



中国石化上海石油化工股份有限公司
SINOPEC SHANGHAI PETROCHEMICAL COMPANY LIMITED

(A joint stock limited company incorporated in the People's Republic of China)

Stock code: 00338 Hong Kong 600688 Shanghai SHI New York



CLEANER ENERGY
BETTER LIFE



CORPORATE MISSION

TO PROVIDE ENERGY FOR BETTER LIVING

STRATEGIC POSITIONING

TO BUILD A “DOMESTICALLY LEADING,
WORLD FIRST-CLASS” ENERGY, CHEMICAL
AND NEW MATERIAL COMPANY

CORPORATE VALUES

PEOPLE, RESPONSIBILITY, INTEGRITY,
PRECISION, INNOVATION, SHARED VALUES

OCCUPATION CODE

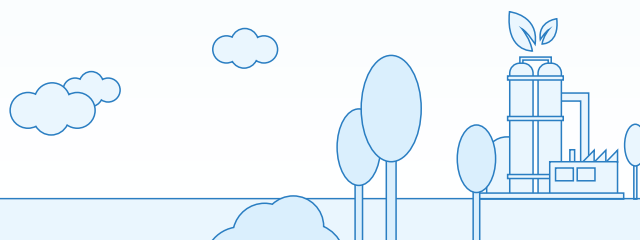
BEING DEDICATED TO BE A CULTURED
PERSON

OBSERVING REGULATIONS TO BE AN
HONEST PERSON

KEEPING FAITH TO BE A CIVILIZED PERSON

CONTENTS

Address by Chairman of Board	01
SPC's Responsibility Performance Sheet	03
Company Profile	05
Corporate Culture	06
Development Strategy	06
Corporate Governance	07
Social Responsibility	08
Responsibility Management	09
Honors of Responsibility	10
 1. Revitalize petrochemical industry with innovative and pragmatic mindset	11
 2. Create value in good faith	17
 3. Develop business through win-win cooperation	21
 4. Safe operations, low-carbon and green development	25
 5. People foremost, benefit the staff	37
 6. Fulfill responsibilities and serve the society	41
Outlook of 2022	45
Written comments on report on corporate social responsibility	46
Index	50
Briefing of this report	52



ADDRESS BY CHAIRMAN OF BOARD

We will firmly promote the shift of oil refining to chemical industry, chemical industry to materials, materials to high-end ones, and industry park to ecological ones, and strive to be the vanguard of high-quality development and a national team with self-reliance and self-improvement of high-level science and technology.

How time flies as four seasons shift. The past 2021 marked a milestone year in the CPC and China's history when the world underwent unprecedented centurial changes and epidemic in an interlaced way. COVID-19 continued to impact the global industrial chain and supply chain, the prices of primary products such as oil and coal kept fluctuating, the vision of global carbon neutrality was firm and strong, and the international petrochemical industry pattern had profoundly evolved. Under this situation, we had no choice but to focus on high-quality development and continued to build green enterprises.

We actively responded to the national vision of "carbon peaking and carbon neutrality" and accelerated the progress of green and clean energy construction. SPC's first 400 kW demonstration photovoltaic power station was combined to the grid for power generation, the Hydrogen Supply Center (Phase I) was completed, and the hydrogen energy joint laboratory and joint innovation laboratory were established successively. In the future, SPC will build a green and low-carbon comprehensive energy demonstration zone for hydrogen production from wind, solar and electricity, and strive to become a green hydrogen supply center in Shanghai.

We consciously undertook the core duties of the national strategic scientific and technological strength and concentrated on conquering key core technologies. We took the lead in the research and development and mass production of the Winter Olympic torch, and realized the international pioneering application of carbon

fiber composite materials in the Olympic torch. We accelerated the integration of industrial chain and innovation chain, and realized the domestic pioneering application of high-performance and low-cost carbon fiber composite materials in the locomotive housing of high-speed subway trains, and the domestic pioneering application of domestic carbon fiber in winding the hydrogen cylinders.

We always attached importance to work safety by considering it as our top priority, and truly strengthened intrinsic safety with systematic thinking. We published a new version of HSE management system manual, built HSE system thinking, and mobilized all employees to improve their awareness of HSE. Driven by the targets of work safety, we further implemented the responsibilities of the post, and strived to build a high-quality specialized workforce.

We strived to practice the development concept of "Lucid waters and lush mountains are invaluable assets" and kept creating green enterprises. We started the third round of comprehensive environmental improvement simultaneously with Jinshan District, implemented the largest turnaround and revamp in SPC's history, and adopted a number of new environmental protection technologies and facilities; We initiated the mass green practice activities of "green development depends on you and me", so the green culture has been deeply rooted in the hearts of all employees; As one of the first batch of enterprises incorporated into the national carbon trading market, SPC participated in the first day of online trading in the national carbon market. We will contribute

Wu Haijun
Chairman



ourselves to improvement of the ecological environment quality in Jinshan region with better green enterprise performance.

We were determined to implement the integrated development strategy of the Yangtze River Delta and realize the integrated development with the surrounding regions. We cooperated with Pinghu, Zhejiang Province to build a new materials industrial park for development of high value-added fine chemical industry, and built a demonstration industrial park of integrated development in the Yangtze River Delta. Considering the capital and business as the link, we expanded the development space, and shared the development achievements with the surrounding chemical industry parks.

We promoted the three-year action for reform of state-owned enterprises and the improvement action of benchmarking world-class management, and continued to build a competitive market player. Our "Three-person Brand" trademark was awarded the 2021 Shanghai Good Trademark; We won the 2021 "China Moral Enterprise Award" of the 21st Top 100 Listed Companies Summit Forum in China; MSCI international mainstream ESG index rating agency upgraded SPC's ESG (Environmental, Social and Corporate Governance) rating from B to BB. With the successful hosting of the Beijing Winter Olympics that was written into the annals of history, we also successfully completed the production guarantee and on-site service guarantee of the Olympic torch, and wrote a wonderful chapter of SPC in the Winter Olympics. SPC, which is going to celebrate its 50th birthday, is full of hope and

expectation. Let's look forward to a shared future together.

The implementation of the highest political ideal is magnificent. In the next 50-year new journey, we will firmly promote the shift of oil refining to chemical industry, chemical industry to materials, materials to high-end ones, and industry park to ecological ones in a "high-spirited and vigorous" attitude and "pioneering" spirit, and strive to be the vanguard of high-quality development and a national team with self-reliance and self-improvement of high-level science and technology. Towards the goal of building a "domestically leading, world first-class" energy, chemical and new material company, we will work hard to realize our great ambitions by fulfilling the practice.

A stylized, handwritten signature in black ink, likely belonging to Wu Haijun, the Chairman.

March 24, 2022

SPC'S RESPONSIBILITY PERFORMANCE SHEET

ECONOMY



Economic performance indicators	Unit	2021	2020	2019
Total assets	0.1 billion RMB	470.39	447.49	456.36
Operating revenue	0.1 billion RMB	892.80	747.05	1003.46
Total profit	0.1 billion RMB	26.48	5.74	26.54
Earnings per share	RMB	0.18	0.06	0.21
Quantity of applications for invention patents	Piece	81	50	65
Contract performance rate	%	95.79	95.13	96.35
Customer satisfaction	%	98.70	98.26	97.66
One-time settlement rate of complaints through customer service telephone	%	100	100	100
Product spot check qualification rate	%	100	100	100
Bidding purchase rate	%	89.74	89.77	92.34
Manufacturers' direct supply rate	%	99.77	99.62	99.70
Ratio of suppliers' obtaining ISO14000 environmental management system certification	%	64.60	63.50	61.83

SOCIETY



Social performance indicators	Unit	2021	2020	2019
Total tax paid	0.1 billion RMB	144.89	151.19	147.17
Coverage rate of anti-commercial bribery training	%	100	100	100
Labor contract conclusion rate	%	100	100	100
Coverage rate of collective contracts	%	100	100	100
Social insurance coverage rate	%	100	100	100
Proportion of female management staff	%	16.9	16.8	16.5
Incidence of occupational diseases	%	0	0	0
Number of occupational safety and health trainees	Person times	51839	29904	22861
Physical examination rate of employees	%	99.5	99.4	98.9
Input into relief of poverty-stricken employees	10 k RMB	300	300	150
Proportion of female employees	%	19.13	20.17	22.00
Proportion of local employment	%	91.38	89.32	87.67
Employee turnover rate	%	0.29	0.23	0.42

SAFETY



Safety performance indicators	Unit	2021	2020	2019
Input into work safety	10 k RMB	11236.89	28472.83	23478.01
Number of major incidents of fire hazards and explosions	Case	0	0	0
Number of major incidents of environmental pollutions	Case	0	0	0
Number of major incidents of occupational hazards	Case	0	0	0
Major incidents of chemical spills	Case	0	0	0
Major traffic accidents	Case	0	0	0
Major liability incidents	Case	0	0	0
Deaths in line of duty	Person	1	1	0
Mortality rate per million man-hours	%	0.00611	0.0058	0
Annual morality rate of employees' work injuries	%	0.0120	0.0116	0
Number of employees injured at work	Person	39	19	15
Incident rate of work-related injuries	%	0.3240	0.2198	0.1611
Annual rate of employees' serious injuries	%	0	0	0

ENVIRONMENT



Environmental performance indicators	Unit	2021	2020	2019
Total environmental investment	10 k RMB	39527	56925	65883
Fresh water consumption	10 k tons	4768	4981.15	5757.76
COD discharge	ton	671.09*	987.23	1161.04
Discharge of ammonia nitrogen	ton	26.23*	45.22	68.3
Discharge of waste gas	10 k m ³	419.32	526.71	469.13
SO ₂ discharge	ton	199.76	210.18	220.63
Discharge of nitrogen oxides	ton	1067.59	1224.05	1266.74
Total consumption of industrial energy	10 k tons	632.3	692.0	715.0
Electricity consumption(excluding external power supply)	10 k kilowatt-hour	306914	334818	332171
CO ₂ discharge	10 k tons	946.75	1054.11	1095.89
CO ₂ discharge per unit operation revenue	t/0.1 billion RMB	1.06	1.41	1.09
Discharge of hazardous wastes	10 k tons	1.65	1.68	1.49
Discharge of non-hazardous wastes	10 k tons	70.54	74.41	72.37
Comprehensive recycling volume of sludge	10 k tons	1.22	1.47	1.91
Frequency of major leakage of chemicals	Times	0	0	0

*Excluding emissions from Shanghai Jinshan Second Industrial Zone.

COMPANY PROFILE

Sinopec Shanghai Petrochemical Co., Ltd. (hereinafter referred to as SPC), a holding subsidiary of China Petroleum & Chemical Corporation, is located in Jinshan District, Shanghai, whose predecessor was Shanghai Petrochemical Complex that was founded in 1972. In 1993, as a result of standardized reform of shareholding system for the state-owned enterprises, SPC became the first company limited listed on the stock markets in Shanghai, Hong Kong and New York simultaneously. SPC is one of the major integrated oil refining and petrochemical enterprises and also an important production base of oil products, intermediate petrochemical products, synthetic resin and synthetic fiber in China.



On September 16, 2021, SPC signed a contract with Pinghu, Zhejiang Province on co-construction project of a new materials industrial park.

On September 28, 2021, SPC's Hydrogen Supply Center (Phase I) was completed, reducing carbon emissions by about 2,920 t/a.

In January 2021, SPC's 48K large tow carbon fiber project started construction as one of the major industrial projects in Shanghai.

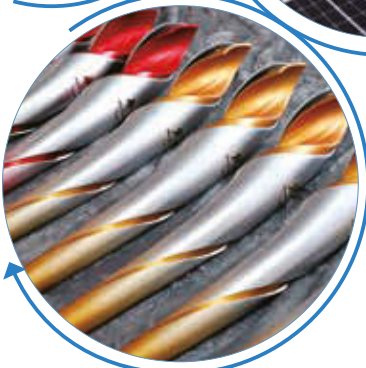
On February 4, 2021, the torch "Flying Ribbon" of Beijing Winter Olympics made of SPC's carbon fiber composite materials was officially released



On November 17, 2021, SPC initiated the 5S management, including "Seiri, Seiton, Seiso, Seiketsu and Shitsuke".



On August 26, 2021, SPC's first photovoltaic power station was connected to the grid for power generation.



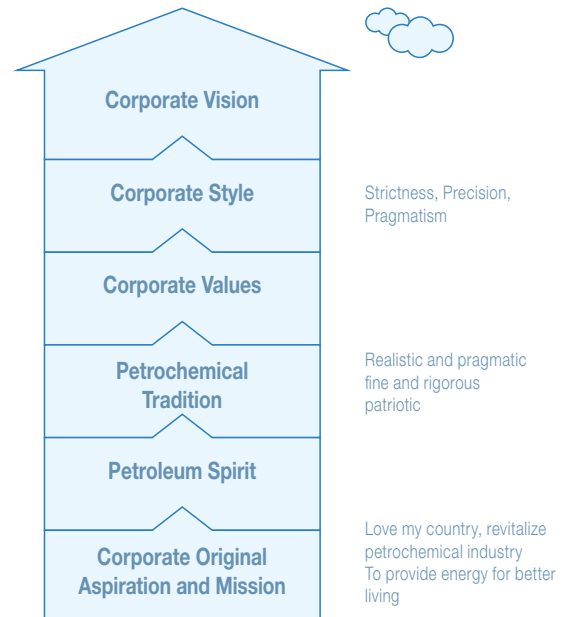
CORPORATE CULTURE

Corporate culture is the key to formation of enterprise core competitiveness and also the impetus of corporate development. Excellent corporate culture is the soul of corporate management, the spiritual core that builds the employees cohesion, and an important component of corporate development strategy. SPC's core value concept system includes corporate mission, corporate vision, corporate values, corporate style and professional conduct, etc., which are continuously innovated and developed in practice.

To build a "domestically leading, world first-class" energy, chemical and new material company

People, Responsibility, Integrity
Precision, Innovation, Shared Values

Hard-working and down-to-earth style, three honesties and four strictness (to be an honest person, to speak honestly and act honestly in revolutionary cause; to have strict requirements, well-arranged organization and strict discipline in work)



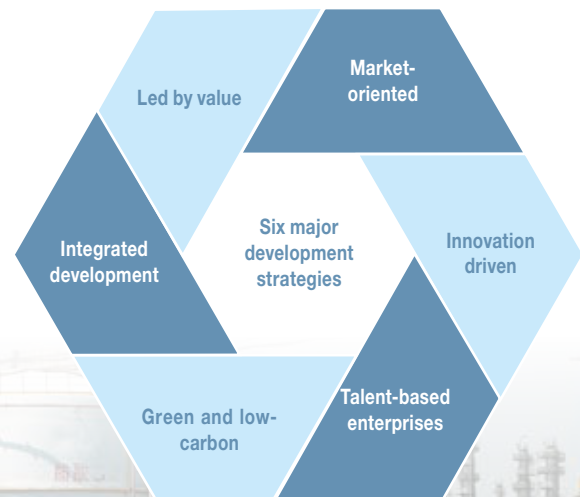
DEVELOPMENT STRATEGY

Guided by President Xi Jinping's ecological civilization thought, SPC implemented the spirit of the 19th CPC National Congress and all plenary sessions of the 19th CPC Central Committee in an all-round way, based on new stage of development, implemented the new development concept, responded to the national "Dual Carbon" goal, Sinopec's "one basics, two wings and three innovations" industrial pattern and the requirements of Shanghai municipal "north-south transformation" requirements, adhered to SPC's vision positioning of

building a "domestically leading, world first-class" energy, chemical and new material company and the six major development strategies of "value-led, market-oriented, innovation-driven, talents-based enterprise development, green and low-carbon, integrated development", and strived to promote the development ideas of "the shift of oil refining to chemical industry, chemical industry to materials, materials to high-end ones, and industry park to ecological ones".

Challenge the advanced level and benchmark the most stringent standard

- shift of oil refining to chemical industry
- shift of chemical industry to materials
- shift of materials to high-end ones
- shift of industry park to ecological ones

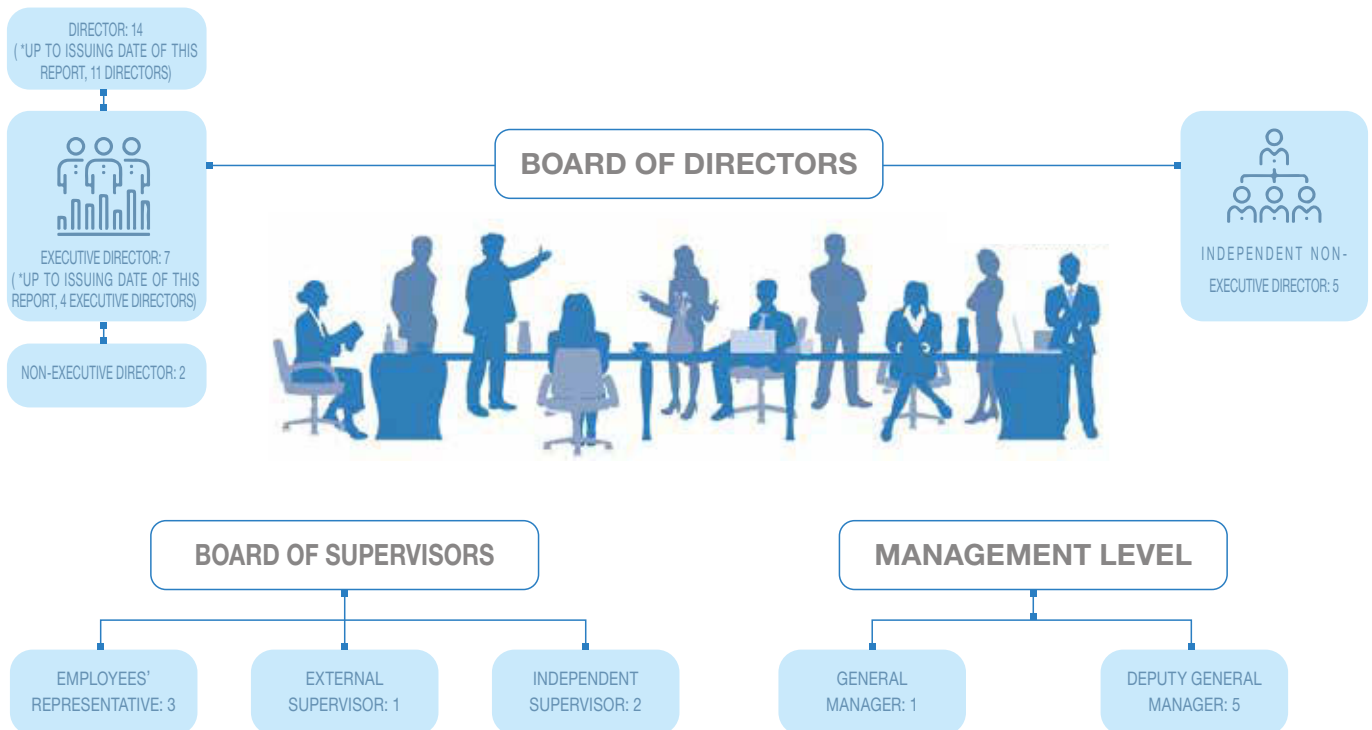


CORPORATE GOVERNANCE

The Company strictly abided by the "Corporate Law", "Securities Law" and the applicable regulations and provisions contained in the "Guidelines for Environmental, Social and Governance Reporting"; By formulating management policy documents such as Nomination Policy for Board Directors of Sinopec Shanghai Petrochemical Co., Ltd. and Working System for Independent Board Directors of Sinopec Shanghai Petrochemical Co., Ltd. and timely revising the Articles of

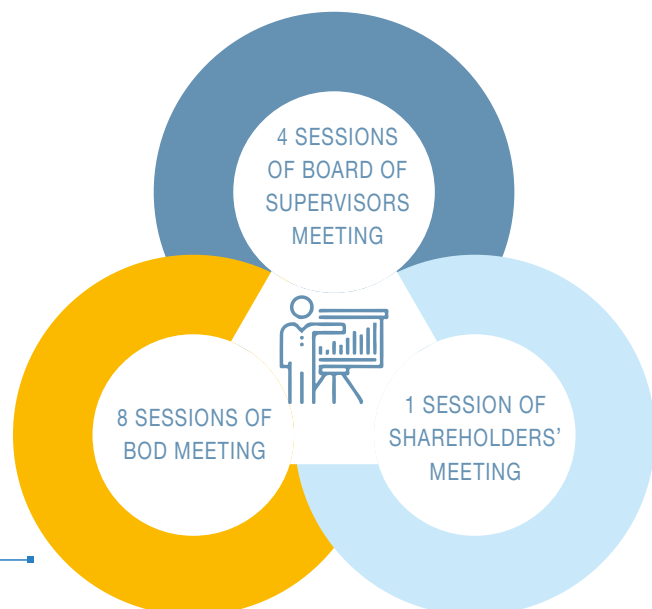
Association and Annexes to the Articles of Association of Sinopec Shanghai Petrochemical Co., Ltd., SPC constantly improved the corporate governance structure of the board of directors, the board of supervisors and managers with defined rights and liabilities, respective duties, effective checks and balances, scientific decision-making and coordinated operation.

