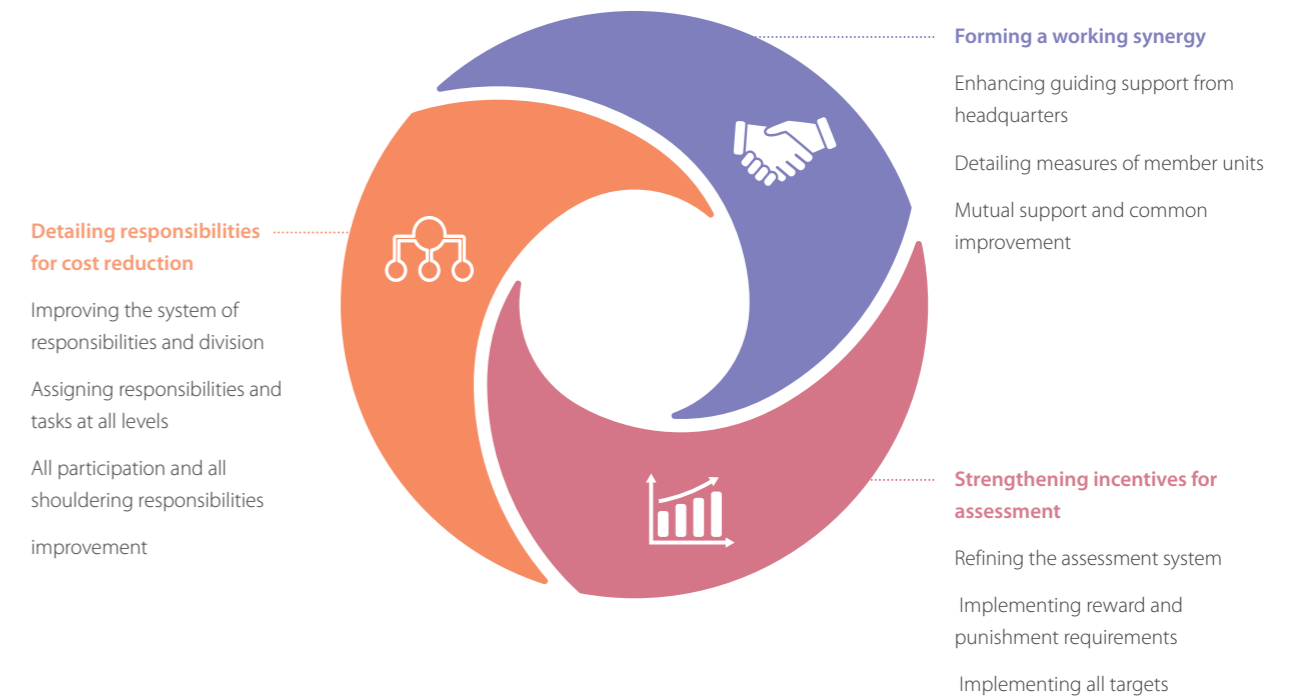
## Full Implementation of Cost Reduction

CSSC took cost reduction as a "life project" critical to survival and development, and comprehensively improved the ability and level of cost management and control with great courage, perseverance and practical innovations.

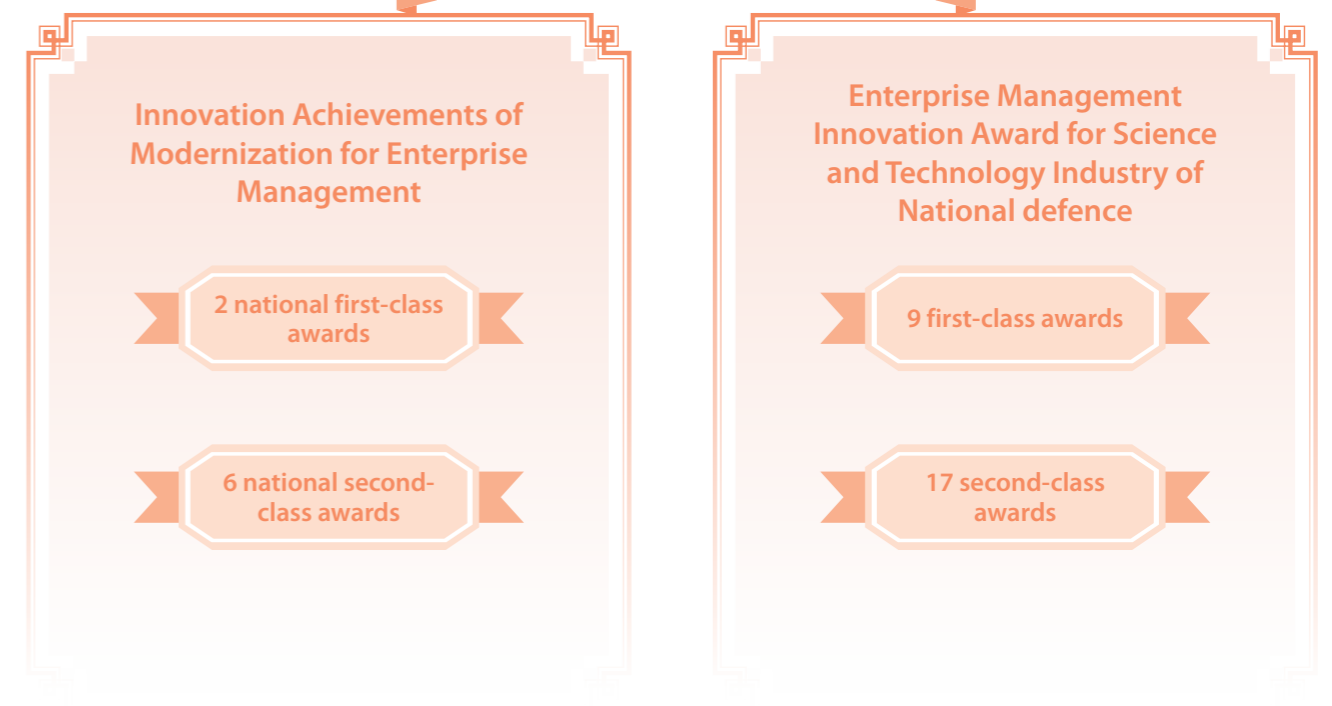
### Precise efforts to seize the key aspects of cost reduction with practical initiatives



### Implementing responsibilities to guarantee the effectiveness of cost reduction measures



### More honors for management and innovation achievements of CSSC





## Stressing legal system

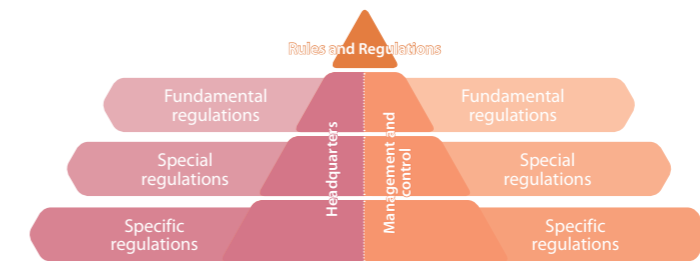
Focusing on the goal of the comprehensive construction of perfect governance, operation compliance, management standardization and law-abiding integrity, concentrating on the legal system, legal ability and legal culture, CSSC promoted the legal construction of ships, giving full play to the support and guarantee role of legal work in integration and value creation for quality and efficiency, and thus boosted the standardization of production and operation.



