

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



This report is prepared pursuant to the Environmental, Social and Governance (“ESG”) Reporting Guideline (the “Guideline”) in Appendix 27 to the Rules Governing the Listing of Securities (the “Listing Rules”) on The Stock Exchange of Hong Kong Limited (the “Stock Exchange”). This report covered the period from 1 January 2021 to 31 December 2021, and the relevant key performance indicators were mainly from the Group and most of its subsidiaries. There is no significant change in the scope of this report from that of the 2020 ESG Report. This report has complied with all the “comply or explain” provisions as set out in the Guideline. We did not disclose certain key performance indicators which are required to be disclosed by the Stock Exchange but not directly related to the business of the Group or have minimal influence.

PHILOSOPHY OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE

As a leading service provider in the informatization sector in the PRC, the Group adheres to its position as a “New Generation Integrated Smart Service Provider” and commits to “Building Smart Society, Boosting Digital Economy, Serving a Good Life”, providing integrated comprehensive smart solutions in the informatization and digitalization sectors.

Sustainable Development

The Group places strong emphasis on the concept of scientific development and adheres to the sustainable development principle of “customer prioritization, efficient resources allocation, talent orientation, and responsibility”. On the back of our fundamental missions of serving our customers, bringing returns to our shareholders, caring about our employees and giving back to society, we are committed to providing innovative, high-quality, efficient and secure integrated services including telecommunications infrastructure services, business process outsourcing services, applications, content and other services, while delivering value to our customers and the society, promoting sustainable development of itself, and aligning our corporate development with society and environment.

Customer prioritization

Remaining customer-centric with focus on their needs; ensuring the quality of our customers’ products and delivery on the basis of high-quality products, solutions and services, ensuring prompt response to customer concerns, and continuously improving their satisfaction



Efficient resources allocation

Gradually improving the synergistic and professional operation of our internal resources to achieve eco-friendly and efficient utilisation of resources through scientific management and innovative application of new technologies; helping our partners achieve low-carbon and intelligent operation leveraging the integration of new technologies and innovation



Talent orientation

Caring about the development of our employees in various aspects, striving to provide them with adequate space of development, comprehensive training system, competitive salary and welfare packages and incentive mechanism while creating a safe and enjoyable working environment for them



Responsibility

Striving to give back to the society by fulfilling our responsibilities as a state-owned enterprise in emergency rescue and disaster relief, etc., actively participating in the projects of rural revitalization and improvement of people’s livelihood, and encouraging our employees to actively participate in social welfare activities







ESG Governance Structure



The Board of Directors (the “Board”) of China Communications Services Corporation Limited (the “Company”) is the highest responsible and decision-making body for environmental, social and governance performance and undertakes overall responsibility. The Board oversees the Group’s ESG performance through regular meetings to ensure consistency of its ESG philosophy with its strategies. The Board convenes a meeting annually to review and approve the publication of this report (including the review on the progress of ESG-related goals); and the Company’s management is authorized to be responsible for the implementation of the specific ESG work (including the stakeholders identification and communication). The specific division of work is detailed in the diagram below.



Communication with Stakeholders

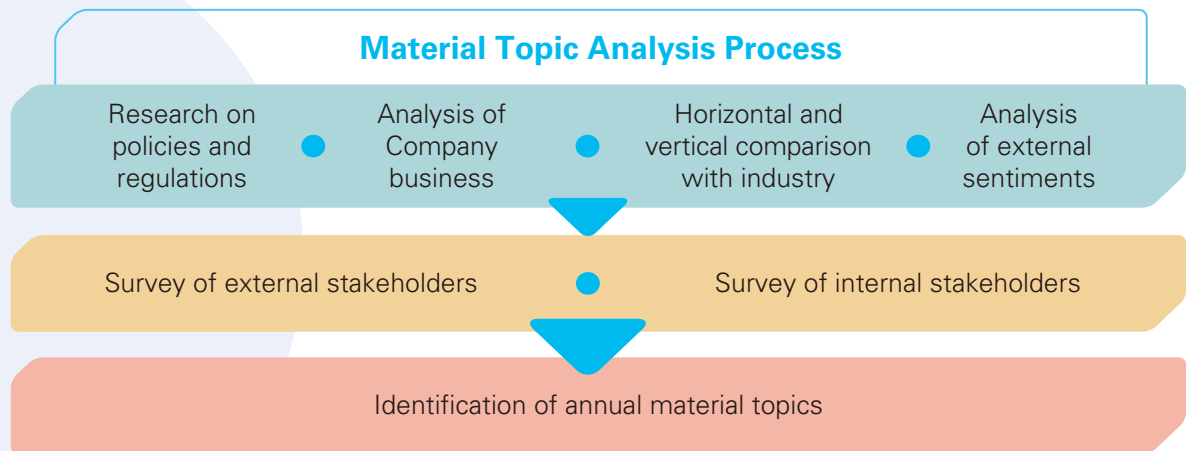
The Group holds high regards of the common interests of its stakeholders, i.e. the government, shareholders, employees, suppliers, customers and communities and attaches great importance to the communication with them. Through collecting and actively responding to their opinions and suggestions by means of announcements, periodic reports, meetings, symposium, interviews, special communication and all kinds of activities, the Group promotes corporate innovation, coordination, green, openness and sharing.

Stakeholders	Mechanism and Means of Communication	Expectation on the Company	Company Response
 Government and Regulatory Authorities	Meeting	Abide by laws and regulations	Comply with laws and operate in good faith
	Report or statement	Fulfil requirements of the government	Pay taxes in accordance with law and promote employment
	Report and visit	Promote construction of industrial ecosystem	Innovate smart products and services
 Shareholders and Investors	Periodic report and announcement	Preserve and increase asset value	Operate in a stable and healthy manner and continuously create values for shareholders
	Special report and visit	Regulate corporate governance	Improve corporate governance and continuously improve internal control
	Daily communication	Prevent operating risks	Protect interests of investors, particularly minority investors in accordance with the laws
 Employees	Investor meeting	Regulate information disclosure	Disclose corporate information in strict accordance with rules
	Staff representative supervisor and staff meeting	Protect legal interests	Regulate labour management
	Employee symposium with management	Realize career development	Strengthen employee training and streamline career development path
 Suppliers	Employee questionnaire	Participate in management	Improve income distribution and benefit package mechanism
	Letter and visit	Care about employees	Care about employees' physical and mental health and improve working condition
	Supplier selection and engagement	Establish a clear procurement system, a strict process and a set of regulated conduct	Establish a synergistic and lawful procurement management system with separated supplier selection function, procurement function and monitoring function
	Subcontract management	Show explicit requirement and implement transparent management	Set up a supplier resource pool, ensure supplier qualification and service capability, provide necessary trainings and intensify full-process management on a project basis

Stakeholders	Mechanism and Means of Communication	Expectation on the Company	Company Response
 Customers	Contract fulfilment	Provide highly cost-effective solutions (services and products) to cater for customer needs	Further understand customer needs, innovate smart products and satisfy customized demands
	Visit and conference	Provide excellent services	Realize full life cycle business management through project report, regular meeting and project feedback
	Roadshow and exhibition	Respond quickly	Respond immediately to customers
 Community	Community communication activity	Protect environment	Implement energy saving and emission reduction and reduce water and electricity consumption
	Community construction activity	Secure emergency communications	Actively respond to the combat against COVID-19 pandemic, disaster relief and communications safeguard
	Public welfare activity	Care about the underprivileged	Conduct poverty-alleviation activities and help the disabled and the poor

Material Topic Identification

Based on the 12 ESG topics set forth in the “Guideline”, the Group makes comprehensive analysis on the concerns of stakeholders in accordance with the characteristics of its own businesses and those of the industry in which it operates; and in combination with the Company’s strategies, the Group interviews with its employees and conducts research on the issues related to sustainable development, together with the results of internal and external analysis, identifies several material topics, including “Environmental Protection and Climate Change”, “Human Resources Management”, “Development and Training”, “Health and Safety” and “Supply Chain Management”. Details of the above are disclosed and analysed in this ESG Report.








ENVIRONMENTAL PROTECTION AND CLIMATE CHANGE

Climate change not only has profound impacts on the global ecosystem, but also brings significant impacts on the global economy. Carbon dioxide emission has been adopted by the PRC as an important indicator for the evaluation of an enterprise's performance in its production and operation, which has raised new requirements for the enterprises to adapt to climate change. We have realized the effects of risks and policies associated with climate change on our operations, and have taken corresponding proactive measures to capitalize on the opportunities arising therefrom and cope with the challenges.

In 2021, the Group actively conducted studies and discussions on the plans in relation to its responses to climate change, the control of greenhouse gas emission, promotion of green and low-carbon development, and built relevant capabilities, organized scientific research and publicity work in fighting against climate change and endeavoured to improve its capability in environmental management, with a view to making contribution to contain the global warming.

Risk Analysis

Type of risk	Description	Potential impact	Response of the Company
 Disaster risks	Increase in the frequency and severity of extreme weather conditions such as heavy rains, affecting the progress of business development	Loss of revenue, increase in operating costs	Implement emergency response plans for natural disasters
 Technology risks	Awareness of low-carbon emissions is weak and the level of low-carbon technologies still needs to be improved	Failure to apply low-carbon technologies in a timely manner leading to a lag in the process of low-carbon transformation of products	Improve R&D capabilities
 Market risks	Customers' shift in demand for products in consideration of climate-related factors	Phase out of existing products	Accelerate iterative upgrades of existing products
 Regulatory compliance risks	Implementation of stricter climate-related laws and regulations	Increase in compliance costs	Form working groups to regularly track legal and regulatory requirements
 Chronic risks	Temperature rises in the future, increasing energy consumption	Increase in operating costs such as energy costs	Implement energy-saving and emission-reduction measures







The Group actively responds to the country's call on "Carbon Peak, Carbon Neutrality" ("Dual Carbon Goals") while persistently implementing the development principles of innovation, coordination, green, openness and sharing, formulating green and low-carbon plans and related implementation programs, increasing its R&D investment in emerging energy-saving technologies and new businesses, aiming to create a green ecosystem and make China Comservice more eco-friendly.