GOVERNANCE STRUCTURE



GOVERNANCE PERFORMANCE

In 2021, the Company totally held 8 sessions of BOD meeting, 4 sessions of board of supervisors' meeting, and 1 session of shareholders' meeting. The BOD meetings totally reviewed and adopted 29 proposals, the board of supervisors' meetings totally reviewed and adopted 11 proposals, and shareholders' meeting reviewed and adopted 9 proposals.



SOCIAL RESPONSIBILITY

DETERMINATION OF SOCIAL RESPONSIBILITY TOPICS

Based upon the relevant requirements for social responsibility management in the “Guidelines for Report on Environment, Society and Governance” of the SEHK and the “Guidelines for Sustainable Development Report” of the Global Initiative, the Company continuously improved the social responsibility management structure, strengthened ESG supervision, and regulated the duties and processes of social responsibility work. The Company’s board of directors attached great importance to the preparation of social responsibility report, and required that the social responsibility report should reflect the Company’s responsibility to investors, customers, employees, governments, partners and other stakeholders. In terms of the selection of topics, it must identify the Company’s key areas of impact on society, economy, and environment, and establish a harmonious development and benefit-sharing relationship with stakeholders. The social responsibility reports over the past years have been disclosed to the public after being reviewed by the board of directors.



PROCESS FOR SCREENING OF TOPICS



MAIN SOURCES OF TOPICS

Recommendations of the Company’s internal management
Analysis and judgment of internal and external experts
Analysis of various media information
Same industrial benchmarking and analysis at home and abroad
Making reference to guidelines for standards of social responsibility
Proposals of worker’s congress
Customers’ main concerns
Conclusion of strategic cooperation agreement with governments
Feedback from suppliers
Solicitation of opinions from communities and the public

STANDARD FOR SCREENING OF TOPICS

Stakeholders’ general great concerns
Significant contributions to sustainable development
Highlights of guidelines for social responsibility
Coincidence with the Company’s development strategy

Assessment matrix for the importance of social responsibility topics



COMMUNICATION WITH STAKEHOLDERS



Governments and supervisory agencies

- ◆ Legal operations
- ◆ Safe and reliable products
- ◆ Implementation of energy conservation and emission reduction
- ◆ Promote industry progress
- ◆ Serve national economy and the people’s livelihood



Investors

- ◆ Maintain good operating performance
- ◆ Ensure stable operation situations
- ◆ Strengthen disclosure of operation information



Customers

- ◆ Serve customers and create value
- ◆ Satisfy customers diversified demand
- ◆ Provide premium quality products and services



The public

- ◆ Improve the operation transparency
- ◆ Provide premium quality products



The same industry and industry organizations

- ◆ Win-win cooperation
- ◆ Industry contributions
- ◆ Fair operations



Employees

- ◆ Ensure occupational health
- ◆ Safeguard employees’ rights and interests
- ◆ Improve occupational skills
- ◆ Provide platforms of development
- ◆ Achieve balance between production and life



Suppliers and partners

- ◆ Open, fair and just procurement
- ◆ Honor credibility and keep promise
- ◆ Mutual benefit and win-win



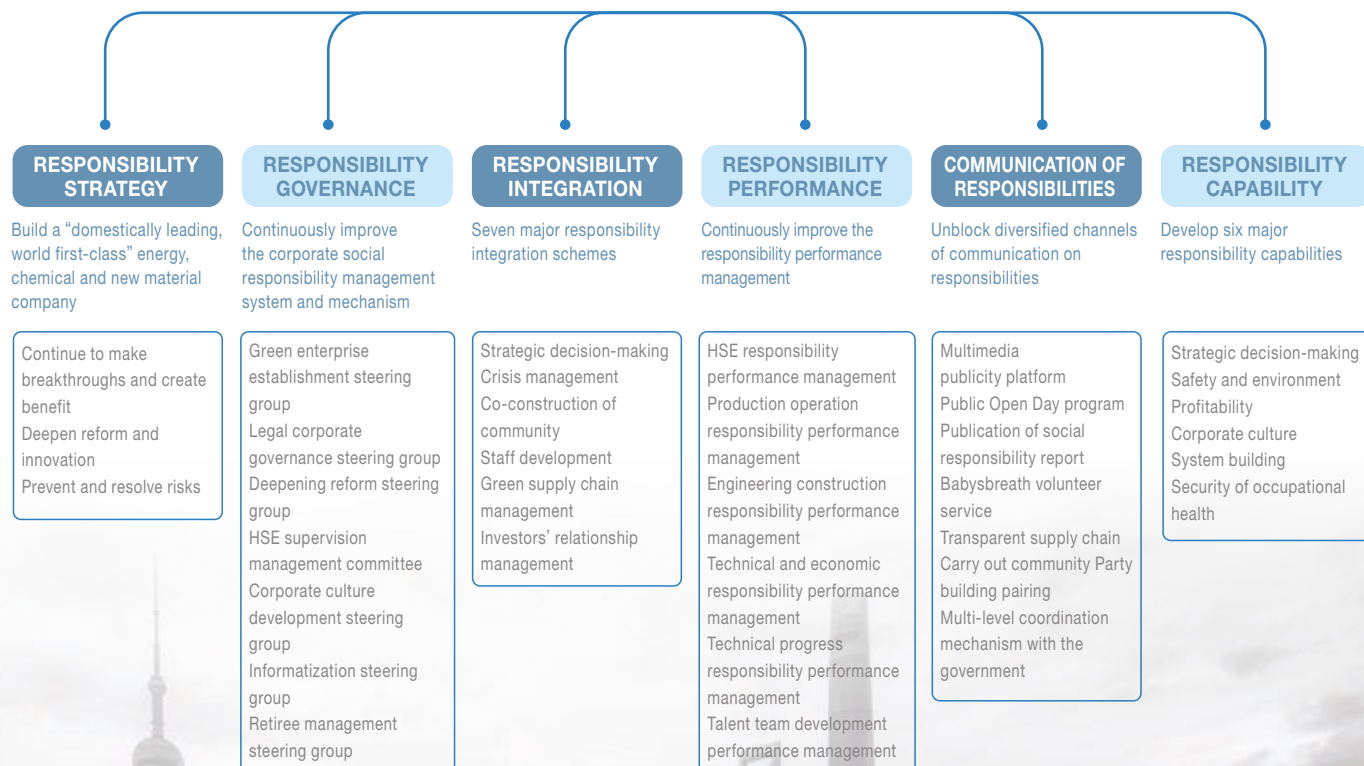
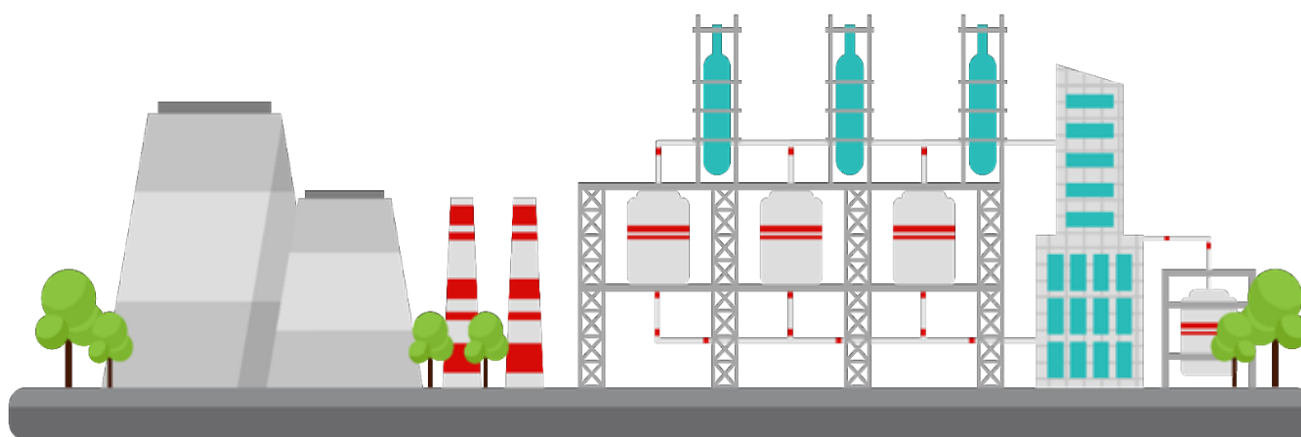
Community

- ◆ Co-construction of community
- ◆ Support public benefit
- ◆ Environmental protection
- ◆ Fix-point poverty alleviation

RESPONSIBILITY MANAGEMENT

The Company considered fulfilling social responsibility as an important content of strengthening corporate management and improving core competitiveness, pushed forward the full incorporation of social responsibility management into the production and operation of enterprises, promoted harmony and win-win between enterprises and stakeholders, maximized the comprehensive value of economy, society and environment, and built a social responsibility management system including six aspects such as responsibility strategy, responsibility

governance, responsibility capabilities, responsibility integration, responsibility performance and responsibility communication, thusly forming a social responsibility management system with SPC's characteristics. In 2021, the Company continued to improve the corporate social responsibility management mode from the aspects of improving corporate governance structure, perfecting management system, expanding communication, improving performance, intensifying research and strengthening training.



HONORS OF SOCIAL RESPONSIBILITY

Outstanding Contribution Unit of National Skilled Talents Cultivation in 2020
National Model Workers' Home in 2020
National Women's Civilization Post in 2020
Group Silver Award of Polyethylene Plant Operator Contest in 2021 National
Industry Vocational Skills Competition
First Prize of Excellent Publications in China Petroleum and Chemical
Industry
Silver Award of National Workers' CPC History Knowledge Competition
Patriotism Education Base for Central Enterprises
Continued to maintain the honorary title of the winner of the national "Safety
and Health Cup" competition
May 1st Labor Certificate in 2021
2019-2020 Shanghai Civilized Enterprise
First Prize of Shanghai Enterprise Management Modernization Innovation
Achievement in 2021
2021 Shanghai Workers' Pioneer
2019-2020 Shanghai Collective Award of Woman Pace-setter
Shanghai Youth May Fourth Medal in 2020
Silver Award of Shanghai Industrial Youth Innovation Contest in 2020
Youth Commando of Shanghai Economic and Information System in 2020
Second Prize of Outstanding Achievements of Shanghai Corporate Culture in
2020-2021
Second Prize in Comprehensive Appraisal of Shanghai Investment and
Construction Statistics in 2021
Second Prize in Comprehensive Appraisal of Shanghai Energy Statistics in
2021
Second Prize in Comprehensive Appraisal of Shanghai Industry Statistics in
2021
The outstanding collectives for blood donation evaluation in Shanghai
communities, enterprises and institutions in 2020

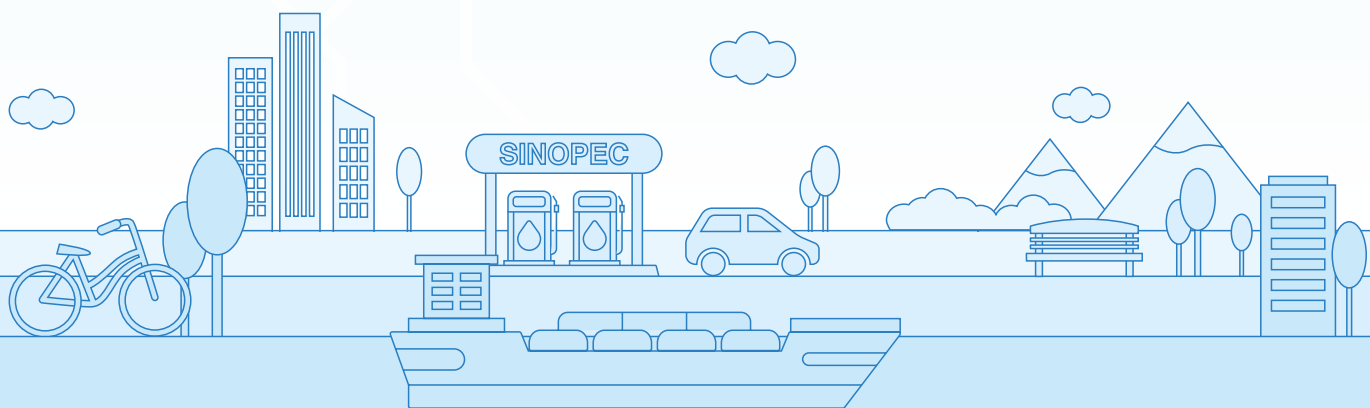




REVITALIZE PETROCHEMICAL INDUSTRY WITH INNOVATIVE AND PRAGMATIC MINDSET

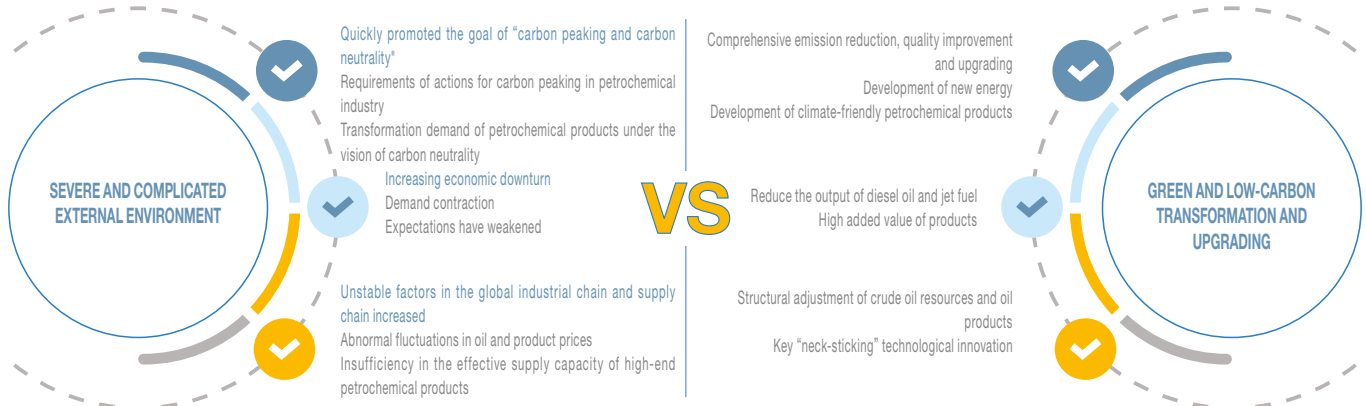
- 01 Focus on high-end supply
- 02 Make innovations in petrochemical technology
- 03 Jointly develop SPC quality
- 04 Build smart plant

Facing the unprecedented global changes and the epidemic occurred in the past century, the Company consciously undertook the core responsibility of national strategic scientific and technological strength, organized scientific and technological research on “neck-sticking” technology and “weakness-strengthening” technology, and improved the supply capacity of high-end petrochemical products by considering the domestic economic cycle as the mainstay and in the face of unblocked domestic and international “dual circulation”. SPC strived to be the vanguard of high-quality development and the national team with self-reliance in high-level science and technology.

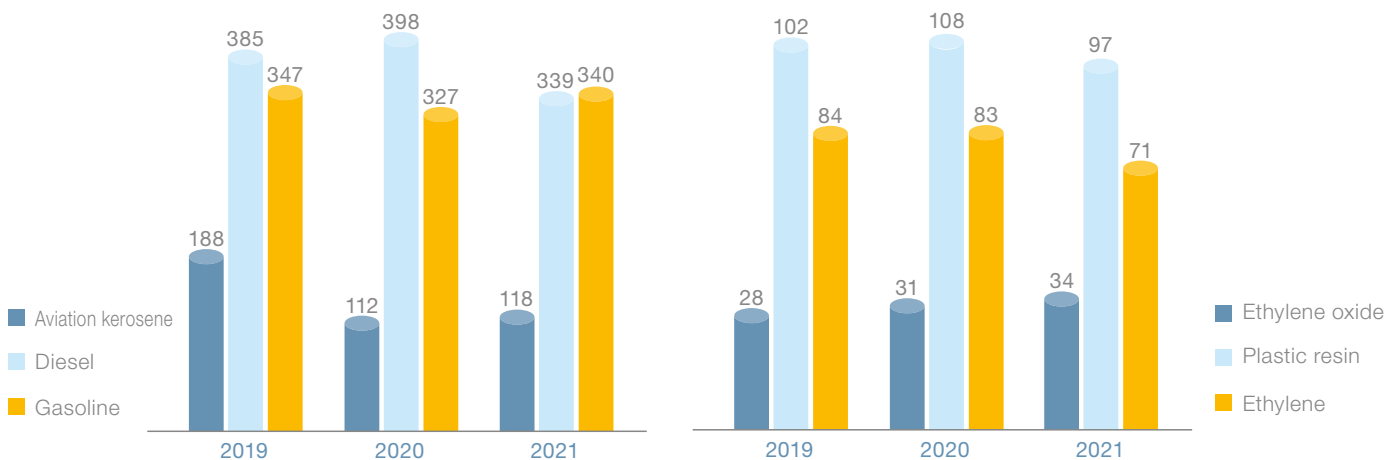


FOCUS ON HIGH-END SUPPLY

In 2021, facing the severe challenges brought about by the unprecedented complex environment of the global petrochemical industry, SPC adhered to the concept of “challenging the advanced level and benchmarking the most stringent standard”, stuck to the development direction of shifting chemical industry to materials and materials to high-end ones, actively boosted the new material industry with carbon fiber as the core, and made contributions to forging the new development paradigm featuring dual circulation, in which domestic and overseas markets reinforce each other, with the domestic market as the mainstay



OUTPUT OF SPC' S MAIN PRODUCTS IN 2021 (10 K TONS)



In 2021, the Company actively responded to the goal of “carbon peaking and carbon neutrality”, vigorously implemented the green and clean development strategy, and accelerated the progress of green and clean energy construction.



The Hydrogen Supply Center (Phase I) completed

The daily hydrogen supply capacity of the hydrogen supply center reaches 2500 kg. Hydrogen is sourced from SPC's in-house industrial by-product hydrogen, which meets the national quality standard of hydrogen fuel cell.

It is estimated that carbon emissions can be reduced by about 2,920 tons per year, which is of great significance for ensuring regional clean energy supply and leading the high-quality development of the hydrogen energy industry chain.

The first photovoltaic power station was connected to the grid for power generation
SPC's first 400 kW demonstration photovoltaic power station was connected to the grid for power generation, which can reduce carbon emissions by 341 tons per year.
As SPC's first new energy pilot project, it lined up the whole process of photovoltaic power generation plant construction, laying the foundation for SPC's new energy development.



In response to the development of new material industry chain and high-end application needs in Shanghai and Yangtze River Delta region, SPC strengthened and optimized the advanced material industry with carbon fiber and its composite materials as the core. The Company strived to be the vanguard of high-quality development and the national team with self-reliance in high-level science and technology.



REALIZED THE INTERNATIONAL PIONEERING APPLICATION OF CARBON FIBER IN BEIJING WINTER OLYMPIC TORCH

SPC undertook the torch mass production task for Beijing 2022 Winter Olympics and Paralympics; up to the issuing date of this report, the company has successfully accomplished the torch service supporting task for the Winter Olympics and Paralympics.

Compared with the traditional aluminum alloy shell, the carbon fiber torch shell is light, solid and beautiful and its weight is reduced by 30%. SPC realized the international first application of carbon fiber composite materials in Olympic torch.

SPC'S NEW APPLICATIONS OF CARBON FIBER IN 2021

Light-oriented automobiles

Developed the carbon fiber transmission shaft, which reduces weight by 70% compared with steel products;
Developed the carbon fiber wheel hub, which reduces the weight by 40% compared with aluminum alloy parts.

Rail transit

Manufactured the locomotive opening and closing housing with carbon fiber composition, which was successfully applied to Guangzhou No. 18 Metro Line, the first train that used this material in China.

New energy

Complete the development of carbon fiber pultruded sheet for wind turbine blade beam;
Completed the trial production of 140LIII hydrogen cylinder wound with 48K carbon fiber.

Bridge construction

Completed the production of 20,000 meters of carbon fiber threaded ribs.



INCREASED PRODUCTION OF HIGH VALUE-ADDED PRODUCTS

Closely following the market demand, the Company strengthened the benefit calculation of integrated refining and chemical units, and continuously promoted the development and supply of high value-added products.