Dispute cases were suppressed and controlled, and the number and the subject amount of major dispute cases were reduced by over **30%**, and thus losses of **2.928** billion yuan were avoided and recovered.

In 2020

CSSC stipulated and revised **124** rules and regulations, including **18** fundamental regulations, **53** special regulations, **53** specific regulations,



Under the guidance of the rules and regulations of CSSC, the legal system is established, which includes two categories of regulations (namely the category for headquarters and the category for management and control) and three levels (namely, fundamental regulations, special regulations and specific regulations).

- Strengthening annual major risk assessment
- Improving the quarterly monitoring of major risks
- Deepening the management of sudden risk events



- Leadership mechanism: establishing a compliance management committee to clarify the leading department and responsibilities of the compliance management department
- Special institution: (the) release of "Compliance Management Rules".
- Closed-loop management: leaders take the initiative and all staff participate to eliminate habitual management violations.
- Compliance risk: organize compliance self-inspection and deal with sudden compliance risk events.

- Prior: comprehensive legal review of rules and regulations, important decisions and economic contracts.
- In the process: promoting the integration of law and industry, and fully participating in all aspects of operation and management.
- Afterwards: effectively strengthening case disposal and actively addressing major legal risks.



## Strengthening quality and safety management

CSSC took quality and safety as the fundamentals which need solid, in-depth and detailed implementation.

### Organizing quality training and "Quality Month" activities

CSSC organized 4 training courses on zeroing out quality problems, with a total of more than 8,000 participants from all member units. CSSC also launched the "Quality Month" activities under the theme of "Implementing Refined Management and Achieving High-Quality Development" in 2020 to promote quality publicity and education. Thus, CSSC fully implemented the requirements of refined quality management and provided strong impetus for high-quality development.



"Quality Month" activities at member units

### Quality Management Won Numerous Honors

In 2020, CSSC paid close attention to quality management and improvement and won many quality honors. No.702 Institute won the Jiangsu Provincial Governor Quality Award, No.711 Institute won the Gold Quality Award of Shanghai Municipal Government, and No.719 Institute won the Yangtze River Quality Award of Hubei Province. The quality control (QC) group "Treading on the Waves" from Hudong-Zhonghua Shipbuilding (Group) Co., Ltd. won the Platinum Award, the highest prize in Publication Contest of International Convention on Quality Control Circles (ICQCC); 7 QC groups, including "Chameleon" QC group from No.701 Institute, won the National Excellent Quality Control Circles Award; and 10 teams, including the OTS Team of No. 2 Department of Carrying from Jiangnan Shipbuilding (Group) Co., Ltd. won the National Quality Trustworthy Team Award. Praises and awards of quality control greatly contributed to the overall improvement in the level of quality control in CSSC.



## Intensifying safety trainings

CSSC held training for leaders and safety management personnel to publicize and implement the national laws and regulations on work safety and the management system of CSSC. A total of 284 people participated in the trainings and obtained the safety qualification certificate of the State Administration of Science, Technology and Industry for National Defence. Relying on the Work Safety Training Center of China Shipbuilding Industry, safety qualification training was held, with more than 200 special operation training sessions and 11893 participants. Affected by the pandemic, the safety online training platform was launched for the first time, training 1259 people.

### Carrying out "Safety Month" activities

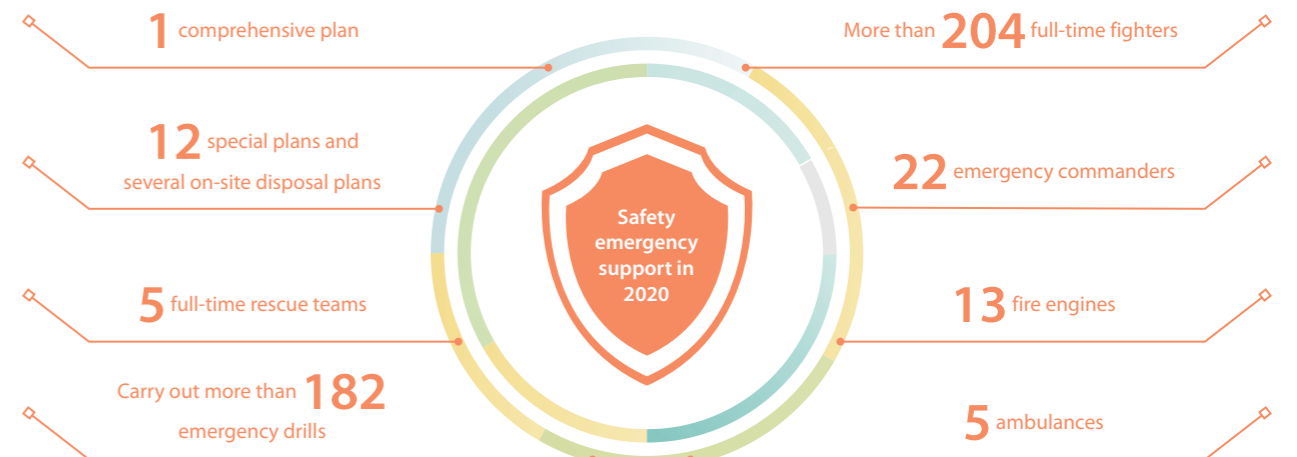
In June 2020, with the theme of "eliminating potential accidents and building a strong security line of defence", CSSC further strengthened the implementation of safety responsibilities and organized "Safety Month" activities when the epidemic was under control. Thus CSSC continuously promoted intrinsic safety.



### Improving safety emergency guarantee

CSSC implemented the decision and deployment of the Party Central Committee and the State Council, made overall plans for safety risk prevention, and strengthened safety control and emergency response in special periods.