Our Targets and Actions

During the period of Dual Carbon Goals Rolling Development Plan for 2022-2024



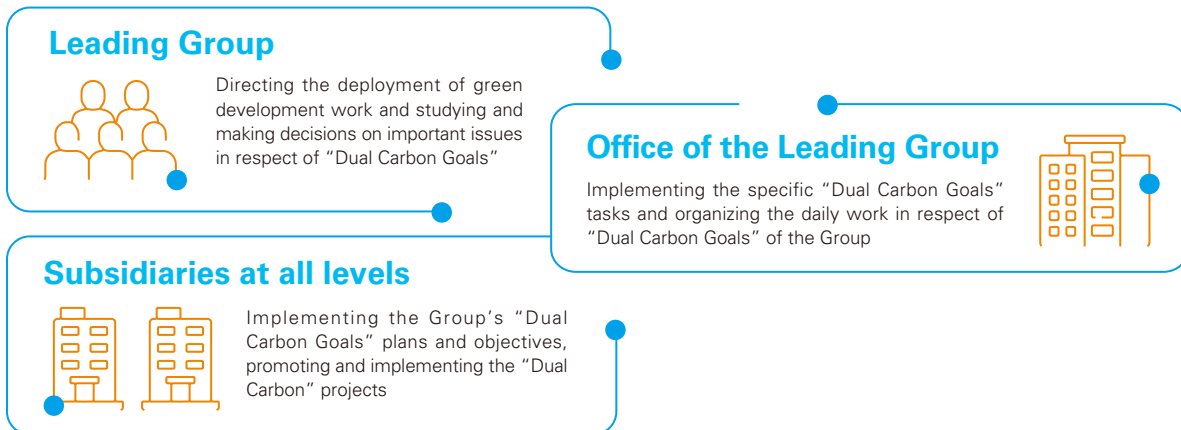
The growth rate of the Group's total energy consumption does not exceed that of its revenue



The average annual growth rate of the Group's total electricity consumption and fuel consumption remains reasonable decline

Action 1

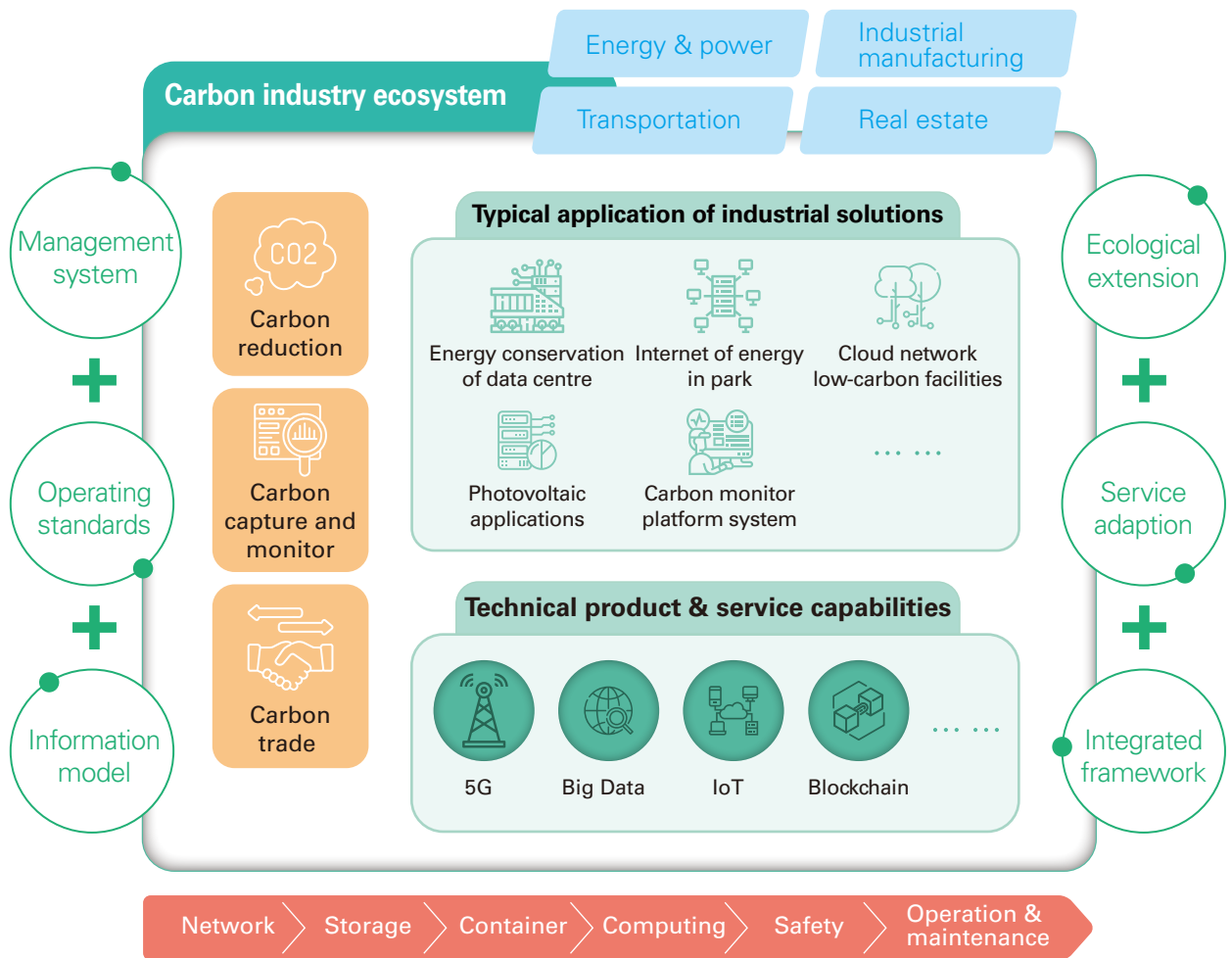
The Group establishes a management organization for "Carbon Peak, Carbon Neutrality", with the President as the main person in charge and the leading group comprising Company's management to form a three-level hierarchy, so as to promote the green and low-carbon development of the Group.



▶▶▶ The Group conducted a meeting on the topic of "Dual Carbon Goals" with China Electric Power Promotion Council

Action 2

The Group has compiled the Dual Carbon Goals Rolling Development Plan for 2022-2024 and the “30 • 60” Strategic Action Plan for “Carbon Peak, Carbon Neutrality”, while actively carrying out “Researches on the Peaks of Carbon Emission and the Paths to Carbon Peak” with focus placed on “Dual Carbon Goals” tasks to improve its organizational system for and rules and regulations on energy conservation and emission reduction, promote the establishment of a restriction and incentive mechanism for energy conservation and emission reduction, with the aim of reducing the total amount of energy consumption. The Group has consolidated the capabilities of its subsidiaries, and used advanced technologies such as big data, Internet of Things, 5G technology, artificial intelligence, and blockchain etc., to provide comprehensive smart services for typical industries such as energy and power, industrial manufacturing, transportation, and real estate, while constantly vitalizing green and low-carbon new growth drivers.

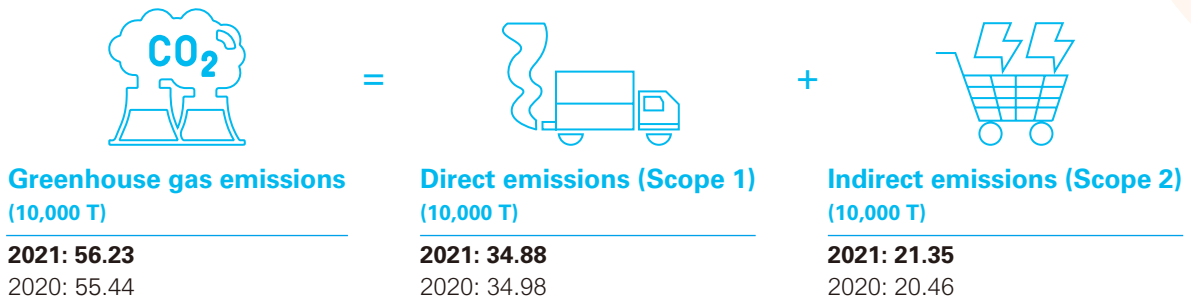


Energy Consumption

As an informatization communications service provider, the Group always strictly complies with relevant national laws and regulations on environmental protection and emission including the Environmental Protection Law of the People’s Republic of China and the Energy Conservation Law of the People’s Republic of China in its operation. We have conscientiously established an internal management system in respect of environmental protection and resources utilisation, and actively promoted energy-saving and emission-reduction activities.

In 2021, the Group’s total energy consumption was approximately 174,000 tons of standard coal, with an energy consumption per revenue of RMB10,000 at 12.96 kg of standard coal (2020: approximately 172,000 tons of standard coal, energy consumption per revenue of RMB10,000 at 14.06 kg of standard coal).

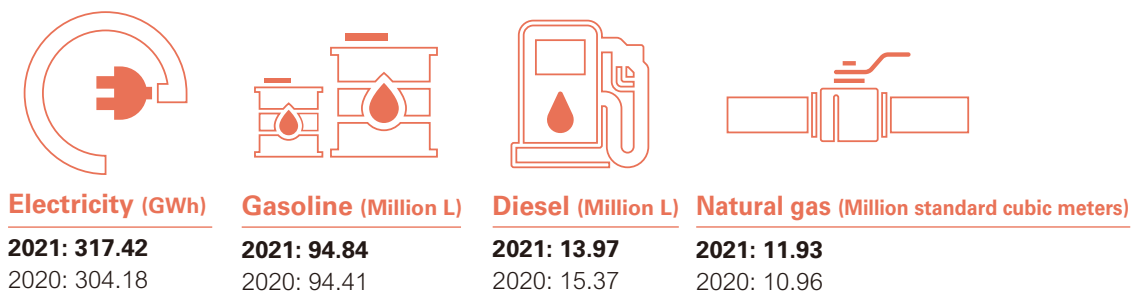
According to the energy report of the Group, the total emission of greenhouse gases arising from energy consumption of the Group in 2021 as accounted pursuant to the Greenhouse Gas Protocol was approximately 562,300 tons (2020: approximately 554,400 tons).



Note:

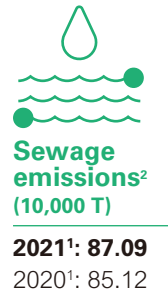
1. Scope 1 direct greenhouse gas emissions include greenhouse gas emissions from the consumption of natural gas, coal, gasoline and diesel.
2. Scope 2 indirect greenhouse gas emissions include greenhouse gas emissions from the purchase of electricity and heating.
3. Total greenhouse gas emissions are the sum of Scope 1 direct greenhouse gas emissions and Scope 2 indirect greenhouse gas emissions.

Direct/Indirect Energies by Type



Waste Discharge

The Group strictly follows the Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes and other laws and regulations regarding waste disposal and utilisation, and carries out waste disposal in accordance with regulatory requirements. Some of the provincial companies and professional companies of the Group places their waste disposal in the hands of relevant property management firms.



Note:

1. The Group started to collect such data in 2020, and adjusted the statistical calibre in 2021 to expand the scope of disclosure to cover most of its subsidiaries, with simultaneous adjustments to the data for 2020 to enhance data comparability, leading to the slight difference between the 2020 data and those disclosed in the 2020 annual report;
2. The Group is an asset-light enterprise, solid wastes are mainly daily garbage; and the sewage it discharges is mainly daily sewage.

Resource Utilisation

In terms of the use of packaging materials, as the Group belongs to the informatization communications service industry, and is mainly engaged in design, construction, supervision, maintenance and other services, therefore, there is no significant usage of packaging materials in its production and operation process.

As for office paper usage, the Group adheres to the principle of striving for economy and tolerating no waste, and strictly controls the use of office paper. In addition, the Group vigorously improves its online office capabilities, continuously improves its service quality with means of informatization, and extensively promotes the introduction of advanced cloud-based office applications such as paperless conference systems and online conference systems. In 2021, the Group's total office paper consumption was approximately 819 tons¹ (2020: approximately 1,142 tons¹).

As for water consumption, the Group's water supply is provided by the owner or property manager of the office building. The Group attaches great importance to the reasonable and efficient usage of water resource in the normal course of business. We strive to promote and advocate water conservation by measures including daily public notices and installing water-saving taps, to further intensify the management of water resource utilisation and the reduction of unnecessary consumption of water resource. In 2021, the Group's total water consumption was approximately 5.42 million tons (2020: 6.19 million tons).