Facing the trend of increasingly thinning heavy packaging film market, SPC seized the market opportunity and rolled out bimodal linear low-density products with high strength and puncture resistance, which, not only maintains high strength, but also possesses good processing performance, filled the domestic gap, and was well received by downstream heavy packaging film manufacturers once they were rolled out.



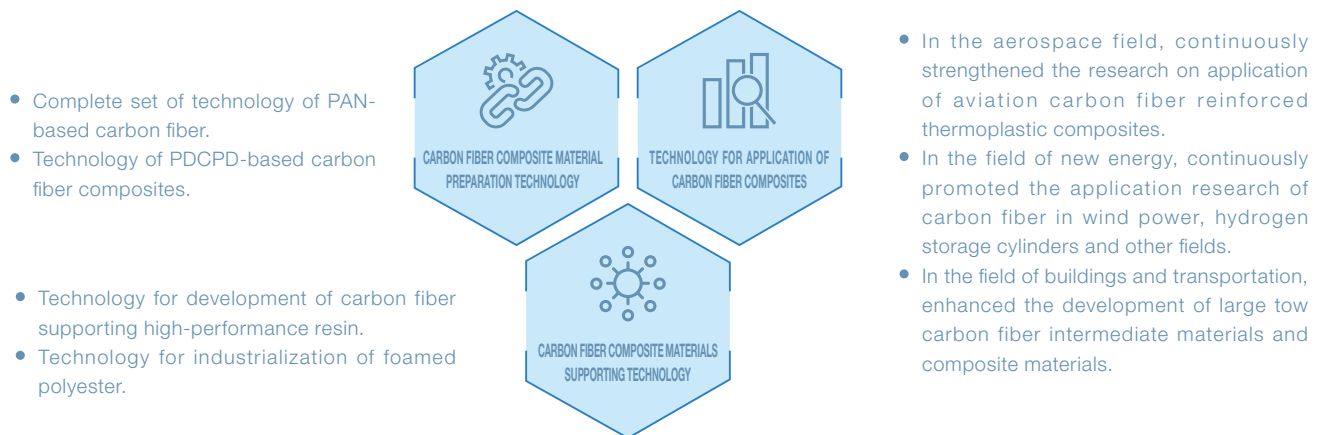
MAKE INNOVATIONS IN PETROCHEMICAL TECHNOLOGY

In 2021, the Company persisted in innovating in development and developing in innovation. Based on self-reliance in science and technology, SPC consciously assumed the core responsibilities of national strategic scientific and technological strength and concentrated on conquering key core technologies.

In 2021, the Company invested a total of 94.3 million RMB in research and development and applied for 81 national invention patents. The Company pays great attention to intellectual property maintenance and management, establishes a professional department to conduct regular detection and risk assessment for self-owned trademarks, and applies for trademark registration, invalidation or objection to the national intellectual property agency based on the result. The company undertakes comprehensive management concerning patent protection, implementation, maintenance and abandonment, and makes full use of current technology information resource in patent tracking during the R&D process, in order to avoid infringement of other patentees' rights. The company conducts legal risk assessment concerning Freedom to Operate before patent assignment or licensing. The company regularly assesses the patent value to support decision making concerning patent maintenance or abandonment.



Considering the carbon fiber industry chain as the main target, the Company systematically carried out research on carbon fiber and its composite technology, and formed a complete set of technologies with independent intellectual property rights and carbon fiber industrialization. The Company has applied 176 patents and authorized 83 patents related to carbon fiber.



In 2021, based on the basic principles of open sharing, collaborative innovation and win-win cooperation, the Company gradually established an open innovation platform operation mechanism, and signed 14 foreign strategic cooperation framework agreements to accelerate the industrialization process of research achievements in strategic new materials.

East China University of Science and Technology-SPC Hydrogen Energy Joint Laboratory
Focus on key technologies and basic scientific issues such as hydrogen production, hydrogen storage, hydrogen transportation and hydrogen use, and build a higher-level innovation cooperation platform.



Donghua University-SPC Joint Laboratory

Focus on carbon fiber, synthetic resin fiber materials and composite materials, carry out comprehensive research, and continuously enhance the ability to tackle key core technologies.

JOINTLY DEVELOP SPC QUALITY

In 2021, SPC continued to promote the quality management system and improved the optimization and adjustment of management process, enhanced the identification of quality risks, constantly improved the quality management efficiency and accuracy to ensure that all links affecting product quality were under control, boosted

high-end supply of industry chain and high quality development of the company in an all-around way.

SPC's qualified rate of sampling achieves 100% throughout 2021. No products sold had been recalled due to quality problems.

Strengthened the application of online platform

Promoted substitution of on-line instruments, standardized management of on-line instruments, and realized advanced process control; Promoted online approval of quality management process.

Enhanced the construction of product compliance

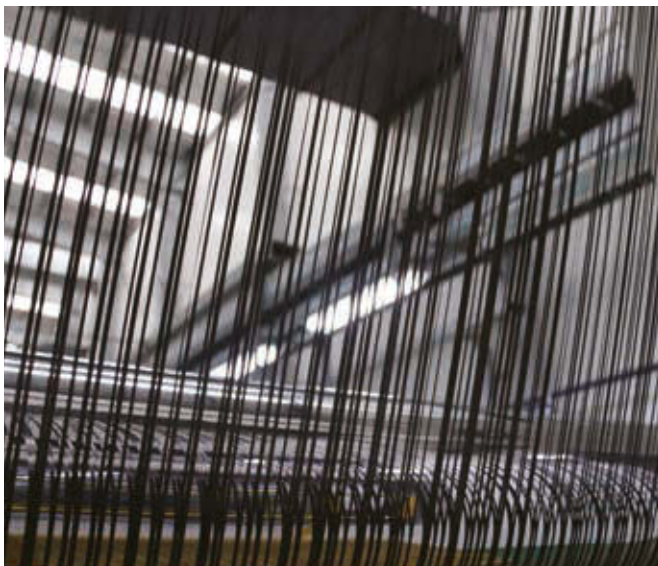
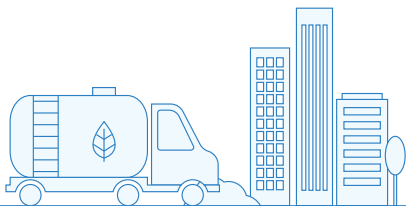
planned and prepared for production certificate renewal after termination; assisted the local market supervision agency in on-site inspection; assisted governmental supervision after the certificate issue for civil aviation kerosene production.

Strengthened management and control of quality risks

Formulated the List of Important Quality Risk Management and Control at the Company Level; Focused on identification of risks during start-up/shutdown; Strengthened the risk identification and quality control of market purchased materials; Standardized process quality management.

Improved the effectiveness of quality management system

organized effectiveness evaluation for SPC Quality Management System 2021; revised and optimized the company's quality control related code: "SPC Code for Aviation Kerosene Production"; accomplished building up Aerospace Quality Management System of the company.



PRECISE MANAGEMENT STABILIZES QUALITY
EMPOWERMENT BY TRANSITION INCORPORATES R&D

BOOSTED PRODUCT MIX ADJUSTMENT

By improving the quality system construction and high-level quality control and supporting the development and promotion of SPC's high value-added products, the Company boosted the development towards the medium and high end of the value chain.

Quality system certification
SPC was granted with the AS system certificate issued by the International Aerospace Quality Organization;
The Company's carbon fiber products have been certified by COMAC PCD.



Manage quality control

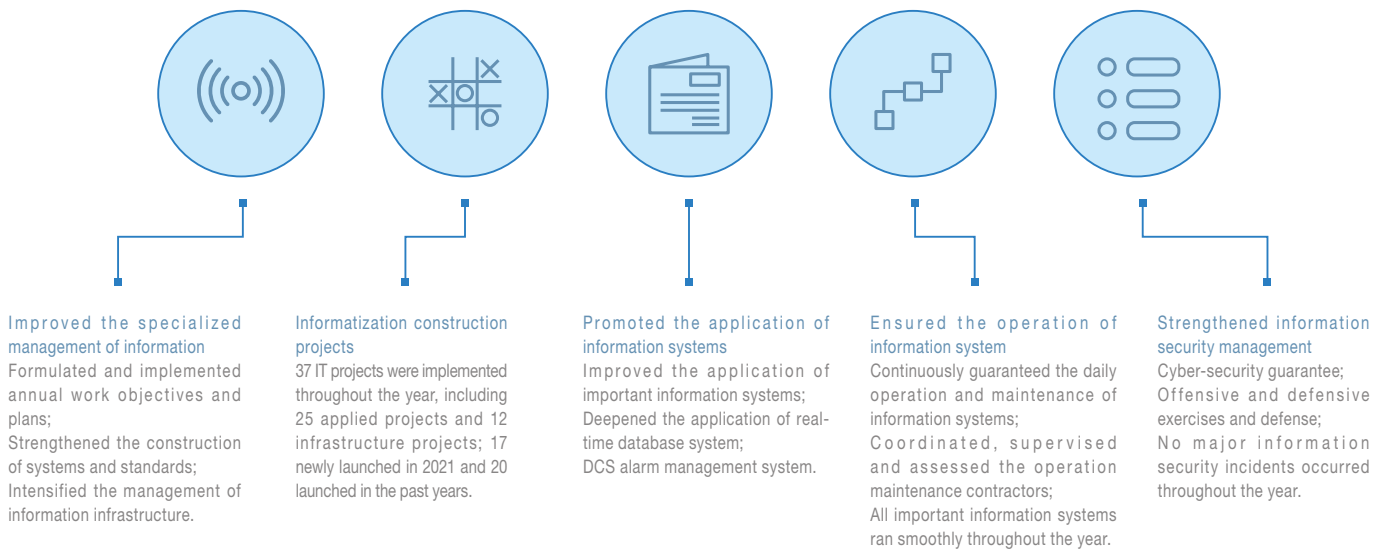


BUILD SMART PLANT

In 2021, SPC focused on the application direction of new generation of information technology and intelligent manufacturing, actively promoted in-depth integration of informatization and industrialization, boosted the Company's digital transformation, and added new kinetic energy to the Company's improvement of comprehensive and sustainable development capabilities.

In 2021, the Company's "Integrated Development and Application of Key Technologies for Leak Detection and Repair of VOCs in Petrochemical Industry" won the second prize of Shanghai Science and Technology; the Company participated in the qualifiers of 2021 China Industrial Internet Competition, and advanced to the finals with the second prize of the team competition in the qualification trials of Shanghai region.

SPC'S SMART PLANT CONSTRUCTION IN 2021



THE COMPANY'S SMART PLANT CONSTRUCTION BOOSTED ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION



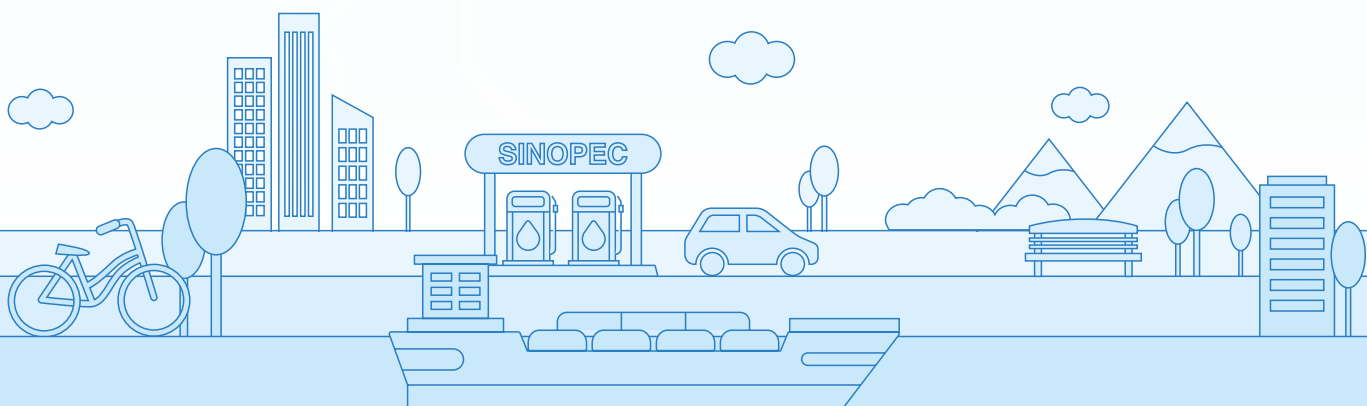


CREATE VALUE IN GOOD FAITH

01 Jointly create value with our customers

02 Build responsible supply chain

SPC has always adhered to the concept of compliance with laws and regulations and honest management, abided by business ethics, kept in mind the supremacy of customers, improved competitiveness in open cooperation and mutual benefit and win-win, and enhanced development capability and value creation with customers and partners under mutual understanding and trust.



JOINTLY CREATE VALUE WITH OUR CUSTOMERS

Adhering to the concept of serving customers, SPC continuously improves product quality, innovates customer service channels, and repays customers with premium products and services.

COMPLY WITH LAWS AND REGULATIONS, ABIDE BY INTEGRITY

SPC adheres to integrity management and abides by business ethics; abides by laws and regulations, and improves the compliance management system. The legal construction has entered a new milestone.

Improved the compliance system

- All management signed the compliance commitment;
- Carried out legal compliance review for major projects, examined and approved the SPC Compliance Management Measures;
- Printed and distributed the Compliance Assessment Report of SPC (2020 Annual) Integrated Management System;
- All the related staff signed the confidentiality agreement in line with the related codes, to protect the consumers' data and privacy, which is under inspection of the disciplinary and supervisory departments.

THE LEGALITY REVIEW RATE OF
RULES AND REGULATIONS
100%

AVOIDED POTENTIAL LOSSES OF
OVER **67.79** MILLION RMB FOR
THE COMPANY

Improved the effectiveness of legal services

- Strengthened the legal compliance review for major projects; Dealt with petition letters according to law to ensure reasonable appeal of employees;
- Strengthened legal work such as service contract management, trademark protection, and investigation of administrative licenses;
- In line with the Civil Code, Work Safety Law, Anti-Food Waste Law, etc., carried out publicity and education of the rule of laws.

CARRIED OUT ONLINE PRIZE-
WINNING LEGAL PUBLICITY
ACTIVITIES, WITH **4,609**
PERSON TIMES PARTICIPANTS

FOCUSED ON QUALITY AND IMPROVED SERVICE

Adhering to the concept of "satisfying customers' needs and creating value for customers", the Company promoted high-quality development with high-quality products, projects and services.

IMPROVE THE EFFICIENCY OF CUSTOMER
COMPLAINTS
QUICK RESPONSE AND CLOSED-LOOP
MANAGEMENT



ONLINE AND OFFLINE CUSTOMER VISITS
LISTEN TO CUSTOMERS' OPINIONS AND
SUGGESTIONS



IN-DEPTH DEVELOPMENT OF TECHNICAL
SERVICE
FOCUS ON CUSTOMER VISIT



DEEPEN "ONE ENTERPRISE, ONE POLICY"
PROVIDE CUSTOMIZED SERVICE
EXPERIENCE



CREATE VALUE, IMPROVE BENEFIT

In 2021, the Company recognized the profound impact of COVID-19 pandemic on domestic economic development, challenged difficulties and achieved positive results in various activities.



THE FIRST PHOTOVOLTAIC POWER STATION WAS CONNECTED TO THE GRID FOR POWER GENERATION

Developed clean energy
Boosted the dual-carbon goal

01

02

Supported scientific and technological innovation
Took the lead in green development



COMPLETED CONSTRUCTION OF THE HYDROGEN SUPPLY CENTER (PHASE I)

Strengthened market research and judgment
Adjusted product mix

03

04

Made overall arrangement of sales channels
Expanded overseas markets



EXPORTED LOW SULFUR JET FUEL AND EXPANDED OVERSEAS MARKET

Promoted intelligent storage and transportation
Optimized logistics system

05

06

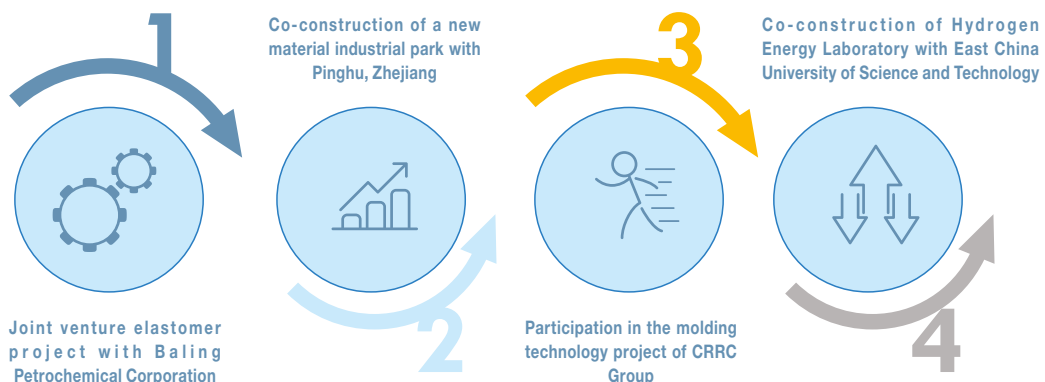
Focused on brand building
Enhanced corporate image



IMPLEMENTED 5S MANAGEMENT AND ENHANCED CORPORATE IMAGE

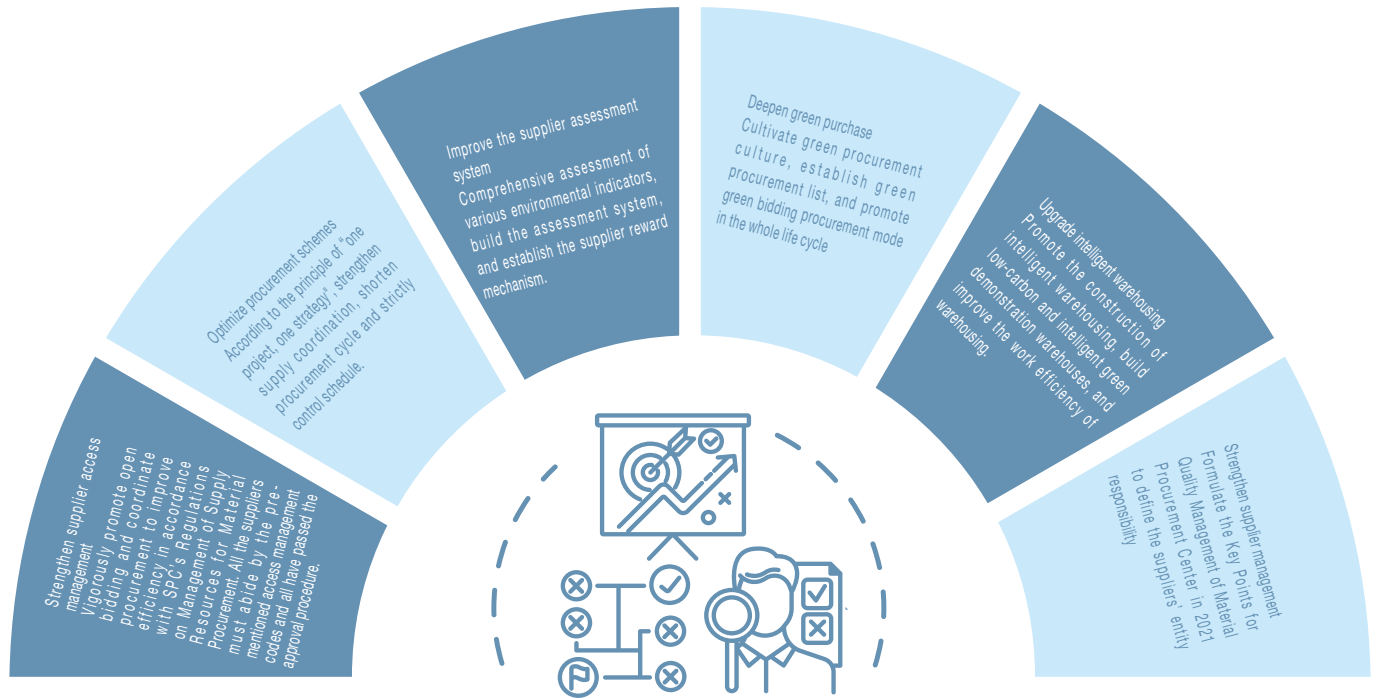
EXTENSIVE CONSULTATION AND CO-CONSTRUCTION, WIN-WIN COOPERATION

The Company always attaches importance to peer exchanges and pragmatic cooperation, and actively expands new platforms to achieve mutual benefit and win-win with all stakeholders and promote the sustainable development of the industry.