Dalian Shipbuilding Industry Co., Ltd. made every effort to ensure life and health safety of employees by improving the emergency system, organizing a full-time rescue team, regularly carrying out emergency practice, and continuously improving safety emergency support.







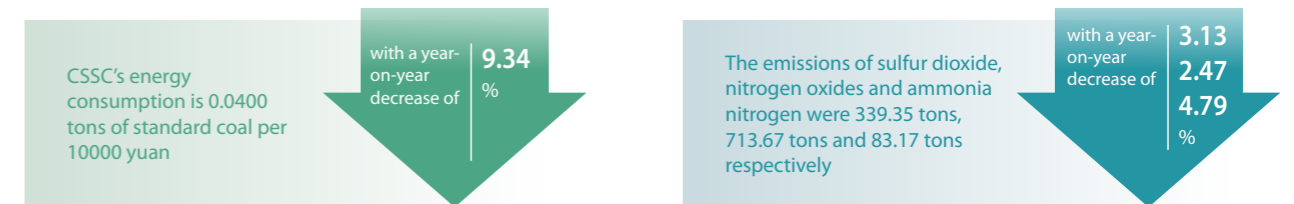
## Green Development

CSSC implemented the decision and deployment of the state on promoting the construction of ecological civilization by comprehensively strengthening ecological environmental protection and deepening the decision and deployment to fight against pollution. CSSC insisted on green production and operation as well as green industries and provided green products and services to contribute to green hills and clear waters.



## Promoting green manufacturing

CSSC implemented the national requirements of precise, scientific and legal pollution control in various tasks against pollution by continuously reducing energy consumption and pollutant emissions.



### Promoting treatment of VOCs

Dalian Shipbuilding Industry Co., Ltd. has completed the installation and tests of VOCs treatment equipment for the pilot project of "zeolite rotor +CO" and entered the trial stage. The data shows that the VOCs removal rate can reach 99.47%.

Tips: VOCs (volatile organic compounds) refer to organic compounds with saturated vapor pressure greater than 133.32pa and the boiling point below 50 ~ 260°C under the normal temperature, or any volatile organic solid or liquid under the normal temperature and pressure.



### Strengthening the management of hazardous waste

Shanxi Pingyang Industry Machinery Co., Ltd. carried out standardized management of hazardous waste through standardized on-site management and construction of hazardous waste storage rooms.

**Standardizing site management to dispose hazardous waste in compliance with regulations.**

CSSC carried out special treatment of hazardous waste and improved the on-site management level of the generation, storage and transfer of hazardous waste. In 2020, 12 kinds of hazardous wastes including chromium mud, waste engine oil, chromic anhydride barrels, waste oil barrels and waste paint barrels were entrusted to be disposed in 10 batches, with a total disposal capacity of 94 tons.

**Upgrading environmental protection facilities and establishing temporary storage rooms for hazardous waste**

In 2020, two garages with an area of about 110 m<sup>2</sup> were put into use after transformation in strict accordance with the requirements of "Hazardous Waste Storage Standards" for impermeability and corrosion protection. The overall transformation met the requirements of hazardous waste storage management.



## Developing Green Products

CSSC actively produced "green brand products" by taking the advantages of innovations in science and technology. CSSC increased new energy-powered ships to promote green energy-saving applications and reduce consumption of resources and energy as well as the impact on the ecological environment. CSSC will contribute China's power to global green development by providing solutions for the ocean shipping industry to "reach the carbon peak and carbon neutralization".



### The World's First True Supercapacitor-powered Ship

In January 2020, No. 711 Institute and Shanghai Passenger Shipping Co., Ltd. signed a contract to build the world's first pure supercapacitor-powered ferry, providing a green transportation model for the construction of Chongming's world-class ecological island and the host of the Flower Expo, and providing a complete new demonstration for new energy inland and coastal vessels in China.



### The first domestic oil, gas and electric hybrid river vessel "New Yangtze 26007" made its maiden voyage after clean energy transformation.

In June 2020, No.711 Institute customized the overall dynamical system renovation plan for the "New Yangtze 26007" by adopting hybrid multi-mode switching control, applying energy-saving and emission reduction technologies such as variable speed gas units and DC networking, reducing NOx emissions by more than 90% and sulfur oxide and PM2.5 emissions near zero.



### The world's first winged sail-boosted VLCC project won the Gold Award at China Excellent Industrial Design Awards.

In November 2020, the world's first winged sail-boosted VLCC project designed and built by Dalian Shipbuilding Industry Co., Ltd won the Gold Award for product design, which is of great significance for China's shipbuilding industry to seize the commanding height of international large ship technology. This helped the transformation and upgrading of the shipbuilding industry and promoted the green and energy-saving development of large ships.



### Signing the Cooperation Framework Agreement on the LNG Power Transformation Project for Inland Waterways in Guangdong Province

In May 2020, CSSC, People's Government of Guangdong Province and China National Offshore Oil Corporation signed the *Cooperation Framework Agreement on the LNG Power Transformation Project for Inland Waterways in Guangdong Province* in Beijing. In response to the needs of ship pollution control in the Pearl River Basin, CSSC innovated cooperation models to jointly promote Guangdong LNG power transformation of inland river vessels in the province, aiming at a demonstration project for pollution control of inland river vessels and creating a green Pearl River to achieve a win-win situation for ecology and economy.



### China's First Intrinsically Safe Natural Gas Engine Connected to the Grid for Power Generation

In January 2020, the first self-owned brand 8M23G natural gas generator developed by No. 711 Institute was successfully connected to the grid for power generation. The unit generates 7 million kWh of clean electricity per year, generating more than 4 million yuan in revenue for customers. The successful connection to the grid marks the official start of the market application of natural gas engines developed by No. 711 Institute.



### Commissioning of First Domestic Catalytic Combustion Heat Supply Dehydrogenation Unit

In July 2020, the first domestic prototype of the catalytic combustion heat supply dehydrogenation device independently developed by CSSC No.712 Institute was successfully launched and the commissioning was completed, marking a major breakthrough in key technologies for the engineering application of organic liquid hydrogen storage.



## Providing Green Service

Adhering to the concept of green development, CSSC took initiatives to layout a green service industry which is pollution-free, harmless, non-toxic, beneficial to human health. Thus CSSC promoted the healthy and orderly development of a green service industry and contributed to the construction of a beautiful China



### Successful Delivery of the First Environmental Emergency Monitoring Vessel in Xiong'an New District

In September 2020, the first environmental emergency monitoring vessel Xiong'an Monitoring No. 1 in Xiong'an New District was delivered. The vessel was built by CSSC's No.712 Institute. When put into operation, the vessel significantly improved the ability of the district to monitor Baiyangdian water quality, environmental pollution accidents and other emergency events, which is of great significance to the green development of the ecological environment of Xiong'an New District.