Eco-friendly Recycling

Several professional companies of the Group collect returned network equipment and inefficient equipment of high-energy consumption for recycling and disposal via a green auction platform. By the introduction of a reverse integrated asset disposal model of “dismantling, transportation, storage and sale”, a closed-loop ecological chain of asset disposal, starting from the source of scrap materials till the auction and delivery of assets, has been developed, which not only realizes eco-friendly disposal of waste and obsolete products, but also achieves effective utilisation of resources.

China Comservice Energy Saving Technology Co., Ltd. (中通服节能技术服务有限公司)

China Comservice Energy Saving Technology Co., Ltd. disposed scrap materials like returned network boards and cards, batteries and cables of RMB600 million through the auction platform in 2021, with the accumulative disposal amount reaching RMB16.6 billion. The green auction platform is supported by 26 warehouses & logistics systems, 1,100 reliable recyclers and 16 valuation techniques, covering the operator market, which not only helps its customers to improve economic efficiency but also minimizes the risk of waste emission.

Zhongjie Telecommunications Co., Ltd. (中捷通信有限公司)

Since obtaining its auction license at the end of 2017, Zhongjie Telecommunications Co., Ltd. has been engaged in the business of disposal of waste and obsolete products. In 2021, Zhongjie Telecommunications Co., Ltd. assisted its customers to dispose of assets amounting to RMB970 million, including RMB860 million of copper cables, RMB21 million of obsolete lead-acid batteries, an eco-friendly battery disposal of 3,340 tons, RMB92 million of scrap materials, and disassemble 28,000 equipment racks.

The Group constantly improves its organizational system, management system and work process relevant to energy saving and emission reduction through multiple measures, so as to effectively reduce energy consumption. Campaigns like Energy-saving Promotion Week and National Low-carbon Day are actively carried out by the Group to continuously enhance the energy-saving and environmental-protection awareness of its staff. Energy conservation slogans are put up in venues such as public areas inside the buildings and conference rooms. In addition, the Group strictly implements the assessment and reward and punishment mechanisms in relation to energy saving and emission reduction performance and sets energy-saving and emission-reduction budgetary targets for its provincial companies each year, to ensure accomplishment of its annual energy-saving tasks.

The Group will actively establish and improve its long-term mechanism of resource conservation, improve energy efficiency, and develop recyclable economy, as an effort to fulfil its environmental responsibilities.



Practical Cases of Utilizing Technological Measures to Support Energy Saving and Carbon Reduction

While striving for energy conservation and carbon reduction internally, the Group has expanded the application of new technologies such as 5G, big data, cloud computing, and the IoT, and built up a portfolio of energy-saving technologies and products while promoting the upgrading and carbon reduction of high energy consumption industries.

The first carbon-neutral park in the inner ring of Shanghai (上海市內環首個碳中和園區)

The Group's Shanghai Training Centre resorted to the "low carbonization empowered by digitalization" approach to build the first carbon-neutral park in the inner ring of Shanghai featuring self-built distributed photovoltaic facilities, energy-saving IoT transformation, energy-saving management and smart control, etc., which utilized the carbon-neutral data management platform for real-time data monitoring.



Xiong'an City Supercomputing Cloud Centre (雄安城市計算(超算雲)中心)

Guangdong Telecom Planning and Design Institute (廣東省電信規劃設計院), a subsidiary of the Group, was commissioned with the design of construction and mechanical and electrical HVAC engineering of Xiong'an City Supercomputing Cloud Centre. The project integrates eco-friendly, low-carbon mechanical and electrical HVAC technology with ultra-low energy consumption building, making it the first smart building in China that hosts a supercomputing cloud centre and a nearly zero-energy building, for which it has received the Nearly Zero-energy Building certification from the China Association of Building Energy Efficiency, and ranked as one of the best samples of nearly zero-energy buildings in China. The Institute innovated the building structure by introducing a stacked modular server room to render the world's first garden-like ecological server room and China's first 48m x 18m large-span pillarless server room. The project integrates the industry-leading fully-submerged and cold-plate liquid-cooling servers, evaporative natural cooling unit, distributed energy station waste-heat cooling technology, data centre urban agglomeration waste-heat recovery technology, gravity heat pipe technology, Panama Power System, lithium battery energy storage and other energy-saving products and technologies, to achieve the world-leading energy efficiency ($PUE \leq 1.09$). The project has a gross area of about 40,000 sq.m., and will be able to accommodate more than 3,600 high-density cabinets and a supercomputing system with 10P computing power upon completion.



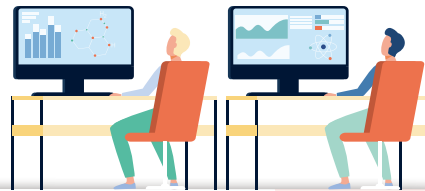
Smart unattended professional warehouse (智慧型無人值守專業倉)

Zhejiang Zhongtong Communication Co., Ltd. (浙江中通通信公司), a subsidiary of the Group, provided its customers with the construction of smart unattended professional warehouses by reengineering the business processes with the help of the two spearhead technologies, i.e. the IoT and artificial intelligence, achieving strengthened access control of external personnel and management of inventory turnover through technical means and inter-connecting the information islands to realize efficient transmit of information, thus streamlining business process, improving operation efficiency, and realizing round-the-clock request response.

Online Energy Audit Platform of Data Center (數據中心在線能源審計平台)

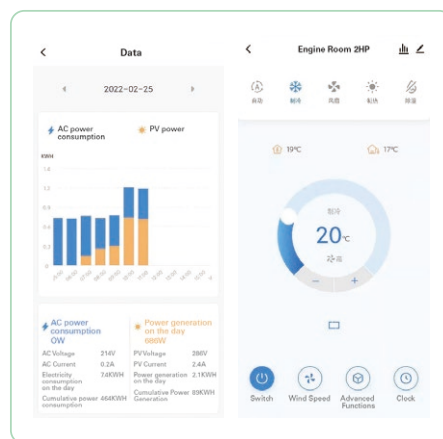
The Online Energy Audit Platform of Shanghai Data Centers developed and maintained by the Group's Shanghai subsidiary covers all the Internet data centers in Shanghai, which captures the energy consumption of the Shanghai data centers through online reporting or data interface, based on which it monitors the data centres for energy saving performance and explores its potential, realizing functions such as data center database, monthly report on energy consumption, energy consumption evaluation and energy audit of data centers.

Up to now, the platform has completed the profile establishment process of all the Internet data centers in Shanghai, realized dynamic management, and established a long-term management mechanism of energy consumption data.



Application of green photovoltaic energy technology (綠色光伏能源技術應用)

Zhongjie Telecommunications Co., Ltd. (中捷通信有限公司), a subsidiary of the Group, is committed to the application of the green photovoltaic energy technology and was the first to introduce the direct-supply mixed-grid solar air conditioning system in Guangdong. The technology adopts a high-speed DSP chip, and enables design and control of all the air conditioning functions such as MPPT for solar energy, DC-DC voltage conversion, PFC (Power Factor Correction), FOC, air conditioning control logic, sampling, fans and valves with just a single chip. It powers the DC inverter air conditioner with a mixture of solar energy and utility power supply through an IPM (intelligent power modules), which uses solar energy as the main source and utility power supply as a backup during the day, and vice versa at night with seamless switch, so as to make full use of the solar energy to achieve emission reduction.



Smart Water Conservancy Cloud Sharing Platform

(智慧水利雲圖共享雲平台)

The Group's high-tech enterprises Tisson Regaltec Communications Technologies Co., Ltd. (天訊瑞達通信技術有限公司) penetrated the water conservancy industry for several years, based on years of ICT technology accumulation in the aspects of IoT, artificial intelligence, video analysis and processing, data governance, GIS, etc., it built the Smart Water Conservancy Cloud Sharing Platform capable of timely detection, scientific deployment, accurate prediction, by remote sensing, unmanned aircraft, unmanned vessels as the main "sky, air, ground" integrated information collection means to support all-round, all-factor, all-weather real-time monitoring, early warning and management during the flood, to form a "predictable, visible, risk-controlled" scientific and technological flood prevention and mitigation management system.



With the intelligent research results of industry-academia-research data from universities and research institutes, the platform establishes intelligent analysis models for flood risk warning, predicting trapped areas, flood evacuation and rescue, etc., predicting and warning the flood situation, simulating the time of flooding, the impact area and the best route for evacuation, etc., and supporting integrated research and judgment for flood risk in an all-around way.

HUMAN RESOURCES MANAGEMENT

Employment

The Group had approximately 88,000 employees as at 31 December 2021. We are committed to ensuring equal development opportunities for both genders, protecting and enhancing the rights of female employees. Our employees are located primarily in the PRC with certain number of them located in the other regions such as Southeast Asia, the Middle East and Africa. Our employees are divided into contract employees, dispatched employees, part-time employees and other employees.

Total number of employees



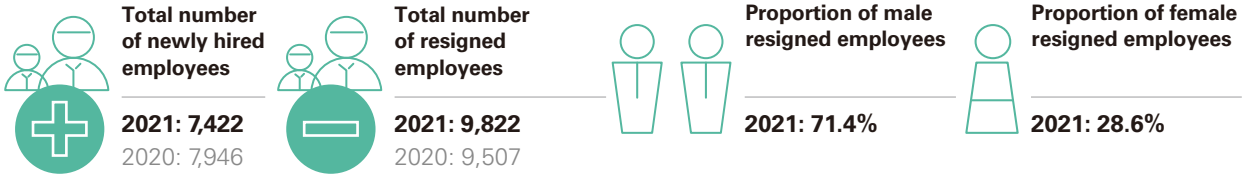
2021:

87,587

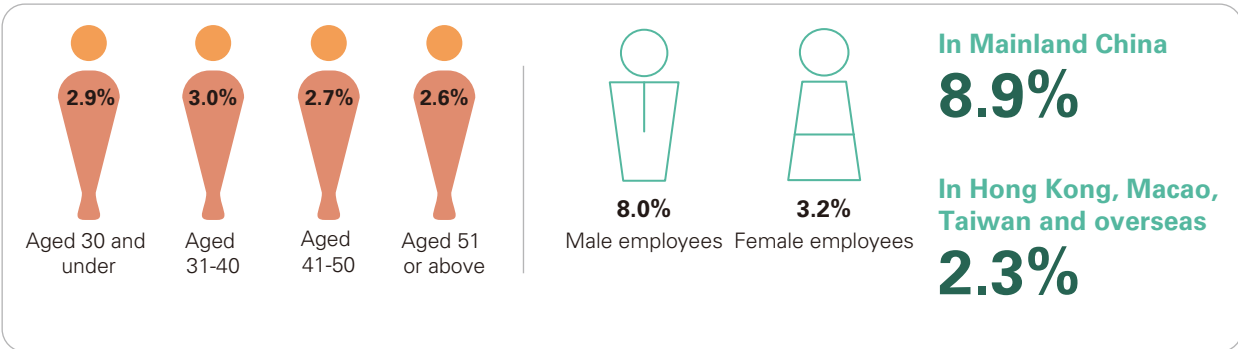
2020:

90,003

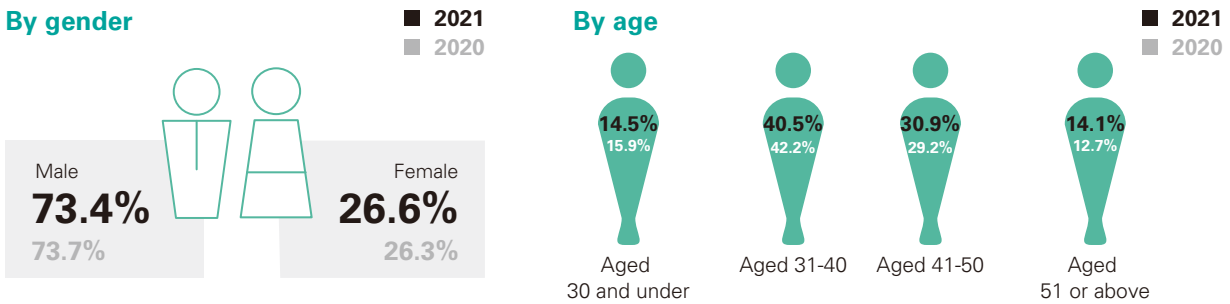
Indicator	2021	2020
By type		
Contract employees	83,871	85,992
Dispatched employees	3,380	3,628
Part-time employees	140	62
Others	196	321
By geographic location (%)		
Mainland China	97.6	96.4
Hong Kong, Macao, Taiwan and overseas	2.4	3.6



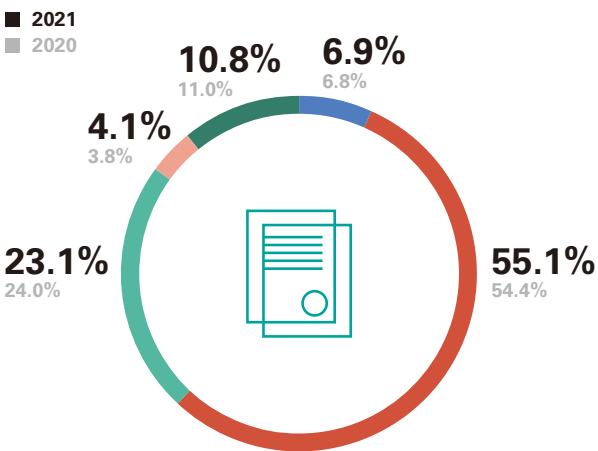
2021 Employee turnover rate



Employee Structure (Contract + Dispatch)

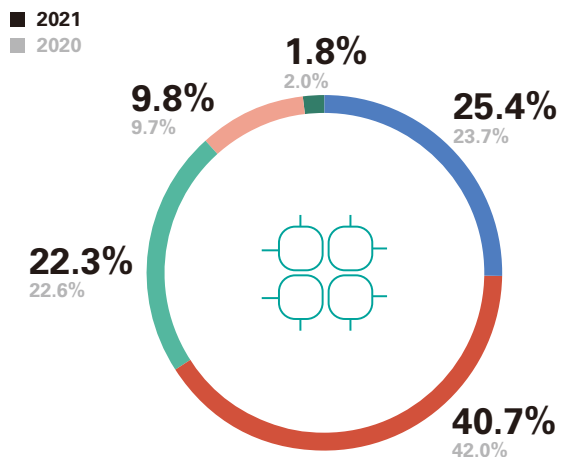


By education level



- Post-graduate or above
- College graduate
- High school graduate or below
- University graduate
- Technical school graduate

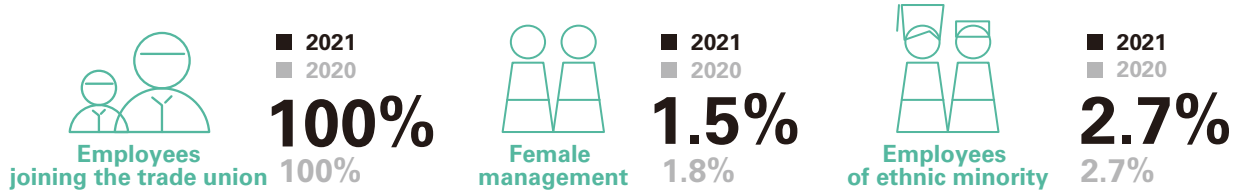
By nature



- Administration and management
- Telecommunications infrastructure services
- Business process outsourcing services
- Applications, content and other services
- Others



Contract



As a state-owned enterprise, the Group undertakes an important social responsibility of mitigating employment pressure and provides a large number of job opportunities in the market every year. In addition, we take into consideration the characteristics of the communications infrastructure construction projects, i.e. strong cyclicity with large demand for temporary labour, and encourage our upstream and downstream partners to hire temporary labour during the installation of communication cables and equipment, bringing about a large number of job opportunities in the market, which has been essential in building up our own talent pool and alleviating the employment pressure of fresh college graduates.

The Group supports its employees in enhancing their personal capabilities and social value by offering trainings and chances to practice their skills such as technical skills and management expertise. Meanwhile, the Group actively responds to the call of the government of “mass entrepreneurship and innovation” and provides favourable policies to support the innovation and entrepreneurship of those who are ready to set up their own businesses.

In 2021, the Group formulated and issued the Guiding Opinions on Further Deepening the Innovation of the Human Resources Mechanism and Promoting the Reform of the Three Systems of China Comservice and the Notice on Deepening the Innovation of the Human Resources System and Mechanism at the Headquarters of China Comservice and Promoting the Reform of the Three Systems, aiming to continuously promote the reform of the three systems, i.e. Personnel, Labour and Distribution, improve its market-oriented operating mechanism, and ensure that the total number of employees is controllable and the team structure is optimized, resulting in continuously improvement of the overall quality and productivity.





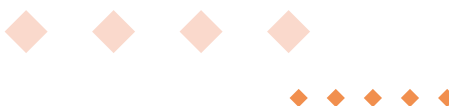
Remuneration and Performance Management

We consider our employees as an important resource and attach much importance to safeguarding their interests. We formulate and implement the Guidelines of China Comservice on the Market-oriented Remuneration System of Provincial Companies according to the principles of “performance-oriented, internally equitable and externally competitive” remuneration system, strive to expand career development channels for employees, continuously adjust the remuneration resource allocation, further improve the remuneration distribution system closely linking the corporate value and individual performance, and actively promote the position-based dividend incentive mechanism for state-owned technology enterprises among 27 enterprises of the Group to facilitate close linkage between the remuneration level of scientific and technological talents with their innovation capability and contribution to results, with a view to having our employees to share the corporate development achievements and boosting the vitality of the organization and employees. In strict compliance with relevant policies of the PRC, we pay social insurance and housing funds for employees and establish the corporate annuity system so as to safeguard the employees’ basic interests.

We are committed to the career development of our employees and offer dual promotion paths for them – “promotion for management functions” and “promotion for technical expertise”. We implement a system that links our employees’ remuneration and promotion to their work experience, capabilities and performance, which incentivizes their proactivity. The staff promotion follows the principles of fairness, justice, openness and transparency and fully respects employees’ the right of choice, the right to know and the right of supervision. In addition, the Group provides the Provincial Company Leaders’ Performance Evaluation Indicator System and Scoring Measures every year to ensure the full implementation of the Company’s development strategies and tasks for the year, underscoring result-orientation. By closely coordinating the budget, evaluation and resource allocation, the Group gives full play to the motivating and guiding roles of performance evaluation, guides units at all levels to further develop strategic businesses, conduct risk prevention, promote the steady improvement of the Company’s value and capability, and further improves the satisfaction to performance evaluation work, so as to advance the sustainable and high-quality development of the Company.

In 2021, the Group formulated and released the Tenure System and Contract Management Measures for Management Members of Companies under China Communications Services Corporation Limited (Provisional) to implement the tenure system and contract management for the management of all levels of companies under the Group, and to evaluate the management members and pay them remuneration and appoint (or dismiss) them according to their tenure and annual performance responsibilities, so as to continuously motivate the vitality and momentum of innovation and entrepreneurship of the operational management team.

In 2021, the Group launched a new round of Share Appreciation Rights Incentive Scheme to promote the mutual coordination and promotion of the interests among shareholders, the Company and participants of the scheme, thereby making the interests of the core staff in key positions closely linked to the corporate performance to fully stimulate the endogenous motivation of backbone talents.



Welfare and Labor Standards

The Group has always complied with laws and regulations on recruitment and dismissal, working hours and anti-discrimination. Our employees are entitled to national holidays. The Group strictly abides by and implements the laws and regulations in relation to labor employment and labor rights protection, including the PRC Labor Law, the PRC Labor Contract Law and the PRC Trade Union Law, pursuant to which, the Group protects the labor rights, democracy and spiritual and cultural rights of its employees.

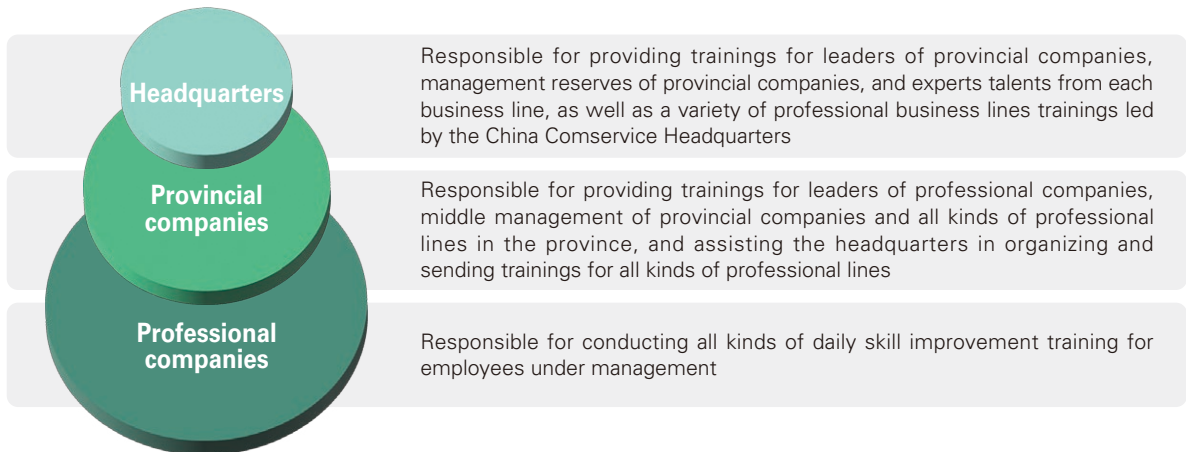
- 1 It strengthens labor employment management in a lawful and standard manner and ensures the entering into labor contracts with contract employees and makes contributions to the social insurance.
- 2 In combination with employment standards, it provides standardized labor contracts to clarify the rights and obligations of both parties, so that the management of labor relations have rules and laws to follow.
- 3 It also stipulates the contracts entered into between the dispatched employee with the labor dispatching institutions and checks if labor contracts are duly entered into by the labor dispatching institutions and contributions for the dispatched employees are made to the social insurance in order to protect the interests of the dispatched employees.

The Group stands on various labor policies, including but not limited to, gender equality, equal pay for equal work, and treats employees equally in the process of recruitment and promotion, regardless of their gender, age and race. It protects employee privacy in compliance with laws and implements a paid holiday system. Child labor and forced labor are strictly forbidden in the Group. In 2021, there was no child labor and forced labor in the Group. The Group also supports the trade union to perform its duties and responsibilities lawfully and encourages employee engagement to maintain a harmonious and stable labor relationship.