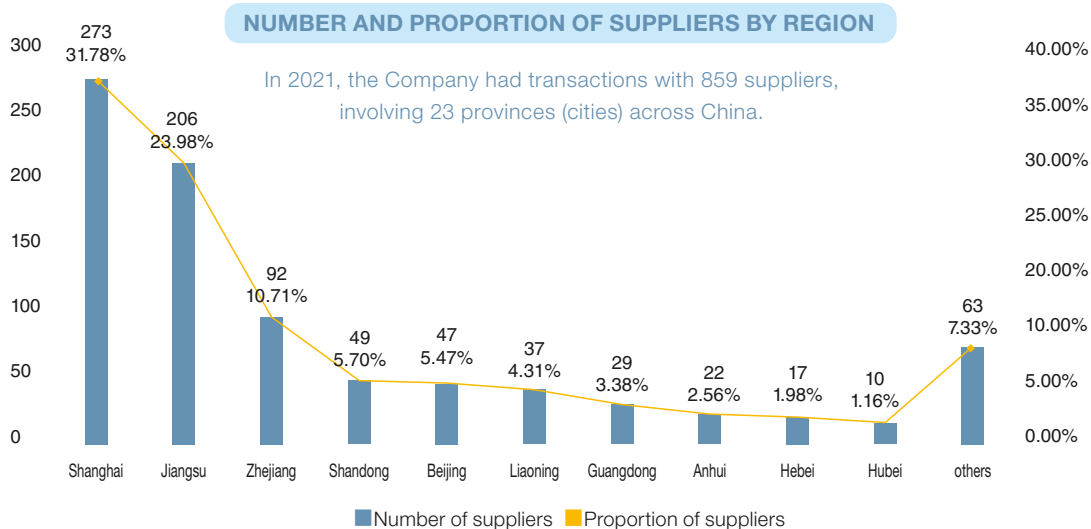
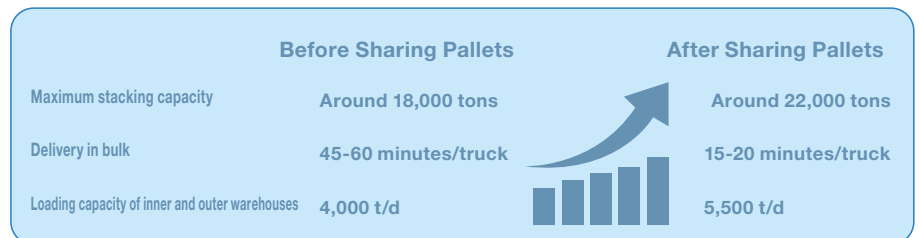


BUILD RESPONSIBLE SUPPLY CHAIN

With targets of "safety, timeliness, greenness and economy", SPC continuously establishes and improves the supplier management system, and jointly creates the future with suppliers for mutual benefit and win-win.



Sharing pallets can increase the inner storage capacity of the Plastic Division, improve the product loading speed, reduce the invalid waiting time of transport vehicles in the whole logistics link, improve the loading and unloading efficiency, and mitigate the product damage and contamination. Since April, 2021, shared pallets have been fully adopted for SPC's plastic products, which has realized product delivery together with pallets and recycling of pallets.



Note: The number and proportion of suppliers from other provinces (cities) in the above chart are: Fujian (9, 1.05%); Hubei (9, 1.05%); Jiangxi (8, 0.93%); Shaanxi (8, 0.93%); Sichuan (8, 0.93%); Tianjin (6, 0.7%); Gansu (5, 0.58%); Heilongjiang (4, 0.47%); Chongqing (3, 0.35%); Guangxi (1, 0.12%); Ningxia (1, 0.12%); Yunnan (1, 0.12%).



DEVELOP BUSINESS THROUGH WIN-WIN COOPERATION

01 Improve operation
performance

02 Safeguard investors' rights
and interests

As the first company limited listed on the stock markets in Shanghai, Hong Kong and New York simultaneously, SPC strictly abided by the securities supervision rules and regulations of the listing exchanges, strived to reduce costs, increase efficiency and improve operating performance by starting from the operating benefit. In the meanwhile, SPC strictly implemented various information disclosure systems, made innovations of investor relations management, attached importance to investors' opinions and feedback, and earnestly safeguarded the investors' interests.



IMPROVE OPERATION PERFORMANCE

In 2021, the Company focused on expanding the market, reducing costs, improving benefit and strengthening the foundation, and strived for double victories in epidemic prevention and control and production operation.

PROMOTE ENTERPRISE GROWTH AND IMPROVE ECONOMIC BENEFIT

TOTAL ASSETS

47.039

billion RMB



TOTAL TAX PAID

14.489

billion RMB



OPERATING REVENUE

89.280

billion RMB



TOTAL PROFIT

2.648

billion RMB



WEIGHTED AVERAGE RETURN ON EQUITY

6.73

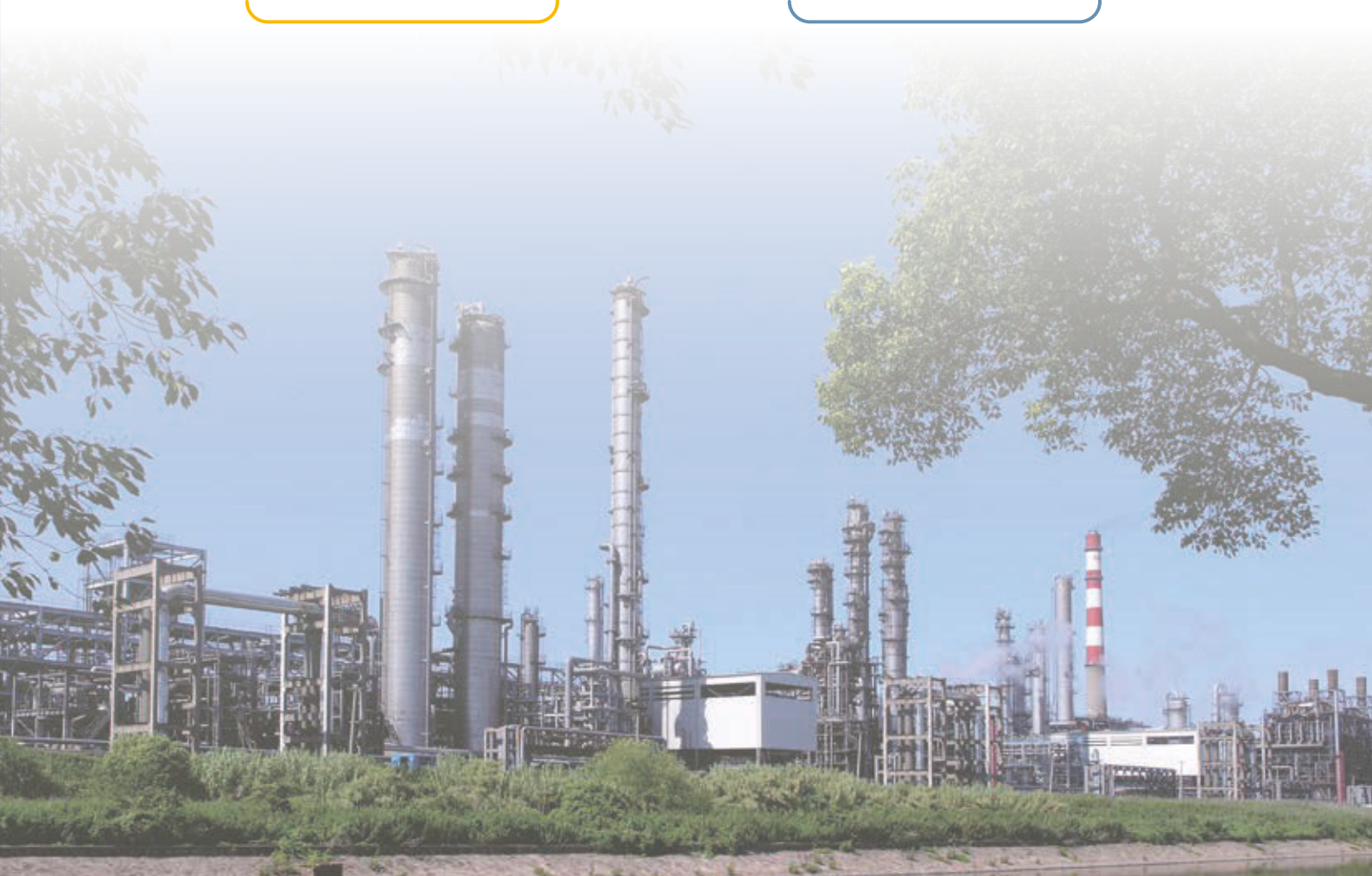
%



EARNINGS PER SHARE

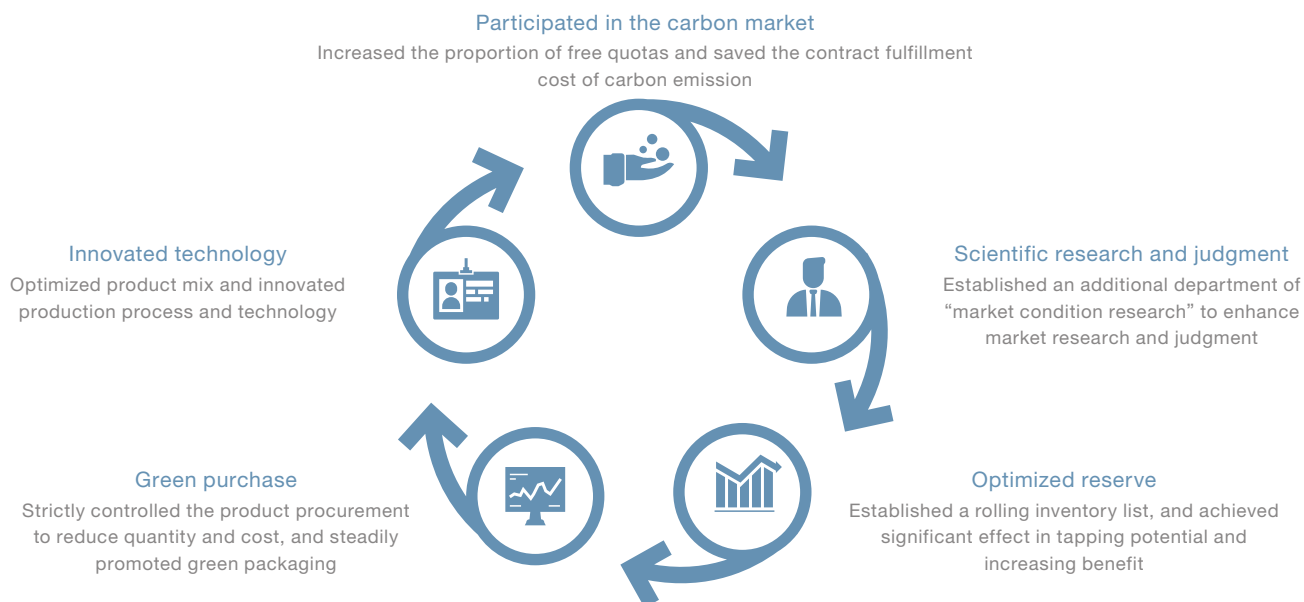
0.18

RMB



PARALLEL IMPLEMENTATION OF MULTIPLE MEASURES FOR COST REDUCTION AND BENEFIT IMPROVEMENT

SPC benchmarked advanced enterprises in the industry, constantly reduced the costs in links such as production, procurement, sales, transportation, etc., took multiple measures at the same time to increase corporate benefit with great efforts.



Differentiated production presented remarkable benefits



Old units renewed vitality as a result of revamp



Thanks to production technology innovation, SPC received many rave reviews from the market

CASE

In 2021, SPC actively participated in the national carbon market, achieving an annual surplus quota of more than 340,000 tons and saving cost by about 14 million RMB.



SAFEGUARD INVESTORS' RIGHTS AND INTERESTS

In 2021, SPC further improved the quality of information disclosure of listed companies, strengthened and expanded communication with investors, enhanced the transparency and integrity construction in company's operations, improved the corporate governance, and fully safeguarded the legitimate rights and interests of investors.

Compliant and valid information disclosure

- Prepared the annual report, six-month report and quarterly report on a regular basis, and updated the Form 20-F registered at the Securities Regulatory Commission of USA;
- Published 30 times of provisional reports, including resolutions of BOD and board of supervisors, shareholders' meeting, announcement of abnormal stock price fluctuations etc;
- Enriched the content of corporate social responsibility report and added the "impact of climate change on enterprise" and the target requirements of "dual carbon";
- Obtained level-A evaluation of information disclosure work of Shanghai Stock Exchange for five consecutive years.



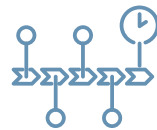
Effective innovations in investors' relationship management



- Affected by the epidemic, SPC continued to promote online press conferences and road show of annual and middle-term performance presentation;
- Exchanged and communicated with investors and media reporters via investor relation hotline, SSE e-interaction and other methods to ensure open and unblocked communication channels;
- Attended the online investors' meeting, communicated with fund manager, securities analyst, and shareholders, and highlighted the corporate value.

Standardized and efficient operation of three boards

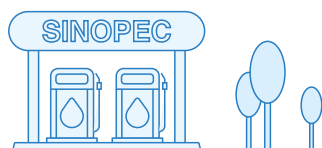
- Regularly hold shareholders meeting, BOD meeting and Board of Supervisors meeting.
- Revised the Articles of Association and the Information Disclosure Management System.



CASE

The Company's official website in English version and Traditional Chinese version was revised and re-launched

After nearly one year of preparation, SPC's official website in English version and Traditional Chinese version was revised and re-launched in November and achieved favorable effect.





SAFE OPERATIONS, LOW-CARBON AND GREEN DEVELOPMENT

01 Respond to climate change

02 Strengthen safety management

03 Intensify environmental protection

04 Develop recycling economy

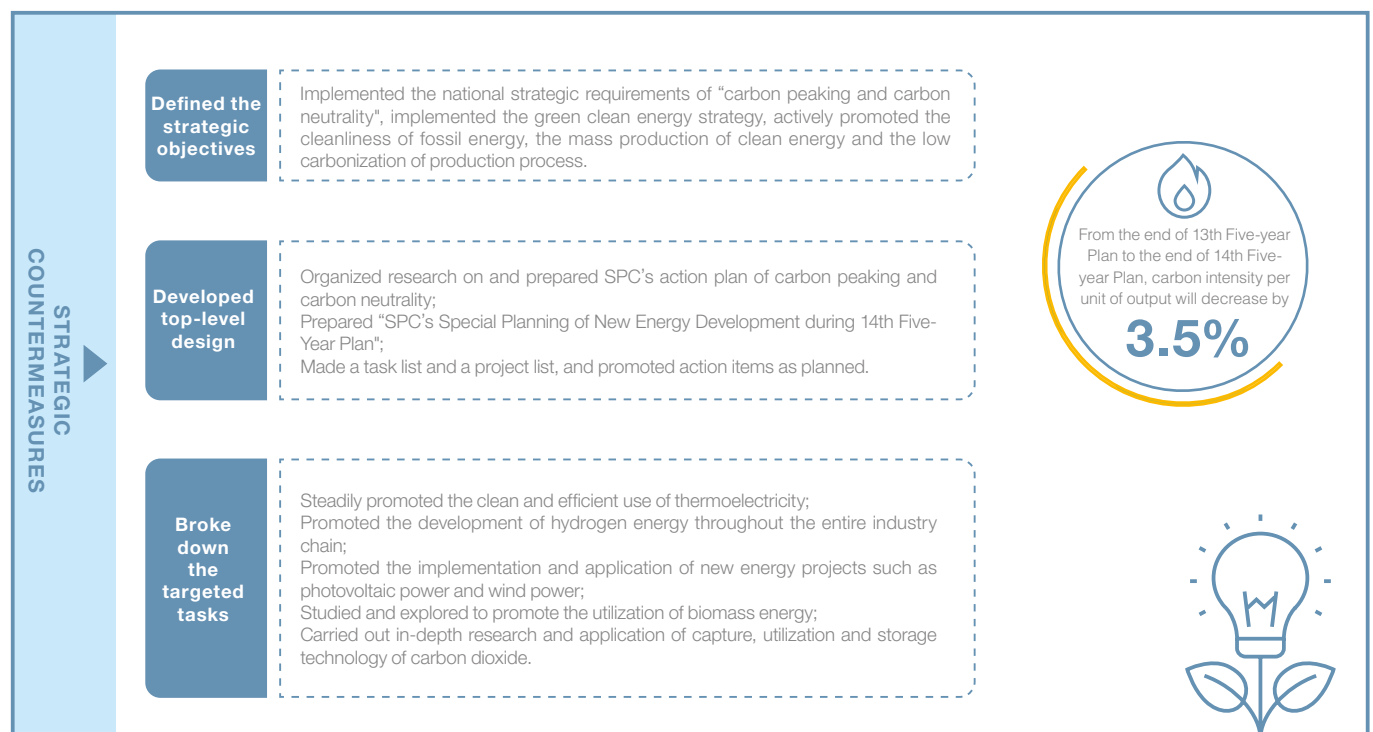
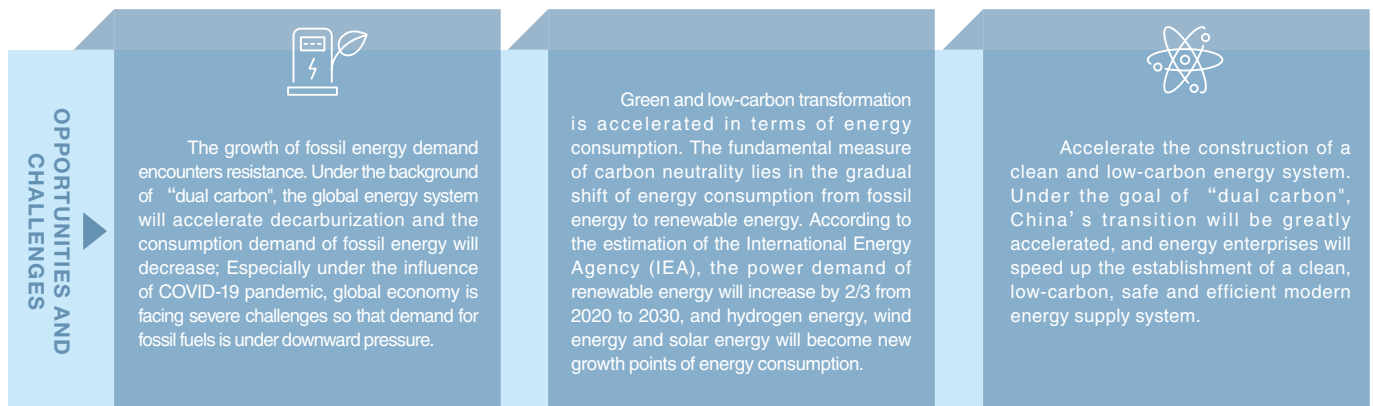
Considering safe development, green and low-carbon development as the prerequisite and foundation for corporate survival and sustainable development, and “cleanness, high-efficiency, low-carbon, and recycling” as the essential characteristics, SPC actively responds to climate change, strengthens safety management, intensifies environmental protection, and develops recycling economy to continuously improve the level of intrinsic safety and environmental protection.



RESPOND TO CLIMATE CHANGE

Under the background of coping with global climate change, the process of global low-carbon and green energy transition has obviously accelerated; On October 24, 2021, the State Council of China issued the Action Plan for Carbon Peaking Before 2030, and put forward the Action for Green and Low Carbon Transformation of Energy, which required vigorous development of new energy and rational regulation and control of oil and gas consumption. The transition to low-carbon green development is the inherent demand and the only way for the company's own development. The Company actively implements the national strategic target of "carbon peaking and carbon neutrality", incorporates the response to climate change into the Company's development planning, assumes the mission responsibility with practical actions, takes the promotion of the cleanliness of fossil energy, the mass production of clean energy and the low carbonization of production process as the route, so as to make a contribution to the realization of China's goal of "carbon peaking and carbon neutrality".

STRATEGIC DEPLOYMENT OF CARBON PEAKING AND CARBON NEUTRALITY



LOW-CARBON TRANSFORMATION OF ENERGY CONSUMPTION

Based upon the concept of “dedicating to clean energy and practicing green development”, SPC promoted energy transition through oil product upgrading, energy substitution, and technological innovation.

Clean oil products

Since the clean gasoline component unit of the Company's oil product cleaning project was officially put into operation one year ago, a total of 300,000 tons of clean gasoline components have been produced, featuring no aromatics, no olefins, low sulfur, low vapor pressure and high octane number.