### Winning Bid for EPC General Contracting Project for VOCs Treatment

In May 2020, CSSC's No.9 Institute won the bid for ZPMC Changxing Branch's general contracting project which includes 2000 acres of new paint workshop VOCs treatment system and dehumidification, heating and air supply system EPC. It adopted the new "multi-rotor + RTO" treatment process, effectively utilizing the waste heat generated by the treatment.



### The first domestic three-dimensional monitoring system for marine air pollutants was put into demonstration operation

In June 2020, the first domestic three-dimensional monitoring system for air pollutants from ships was put into demonstration operation at Dapeng Bay, Yantian Port, Shenzhen. The project team integrated such three monitoring technologies as standard sniffing stations, infrared telemetry, and airborne sniffing, to build a sea, land, and air three-dimensional monitoring network covering shore-based, ship-borne, buoys, and drones, which can discharge emissions from ships entering and leaving the port.



### The first domestic rapid emergency thermal-desorption soil-remediation equipment

In July 2020, the first domestic rapid emergency thermal-desorption soil-remediation equipment was successfully launched. The equipment was jointly developed by CSSC Nanjing Lvzhou Machine Co., Ltd. and Jiangsu Provincial Academy of Environmental Sciences. It worked as a tool for rapid remediation of sudden small-scale organic contaminated soil in China.



### Ecological dredging + silt harmless treatment integrated technology helps Taihu Lake emergency dredging project

In September 2020, No. 702 Institute participated in the emergency dredging project in Taihu Lake, Wuxi, and sent a general environmental cutter suction dredger and an ecological boat to the lake to remove silt from the lake bottom and nearshore silt respectively.



### "Magnetic coagulation +BAF" water treatment equipment helped Wuhan East Lake's high score pass of the national acceptance of the national demonstration river and lake construction

In December 2020, No. 704 Institute won the bid for the Wuhan East Lake sewage treatment project, and used the largest sewage treatment equipment in the institute "magnetic coagulation + BAF" to dredge the silt and tailwater of Miaohu Lake, Lingjiaohu Lake, Yujiahu Lake, and other sub-lakes. For water treatment, the effluent water quality was level A of "Pollutant Discharge Standard for Urban Sewage Treatment Plants" (GB 18918-2002).



### Designing the key bay renovation project of Dawanshan Island in Zhuhai City

In December 2020, No. 9 Institute completed designing the key bay renovation project of Dawanshan Island in Zhuhai City and passed the reviews. The project is located in Jintang Bay on the northwest side of Dawanshan Island at the southernmost end of the Pearl River Estuary. It is located in open waters with complex surrounding terrain and is greatly affected by natural conditions of winds, waves and tides, etc. It has high requirements for survey, design and construction.







## Insisting on Sharing and Win-win

CSSC actively practised the concept of shared development and thus paid close attention to the demands of customers, employees and other stakeholders. Accordingly, CSSC conducted extensive exchanges and cooperation with partners, enhanced employees' sense of belonging and happiness, and shared development results with all parties.

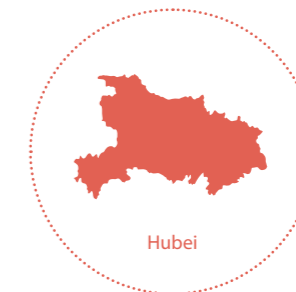


## Building a Value Chain to Expand the Circle of Friends for a World-class Shipbuilding Corporation

CSSC actively establishes a wide range of cooperative relations with governments, financial institutions, research institutes, universities, enterprises and other institutions for mutual learning and mutual complementing, thus created a good atmosphere of cooperation, and achieved mutual benefit and mutual development.

### Government-Enterprise Cooperation

CSSC actively established good communication and cooperation with the governments of Hubei, Jiangsu, Guangxi and other regions to take root in and serve local areas, and made great effort to build a well-off society by actively promoting transformation for upgrading and leapfrogging.



### Bank-Enterprise Cooperation

CSSC strengthened constant communication and cooperation with banks, funds, securities and other financial institutions, and explored the establishment of strategic partnerships on the basis of mutual benefit.



Industrial and Commercial Bank of China



Bank of Communications



China Orient Asset Management Co. Ltd.



## Research-Enterprise Cooperation

For active industry-university-research cooperation, CSSC increased exchanges and cooperation with institutions of higher learning in terms of scientific research and personnel training, with the aim to break down foreign knowledge barriers and promote the development of the industry.



## Enterprise-Enterprise Cooperation

With industrial links, CSSC carries out various forms of exchanges and cooperation with related industries and enterprises through information sharing, business collaboration, and strategic cooperation, etc.



## Enhancing Employees' Sense of Gains and Benefits of High-quality Development Results

CSSC achieved growth of sustainable value and growth of employees by creating an inclusive and harmonious working environment for employees, building a platform for employees' career development, cared for the well-being of employees.

### Employees' Rights and Interests Protection

Sticking to the people-oriented principle, CSSC was committed to establishing equal and harmonious labor relations with employees by protecting their legal rights and interests and satisfying their reasonable demands, and continuously creating an equal, respectful and safe working environment for employees.

#### Employment management

The recruitment of employees was carried out in strict accordance with the requirements of laws and regulations for equal employment. CSSC signed labor contracts with formal employees in accordance with the law with full respects to the rights of each employee. As a result, no major labor disputes occurred.

The total number of employees is **356,000**

#### Payment and welfare

CSSC paid employees on time and in full, strictly following national and local regulations for social security.

Social insurance coverage: **100%**

#### Democratic management

CSSC implements democratic management, and accordingly CSSC improved the employee representative assembly system and labor union system and ensured employees' relevant rights by implementing public knowledge of factory affairs and broadening the channels for employees to participate in management.

The response rate of the mailboxes of the Chairman of the Labor Union at all levels: **100%**

The proportion of employees participating in the Labor Union: **100%**

#### Occupational Health and Safety Management

CSSC strictly followed national occupational safety and health laws and regulations, improved occupational safety and health management, and ensured a safe and healthy working environment.

Employee physical examination rate: **100%**

Health file coverage rate: **100%**

### CSSC's Main Measures for Prevention and Treatment of Occupational Diseases

CSSC improved the safety level of occupational places by further improving occupational health protection standards in accordance with the developmental trends of the industry and occupational health protection requirements.

CSSC strengthened prevention of occupational diseases, strictly following the reporting system — early detection, early reporting, and early disposal.