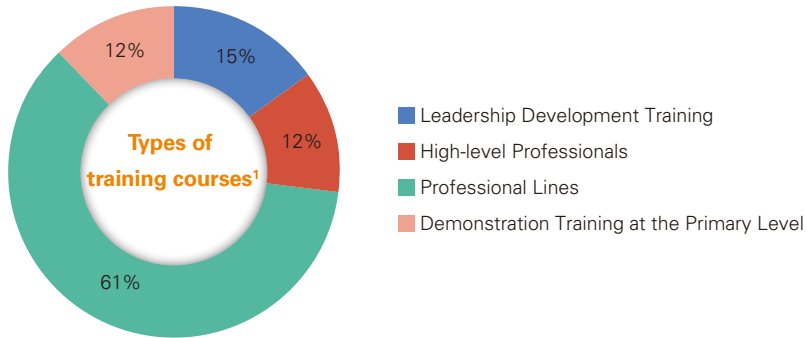
The Group attaches great importance to safeguarding the legal rights and interests of female employees, ensuring the implementation of female employees' maternity leave and breastfeeding leave as well as the regular health check-up system, concerning the physical and mental health and career development of female employees, and providing female employees with a continuously improving labor environment and conditions.

Development and Training

We attach great importance to trainings and have established a three-tier training system covering the headquarters, provincial companies and professional companies currently. By fully leveraging the advantageous resource of the training centers under the Company, the Group strives to build a categorized and centralized training system with high efficiency so as to become a learning-oriented organization.



In 2021, the Group focused on the major development targets of the Company, released the China Comservice Training Work Plan 2021. Leveraging the resources of the Company’s training center, the Group continuously optimized the training management system, course development system and online training system, organized all kinds of capability enhancement training camps, and endeavored to build up three teams, namely, leaders, expert talents and backbone of the primary level, in order to provide talent support and capability guarantee to promote the Company’s innovation and transformation.



A new series of industry leader training camps

The Group completed a new series of industry leader training camps for management reserves of provincial companies, in a bid to assist the provincial companies and professional companies of the Group in discovering and identifying talents, continuously expand the management reserves team and strengthen the development of the Group’s human resources. The training was participated by 41 management reserves from the provincial companies of the Group. Through innovation on the scenarios, contents and forms of training, the leadership of the trainees has been further improved.



Training class on subdivision of accounting units and promotion of market-oriented operation mechanism

Targeting to all the responsible persons of Level 2 and Level 3 subdivision of accounting units in the Group, the Group held a training class on “subdivision of accounting units and promotion of market-oriented operation mechanism”, striving to enhance the strategic mindset and management ability of the responsible persons of subdivision of accounting units, and to build a team of responsible persons of subdivision of accounting units of China Comservice who “understand strategy, capable of leadership, good at competition and competent in managing accounts”.



¹ **Leadership development training:** In the context of the main tracks and new challenges of China Comservice in the new era, and towards the requirements of high-quality development of the Company, we are committed to promoting the awareness enhancement, knowledge re-construction and mindset re-creation of the management reserve in each provincial company, so as to build a double-engine management reserve team of “Entrepreneurial Leaders” and “Technical Talents”.

High-level professional talents: Cultivate academic and technical leaders with excellent political quality, outstanding professional ability and comprehensive quality in professional areas to become an important reserve force of high-level leading talents of the Company.

Professional lines: Focus on building a team of “hundreds of and thousands of” experts, with the goals of expanding perspectives and enhancing capabilities, and take various training camps and action learning as the vehicle to train for practice, combine training with practice, and devote efforts to cultivate a team of professional backbone talents on each line.

Demonstration training at the primary level: We pay attention to the capability enhancement and development aspirations of the core backbone employees at the frontline, and organize various comprehensive ability and professional skills training courses for frontline employees on 5G key technologies and industry applications, project management, marketing, etc., so as to build a frontline employee team with core competitiveness and cohesion.



“Starfire (星火)” financial empowerment training

Focusing on the annual key work tasks of China Comservice, the financial lecturer team of China Comservice has been empowering the trainees with finance and tax management practice courses, cultivating the trainees’ business and financial integration mindset, and building a comprehensive financial expert team that understands policies, being professional, familiar with business and capable of implementation.

Headquarters staff training

In 2021, we held seminars for headquarters staff focusing on the contents of 5G application scenarios, Internet of Things, artificial intelligence and cybersecurity etc. to enable headquarters staff to understand the latest technology applications and development trends in the communications industry and to satisfy their needs for career development and capability enhancement.

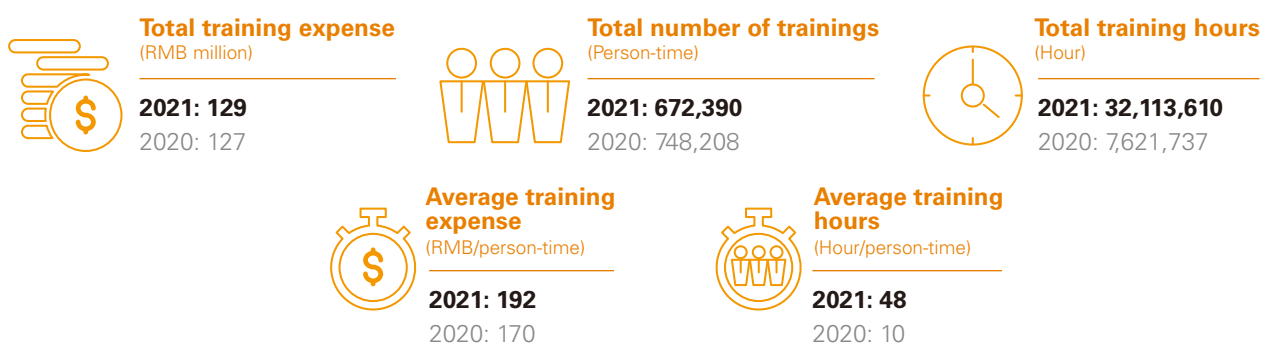


▶▶▶ The Group’s subsidiaries held a number of career training programmes during the year



▶▶▶ The Group’s subsidiaries actively launched various occupational skills competitions





Types of Training

Indicator	Unit	2021	2020
Safe production training	No. of trainings	6,179	4,917
	Person-time	205,979	226,219
Anti-corruption training and activities	No. of trainings	2,081	2,396
	Person-time	63,089	69,764
Operation management training	No. of trainings	3,486	4,095
	Person-time	62,237	62,575
Technical expertise training	No. of trainings	42,529	44,503
	Person-time	189,352	297,328
Other training	No. of trainings	8,047	5,162
	Person-time	151,733	92,322

Training by Position/Gender

Proportion of senior management receiving training	Ratio	2.3%	0.2%
Proportion of middle management receiving training	Ratio	29.6%	18.0%
Proportion of general employees receiving training	Ratio	68.1%	81.8%
Proportion of male employees receiving training	Ratio	72.6%	74.2%
Proportion of female employees receiving training	Ratio	27.4%	25.8%

Average training hours by position/gender

		2021
Average training hours received by senior management	Hour/person-time	84
Average training hours received by middle management	Hour/person-time	77
Average training hours received by general employees	Hour/person-time	34
Average training hours received by male employees	Hour/person-time	46
Average training hours received by female employees	Hour/person-time	51



OPERATING PRACTICES

Health and Safety

The Group follows the national laws and regulations and the requirements of the industry regarding safety of development and construction, and resolutely implements the PRC Labor Law, the PRC Safe Production Law, the PRC Fire Protection Law, the Administrative Regulations on the Work Safety of Construction Projects. It adheres to and continuously improves the basic management system, and promotes the works in strict compliance with China Comservice Safe Production Management Measures and the safety management requirements of units of higher levels regarding densely-populated places and communications materials warehouses.

The Group's Safe Production Committee is the safe production management organization, with the President acting as the director. Provincial companies all set up the Safe Production Committee, to fulfill the safe production responsibility, hold regular committee meetings to discuss and make decisions about important matters related to safe production.

The Group values and fully supports the contribution to safe production funds. The provincial companies under the Group are required to make a standard provision for safe production expenses and effectively manage and utilize such expenses, for the purpose of enhancing labor conditions, improving safety facilities, updating labor protective equipment, conducting education and training, and strengthening safety inspection, etc., so as to provide financial support to the smooth operation of safe production.

In 2021, the Company launched a special inspection and rectification work of potential threats to safety production throughout the Group. The work was carried out in five major aspects, including awareness, system construction and execution, responsibility and strict implementation, potential threat investigation and prevention and control, and compliance with laws and regulations, with a total of 89 items included. A total of 5,210 potential safety threats within the Group were identified, and all of them were rectified by the end of 2021, with a 100% rectification rate. Through this special inspection, the Group identified and promptly rectified potential safe production threats and prevented accidents from occurring at source. In addition, the Group conducted a safe production inspection for six provincial companies and their affiliated companies; meanwhile, companies at all levels conduct a safe production inspection every year.



▶▶▶ The Group launched a special inspection and rectification work of potential threats to safe production during the year





Conducting safe production promotion and education training. The Group continuously conducts safe production promotion and education trainings to enhance employees' awareness of safe production. In 2021, we organized three safe production trainings, and companies at all levels of the Group promoted the safe production knowledge via "Safe Production Month" activities and organized to watch "Life is of Paramount Importance" safety education propaganda film in various manners, with 4,464 times throughout the year and a total of 155,087 person-times.



▶▶▶ The Group continued to organize safe production promotion and education trainings

Improving the emergency response capability. During the "Safe Production Month", the subsidiaries of the Group launched emergency rescue drills in combination with actual production and operation activities, covering emergency response, communications construction, fire and other scenarios, with a total of 2,329 drills to continuously improve emergency response efficiency and resolution capabilities.



▶▶▶ The subsidiaries of the Group conducted emergency rescue drills

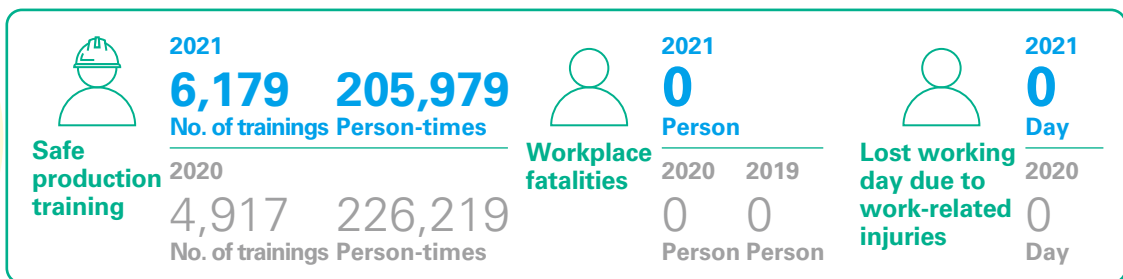




Valuing expert. In 2021, the Safe Production Committee of the Group formulated and released the Management Measures for Invited Experts of Safe Production of China Comservice, defined the relevant working mechanism and launched the selection of invited experts for safe production, so as to fully utilize the technical support role of external experts and enhance the education and training as well as supervision and management capabilities of safe production of China Comservice.

To raise the health and safety management level, the Group brings in the internationally recognized Occupational Health and Safety Management System Certificate. As at the end of 2021, many subsidiaries of the Group passed the international OHSAS 18001 certification, the ISO 45001 certification or relevant domestic certifications, etc.