Built hydrogen supply center

The construction of SPC's Hydrogen Supply Center (Phase I) has been completed. After it is put into service, the carbon emission is expected to be reduced by 2,920 tons throughout the year, which will be helpful to ensure the supply of clean energy, promote the high-quality development of hydrogen energy industry chain and achieve the “dual carbon” goal.

Developed photovoltaic projects

SPC's demonstration photovoltaic power station with an installed capacity of 400 kW has been successfully connected to the grid for power generation, which can reduce carbon emissions by 341 tons per year. This is also SPC's first new energy pilot project, marking an important step in SPC's new energy construction.

Develop Biomass Power Generation

The company advances R&D and application of fossil-and-biomass-fuel coupling power generation; biomass pellet fuel blended in the combustion process is no more than 10% in terms of mass fraction, which has brought no negative impacts to the boiler operation or to the environment. In 2021, 2615 tons of biomass fuel are blended in the combustion process, which has reduced carbon dioxide emission by about 3975 tons.

Held a forum on hydrogen energy development

SPC hosted a high-end forum on “Hydrogen Energy Industry Development under the Background of Carbon Peaking and Carbon Neutrality” to promote cooperation in the field of hydrogen energy and jointly build a hydrogen energy industry chain and economic ecosphere.

ENERGY CONSERVATION AND CARBON REDUCTION IN PRODUCTION PROCESS



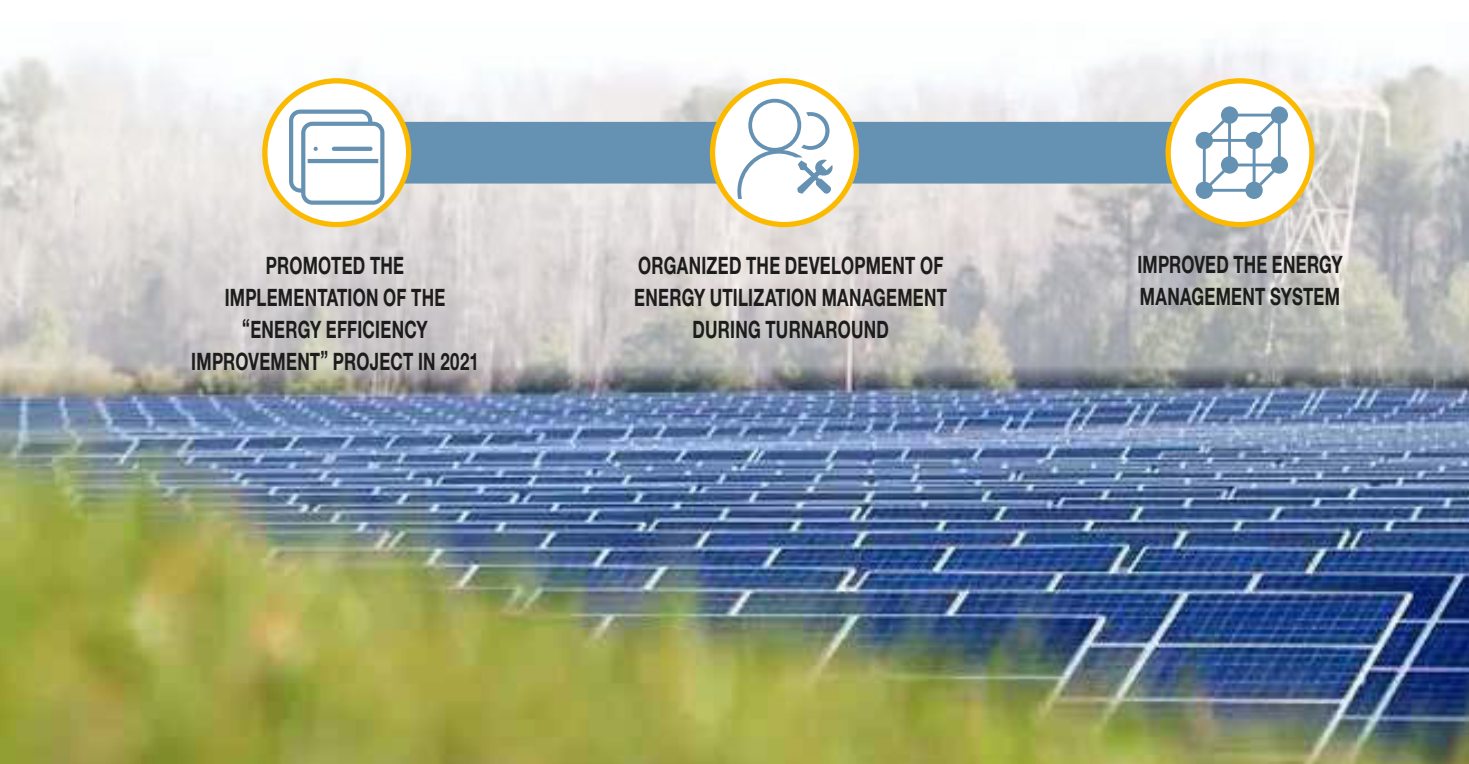
PROMOTED THE IMPLEMENTATION OF THE “ENERGY EFFICIENCY IMPROVEMENT” PROJECT IN 2021



ORGANIZED THE DEVELOPMENT OF ENERGY UTILIZATION MANAGEMENT DURING TURNAROUND



IMPROVED THE ENERGY MANAGEMENT SYSTEM



RESEARCH AND PROMOTION OF LOW-CARBON TECHNOLOGY

The Company deepened the school-enterprise cooperation with East China University of Science and Technology, set up a hydrogen energy joint laboratory, focused on key technologies and basic scientific issues such as hydrogen production, hydrogen storage, hydrogen transportation and hydrogen use, reconstructed the industrial chain with "hydrogen energy" as the node, cultivated high-end talents, and took the lead in the industrial transformation and development.

CARBON TRADING AND CARBON MANAGEMENT

The energy and chemical industry is the key field for China to carry out the carbon peaking and build a carbon market. On July 16, 2021, the national carbon emission trading market was established in Shanghai, SPC participated in the first day of carbon trading. In 2021, SPC purchased 50,000 tons of CEA (Chinese Emission Allowances) in the national carbon market, 260,500 tons of CCER (Chinese Certified Emission Reduction) in Shanghai carbon market, 100,000 tons through the auction by the Environmental Exchange, and replaced 75,000 tons of CCER and quota with the peer company, successfully completing the Company's contract fulfillment this year.

INCREASED CARBON SINKS THROUGH LANDSCAPING

The Company actively practiced the concept that "lucid waters and lush mountains are invaluable assets", and further improved the quality of landscaping and maintenance. In combination with revamp of the trunk road--Jinyi Road, the Company upgraded and revamped the green landscape along the road, conducted a comprehensive investigation on the greening around the roads, pipe racks extensions and fire-fighting facilities in the plant area, actively implemented the green planting for new projects, and focused on supplemental landscaping after the relocation of landscaping for the large tow project of carbon fiber, so as to ensure that SPC's landscaping area is growing more and more, thus demonstrating the corporate image of garden factory. As of December 2021, the green area of SPC has reached 2.909 million square meters, and the green coverage ratio has reached 42.2%.

In April 2021, the Company initiated the preparation of "SPC's Special Planning of Landscaping" to provide support for the continued construction of garden factories and Shanghai model garden units.



SPC'S CONSUMPTION OF MAIN RAW MATERIALS AND ENERGY IN 2021

Indicators	Unit	2019	2020	2021
Electricity consumption	0.1 billion kW·h	33.22	33.48	30.69
Raw coal consumption	10 k tons	188.78	189.84	175.21
Crude oil consumption	10 k tons	1519.9	1467.2	1377.63
Natural gas consumption	0.1 billion m ³	6.25	5.55	5.19
Industrial energy consumption	10 k tons	715.0	692	632.3
Energy consumption per unit output value	ton/10 k RMB	0.745	0.743	0.991*
Carbon dioxide emissions	10 k tons	1096	1054	946.75
Comprehensive energy consumption of refining	kg standard oil/ton	51.79	49.86	50.98

* From 2021, it is calculated based on 2020 constant prices; based on the former statistical method, the figure is 0.697.



STRENGTHEN SAFETY MANAGEMENT

THE WORK SAFETY ENJOYS “TOP PRIORITY, TOP CRUCIALITY AND GREATEST SIGNIFICANCE”.

In 2021, SPC strictly abided by the Work Safety Law, continued to promote the implementation of the “Sinopec Three-year Action Plan for Special Rectification of Work Safety”, “Shanghai Municipal Implementation Plan of Three-year Action for Special Rectification of Work Safety” and other document requirements, firmly established the sense of work safety responsibility, persisted in placing the work safety in a position of “top priority, top cruciality and greatest significance”, strengthened the work safety awareness of all employees, broke down and implemented the work safety responsibility of all employees, carried out in-depth special rectification of hazardous chemicals safety, construction operation safety, emergency management safety and hazardous waste safety, truly shouldered the safety responsibility, and practically implemented specific measures, thus building a work safety defense line. In 2021, there were no major or extremely serious work safety or occupational poisoning incidents in SPC, and the overall situation of HSE presented a stable tendency.



FULLY BROKE DOWN AND IMPLEMENTED THE ENTITY RESPONSIBILITY OF WORK SAFETY

In 2021, the chairman of the board and general manager of SPC jointly signed and issued the HSE management system manual, and eight discipline sub-committees were set up to take the lead to be responsible for HSE management in various disciplines. The Company revised and issued the Detailed Rules for the Implementation of Safety Code of Conduct for All Employees of SPC and the Detailed Rules for the Implementation of Safety Scores for All Employees of SPC (Tentative), incorporating the article of “zero tolerance” of work safety into the assessment scope, and strengthened the implementation of work safety responsibilities.



COMPREHENSIVELY AND DEEPLY PROMOTED THE SAFETY MANAGEMENT OF HAZARDOUS WASTES

In 2021, the Company further improved the hazardous waste management mechanism through overall inspection of hazardous wastes in an all-around way, strengthened the capacity building of hazardous waste disposal, continuously intensified the safety risk assessment and argumentation of environmental protection facilities and projects, and carried out the safety risk investigation and rectification in the process of muck and garbage landfill and sewage treatment.



THE SAFETY MANAGEMENT LEVEL OF HAZARDOUS CHEMICALS HAS BEEN COMPREHENSIVELY IMPROVED

The Company carried out special rectification for hazardous chemicals according to the main working line of "identification of major risks, elimination of great potential hazards and prohibition of major incidents". SPC actively adopted information technology, strengthened the examination and approval of risk assessment outcome, and consolidated the foundation of safety risk management. The Company implemented the safety design process management for construction projects and strengthened the safety risk management and control of new businesses.

Basically eliminated existing major safety hazards



The commissioning rate of automatic system equipment in production units and storage facilities involving "two prioritized supervision and control and one supervision of major hazards" reached **100%**



Major safety risks in links such as the production, storage, use, loading, unloading and transportation of hazardous chemicals were under control



The hierarchical control of safety risks and prevention and control system for investigation and treatment of potential hazards were further improved.



CONTINUED TO REFINE AND IMPROVE THE SPECIAL RECTIFICATION OF CONSTRUCTION OPERATION SAFETY

In 2021, the Company further refined and improved the safety responsibility system for engineering and inspection and maintenance projects; continued to carry out contractor safety management and special rectification of construction safety; actively conducted the special improvement of construction safety of restructured enterprises and safety construction of contractors' construction teams; strengthened the promotion and application of new technologies and new equipment, and facilitated the smooth progress of special rectification of construction operation safety.



100%

The contractors' qualification compliance rate was

100%

The on-line rate of contractor management platform and the contractors' assessment coverage rate of construction projects were

100%

The pass rate of safety standby's ability assessment was

100%

The completion rate of HSE system conformity review of restructured construction enterprises and supervision companies reached

PARALLEL IMPLEMENTATION OF MULTIPLE MEASURES PROMOTED SIGNIFICANT IMPROVEMENT OF SAFETY LEVEL IN EMERGENCY MANAGEMENT

In 2021, the Company continuously strengthened abnormality management as well as monitoring and early warning of abnormal information, grass-roots voluntary emergency team construction, formulation and drill of on-site emergency response plan, capacity development for corporate emergency rescue center, emergency management, legal compliance management of fire protection and other activities.

100%

Spot checked the principle of "135" emergency response and the wearing of air respirators in confined space, and the compliance rate of voluntary team members was

100%

The coverage rate of voluntary emergency team construction in grass-roots units of 12 key fire units reached

100%

Oil fields, refining and petrochemical enterprises achieved 100% data access rate of risk monitoring and early warning system for safe production of hazardous chemicals.

less than 15%

Ensured that the annual replacement rate of front-line personnel in enterprise emergency rescue center was less than 15%.

100%

The evaluation rate of enterprise drills reached



Fully implemented the safety grid management for project construction site

The Company prepared special HSE management plan, a three-level safety management network of project construction site was established, which was composed of division leaders, department leaders and grass-roots shift team leaders. From the overall planning of project construction to network construction, the Company implemented the discipline management of construction operations, strictly controlled the safety supervision of various operations, and performed the safety supervision of construction operations in all directions.



"135" principle for emergency response at the initial stage of emergencies

The company strictly implemented the general manager's No. 2 Decree of "135" Principle on Emergency Response at the Initial Stage of Emergencies, that is, at the initial stage of emergency response, it is necessary to realize emergency response in 1 minute, retreat to steady state in 3 minutes and firefighting linkage in 5 minutes. On October 28, 2021, it was found that the 6# oil refining complex of SPC's Oil Refining Division underwent abnormal production and emergency. The on-duty personnel successfully completed the thrilling emergency response process in just ten minutes by following the general manager's No.2 Decree.



Deeply carried out "Excellent Day" activities

Considering "opposing three violations and checking potential hazards" as the theme, process safety management as the starting point, prevention and control of personal injury, fire and explosion, toxic and harmful gas poisoning incidents as the target, SPC mobilized all employees to carry out major inspection of risks and potential hazards, deeply promoted the development of "Excellent Day" activities, further implemented the entity responsibility of work safety, improved the basic safety management level in an all-around way, fundamentally eliminated potential incidents, and ensured smooth and stable operation of HSE of the Company.



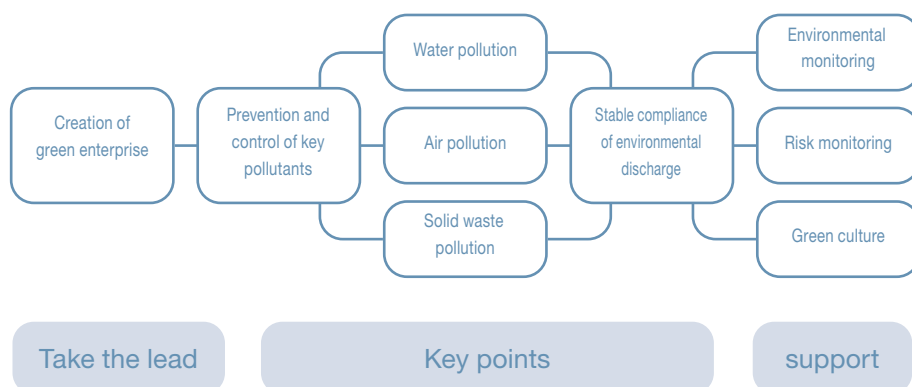
Actively carried out multi-party collaborative drills of emergency response

In 2021, the Company cooperated with relevant personnel of linkage organizations such as Jinshan District Emergency Management Bureau, Ecological Environment Bureau, Fire Rescue Detachment, Petrochemical Public Security Police Station etc. to conduct drills of emergency response to road transportation incidents of hazardous chemicals, through which the coordinated emergency response abilities of all participation organizations were tested, and the emergency response abilities of SPC's units and departments were further improved.



STRENGTHEN ENVIRONMENTAL PROTECTION

The Company made great efforts to practice the green development concept of "Lucid waters and lush mountains are invaluable assets", conscientiously implemented the Three-Year Action Plan for Seventh Round of Environmental Protection, Shanghai Clean Air Action Plan (2018-2022) and Jinshan District Action Plan for Comprehensive Environmental Improvement, actively fulfilled the entity responsibility of corporate environmental protection, continued to promote the Green Enterprise Action Plan, implemented clean management in the whole process, continuously deepened the pollution prevention and control of water, air and waste management, focused on dual control of total pollutant emission reduction and concentration compliance as well as environmental risk management and control, and strived to create new advantages in green competition, thus laying a green foundation for building a "domestically leading, world first-class" energy, chemical and new materials company.



DEEPEN GREEN ENTERPRISE ACTION PLAN

Carry out self-assessment of green enterprise indicators

On January 2, the Company was once more awarded the title of "Sinopec Green Enterprise". According to the requirements of "Green Enterprise Review and Evaluation Index (2021 Edition)-Refining and Chemical Sector", the Company conducted self-assessment every month to find weak points and score reduction items, and continued to implement rectification and improvement.

Continuously track "two lists"

In April, the Company completed the preparation of SPC Implementation Plan of Green Enterprise Action in 2021 and lists of tasks and projects, defined the specific tasks of relevant divisions, and continuously updated the implementation of "One Plan and Two Lists" every month. In 2021, 25 out of the 29 tasks in the list of tasks and 27 out of the 37 projects in the list of projects had been completed.

Carry out creation of "green grassroots"

The Company prepared the Work Plan for the Creation of Green Grassroots in SPC in 2021. Eleven secondary units of the Company submitted creation of 44 green grass-roots departments, and successfully completed the establishment of 37 green grass-roots, accounting for 67% of the total number of grass-roots units (55 in total).

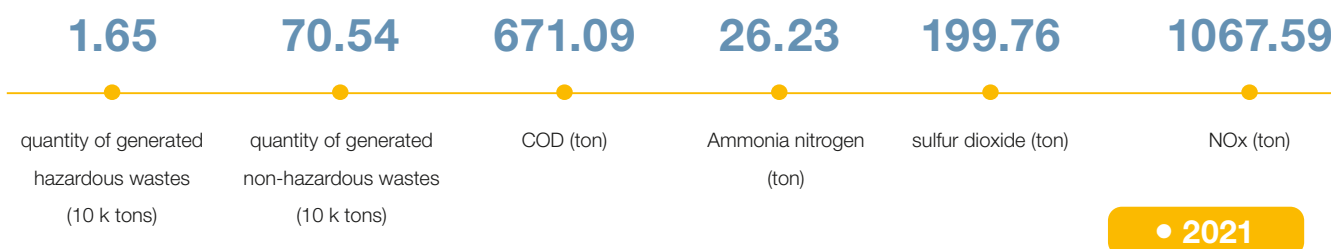
Improve the corporate green development culture

The Company further promoted the mass cultural practice activities of "green development depends on you and me" and guided employees to actively find environmental protection problems around themselves. In 2021, 41,854 environmental protection problems were submitted to SPC's online platform of "green development depends on you and me", with 11,798 person times of participants, and the problem rectification rate reached 93.8%.



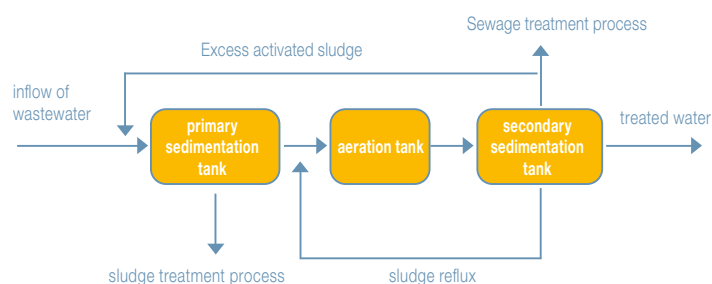
STRENGTHEN STABLE COMPLIANCE WITH ENVIRONMENTAL PROTECTION EMISSION STANDARDS

According to the requirements of environmental assessment index in Energy and Environmental Responsibility Letter of Sinopec Group Company and control index of permitted quantity of pollutants specified in Pollutant Discharge Permit, the Company defined relevant tasks, broke down the control index, and implemented the detailed rules of assessment. In 2021, the total emissions of chemical oxygen demand(COD), ammonia nitrogen, sulfur dioxide and nitrogen oxides of the Company's main pollutants met the requirements of environmental assessment indexes in the energy and environmental responsibility letter.



Management of water pollutant discharge

On the basis of the sewage receiving and disposal principle of "pretreatment from the source, separate storage and disposal, discharge at staggering peak and approval of discharge", SPC optimized and implemented the turnaround sewage control plan, popularized the biological wastewater treatment technology of activated sludge process, and promoted breakthroughs in scientific research and technology such as "nearly zero" sewage discharge. In 2021, SPC totally received and disposed 41,504 tons of turnaround sewage during turnaround, with the comprehensive compliance rate of external discharge of wastewater reaching 99.95%.