CSSC strengthened occupational health examinations and implemented policies on work-related injuries, medical insurance, and assistance.

CSSC earnestly carried out occupational health publicity and education and improved the labor employment system to enhance workers' awareness of active protection.



## Assistance of Employees' Development

CSSC implemented the strategy of talents for employees' development by improving the talent training mechanism and deepening the reform of system and mechanism of talent development.

### Staff Training

In 2020, CSSC organized on-line and off-line training courses for nearly 10,000 trainees, including deputy staff of headquarters departments and member units, headquarters staff, highly skilled talents, Chief Commanders and Chief Designers, cadres of member units, and new employees, with.

training investment **178,813,400** yuan  
employees participants in training **620,000**

#### 2020 New Employee Orientation



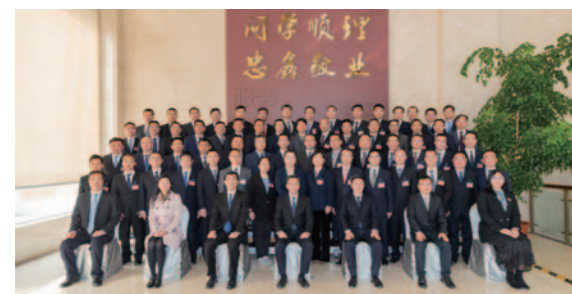
In September 2020, CSSC held the 2020 new employee orientation. Chairman Lei Fanpei attended the meeting and delivered a speech in which he emphasized that for the new era, CSSC embarked on a new journey for building a world-class ship corporation, providing a broad stage for everyone to serve the country and realize their ideals in life. He hoped that the new employees would have great ambitions and work down-to-earth from the new starting point. He wished that the new employees would achieve a splendid life by integrating their personal ideals and pursuits into the cause of the Party and the country and into the journey of building a world-class ship group.

#### 2020 Degree Awarding Ceremony

In October 2020, 160 doctors and masters graduated from China Ship Research and Development Academy, of which 109 graduates entered CSSC.



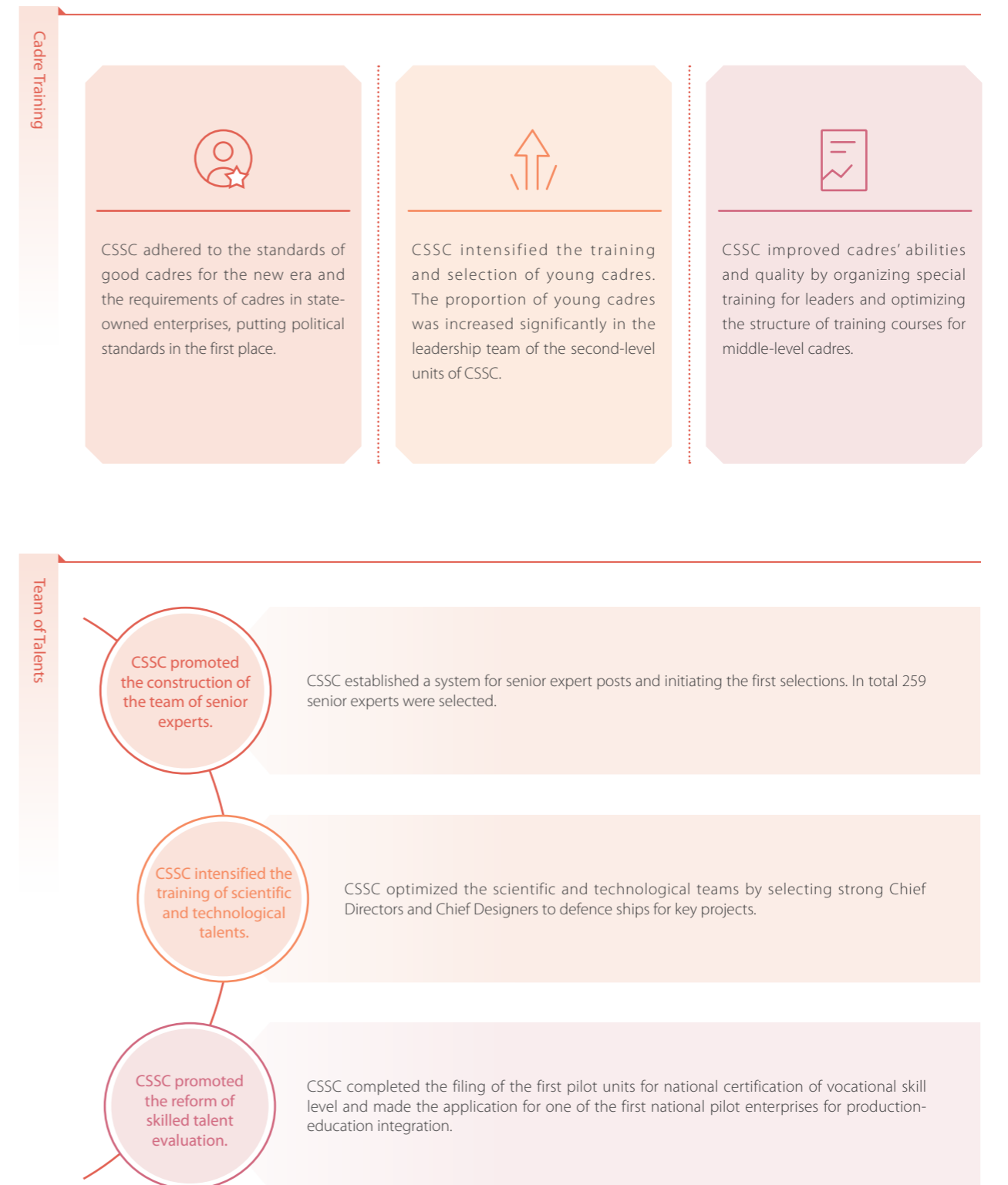
#### First Training Course for Young and Middle-aged cadres



In October 2020, CSSC held the first training course for young and middle-aged cadres. Attaching great importance to the training and selection of young cadres and taking training and selection of outstanding young cadres as basic, strategic, and pilot work, the Party Leadership Group of CSSC established a continuous long-term training mechanism.

## Career Development

CSSC smoothed the path for employees' career development by improving the mechanisms of talent selection, evaluation, training and incentives oriented by innovation, quality and contribution.





## Care for employees' work and life

To gather strength for the sustainable development of the corporation, CSSC improved the working conditions of employees, organized various cultural and sports activities, advocated a healthy lifestyle and cared for the physical and mental health of retired employees.

### CSSC's first Chinese New Year Party

In January 2020, CSSC celebrated its first Chinese New Year Party. Employees in the headquarters and member units in Beijing gathered together to celebrate the Chinese New Year.