The Group has established and implemented an accident reporting system and collected quarterly statistics on work-related injuries and fatalities. In 2021, no significant accident in respect of safe production or workplace fatalities or serious injuries occurred within the Group, and there was no lost working day due to work-related injuries.

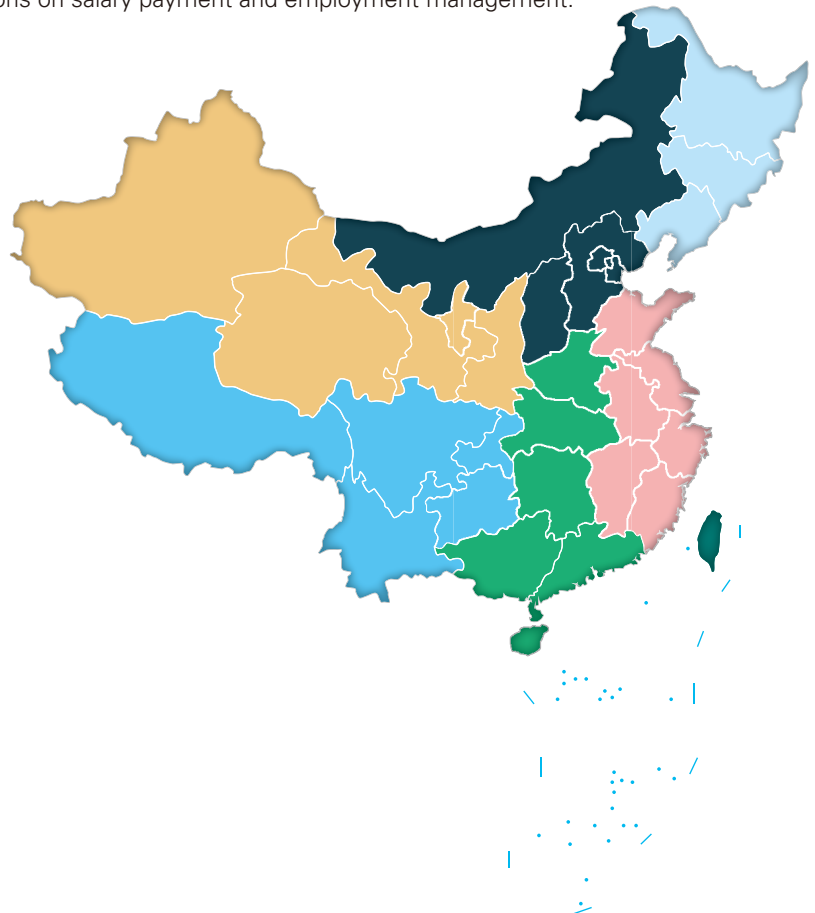


Supply Chain Management

We are in compliance with relevant laws and regulations of the PRC, and take into account of actual situation to continuously improve and strengthen the implementation of the relevant administrative rules on procurement, with a focus on strengthening the monitoring and control over key procedures of, among other things, the selection and management of suppliers, contract signing, safety management, financial settlement, supervision and inspection. Meanwhile, we conduct trainings on specific skills and safety education to personnel of suppliers and regulated the management on safe production, ensuring that the suppliers comply with the national and local regulations on salary payment and employment management.




Geographic Location	Unit (Number) in 2021
 Northeast region	341
 Northwest region	1,551
 Mid-South region	2,616
 Southwest region	1,513
 Northern China region	1,081
 Eastern China region	4,646
 Hong Kong, Macao and Taiwan	-
Overseas	27
Total	11,775



Developing a Supply Chain Environment of Fairness and Justice


The Group implements hierarchical management over its headquarters, provincial companies and professional companies for suppliers. The headquarters is responsible for the establishment of a synergistic procurement system, formulation of procurement management measures and IT management requirements, and inspection and assessment of the procurement management of the provincial companies. A provincial company is responsible for the establishment of a provincial procurement system and implementation of centralized management over the suppliers within its province by IT systems and also responsible for the establishment of implementation measures for procurement management, improvement of corresponding internal controls, and inspection and assessment of the procurement management of professional companies. A professional company is responsible for the specific implementation of its own procurement management, establishment of management standards or specific measures and is subject to inspection and assessment by the headquarters and the provincial company of the Group.



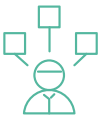
1
Organizational System

- Adapting to the Company's organizational structure and establishing the system of "three-level procurement and two-level centralized procurement"
- Leveraging the Company's subsidiary, China Comservice Supply Chain Management Company Ltd., to implement centralized procurement
- Establishing "headquarters + 21 provincial companies" centralized procurement center

- Headquarters-level centralized procurement, provincial-level centralized procurement, professional company procurement
- Classifying procurement types based on business development model, professional nature and other factors




2
Scope & Plan




3
Procurement Method

- Procurement methods include tendering, comparison, quotations, competitive bargaining, competitive negotiation, competitive bidding, single-source procurement, etc.
- Implementing procurement according to the content and amount, taking into account both efficiency and effectiveness, to ensure the maximum transparency of procurement

- Formulating and utilizing standardized contract texts and adopting electronic approval throughout the process
- Establishing and implementing an "annual benchmark price" management system to control procurement costs reasonably

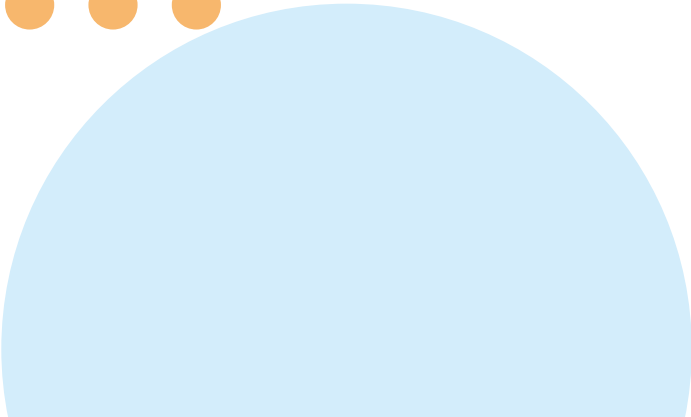


4
Contract & Price



5
Supervision

- Comprehensively using the China Comservice procurement management platform to conduct procurement work
- Ensuring procurement data is comprehensive, timely, true and valid
- Improving the review and assessment mechanism to carry out supervision level-by-level





In 2021, targeting the principal business activities and the key issues of supply chain management, the Group rewrote the China Communications Services Corporation Limited Contracting Business Procurement Management Measures and China Communications Services Corporation Limited Procurement Supplier Management Measures on the basis of the previous system to ensure the achievement of procurement objectives, enhance the enterprise's ability to acquire and integrate external resources, improve the efficiency and service level of the supply chain operation, and form a "integrity, efficiency, quality, stability and reliability" green cooperation ecosystem.

Integrity Efficiency Quality Stability Reliability	Supplier Database Management The unified information system is used to achieve hierarchical management of the supplier database. After the completion of procurement activities, the procurement execution department will submit an application for entry into the database, and the procurement management department will conduct an audit. For suppliers who are no longer cooperating at the end of the cooperation period, should exit according to requirements and together with those included in the negative list, they will be moved out of the supplier database.
	Supplier post-evaluation The post-evaluation is divided into regular post-evaluation, annual post-evaluation and overall post-evaluation, and the post-evaluation results are aggregated by using a unified information system to ensure that the comprehensive performance of suppliers is reflected objectively. The post-evaluation results of suppliers are used as an important reference basis for all phases of procurement and cooperation.
	Supplier rating, rewards and penalty Suppliers are rated and rewarded or penalized according to their post-evaluation and contribution level to determine their strategic value to the Company. Through rating, an effective competition mechanism of "survival of the fittest" is realized to aggregate high-quality suppliers. There are four ratings: A (preferred), B (eligible), C (reserve) and D (eliminated).
	Supplier Negative List Specify the management standards of the suppliers' negative list at different levels, and prohibit cooperation within the corresponding scope if there are any behaviors listed in the negative list, and ensure the implementation through the unified information system.



Tolerable Risk of Supply Chain

Through continuous amendments and improvement on the mechanism, the Group drives the implementation of procurement system and further improves management, implementation and monitoring capabilities. It strictly follows the selection and examination procedures to remove the disqualified suppliers, to ensure that all suppliers enlisted in the “supplier resource pool” have evidences to prove they possess adequate capabilities to perform the contract and control the risk. Such evidences include enterprise qualifications issued by relevant governmental departments (the construction enterprise qualification, the design qualification, the labor qualification and the safe production permit), product standards and competence certificates recognized by the industry (product certificates and the service capability evaluation), professional certificates of relevant personnel (certificates related to special operations, and certificates of safe production specialists of A, B and C classes). The Group instructs suppliers to improve their awareness of safe production, eliminates hidden risks and promotes the healthy development of the Company through the establishment of IT systems and standardization of management processes.

<p>1 Pre-job training</p> 	<ul style="list-style-type: none"> - Daily safety and technical briefings for construction operations - Unified drills
<p>2 Working with certificates</p> 	<ul style="list-style-type: none"> - Climbing, electricity and other high-risk work scenarios require the appropriate certificates
<p>3 Purchase of insurance</p> 	<ul style="list-style-type: none"> - No insurance, no entry - Work-related injury insurance, with additional commercial insurance for construction business
<p>4 Labor protection</p> 	<ul style="list-style-type: none"> - Pay the safe production fee in full and ensure the usage - Central purchase of labor protective equipment with reliable quality
<p>5 Safety supervision</p> 	<ul style="list-style-type: none"> - Complete on-site supervision by project manager - High frequency of safety inspection

When signing contracts with suppliers, the Group makes the Confidentiality Agreement, Safe Production Agreement, Anti-Corruption Agreement and Environmental Protection Agreement as the main appendixes to the contracts. At the same time, the Group pays great attention to the rights and interests of labor and the payment of rural migrant workers' wages, establishes channels for reporting the above-mentioned risks and ensures the smooth operation, monitors the relevant situation through proactive auditing activities to ensure the contracts are honored, and performs procedures such as termination of cooperation, exit or inclusion in the negative list of suppliers in accordance with the regulations for suppliers with relevant risk behaviors.



Product Liability and Customers

The Group strives to build up a “Superior Service” corporate image and continuously improve its service quality with over 140 subsidiaries having obtained ISO 9001/GB/T 19001 Quality Management System certification. During the year, the Group formulated the China Communications Services Corporation Limited Contracting Business Delivery Management Measures to further regulate the whole process of contracting business (especially engineering business) from project initiation to completion and acceptance, streamline the responsibilities of all internal and external parties and management procedure in the delivery process, and promote the achievement of satisfaction enhancement for both internal management and customers through scientific, regulatory, standardized and effective delivery management.



▶▶▶ The Group's quality management system is well recognized by government

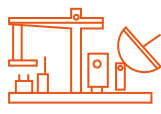
- 1 Determine the department and person responsible for delivery quality management
- 2 Develop definite delivery quality standards with clients for specific projects
- 3 Quality control/inspection/assessment during delivery process
- 4 Use of digital control tools
- 5 One-time quality acceptance target
- 6 Data archiving / experience accumulation / continuous improvement

The Group upholds the development concept of “customer-oriented” and is highly concerned about customer perception. Focusing on the characteristics of service towards the government and enterprise customers, companies at all levels of the Group have set up service departments for different customer groups, established direct and efficient communication channels with customers, and actively listens to customers through customer visits, technical exchanges, implementation delivery, maintenance services, after-sales visits and satisfaction surveys at the pre-sales, in-sales and after-sales stages.