Management of air pollutant emission

The Company established the working mechanism of boundary pollutant alarm and odor traceability, set up an internal three-level alarm mechanism based on the principle of alarm level higher than the key industry parks in Shanghai, and established five working groups of traceability, thus bringing the environmental concentration under control in a timely manner. The Company combined the environmental alarm traceability mechanism with the "Working Mechanism for Alarm Traceability of Air Characteristic Pollutants in Jinshanwei Region of Jinshan District (Tentative)" to predict and control environmental anomalies in advance. In 2021, the cumulative average value of 36 concentrations of VOCs in four automatic stations was 104.09 ug/m³, better than Shanghai's requirements for chemical park boundary VOCs indicators.

Management of solid waste discharge

Based upon various solid waste management requirements of the state, Shanghai and SPC, the Company actively promoted the standardized management of solid waste, carried out standardized service for daily cleaning of daily generated hazardous waste, implemented the entity responsibility of solid waste production units, formed a closed-loop management from source to the end, and dynamically updated the list of hazardous waste catalogues.

99.95%

COMPREHENSIVE
COMPLIANCE RATE OF
EXTERNAL DISCHARGE OF
WASTEWATER

100%

COMPLIANT DISPOSAL
RATE OF HAZARDOUS
WASTE



STRENGTHEN MANAGEMENT OF ENVIRONMENTAL MONITORING AND CONTROL

Strictly conduct environment monitoring assessment mechanism

According to relevant national environmental monitoring codes and Sinopec regulations on environmental monitoring management, the Company issued SPC Environmental Monitoring Plan and Emission Implementation Standards for 2021 in early 2021, and basically organized completion of multiple monitoring tasks for clear sewage, atmospheric environment, waste gas and noise. In 2021, SPC completed 22,724 water quality monitoring data, 9,493 air and waste gas monitoring data and 304 noise monitoring data, provided feedback according to the monitoring results, supervised and urged rectifications, and re-measured them.

Improve the management of environmental monitoring

To properly conduct online management, SPC established and improved an online monitoring data SMS alarm platform to ensure that relevant units can timely organize investigations, provide feedback on the reasons for non-compliance and make arrangement for rectifications, and achieved closed-loop online data management; and continued to promote grid-based online monitoring. SPC's 9 sets of VOCs (PID) equipment, 6 sets of electronic noise devices and 10 sets of non-methane total hydrocarbon equipment have all been connected to SPC environmental protection information platform.

Strengthen identification and supervision of environmental risk

The Company reassessed 112 environmental risk sources according to the requirements of Sinopec Guidelines for Risk Assessment of Environmental Incident and Green Enterprise Assessment Index in 2020; implemented 10 projects of investigation of potential environmental hazard and environmental improvement in a rolling manner and 6 projects of potential safety hazards of VOCs treatment facilities, with a total investment of about 200 million RMB, actively carried out investigation of potential hazards for soil and groundwater and tracked the monitoring.



IMPROVE CORPORATE GREEN DEVELOPMENT CULTURE

Continuous promotion of "green development depends on you and me"

The Company continued to carry out the activities of "green development depends on you and me", established a platform reporting environmental issues to accurately reflect environmental protection problems, comprehensively diagnosed potential environmental hazards and guide employees to actively find environmental protection problems.

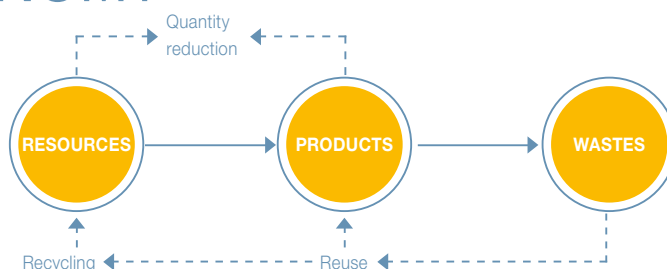
Continuously carry out Public Open Day Program

The Company continues to carry out activities such as knowledge popularization and public open days, and invites residents, government staff, teachers, students and media reporters from the surrounding "four towns and one sub-district" to walk into SPC and learn about SPC. From June 5, 2013 to the end of December 2021, a total of 235 "Public Open Day" programs were held.



DEVELOP RECYCLING ECONOMY

To boost the construction of ecological civilization and facilitate the development of recycling economy and comprehensive utilization of resources, the Company strictly abided by relevant laws and regulations on promoting recycling economy, established the concept of recycling economy, comprehensively implemented clean production, reduced waste discharge from the source, developed comprehensive utilization of resources through technical revamp, and built a closed-loop recycling system of resources, products and wastes, so as to maximize waste recycling and resource recovery.



RESOURCE UTILIZATION EFFICIENCY IMPROVED

SPC actively developed recycling economy and continued to carry out recycling of waste gas and wastewater and resource utilization of solid wastes. In 2021, the total water consumption and intensity continued to decrease.

Indicators	Unit	2020	2021
Fresh water consumption	10 k tons	4981	4768
Water consumption per unit of output value	ton/10 k RMB	5.49	5.43
Industrial water recycling rate	%	97.95	97.83
Comprehensive recovery and utilization of sludge	10 k tons	1.47	1.22

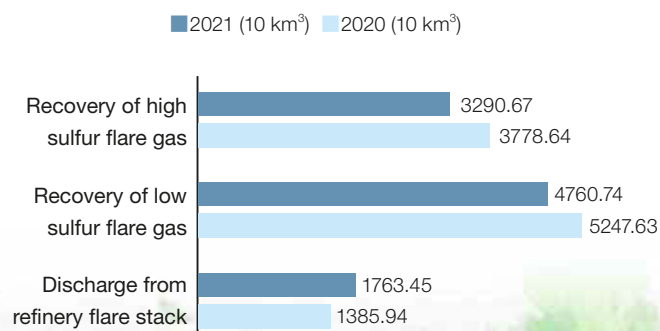
WASTE GAS RECOVERY AND TREATMENT

Optimize the waste gas recovery scheme

In order to implement the requirements of safe and green maintenance, the Company held coordination meetings for many times to formulate and discuss the HSE management and control plan for maintenance; set key points of technological treatment for each risk point, formulated corresponding measures, formed a series of environmental protection work plans, and carried out special training and desktop drills to ensure the effective implementation of the plans and reduce the impact of VOC on site.

Waste gas recovery process management

The Company adhered to the concept of green maintenance, took multiple measures to control the gate of environmental protection during maintenance, strengthened control of the flow to hydrocarbon flare header, and re-established the flare gas discharge during the water seal to ensure that the flare gas can be recovered as much as possible and the oil vapor emission should be blocked as far as possible; implemented the work measures of "rounds inspection" of critical VOCs once every two hours, carried out manual "navigation" on site, designated personnel in different areas to be responsible for environmental protection control, and ensured that the responsibility was assigned to specific groups and persons.

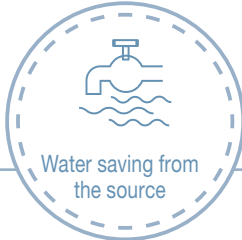


Upgrading of waste gas recovery equipment

The Company adopts a mobile waste gas treatment device for the first time, which adopts condensation + adsorption process to recover and treat VOCs generated in the tank steaming operations. The device can recover 92% ~ 99% of waste gas, and small amount of other gases enter the adsorption system for treatment through the desulfurization unit.

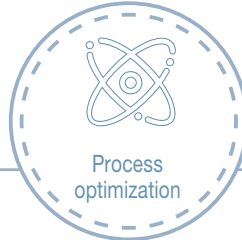
WASTEWATER RECYCLING

By way of promoting water conservation and emission reduction through water saving from the source, process utilization and end reuse, SPC steadily improved the centralized management of industrial water system, cooling water system, and sewage system, and realized the continuous improvement of water recycling and water recovery and treatment. In 2021, SPC's total water intake was 47.68 million tons, and the water intake per 10,000 RMB of output value, sewage treatment and reuse rate, water consumption and water discharge for processing per ton oil were all better than the expected target.



Water saving from the source

The Company actively formulated emission reduction targets stricter than those of the state, industry and local governments, formulated water-saving and emission-reduction measures and implementation plans, carried out water system optimization revamp and domestic water pipe network optimization revamp, etc., and issued the SPC Special Competition Plan for "Energy Efficiency Improvement" and "Water Efficiency Improvement" to stimulate employees' water-saving awareness.



Process optimization

The Company strengthened the optimization of various water variety systems, and carried out research on the operation optimization of fresh water system to promote sludge water reuse plant. In 2021, the plant water consumption rate of SPC's fresh water system decreased from 1.53% in 2020 to 0.6%, which effectively reduced the operation cost of industrial water system.



End reuse

The Company actively promoted projects such as hydrophobic recovery and blowdown water recycling, and earnestly boosted the recycling of industrial water, cooling water and sewage. In 2021, the cooling water volume of industrial cooling water plants decreased by 10.3% on a year-on-year basis, the reuse of sewage decreased by 22.26% on a year-on-year basis, and the reuse rate of sewage treatment reached 30.24%.

Indicators	unit	2021
Total water intake	10 k tons	4768
Water intake per 10 k RMB output value	ton/10 k RMB	7.72
Reuse rate of sewage treatment	%	30.39
Water consumption for processing of per ton oil	ton/ton	0.40
Water discharge for processing of per ton oil	ton/ton	0.158

COMPREHENSIVE RECYCLING

Compliance disposal of hazardous waste

Based upon the HSE management plan, the Company strictly implemented the standardized management requirements of hazardous waste, and all departments cooperated to promote the collection, discharge, transfer and disposal of solid waste (hazardous waste). In 2021, 76,537.52 tons of hazardous waste was generated, and the compliance disposal rate of solid waste (hazardous waste) reached 100%.



Reduce outsourced disposal

The operation of SPC's stabilized oil sludge drying unit reduced the outsourced disposal of oil sludge and cut down the disposal cost. In 2021, the cumulative outsourced disposal capacity was 16,453.61 tons, the delivery of oil sludge was reduced by 673.27 tons, and the hazardous waste disposal cost was cut down by about 5.67 million RMB.



PEOPLE FOREMOST, BENEFIT STAFF

01 Harmonious labor relations

02 Employees' health and safety

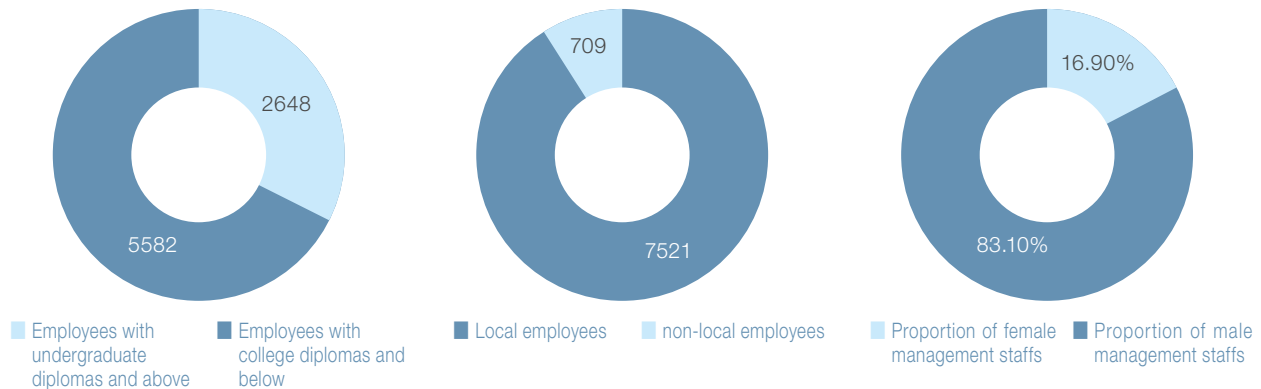
03 Boost employees' career development

Regarding employees as the impetus source of corporate development, SPC is committed to building harmonious labor relations. SPC respects and safeguards the rights and interests of employees, cares for their physical and mental health, and achieves enterprise development by helping employees succeed.

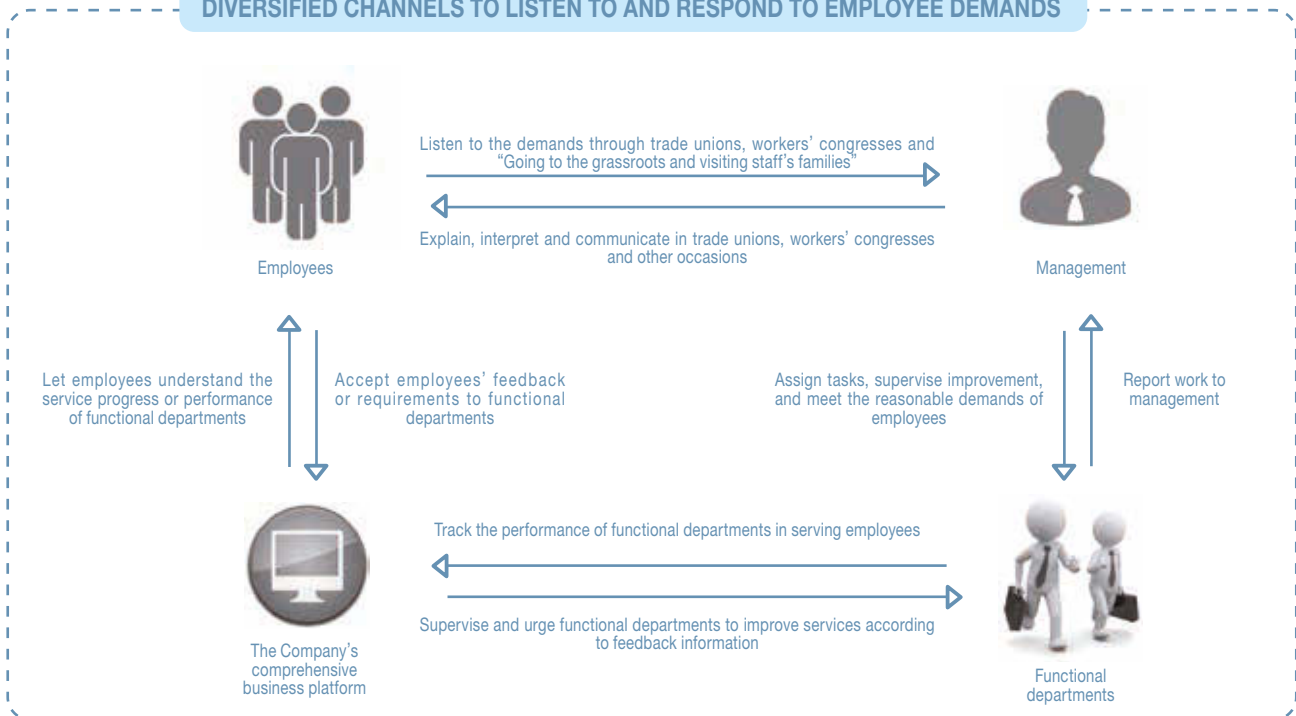


HARMONIOUS LABOR RELATIONS

The Company abides by the Labor Law and Trade Union Law, signs labor contracts with employees according to law, and may not terminate labor relations with employees under specific conditions stipulated by law; strictly abides by the Anti-Child Labor Code and other related policies forbidding forced labor, ensuring secure work environment and forbidding use of child labor and forced labor; respects and safeguards the employees' rights and interests and equal opportunities, protects the employees' privacy; SPC establishes and perfects diversified daily consultation and communication mechanism between management and employees for establishment of harmonious labor relations. At the end of year 2021, the total number of the company employees is 8230, among which 6656 male and 1574 female, and 796 employees under 30 years old, 3989 employees between 31-50 years old, and 3445 employees above 50 years old. The employee turnover rate of 2021 is 0.29%, among which the turnover rate of local employees is 0.16%; the turnover rate of male employees is 0.23%, and that of female employees is 0.06%; the employee turnover rate of age group under 30 is 0.19%, that of age group between 31-50 is 0.07%, and that of age group above 50 is 0.03%.



DIVERSIFIED CHANNELS TO LISTEN TO AND RESPOND TO EMPLOYEE DEMANDS



100% protection of rights and interests

- ◎ Coverage rate of five social insurances and one housing fund reached 100%
- ◎ The employees' trade union participation rate reached 100%
- ◎ The collective contract signing rate of SPC's employees reached 100%
- ◎ 100% Anti-discrimination
- ◎ 100% Vacation guarantee

Compensation lever

- ◎ Fair + incentive compensation system
- ◎ Incentive annuities tilt towards value creators
- ◎ Compensation-benefit linkage for professional managers
- ◎ Achievement award for researchers + revenue sharing
- ◎ Optimize overtime pay incentives for front-line employees

Medical assistance is more heartwarming

- ◎ Full coverage of employee assistance and mutual aid funds
- ◎ Mutual aid medical insurance premiums are fully borne by enterprise
- ◎ "One-stop" assistance subsidy is more convenient
- ◎ Supplementary medical insurance coverage is more powerful
- ◎ Differentiated supplementary medical insurance meets different needs

EMPLOYEES' HEALTH AND SAFETY

SPC abided by the Work Safety Law and the Law on Prevention and Control of Occupational Disease, promulgated the SPC Great Health Management Implementation Plan, established the working mechanism of great health management, and was committed to safeguarding employees' physical and mental health, SPC provided physical examination services to all employees for free.



100%

The detection rate of occupational hazard factors

100%

The effective prevention and control rate of occupational hazard factors

99.5%

The physical examination rate of employees

100%

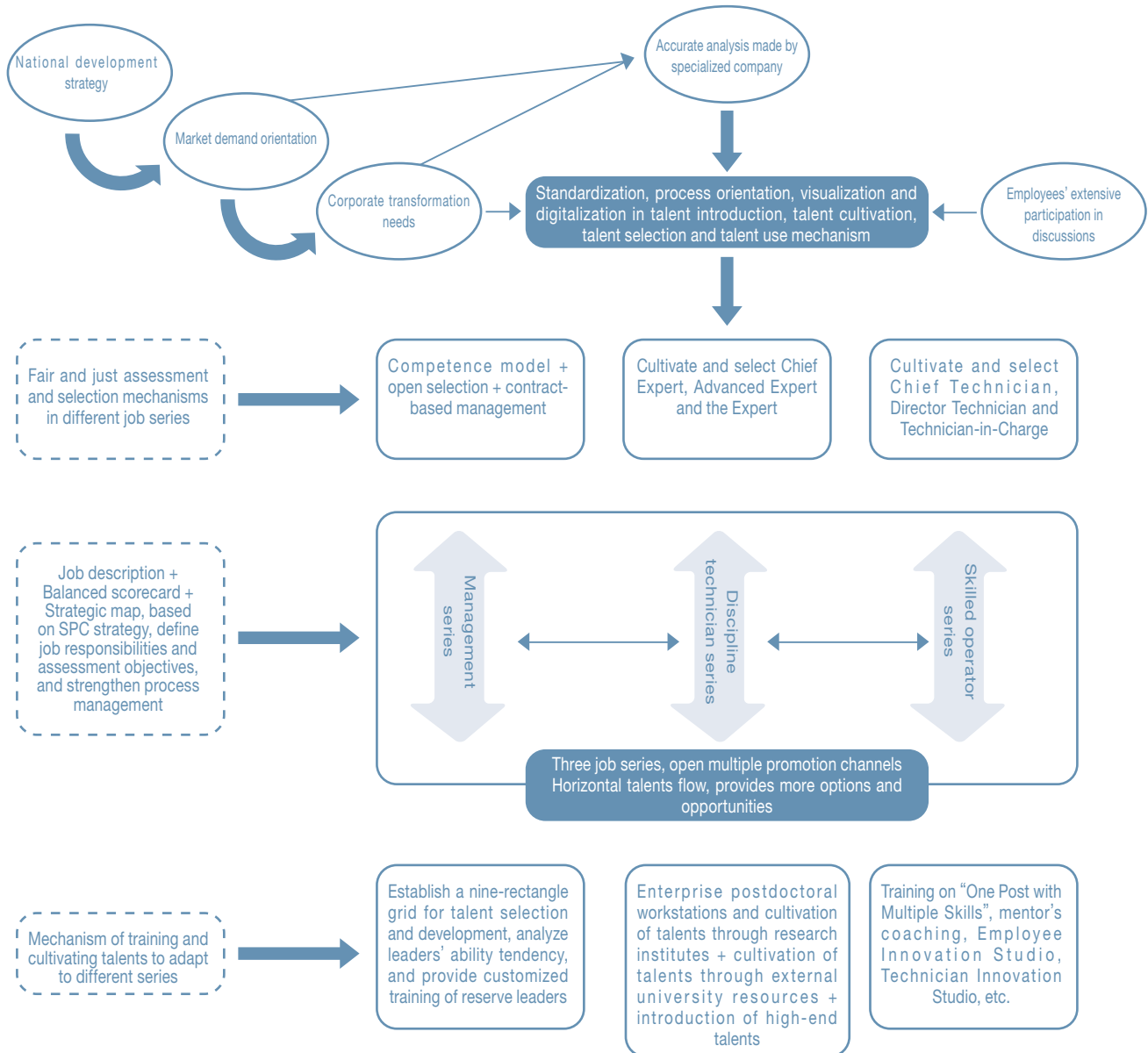
The training rate of occupational safety and health

0%

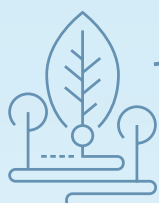
The incidence of employees' occupational diseases

BOOST EMPLOYEES' CAREER DEVELOPMENT

Based upon the "Vocational Education Law ", etc., SPC implemented talents-based corporate development project and the employee quality project, and improved the quality training system for all employees and a fair, just and diversified promotion channel. In 2021, the person-time of company-level trainings attended by the Company's management personnel, discipline technical personnel and skilled operators reached 871, 6,204 and 3,381 person times respectively.