### Various Sports Activities



basketball games



recreational sports meetings

### Summer Care

CSSC distributed to frontline employees tea for heatstroke prevention, Yunnan Baiyao medicine, scald cream, medical ethyl and other medications for heatstroke prevention, emergency and epidemic prevention.



### Visits Before the Spring Festival

In January 2020, before the Chinese New Year, members of the Party Leadership Group of CSSC paid visits to old comrades in various cities or towns, for greetings and blessings.



### Visits to Revolutionary Veterans

In September 2020, to commemorate the 75th anniversary of the victory of the Chinese People's War of Resistance Against Japanese Aggression and the World Anti-Fascist War, many CSSC member units paid visits to revolutionary veterans.



### Children's Day Celebration Activities

On the International Children's Day on June 1st in 2020, CSSC and its member units organized various celebrations and received various talent-display works from employees' children, including paintings, calligraphy, videos, and testimonials, etc. Through the activities, CSSC gave more care to the children of its employees.



I want to be as brave, smart and patriotic as brother Haiwa!



Recalling bitterness and sweetness, listening to my father telling the story of the Little Carrot Head



Employee's Children's Work\* "Bravely Set Off, Anti-epidemic heroes!"



Employee's Children's Work — "Peace Ark" Hospital

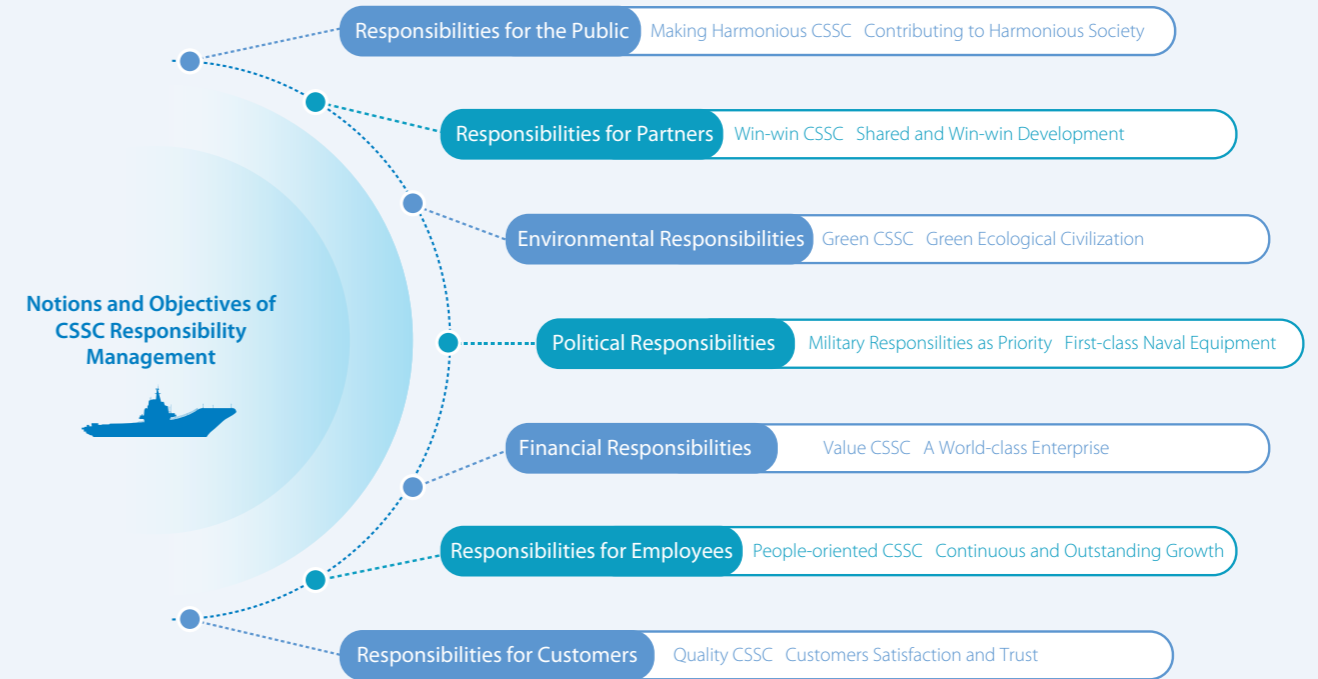
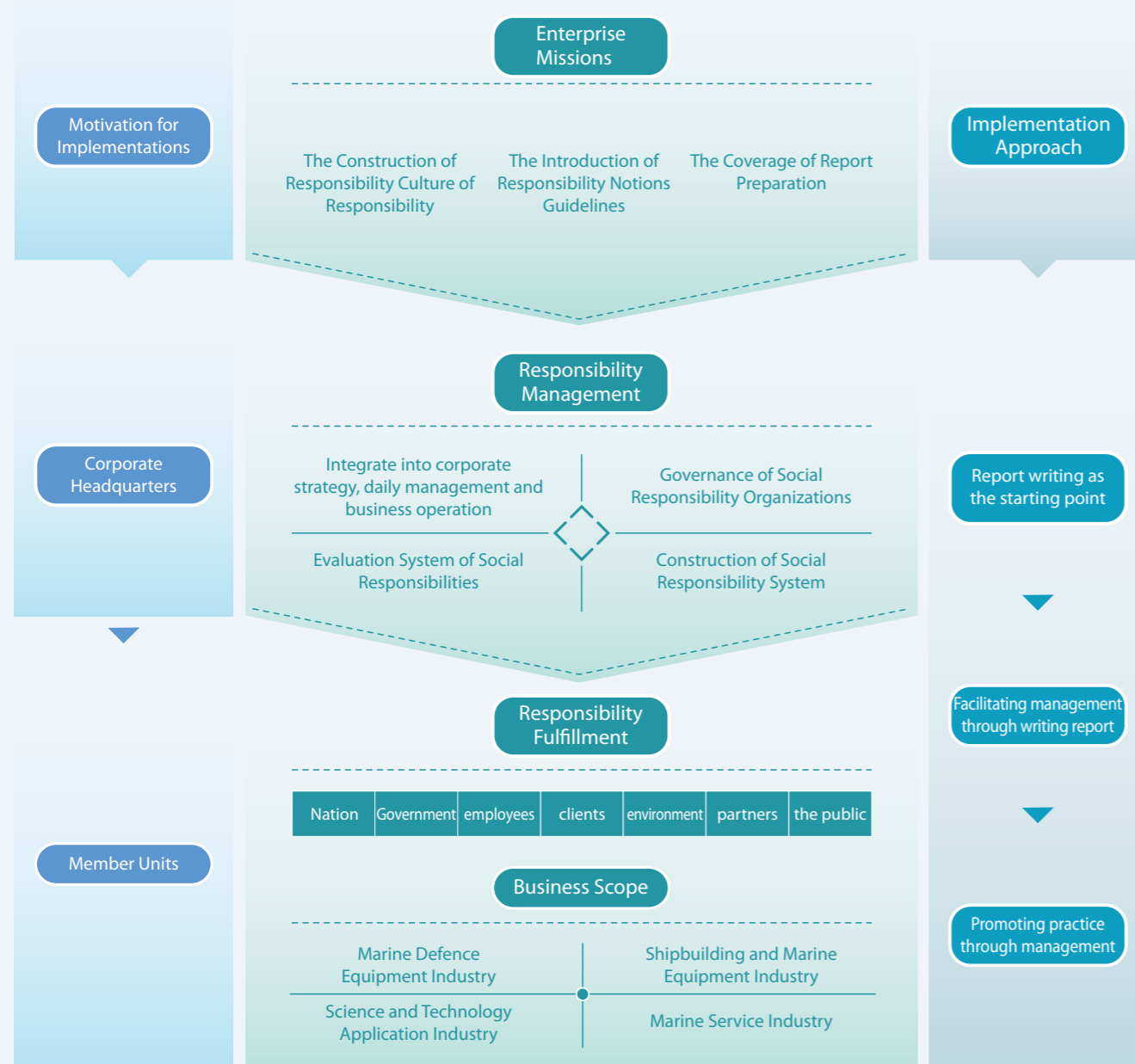