Customer Satisfaction Program

In 2021, in order to further enhance customer service capability and service quality, the Group established a strategic customer service center at its headquarters, which is responsible for strengthening and maintaining strategic customer relationships. At the same time, based on the customer satisfaction survey results of the previous year, we continued to engage third-party professional consultancy organizations, collected customers' opinions and appeals from multiple dimensions and provided targeted improvement plans, to further improve the quality of professional services. In 2021, customers were generally satisfied with the service quality of the Group and there were no material complaints and disputes. The Group belongs to the informatization communications services industry, and is mainly engaged in design, construction, supervision, maintenance and other services of communications industry which doesn't involve product recall.

Customers' Satisfaction Survey



The first stage selected more than 7,000 contracts from the Group's engineering and construction in 2020 as samples.



The second stage selected more than 3,000 contracts from the system integration area in 2020 and the first half of 2021 as samples.

Overall Satisfaction in 2020 90.58
Score (out of 100) 

Engineering Construction Professional Satisfaction in 2021 91.00
Score (out of 100) 

System Integration Professional Satisfaction in 2021 91.70
Score (out of 100) 



Intellectual Property Protection

The Group strictly complies with all the laws and regulations in relation to the protection of intellectual property rights, such as the PRC Civil Code, PRC Trademark Law, PRC Patent Law, PRC Copyright Law and PRC Anti-Unfair Competition Law, while continuously enhancing its awareness of intellectual property rights protection, handling and resolving infringement disputes on a timely basis. The Group strengthens trademark management to regulate the use of registered trademarks. It pays attention to brand protection while promoting the brands and enhancing the value of its brands; it conducts research on intellectual property in respect of the emerging businesses of the Group. The Group organizes law-enforcement seminars from time to time to enhance its employees' awareness of, knowledge of, compliance with and usage of relevant laws and regulations and intellectual property rights protection.

In the process of its product research and development, the Group attaches great importance to the protection of intellectual properties and the application of corresponding patents or software copyrights.



Information Security and Privacy Protection/Cybersecurity

The Group attaches great importance to the information, privacy and data security of the Company, its employees and customers. It strictly abides by the PRC Cybersecurity Law, the PRC Data Security Law, the PRC Personal Information Protection and other laws and regulations, keeps improving the Management Measures for Network and Information Security, the Implementation Guide for Data Security and other systems, standardizes internal network, information and data security management, increases risk monitoring and strengthens operational control.

In order to strengthen data security protection, the Group organized the implementation of data security standards, carried out data categorization and classification, compliance assessment and risk self-examination, and forged data security technical capabilities to avoid data abuse or leakage. At the same time, it carried out the special governance for the customer-oriented APP, and the capability self-assessment of the APP in collecting and using users' personal information, so as to effectively protect users' personal information and avoid excessive information collection.



▶▶▶ The Group actively participated in various cybersecurity competitions





The Group strengthens the relevant trainings and publicity on network and information security and privacy protection for its employees. In 2021, the Group organized five trainings on network and information security, including contents such as policy interpretation, technology improvement, to the relevant management and technical personnel, with a total of over 400 person-times participation. The Group proactively attended National Security Education Day, China Cybersecurity Week and other publicity activities, effectively raised the awareness of our employees on network and information security and privacy protection through “online and offline” forms of special trainings by external experts, posters, themed Q&As and video broadcasts, making the theme that “cybersecurity aims for people and relies on people” deeply rooted in the public.

The Group organized attack and defense drills and social engineering drills in the whole Group, conducted special investigations and normalized inspections on key issues, and launched the internal and external attack and defense drill which lasted for three weeks, and found and repaired 46 loopholes. Through special investigation of key issues, it rectified 47 weak passwords. By setting up internal crowdsourced testing and daily inspection mechanism, the Group conducted normalized inspection and handling, and established and improved emergency response mechanism and process. In addition, the Group organized internal skill competitions to conduct trainings and promote learning, so as to effectively sharpen the technical capability of employees and continuously improve the cybersecurity level.

In 2021, no occurrence of leakage of customer privacy and information was identified within the Group. In accordance with customer needs, the Group enters into relevant agreements on information security and signs confidentiality agreements with relevant employees, if necessary, and strictly complies with the terms under such agreements. For data involving information of government or other customers, the Group adopts Internet isolation, data desensitization and encryption to prevent information leakage.

Cybersecurity capability

Through integration of internal resources, the Group has established a sub-brand of CCS Cyber Security, and set up a professional team to serve the country, customers and industries, so as to provide overall security solutions and comprehensive security services. For three consecutive years, it was shortlisted in “Top 100 Cybersecurity Enterprises in China” report published by “AQNIU”, an authoritative media in the cybersecurity industry, and its own core products and services were selected into the “China Cybersecurity Industry Panorama” for multiple times. The brand influence of CCS Cyber Security has gradually expanded.

Cyberspace asset surveying and mapping platform

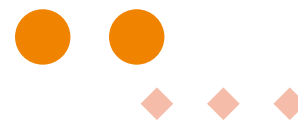
Conduct continuous detection of customers’ cyberspace assets to realize the visualization of security management, help key infrastructure industries to solve the problems of “inaccurate”, “incomplete” and “untimely” in mastering their internal and external assets, assist security operation and maintenance personnel to constrict asset exposure to the greatest extent, and build the most fundamental and core network security defense line.

Data security monitoring and management platform

Provide customers with data security and supervision services such as data asset management, data desensitization management, interface security management, access and operation audit management, etc., help customers improve their overall data security capabilities, enhance their data security protection capabilities, and escort the construction of a good data security ecosystem and the development of digital economy.

Comservice crowdsource testing and security vulnerability management platform

Gather information security experts through Internet crowdsourcing, and based on the intelligent control mode of “artificial+automation”, provide a complete set of one-stop services with centering network security vulnerability management for operators, government and enterprise customers and entrepreneurial teams, so as to realize the visibility, controllability and manageability of the vulnerability throughout its life cycle.



Anti-corruption

Strengthen integrity construction

The Group always strictly abides by the PRC Criminal Law, the PRC Oversight Law, the Law of PRC Administrative Discipline for Public Officials, the PRC Company Law, the PRC Anti-Money Laundering Law, the PRC Anti-Unfair Competition Law, the Regulation on the Integrity of State-owned Enterprise Officials and other laws and regulations, follows social morality, business ethics and industry rules, and formulates the Code of Conduct and Ethics for Employees, the Code of Conduct and Ethics for Senior Management and Code of Professional Conduct for Employees to supervise the management and employees in respect of the compliance. The Group has been devoted to safeguarding the interests of shareholders, creditors, customers and partners and executing contracts in good faith. When signing contracts with suppliers, we take the Anti-corruption Agreement as the main appendix. We honor commercial credibility and oppose improper competition with a view to preventing corruption in business activities.

The Group attaches great importance to strengthening the integrity and discipline education, and actively guides and supervises the management and employees at all levels to improve their awareness of integrity and red line via warning and education meetings, typical cases publication, integrity promotion, daily conversation and reminder and new media platforms publicity and other means. During the year, the Group held 233 warning and education meetings, proactively conducted integrity publicity activities, and continuously built the ideological defense line of integrity and self-discipline.



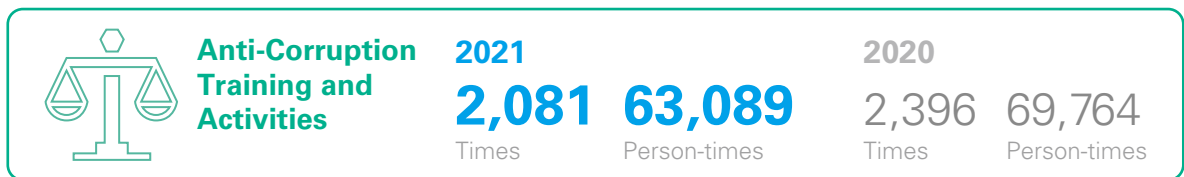
▶▶▶ The Group actively held warning and education meetings

Improve the supervision system

The Group continues to establish and improve the supervision system in order to strengthen the restriction and supervision to exercises of power. It focuses on key areas and key links, carries out targeted special governance and supervision, optimizes relevant institutional processes, improves risk prevention and control capabilities, and resolutely guards against major risks. The Group focused on “key minorities” and strengthened supervision and inspection in important nodes, strictly and realistically reinforced conversation reminders and daily supervision to management at all levels and personnel in key positions, and conducted 6,496 on-site supervisions and inspections at important festivals. The Group integrates all kinds of supervision forces such as discipline inspection, human resources, audit, risk management, inspection, industry and finance, actively builds a coordinated and efficient supervision system, promotes the integration of all kinds of supervision, and unites supervision efforts.

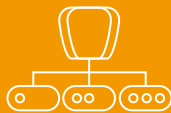
The Group has continuously strengthened the management of problem clues via letters and visits and the construction of integrity culture. It has established a whistle-blowing mechanism to standardize the reporting process. When our employees and business partners discover corruption and bribery of the Group's personnel, they can report by real-name or anonymously through the post office box (Beijing, 100033 mailbox 33 bin), report by telephone or by visiting the Group in person. The information of the whistleblower will be kept strictly confidential. The Group will investigate the report according to the rules and regulations, timely find out the existing problems and timely solve them, so as to create a clean development atmosphere continuously.

During the year, the Company provided anti-corruption trainings to the directors and employees.



The Group attaches great importance to the construction of the anti-corruption system, always maintains a high-pressure in anti-corruption front, strictly enforces discipline and accountability, and has "zero tolerance" for violations of laws and regulations, which would be strictly punished according to the requirements of laws, regulations, disciplines and rules, so as to maintain the normal business order of the Group. During the reporting period, there was no concluded litigation cases regarding corrupt practices brought against the Company or its employees.

Organizational system construction



Leverage the role of the anti-corruption coordination team. Hold regular coordination team meetings, promote the organic integration of audit supervision, accounting supervision and other kinds of supervision, and actively build a synergistic and efficient supervision system.

Improve the primary-level supervision system, and formulate guidelines for the list of 13 supervision items in 4 categories; Use digital means to realize cross-domain data communication and timely alert, and weave densely the primary-level supervision network.

Work style construction



Formulate implementation opinions to further encourage cadres and employees to take responsibility and make a difference in anti-corruption work, and build a new trend and promote healthy atmosphere.

Warning and education enhancement



Promote the integrity education via warning and education meetings, integrity promotion, daily education and reminder, and new media platforms publicity, to make employees hold discipline in awe, keep the vigilance and hold the baseline, thus building a solid integrity and self-discipline ideological defense line.

COMMUNITY PARTICIPATION

China Comservice has always fulfilled the responsibilities as a state-owned enterprise in emergency rescue and natural disaster relief, emergency support and other areas, actively participated in rural revitalization and improvement of people's livelihood, and encouraged employees to participate in social welfare activities, making efforts to give back to the society and contributing to the construction of a harmonious society.