Serve national strategy	Constantly innovate and upgrade	Consolidate the development potential	Equal opportunities for men and women
Hold "High-end Synthetic Materials Expert Seminar", etc., boost the development and transformation of the company oriented by the "dual carbon" goal	Focus on autonomy, speciality and effectiveness, independently develop and accurately optimize training programs, improve and innovate various high-quality training courses	Cultivation of reserve leaders + Training of young leaders + Introduction of high-end talents, form a "five-level echelon"	Pay attention to the advanced cultivation of female employees and host the "Shanghai Women's Innovation School"



FULFILL RESPONSIBILITIES AND SERVE THE SOCIETY

01 Facilitate Community
Development

02 Demonstrate Corporate
Image

03 Fulfill Responsibility of Anti-
corruption

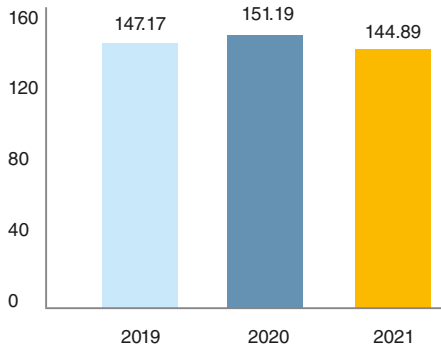
04 Make Contribution to
Social and Public Welfare
Undertakings

The Company was committed to consolidating and developing the mutually beneficial and win-win relationship with the surrounding areas, shouldered the responsibility of ensuring the supply of energy and key raw materials, and gained greater development opportunities while serving the national strategy and contributing to the development of the surrounding areas.

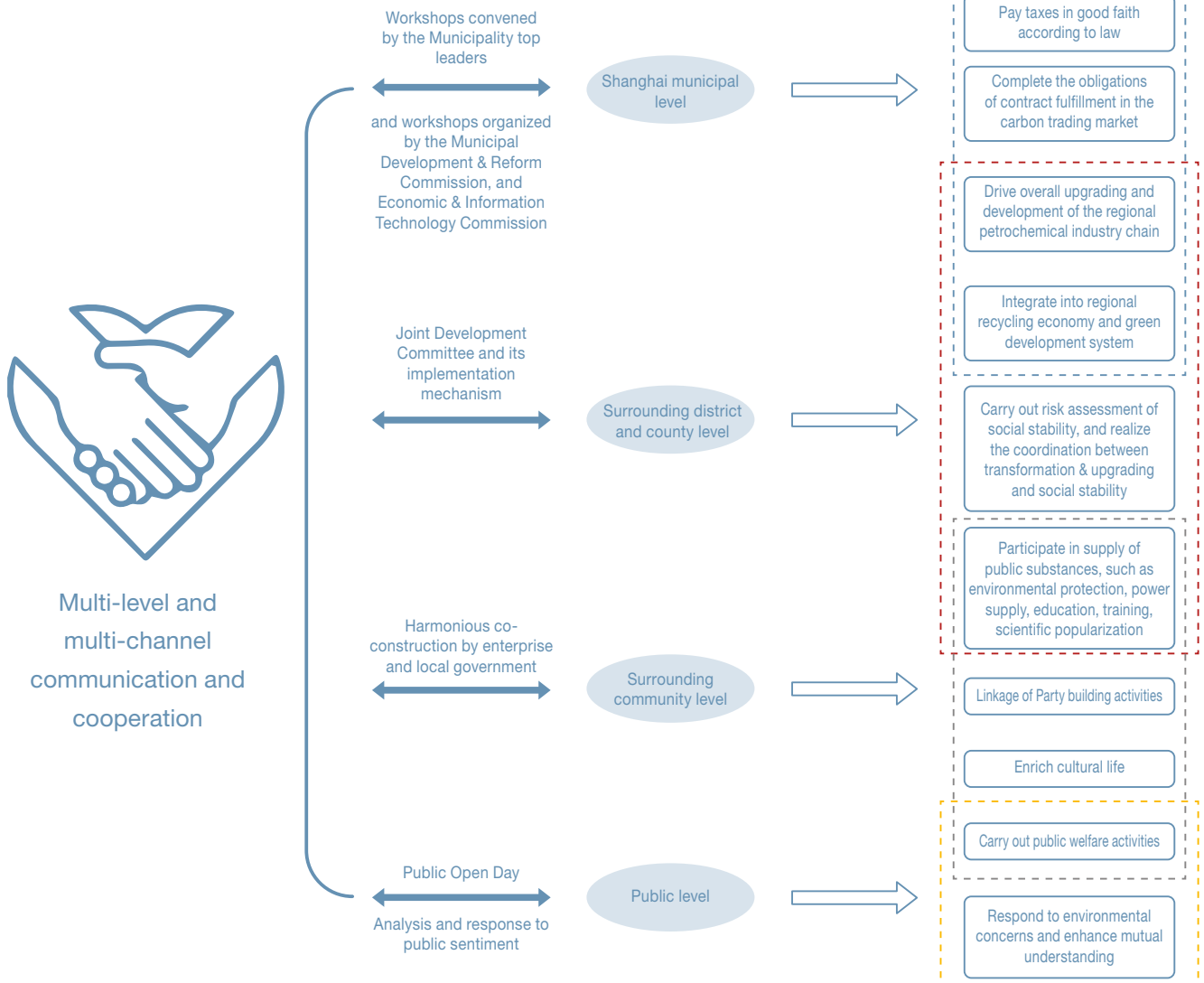
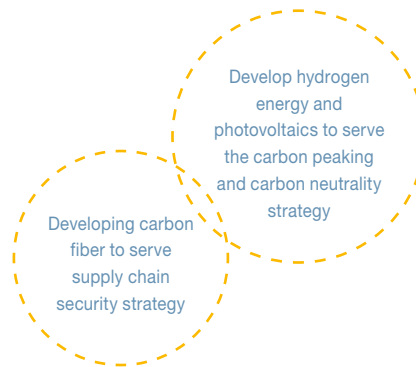


FACILITATE COMMUNITY DEVELOPMENT

SPC abided by the Law of Corporation Income Tax and Provisional Regulations on Value-added Tax of the People's Republic of China, paid taxes with honesty, established all-round cooperation mechanism with surrounding communities and made contributions to national development strategy. According to the Environmental Protection Law of the People's Republic of China and Regulations on Disclosure of Environmental Information of Enterprises and Institutions, SPC disclosed the enterprise environmental information to residents, focused on response to public sentiment, and facilitated understanding by way of communication.

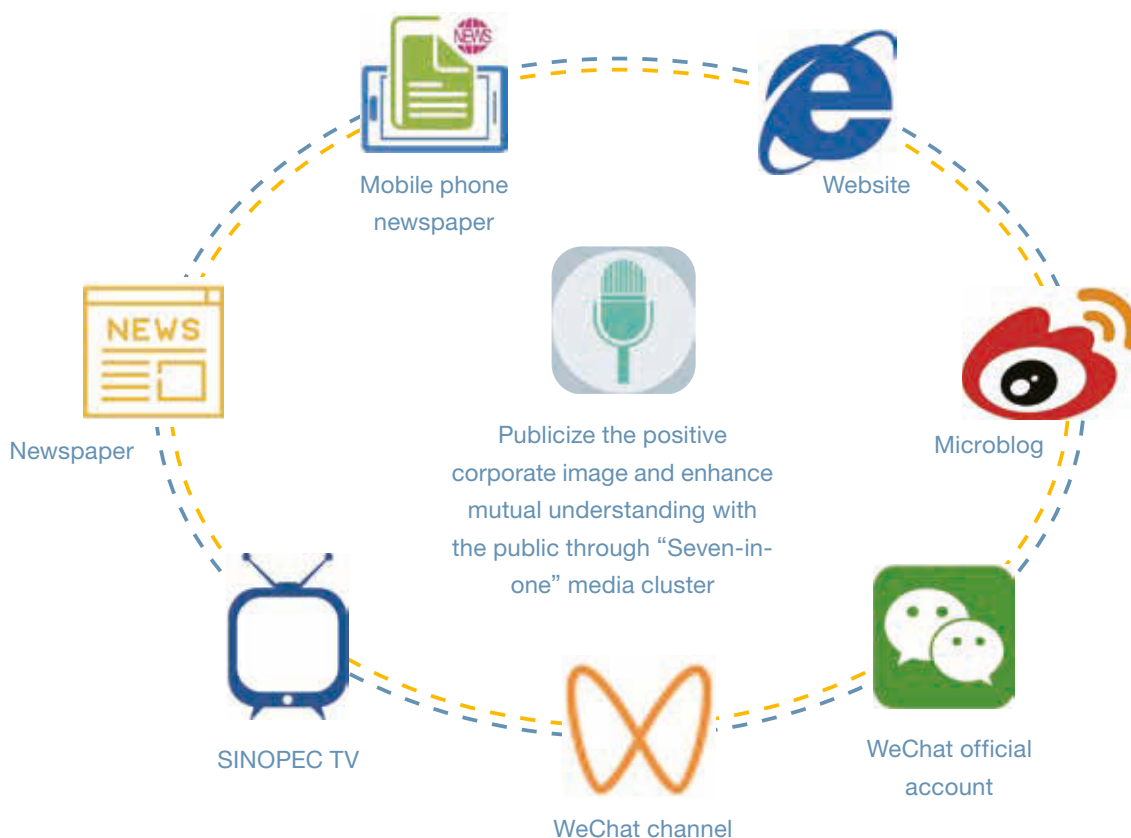


Total tax paid (unit: 100 million RMB)



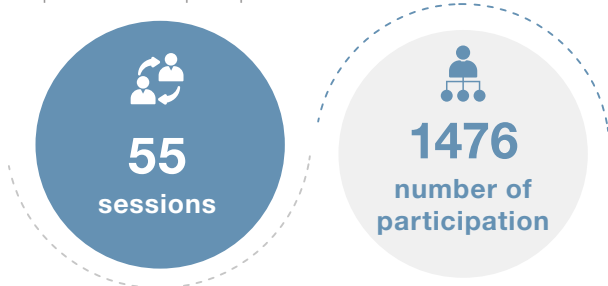
DEMONSTRATE CORPORATE IMAGE

Observing the “Environmental Protection Law” and “Measures for the Management of Legal Disclosure of Corporate Environmental Information”, SPC disclosed environmental information, attached importance to analysis and response to public sentiment, and demonstrated a positive corporate image to the society.



PUBLIC OPEN DAY TO ENHANCE UNDERSTANDING AND MUTUAL TRUST

There were totally 55 sessions of Public Open Day in 2021, with 1476 person times of participants.

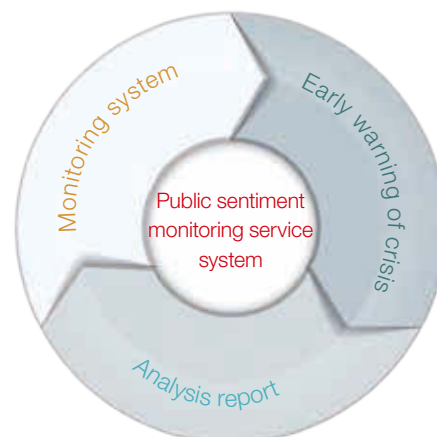


TELLING STORIES ABOUT SPC AND CHINA

SPC cooperated with China Central Radio and Television Station, CCTV Global Program Center, Shanghai People's Broadcasting Station, Shanghai TV Station, etc., to actively publicize SPC's solving the national people's dressing problem, research and development of carbon fiber to overcome the “neck sticking” difficulties, development of green energy and serving the “dual carbon” strategy.

EMERGENCY MEDIA-RESPONSE PLAN + “ZERO-REPORT” IN PUBLIC OPINION MONITORING PUBLIC CONCERNS BE ANSWERED IN TIME

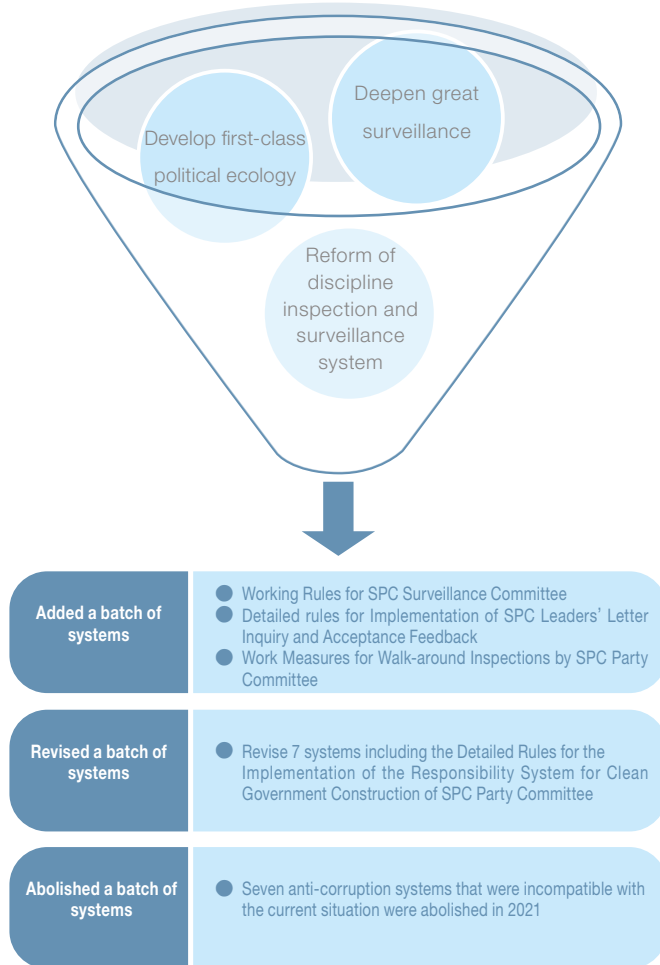
The company made emergency media-response plan for accidents, establishing regular and on-line public opinion monitoring mechanisms, so that the public concerns will be answered in time and the public opinions will be positively influenced. In 2021, Effective Response Rate to Public Opinions is 100%.



FULLFILL RESPONSIBILITY OF ANTI-CORRUPTION

Fulfilling the obligations of the members of Global Compact of the United Nations and abiding by applicable provisions of the Corporation Law as well as Regulations of the Communist Party of China on Disciplinary Punishment, SPC completely fulfills the responsibility of anti-corruption.

Deepen the reform and strengthen the great surveillance pattern under the leadership of SPC's Surveillance Committee



Embed prevention and control of integrity risks into relevant management systems, Manage two types of risk sources: internal key minority and external partners

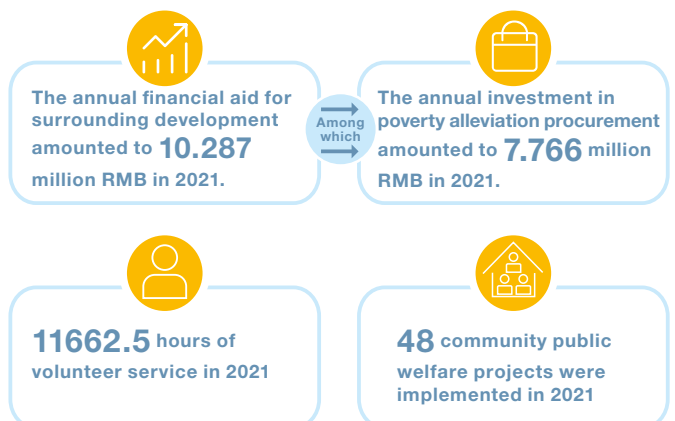
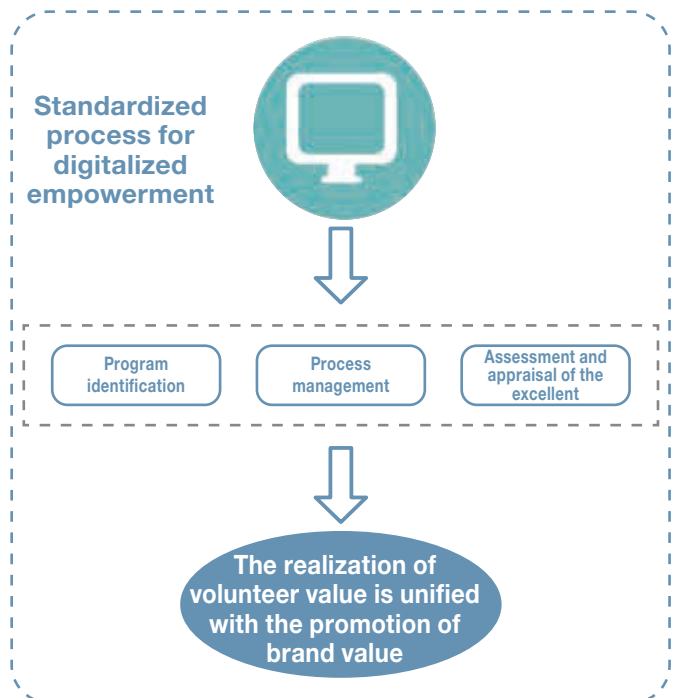
The Company carries out employee integrity education + "family helps the development of clean practice" + "partner helps the development of clean practice", and the awareness of "zero tolerance" for corruption is deeply rooted in the hearts of the people.



MAKE CONTRIBUTION TO SOCIAL AND PUBLIC WELFARE UNDERTAKINGS

The Company's public welfare programs focused on demand orientation and effectiveness orientation, and enterprises and local governments jointly discussed the demand list; SPC promoted the reform and innovation of the "Babysbreath" volunteers' service to enhance brand recognition and influence.

Register the "Babysbreath" volunteer service team on the "Volunteer Exchange" platform, digitalized empowerment + standardized management + standardized process to enhance effectiveness, brand awareness and influence



Public welfare programs received special support from Shanghai

The Company created a scientific popularization brand of "Green Chemical Industry", won the popular science project identification of "One Venue, One Brand" issued by Shanghai Science and Technology Commission, and carried out activities such as popularization of science into the community and campus, demonstrating a good corporate image while serving the community.

OUTLOOK OF 2022

2022 is a critical period of shift from quantitative change to qualitative change in China's ecological civilization construction, and also an important window phase to lay the foundation for achieving the goal of carbon peaking and carbon neutrality. In today's world, the instability and uncertainty of the international environment are still obvious, the COVID-19 epidemic will still have profound impact on the global agenda, and the global response to climate change will be further promoted. The petrochemical industry is facing great challenges and unprecedented opportunities of development. With deepening reform and opening up as the momentum and innovation-driven development as the source, we will stand up to the tide of the times in economic development, play a leading and exemplary role of petrochemical industry in green development, make "petrochemical" contributions to state progress, national rejuvenation and local development, and welcome the successful convening of the 20th National Congress of the CPC with outstanding achievements.

Build a "domestically leading, world first-class" energy, chemical and new material company

We will profoundly seize the new pattern and opportunities in the new development stage, actively integrate into the development pattern of Sinopec's "One Base, Two Wings and Three New" (with energy resources as the base, clean energy and synthetic materials as two wings, new energy, new economy and new sector as important growth points) and the plan of building "Shanghai Refining and Chemical Base", adhere to the new development concept, implement high-quality development requirements, follow the requirements of Shanghai municipal "North-South Transformation" to actively promote shift from oil refining to chemical industry, chemical industry to materials, materials to high-end ones, and the industry parks to ecological ones, adjust the industrial structure, optimize the industrial layout, strive to be the vanguard of high-quality development and the national team with self-independent high-level science and technology, accelerate the development of integrated wind, photovoltaic, thermal power and biomass power generation and green hydrogen production technology, develop SPC as one of the green hydrogen supply centers in Shanghai, and build a "domestically leading, world first-class" energy, chemical and new materials company.