# Responsibility Management

## Responsibility Notions

Adhering to the enterprise mission of "leading the development of the industry, supporting the construction of national defense and serving the national strategy", we gradually walk out of a mission-led road to fulfill responsibility, and consciously integrate social responsibility into corporate strategy and corporate culture, promote the practice of responsibility, carry out responsibility management, and realize the organic unity of undertaking historical mission, fulfilling social responsibility and promoting the sustainable development of enterprises.

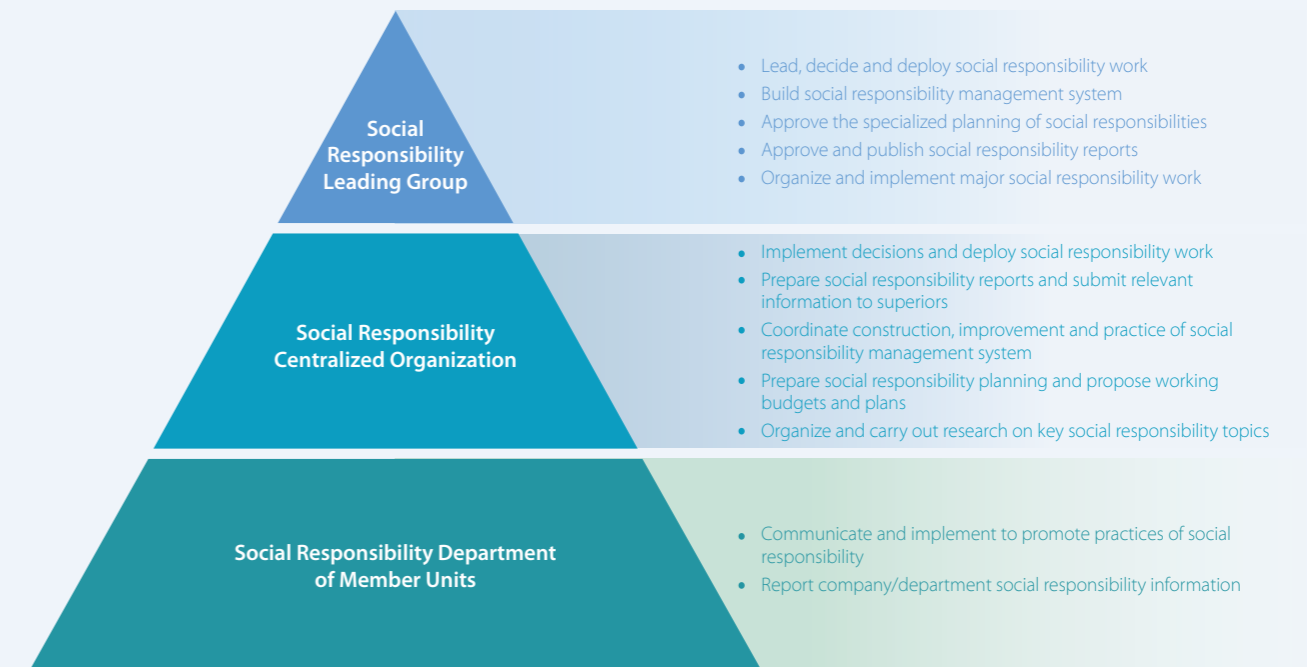
Social responsibility management promotion model of CSSC.



## Responsibility Management

CSSC set up a leading group for the social responsibilities, as well as relevant departments, managed by corporate headquarters, to administer the centralized management of responsibilities. CSSC also established a social responsibility organization system with the linkage of member units, covering the headquarters and all member units, which can systematically promote the integration of social responsibilities into strategy, management and operation in a systematic manner.

CSSC Social Responsibility Organization System





## Responsibility communication

CSSC will readily communicate with various stakeholders and establish a regular mechanism on social responsibility information disclosure. Through ways of disclosing social responsibility information on CSSC's official website and WeChat platform, compiling and publishing annual social responsibility reports, etc., CSSC will disseminate concepts and practices about social responsibilities, enhance influence of social responsibilities and strengthen operational transparency.