Support for the Winter Olympics

A total of 19 companies under the Group participated in the project construction and key support services of "Beijing 2022 Winter Olympic and Paralympic Winter Games", making positive contributions as a state-owned enterprise to a wonderful, extraordinary and outstanding Winter Olympics, and at the same time showing the brand image and enterprise strength to all sectors of society.

Gongcheng Management Consulting Co., Ltd. (公誠管理諮詢有限公司), a subsidiary of the Group, assisted the installation and connection of radio, television and optical cables and TV terminal equipment in Zhangjiakou Division of the Winter Olympics, and provided supervision services of cable TV multi-channel and local low-latency signal transmission for more than 700 points designated by the Winter Olympic Organizing Committee during the Games, so as to ensure that athletes, spectators and media users in the venues of the Winter Olympics can experience a brand-new wireless interactive broadcast and television service.



China Telecom Construction Co., Ltd. (中通建設股份有限公司), a subsidiary of the Group, undertook the maintenance of 2,719 base stations in Chongli, Xuanhua and other areas of Zhangjiakou, of which 293 are the key support stations for the Winter Olympics. During the Games, the company made every effort to ensure the safe and stable operation of communications facilities and networks for the Winter Olympics, and properly handled different kinds of emergencies in the Winter Olympics support work.



Natural disaster relief

The Group actively practices its social responsibility, supports emergency support all over the country in major natural disasters and public safety incidents without delay, actively assists in repairing communication lines and ensuring smooth communications networks. In the fight against the COVID-19 pandemic, it provided informatization construction services such as 5G base stations and optical fiber broadband for emergency command of governments at all levels and key medical institutions around the country.

In 2021, the Group contributed



participated in natural disaster relief for over **186,200** hours, and actively took part in post-disaster pandemic prevention and disinfection and cleaning work.

"7•20" torrential rain disaster in Henan Province

On 20 July 2021, a torrential rain occurred in Henan. The 4th Engineering Bureau of China International Telecommunication Construction Corporation (CITCC), a subsidiary of the Group, and its Henan Branch, which are located in the disaster area, took the initiative to participate in the front line of flood control and disaster relief, quickly launched emergency plans, actively coordinated resources and speedily organized emergency repairs. The companies under the Group came to Henan after knowing of the flood, and rushed to help the disaster-stricken areas in Henan to make emergency repairs despite the hardship and danger.

The Group dispatched 923 professional emergency repair teams, 3,254 emergency repair personnel, 900 emergency repair vehicles, 635 electricity generators, 747 fiber fusion splicers, 524 OTDRs, 238 optical power meters, and more than 1,200 sets of equipment and tools. The Group restored a total of 15,048 stations, repaired 1,785 points of optical cables, laid 567.3 kilometers length of optical cables, set up 279 electricity-generation base stations, and connected the residential networks and broadband networks involving about 9,000 users.



Typhoon "In-fa"

On 25 July 2021, typhoon "In-fa" landed on the coast of Zhejiang, and Zhejiang, Shanghai and other places ushered in strong winds and heavy rains. In the face of the severe damage caused by typhoon "In-fa" to communications facilities, the Group's Zhejiang subsidiary and Shanghai subsidiary acted swiftly to rescue and provide disaster relief.

The Group's Zhejiang subsidiary timely organized its subsidiaries in Zhejiang to hold a special meeting on fighting against typhoon "In-fa" and protecting communications, deployed and implemented various tasks, and sent a safety expert team to go straight into the front line of the disaster. The Group invested a total of 5,343 rescue person-times, 1,968 vehicle-times, 890 times of electricity generators, 191 times of pumps and 16 times of kayaks, repaired 2,613 power outages and 1,408 service retreats of base stations; made 798 power generations, 176 computer room drainages, 1,251 equipment repairs, 131 pole repairs, 53 pole erections, 670 broken optical cable connections and 661 communication line connections.

The Group's Shanghai subsidiary set up an emergency work team after receiving the relevant alert and prevention requirements against the typhoon "In-fa", urgently deployed various work, and took flood and typhoon prevention as a major event to ensure safety, production and stability. With a high sense of responsibility and efficient working mechanism, the Group was ready to ensure the life and property safety. The Group had a total of 1,114 person-times participated in the flood control and typhoon prevention, carried out 2,926 inspections, solved 1,548 failures, made 871 on-site emergency repairs and dispatched 270 emergency vehicle-times to ensure smooth communication and network during the typhoon period.



Fighting the COVID-19 pandemic

In 2021, the COVID-19 pandemic continued to wreak havoc. In face of this long fight, all the employees of the Group have been working together and united on the front of pandemic prevention and control, so as to build a solid barrier against the virus.

In May 2021, a local COVID-19 pandemic broke out in Guangdong Province. The Group's Guangdong subsidiary completed the communications support work of vaccination sites and nucleic acid testing sites in Shenzhen, Foshan and other places in the shortest time despite the high temperature and pandemic situation, and provided strong support for pandemic prevention and control with stable wireless network signals. In the meantime, the Guangdong subsidiary practised the concept of "doing practical things for the masses", organized volunteer service teams to fully support the work of nucleic acid testing points, and set up a special vaccination session to build a barrier for the safety and health of employees.

In September 2021, there were confirmed cases of COVID-19 in Putian, Fujian, which spread rapidly. The Group's Fujian subsidiary promptly deployed and implemented various strengthening prevention and control measures. The leading group for pandemic prevention and control made overall arrangements without delay, and set up a special emergency support team to conduct overnight construction and repair for the 157 emergency projects in Putian on the day when the pandemic occurred, laid the optical cable of STN circuit project of the dedicated line for Putian healthcare remote video on the second day, and completed the construction task ahead of schedule.

At the end of 2021, Xi'an City, Shaanxi Province experienced an extremely complicated and severe pandemic situation, which spread rapidly and led to grim situation. The Group's Shaanxi subsidiary quickly completed the network coverage and monitoring project investigation and design of the nucleic acid testing module hospital, successfully realized the network cutover and upgrade of the pandemic headquarters, and contributed to the effective and orderly development of pandemic prevention and control.



Rural vitalization

The Group vigorously promoted the spirit of tackling poverty, formulated and issued the 2021 Key Points of Effective Connection Work in Strengthening and Expanding Poverty Alleviation Achievements and Rural Revitalization in China Comservice, maintained the stability of the existing major assistance policies, and continued the support of the development of poverty-stricken areas and all-round rural development.

The Group cooperates closely with Shufu County to promote the deep processing of agricultural by-products in Shufu County, with an output of 250,000 tons and an output value of RMB40 million in 2021, and provides 50 employment opportunities for local poor groups and other people. The Group helps enterprises to expand sales channels, and has reached long-term cooperation with multiple large-scale farmers and a number of small-scale farmers to promote the high-quality development of local animal husbandry and agricultural production.



The Group actively carries out in-depth employment assistance. It guides all provincial branches to add recruitment opportunities in various kinds of formal and temporary channel agency points, communication construction and maintenance and other labor-intensive posts in poverty-stricken areas. In the major project construction and resumption of production during pandemic prevention and control period, the Group gives priority to the poor laborers in recruitment, and college graduates from poverty-stricken areas under the same conditions in campus recruitment. In 2021, the Group recruited a total of 718 person-times in the employment assistance areas.



The Group actively cooperated with China Charity Federation, a third-party organization, and raised charitable donations totaling RMB1.05 million in total to Shufu County, including the coordination with China Charity Federation to donate 7,400 books, totaling RMB200,000, to the Central Primary School of Bulaqsu Township and Sayibage Township Primary School in Shufu County, and the donation of equipment and materials to the Organization Department of Shufu County, totaling RMB850,000.



- ▶▶▶ 1. The Group's Hunan subsidiary sponsored the China Comservice poverty alleviation customized water project in Shibadong Village, Huayuan County, Xiangxi
- 2. A professional company of the Group's Shanghai subsidiary conducted charity fundraising activities and went to Xichou County, Wenshan Zhuang and Miao Autonomous Prefecture, Yunnan Province to help the local students.
- 3&4. The Group's subsidiaries worked together to help promote consumer poverty alleviation





Caring About Employees

The Group stays employee-centered, focuses on strengthening its care to employees, and actively launches the employees' sense of happiness program. It learns about employees' thoughts, work and life dynamics, regularly communicates with employees and solves their difficulties to continuously improve their sense of security, sense of gain, sense of achievement, sense of belonging and sense of happiness. The Group insists on "offering helps to the needy in both winter and summer" and "five visits and five congratulations"², and always offers visits during festivals to retired senior employees, advanced and model workers and employees in difficulty.

The Group earnestly improves the working and living conditions of frontline employees, encourages primary-level trade unions to improve the working environment for employees by adding water purification equipment and mother-and-baby rooms, and continues to promote the "Four Small Facilities" including the "Small Canteens, Small Restrooms, Small Shower Rooms and Small Activity Rooms", which improves from "being available" to "being better".

The Group values the strengthening of rights protection for female employees. It takes "serving enterprises and serving women workers" as the main mission, urges subsidiaries at all levels to protect the legitimate rights and special interests of female employees, actively implements the Special Collective Contract for the Protection of Female Employees' Rights and Interests, fully implements labor protection measures, and promotes female employees' qualities and contributions, safeguards their rights and assists and cares for them, so as to effectively protect their legitimate rights and interests from being undermined.

In 2021, the Group continued to make overall plans to promote the important deployment in COVID-19 pandemic prevention and control, worked out the care plan for specific employee groups during the pandemic, arranged special prevention and control funds, and ensured the supplies of pandemic prevention materials such as masks, disposable disinfectant gels, disinfectants and thermometers to meet daily needs.

Jiangsu subsidiary carried out ten practical employee happiness projects with the three major themes of "health, warmth and growth".

Employees generally had good feedback on happiness projects, especially satisfied with the canteen construction, food festival activities, "Healthy Comservice" plan, centralized awarding ceremony and other practical projects, which have been well received by employees.

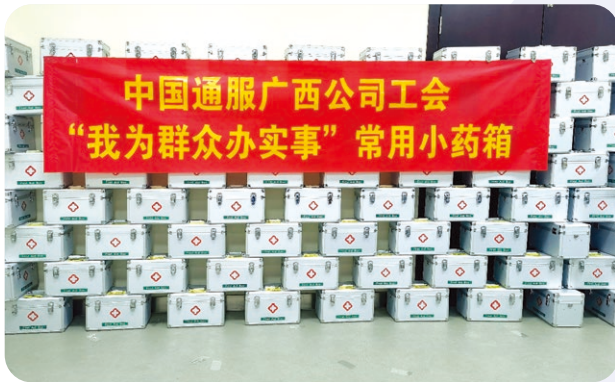
Hubei subsidiary launched the "Rest-assured and satisfied canteen" excellence competition to improve the production and living conditions of the primary staff and stimulate their passion in work.



²

Talk with new employees, the employees who will leave the factory, the employees with fluctuating thoughts, the employees who change positions and the employees who make mistakes; We pay a visit to the employees who are sick and hospitalized, the female employees who have childbirth, the employees who have weddings and funerals in their families, the employees whose family life are difficult, and the employees whose families are not in harmony.





▶▶▶ According to the needs of the new health management situation, the trade union of Zhejiang subsidiary started to equip primary-level trade unions in the province with automated external defibrillators (AED). Guangxi subsidiary also provided common first aid supplies for employees.



▶▶▶ The Group organized International Women's Day (March 8) activities



▶▶▶ The Group held various social activities to encourage employees to express themselves