	Country	Government	Employees	Customers	Partners	Counterparts	Environment	Society
Our common goals	<ul style="list-style-type: none"> <li>Serving national defence with quality and efficiency</li> <li>Leading the industry through technological innovation</li> <li>Preserving and appreciating state-owned assets</li> <li>Creating jobs and achieving harmonious development</li> </ul>	<ul style="list-style-type: none"> <li>Abiding by the law and discipline</li> <li>Paying taxes in accordance with the law</li> </ul>	<ul style="list-style-type: none"> <li>Basic rights and benefits protection</li> <li>Professional quality improvement</li> <li>Wide career development space</li> <li>Sense of belonging and identity</li> </ul>	<ul style="list-style-type: none"> <li>Quality products and services</li> <li>Conscientious performance of contracts</li> <li>Win-win cooperation</li> </ul>	<ul style="list-style-type: none"> <li>Adhere to business ethics</li> <li>Open and fair procurement</li> <li>Win-win cooperation</li> <li>Mutual development</li> </ul>	<ul style="list-style-type: none"> <li>Fair competition</li> <li>Industrial development</li> </ul>	<ul style="list-style-type: none"> <li>Green development, energy saving and emission reduction</li> <li>Resource saving</li> <li>Clean energy</li> <li>Green office</li> </ul>	<ul style="list-style-type: none"> <li>Participating in community development</li> <li>Supporting public welfare</li> <li>Providing job security</li> </ul>
Our communication channels	<ul style="list-style-type: none"> <li>Regular work reports</li> <li>Relevant meetings</li> <li>Information Submission</li> <li>CSSC website, newspapers and magazines, WeChat, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Work reports</li> <li>Relevant meetings</li> <li>Correspondence</li> </ul>	<ul style="list-style-type: none"> <li>Open system of factory affairs</li> <li>Dialogue mechanism</li> <li>Staff representative assembly</li> <li>Satisfaction survey</li> <li>Visits and condolence</li> </ul>	<ul style="list-style-type: none"> <li>CSSC official website</li> <li>Contract and agreement</li> <li>Satisfaction survey</li> </ul>	<ul style="list-style-type: none"> <li>Contract and agreement</li> <li>Cooperative R&amp;D</li> <li>Joint activities</li> <li>Daily communication</li> </ul>	<ul style="list-style-type: none"> <li>Industry conferences</li> <li>Associations</li> <li>Seminars</li> </ul>	<ul style="list-style-type: none"> <li>CSSC official website</li> <li>Information Submission</li> <li>Regular work reports</li> <li>Public information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Cooperation and joint construction</li> <li>Public welfare activities</li> <li>Community involvement</li> <li>Volunteer activities</li> </ul>
Our persistent efforts	<ul style="list-style-type: none"> <li>Innovative enterprise</li> <li>Economic development transformation</li> <li>Economic contribution</li> <li>Driving local economy</li> </ul>	<ul style="list-style-type: none"> <li>Abiding by laws and regulations</li> <li>Active communications with governmental departments at all levels</li> </ul>	<ul style="list-style-type: none"> <li>Establishing a perfect payroll system</li> <li>Increasing health and safety protection</li> <li>Building talent projects</li> </ul>	<ul style="list-style-type: none"> <li>Quality, efficient and safe products</li> <li>Customized products and services</li> </ul>	<ul style="list-style-type: none"> <li>Implementing fair and transparent business principles and processes</li> <li>Making bidding and procurement information public</li> <li>Responsible procurement</li> </ul>	<ul style="list-style-type: none"> <li>Leading the industry development</li> <li>Enhancing the value of the industry chain</li> <li>Sharing the latest technological achievements</li> </ul>	<ul style="list-style-type: none"> <li>"Resource-saving" enterprises</li> <li>"Environment-friendly" enterprises</li> <li>Green products and services</li> <li>Developing green industry</li> </ul>	<ul style="list-style-type: none"> <li>Poverty alleviation in designated regions</li> <li>Caring aids for students</li> <li>Aiding disaster relief</li> <li>Encouraging volunteer action</li> </ul>



## Future Prospects

2021 is a year of special importance in the progress of China's modernization. It is the first year that China has implemented the "14th Five-Year Plan" and embarked on a new journey of building a socialist modern country in an all-round way. Guided by Xi Jinping's thoughts on socialism with Chinese characteristics in the new era, CSSC will adhere to the general keynote of seeking progress while maintaining stability. Based on the new development stage, with the new conception for development, CSSC will build a new development pattern to strengthen the main industry, with the focus on primary responsibilities for a strong army. Meanwhile, CSSC will strengthen innovation and integration and implement the three-year action plan to comprehensively deepen the reform, strengthen refined management, and improve the quality of Party construction. CSSC will resolutely accomplish the goals and tasks of the year to ensure a good start of the "14th Five-Year Plan". To sum up, CSSC will comprehensively promote the high-quality development of the corporation.





## Conclusion





### Table of Performance for Key Tasks

indicators	unit	2020
<b>economic</b>		
Sum of assets	100 million yuan	8614
Revenue	100 million yuan	3233
Sum of profits	100 million yuan	167
Net profit	100 million yuan	145
Sum of tax	100 million yuan	96
<b>Technology</b>		
R&D capital investment	100 million yuan	380
National Innovation Platform	unit	63
State Key Laboratory	unit	1
National Engineering Technology Research Center	unit	2
National Engineering Laboratory	unit	6
National Engineering Research Center	unit	4
National Enterprise Technology Center	unit	29
National R&D Center	unit	4
National Defence Science and Technology Key Laboratory	unit	11
National Defence Technology Industry Innovation Center	unit	4
National Innovation Base	unit	2
Patents	item	10281
Invention patents	item	7896
International/national and industrial standards	item	181
<b>Society</b>		
Total number of employees	10,000	35.6
Legal review rate of economic contracts	%	100
Employee training investment	RMB 10,000	17881
Staff training	10,000 person-times	62
Employee medical examination coverage	%	100
Various types of assistance funds invested	RMB 100 million	1.45
<b>Environment</b>		
Comprehensive energy consumption per 10,000 yuan output value	ton of standard coal/ 10,000 yuan	0.04
Sulfur dioxide emissions	ton	339.35
NOx emissions	ton	713.67
Ammonia nitrogen emissions	ton	83.17



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## Feedback

Dear readers,

Hello!

Thank you for reading this report. We sincerely look forward to your evaluation of this report and your valuable comments, so that we can continue improving our social responsibility work and improve our ability and level to perform social responsibility work!

Thank you!

China State Shipbuilding Corporation Limited

August 2021

Optional question: (please select "√" in the corresponding position)

1. Your overall impression of the report is

very good     good     fair     poor     very bad

2. In your opinion, the quality of the social responsibility information disclosed in the report

very high     high     average     low     very low

3. What do you think of the report structure?

very reasonable     relatively reasonable     fair     poor     very poor

4. What do you think of the layout design of this report and its form?

very good     good     fair     poor     very bad

Open questions:

Your valuable comments and suggestions on the "CSSC 2020 Corporate Social Responsibility Report" are welcome.

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You can contact the 2020 Corporate Social Responsibility Report Compilation Team of CSSC by sending an email to [cssc@cssc.net.cn](mailto:cssc@cssc.net.cn) or telephoning at 86-10-88598000, or faxing the above form to 86-10-88599000. We will take your comments and suggestions seriously and promise to properly protect your above-mentioned information from from third parties.





**Build a world-class  
shipbuilding group**

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