Build a clean, efficient, low-carbon and recycling green enterprise

With the concept of "delivering clean energy and practicing green development", we will boost environmental protection with HSE system thinking, firmly hold the bottom line of the "five bans" on ecological environmental protection, implement environmental protection standards more stringent than national, industry and local standards, and improve the legal compliance investigation and rectification mechanism; We will promote the implementation of Green Enterprise Action Plan, strengthen energy conservation and carbon emission management, implement synergistic interaction of pollution and carbon reduction, and steadily push forward carbon peaking and carbon neutrality actions; We will continue to focus on pollution prevention and control, constantly reduce the total amount of pollutant emission, facilitate the comprehensive utilization of resources, promote green, low-carbon and recycling development, and provide adequate support to building of the global leading clean energy chemical company.

Create a "community of destiny" that is people-oriented, co-constructed and shared by enterprises and local government

We will continue to perfect the modern enterprise system and social responsibility performance assessment system, improve the social responsibility governance and green supply chain management, and jointly create value with customers; We will adhere to the people's supremacy, closely rely on employees to run business, create more fortune, provide high-quality public products, and constantly meet the people's yearning for a better life; We will continue to fulfill our corporate citizenship duties, care about community development, fully release the positive effect of "providing energy for better living", support and drive local economic and social development, and create a "community of destiny" co-constructed and shared by enterprises and local government.

WRITTEN COMMENTS ON ASSESSMENT OF CORPORATE SOCIAL RESPONSIBILITY REPORT

Title of report	2021 Annual Corporate Social Responsibility Report
Company name	Sinopec Shanghai Petrochemical Company Limited
Company Profile	<p>Located in Jinshan District, Shanghai, as the holding subsidiary of China Petroleum & Chemical Corporation, Sinopec Shanghai Petrochemical Company Limited (hereinafter referred to as "SPC") is one of the major integrated comprehensive enterprises of refining and chemical industry in China and also an important production base of oil products, intermediate petrochemical products, synthetic resin and synthetic fiber in China. Its main products include four major varieties such as petroleum, chemicals, synthetic resins and synthetic fiber polymers as well as synthetic fiber.</p> <p>SPC grows out of Shanghai Petrochemical Complex, which was founded in 1972. In 1993, as a result of standardized restructuring of shareholding system for the state-owned enterprises, SPC became the first limited liability company in China with its shares listed on Shanghai Stock Exchange, the Stock Exchange of Hong Kong and New York Stock Exchange at the same time. As of the end of 2021, SPC has a total of 8,230 employees.</p> <p>In 2021, SPC achieved operating revenue of 89.28 billion RMB, total profit of 2.648 billion RMB, and total tax payment of 14.489 billion RMB; As one of the major industrial projects in Shanghai, SPC's 48K large tow carbon fiber project started construction in January 2021; Its "Three-person Brand" trademark was awarded the 2021 Shanghai Good Trademark; SPC won the 2021 "China Moral Enterprise Award" of the 21st Top 100 Listed Companies Summit Forum in China; MSCI, an international mainstream ESG index rating agency, upgraded SPC's ESG (Environmental, Social and Corporate Governance) rating from B to BB.</p> <p>Closely centering on six major development strategies of "value-led, market-oriented, innovation-driven, talents-based enterprise development, clean and low carbon, and open cooperation", SPC adhered to the original corporate aspiration and mission of "loving my country, revitalizing petrochemical industry and providing energy for better living", established the concept of "challenging the advanced level and benchmarking the most stringent standard", accelerated the shift from "oil refining to chemical industry, chemical industry to materials, materials to high-end ones, and industry parks to ecological ones", actively practiced sustainable development and social responsibility, and realized the corporate vision of becoming a "domestically leading, world first-class" energy, chemical and new materials company.</p> <p>Company Address: 48 Jinyi Road, Jinshan District, Shanghai 200540, P.R. China Tel.: +86(21)57941941; Fax: +86(21)57940050; Email box: spc@spc.com.cn; Website: http://www.spc.com.cn.</p>
Report Issue	Fourteenth release
Assessment basis	Shanghai municipal group standard Guidelines for Corporate Social Responsibility (T31/01001-G001-2014)
Assessment method	Assessment was conducted in writing for SPC's 2021 Annual Corporate Social Responsibility Report (hereinafter referred to as the Report) in accordance with the requirements of Guidelines for Corporate Social Responsibility (T31/01001-G001-2014) to verify and assess the process, substantiality, integrity, comparability, readability and innovation of the Report.
Assessment issues	
Process	SPC prepared the 2021 Corporate Social Responsibility Report according to the eight process elements of organization, planning, definition, initiation, research, writing, release and summary as described in the whole life cycle management of social responsibility report, and following the principles of "integrity and comprehensiveness, objectivity and accuracy, clear response, timeliness and comparability, readability and understandability, and accessibility", and well controlled the theme, topics and framework of the Report. Besides, SPC positioned the Report as an important tool to promote social responsibility management and enhance the image of responsibility brand, with clear function value orientation. The Report will be presented in electronic form on the website (http://www.spc.com.cn).
Substantiality	The Report disclosed the activities and performance of SPC in fulfilling its social responsibilities in 2021.

1. Scientific development. 2021 marked the first year of the 14th Five-Year Plan and also the year for SPC to lay out the 14th Five-Year Plan. SPC adhered to the six major development strategies of "value-led, market-oriented, innovation-driven, talents-based enterprise development, green and low-carbon, integrated development", and strived to promote the development ideas of shift from "oil refining to chemical industry, chemical industry to materials, materials to high-end ones, and industry park to ecological ones", so as to build the Company into a "domestically leading, world first-class" energy, chemical and new materials company.

SPC has built a perfect core value concept system, and its core values include: people, responsibility, integrity, precision, innovation and shared values; The original aspiration and mission of SPC: love my country, revitalize petrochemical industry and provide energy for better living.

With the original aspiration and mission, SPC achieved an operating revenue of 89.28 billion RMB, a total profit of 2.648 billion RMB and tax payment of 14.489 billion RMB in 2021, and the compliance rate of product sampling inspection reached the goal of 100% throughout 2021. As one of the major industrial projects in Shanghai, SPC's 48K large tow carbon fiber project started construction; The research & development and mass production of the Winter Olympic torch led by SPC realized the international pioneering application of carbon fiber composite materials for the Olympic torch; The application of high-performance and low-cost carbon fiber composites for locomotive housing of high-speed subway train and winding of hydrogen cylinders with domestic carbon fibers were pioneering in China; The rolling-out of bimodal linear low-density products with high strength and puncture resistance filled the domestic gap; SPC invested 94.3 million RMB in research and development and applied for 81 national invention patents; Focusing on the application direction of new generation of information technology and intelligent manufacturing and boosting the Company's digital transformation, etc., SPC strived to be the vanguard of high-quality development and the national team with self-reliance in high-level science and technology.

SPC strictly abided by the requirements of the Corporation Law and other laws and regulations, effectively interfaced social responsibility with corporate development strategy, unswervingly boosted the construction of responsibility governance system in six aspects such as the responsibility strategy, responsibility governance, responsibility integration, responsibility performance, responsibility communication and responsibility ability, and incorporated the governance of social responsibility into all aspects of the Company's production and operation, thus providing a significant guarantee for building a "domestically leading, world first-class" energy, chemical and new materials company.

2. Fair operations. As the first company limited listed on the stock markets in Shanghai, Hong Kong and New York simultaneously, SPC strictly observed the securities regulatory laws and regulations of the listed places, always adhered to the concept of compliance with laws and regulations and operation in good faith, abided by business ethics, kept in mind the supremacy of customers, and improved competitiveness in open, mutual benefit and win-win cooperation.

In 2021, SPC completed the review and approval of SPC Compliance Management Measures, with the coverage rate of anti-commercial bribery training reaching 100%, and there were no events of violating competition laws and regulations or infringement of property rights.

SPC has formed a relatively sound anti-corruption system, embedding prevention and control of integrity risks into relevant management systems. The company regularly carries out employee integrity education + "family helps the development of clean practice" + "partner helps the development of clean practice", and the awareness of "zero tolerance" for corruption is deeply rooted in the hearts of the people, with 100% coverage of integrity risk prevention and control and 100% coverage of anti-corruption warning education.

3. Environmental protection and energy saving. SPC made great efforts to practice the green development concept of "Lucid waters and lush mountains are invaluable assets", actively fulfilled the entity responsibility of corporate environmental protection, and continued to promote the Green Enterprise Action Plan. In 2021, SPC's total investment in environmental protection amounted to 395.27 million RMB.

SPC planned, established and implemented the environmental management system to protect the environment and achieve the goal of sustainable development in accordance with the requirements of environmental management system standards. In view of the discharge of water, gas, noise and residue generated in the production process, SPC strictly implemented the pollutant discharge standards and achieved compliant discharge. In 2021, the total emission of CODs, ammonia nitrogen, sulfur dioxide and nitrogen oxides of SPC's main pollutants met the requirements of environmental assessment indicators as specified in the energy and environmental responsibility statement; The comprehensive compliance rate of discharged wastewater was 99.95%; The cumulative average concentration of 36 kinds of VOCs in four automatic stations was 104.09 ug/m³, better than the requirement of Shanghai for VOCs index at the boundary of chemical industry park; Daily cleaning of daily generated hazardous wastes was adopted, which formed a closed-loop management from source to the end, and the compliant disposal rate of solid waste (hazardous waste) reached 100%.

Based upon the concept of "dedicating to clean energy and practicing green development", SPC promoted low-carbon transition in energy consumption through oil product upgrading, energy consumption revamp, energy substitution, and technological innovation. In 2021, the first 400 kW demonstration photovoltaic power station was completed and connected to grid for power generation, which can reduce carbon emissions by 341 tons per year; The completion of the Hydrogen Supply Center (Phase I) facilitated the supply of clean energy; Clean production was achieved for oil products.

SPC planned, established and implemented the energy management system and process according to the standard of energy management system, aiming to continuously improve the Company's energy performance. In 2021, SPC's total water intake was 47.68 million tons, and the water intake per 10,000 RMB output value, reuse rate of sewage treatment plant, and water consumption and water discharge for processing of per ton oil were all better than the expected target. In 2021, SPC's total industrial energy consumption was 6.323 million tons, 597,000 tons less than that in 2020; Carbon dioxide emissions were 9.4675 million tons, 1.0736 million tons less than that in 2020.

Substantiality

4. Work safety. SPC has always persisted in placing the work safety in a position of "top priority, top cruciality and greatest significance".

In 2021, SPC earnestly carried out the special actions of "100-day incident-free safety" and "five inspections and five strictness" to ensure safety; Solidly promoted the three-year action plan for special rectification of work safety; Revised and issued HSE management system documents; Signed HSE responsibility statements level by level, broke down and implemented the work safety responsibilities for all employees, and achieved 100% signing rate of HSE commitment letters for on-the-job employees; Incidents were reported to the higher competent authorities in a timely and truthful manner according to applicable regulations, and performance assessment and accountability were conducted for the person liable for the incident. The annual work-related mortality rate of employees was 0.012%; SPC had formed the practice of learning safety at every meeting, publicized and implemented the knowledge of work safety theory and HSE management system in all directions and through multiple channels, profoundly learned lessons from incidents, enhanced the safety awareness of all employees, and provided 51,839 person-times of training on occupational safety and health; Strengthened risk management and control and rectification of potential hazards, comprehensively and deeply promoted the safety management of hazardous waste, and the safety and environmental compliance rate of SPC in various links such as the storage, transfer, transportation, use and disposal of hazardous waste reached 100%; Strengthened the construction of emergency response capability, implemented the "135" principle of emergency response, and enhanced emergency response capability.

In 2021, there were no major or extremely severe incidents of work safety and occupational poisoning in SPC, and the HSE situation generally presented a stable tendency.

5. Customer and consumer's rights and interests. SPC always adheres to the principle of "compliance with laws and regulations and operations in good faith; satisfying customers' needs and creating value for customers", and promotes high-quality development with high-quality products, projects and services.

In 2021, SPC continued to promote improvement of the integrated management system documents and the quality control system, and adjustment, revision and optimization of the management process, strengthened identification of quality risks, and ensured that all links affecting product quality were under control. SPC attached importance to the product quality and took various measures to improve customer service satisfaction. The compliance rate of product sampling inspection reached 100% throughout 2021, and no products sold were withdrawn due to quality problems. The customer satisfaction rate was 98.70%, 0.44% higher than that in 2020.

6. Win-win cooperation. SPC implemented open procurement according to law, continuously established and improved the supplier management system, strengthened the management of supplier access and performance assessment, and assisted suppliers to continuously improve their social responsibility performance. Besides, SPC attached importance to peer exchanges and pragmatic cooperation, implemented an elastomer joint venture project with Baling Petrochemical, co-built a new material industrial park with Pinghu, Zhejiang Province, participated in CRRC Group's molding technology project, and co-constructed a hydrogen energy laboratory with East China University of Science and Technology, so as to achieve mutual benefit and win-win with all stakeholders and promote the sustainable development of the industry.

7. Harmonious labor relations. Regarding employees as the impetus source of corporate development, SPC was committed to building harmonious labor relations. SPC abided by the Labor Law and Trade Union Law, signed labor contracts with employees according to law, respected and safeguarded the employees' rights and interests and equal opportunities, did not use child labor and forced labor, protected employees' privacy, established and perfected diversified daily consultation and communication mechanism between management and employees, and strengthened construction of talent channels in three major series for establishment of harmonious labor relations.

By the end of 2021, there were 8,230 staffs and employees at SPC. The employee quitting rate was 0.29%, in which that of local employees was 0.16%. The labor contract conclusion rate of employees reached 100%, the coverage rate of collective contracts was 100%, the coverage rate of social insurance 100%, the physical examination rate of employees 99.5%, the training rate of occupational safety and health 100%, and the incidence of occupational diseases of employees was zero. The number of management personnel, discipline technical personnel and skilled operators participating in company-level training was 871, 6,204 and 3,381 person times respectively.

8. Community participation and development. In 2021, SPC invested a total of 10.287 million RMB to support the development of surrounding areas or communities, including 7.766 million RMB for poverty alleviation procurement; Promoted the "Babysbreath" volunteer service, with 11,662.5 hours of volunteer service throughout the year; Carried out the pairing and co-construction of corporate and local Party organizations, and implemented 48 community public welfare projects throughout the year; Normalized the development of the "Public Open Day" activities, and held 55 sessions in 2021, with a total of 1,476 person-times of participants; Carried out activities such as "popularization of science into the community and campus", and the scientific popularization brand of "Green Chemical Industry" created by SPC had won the popular science project identification of "One Venue, One Brand" issued by Shanghai Science and Technology Commission.

Substantiality

Substantiality	<p>Recommendations for improvement:</p> <p>Add the disclosure of industry core indicators to further improve the integrity of the report;</p> <p>Add the description of "promoting employment, prevention and relief of disaster".</p>
Integrity	<p>The main body of the "Report" systematically disclosed SPC's accomplishment of the core indicators from the perspectives of "revitalizing petrochemical industry with innovative and pragmatic mindset", "creating value in good faith", "developing business through win-win cooperation", "safe operations, low-carbon and green development", "people foremost, benefiting the staff" and "fulfilling responsibilities and serving the society";</p> <p>The framework, topics and information content of the Report meet the requirements of "Basic Information, Responsibility Management, Responsibility Performance, Outlook of Responsibility and Appendix of the Report" of T31/01001-G001-2014 Guidelines for Corporate Social Responsibility.</p>
Comparability	<p>The "Report" disclosed the comparative data of 52 indicators such as "total assets", "number of invention patent applications" and "waste gas emissions" for three consecutive years, which has good vertical comparability. However, due to the limitation of industry data/information, it did not disclose the performance of the same industry and did not have horizontal comparability.</p>
Readability	<p>Themed with "the Cleanest Energy and the Most Splendid Living", the Report demonstrated the concept, actions and effectiveness of corporate annual fulfillment of responsibilities from six dimensions such as Revitalize petrochemical industry with innovative and pragmatic mindset; Create value in good faith; Develop business through win-win cooperation; Safe operations, low-carbon and green development; People foremost, benefit the staff; and fulfill responsibilities and serve the society; With clear framework structure and highlighted key topics, the Report interpreted SPC's profound understanding of fulfillment of social responsibility.</p> <p>The "Report" demonstrates the scenarios of corporate fulfillment of responsibility with characters, data, real pictures, etc., which enhances the recognition of the report and has strong readability.</p>
Innovation	<p>Focusing on the highlighted practice of the corporate fulfillment of its responsibility from the perspectives such as Revitalize petrochemical industry with innovative and pragmatic mindset; Create value in good faith; Develop business through win-win cooperation; Safe operations, low-carbon and green development; People foremost, benefit the staff; and fulfill responsibilities and serve the society, the Report manifests the undertakings of central enterprise to implement macro policies; Closely following the fundamental policies of China, it shows the report's keeping pace with the times and the enterprise's pursuit of responsibility fulfillment; The Report strengthens communication with stakeholders, presenting good innovative performance.</p>
Overall comments	<p>The critical information, data and activities of fulfillment of social responsibility disclosed by the Report are basically in conformity with Guidelines for Corporate Social Responsibility (T31/01001-G001-2014).</p>
Statement	<p>The assessment comments are only specific to the Report.</p>

Auditor: Wang Xiulan

Approved by: Ma Zhigang

Assessment agency: Beijing Sanxing 9000 Certification Body Co., Ltd.

Date of audit: March 22, 2022



INDEX

Titles	Sub-titles	ISO26000	ESG	API	Cass-csr3.0	Pages
Address by Chairman of the Board				SOC-1	P3.1 P3.2	P1-2
SPC's Responsibility performance Sheet				ECO-1	P5.2	P3-4
Company Profile					P4.1 P4.2 P4.3 P4.4	P5
Corporate Culture						P6
Development Strategy		6.2				P6
Corporate Governance						P7
Social Responsibility						P8
Responsibility Management		6.2		SOC2	G1-G6 P5.3	P9
Honors of Responsibility						P10
Revitalize petrochemical industry with innovative and pragmatic mindset	Focus on high-end supply	6.7.4				P12-13
	Make innovations in petrochemical technology	6.7.4 6.7.5			M2.11-M2.16 E3.3	P14
	Jointly develop SPC quality	6.7.4	B6.4		M2.1 M2.3	P15
	Build smart plant					P16
Create value in good faith	Jointly create value with our customers	6.6 6.7	B6.2 B6.5		M2.4-M2.6 M2.8-M2.10 M3.10-M3.12 E2.25	P18-19
	Build responsible supply chain	6.5 6.6	B5	ECO-3 SOC-8	E3.1	P20
Develop business through win-win cooperation	Improve operation performance			ECO-2	M1.4-M1.6	P22-23
	Safeguard investors' rights and interests			ECO-2 ECO-1 ECO-A3	M1.2 M1.3	P24
Safe operations, low-carbon and green development	Respond to Climate Change	6.5.5	A1.2 A2.1 A2.3	ENV-5 ENV-3 ENV-A8 ENV-A9	E2.1-E2.4 E4.1-E4.4 E5.1-E5.3	P26-28
	Strengthen safety management	6.4.6		ENV-6 H&S-5 H&S-4 H&S-2 H&S-5	S3.1 S3.2 S3.3 S3.4 S3.5 S3.6 S3.7	P29-31
	Intensify environmental protection	6.5.3	A1.1 A1.3 A1.4 A1.5 A1.6 A3.1	ENV-1 ENV-2 ENV-A3 ENV-A4	E1.1-E1.5 E1.6-E1.7 E1.8 E2.7-E2.24	P32-34
	Develop recycling economy	6.5.4	A2.2 A2.4 A2.5	ENV-A7 ENV-A5	E2.27-E2.29	P35-36

People foremost, benefit the staff	Harmonious labor relations	6.3	B1.1	SOC-1	S1.7 S1.8		
		6.4	B1.2	SOC-A2	S2.1-S2.7	P38	
		6.8	B4	SOC-4	S2.10-S2.14		
	Employees' Health and Safety	6.4	B3	SOC-1			
				SOC-5			
				SOC-4	S2.18-S2.20	P39	
	Boost employees' career development	6.3	B2.1	SOC-4			
				6.4	B2.3	SOC-1	S2.15
6.8							
Fulfill responsibilities and serve the society	Facilitate community development	6.3	B8	ECO-1	S1.5		
		6.4		SOC-A4	S4.6	P42	
		6.8		SOC-A3	S4.7		
		6.5		SOC-A5			
	Demonstrate Corporate Image				E1.9	P43	
					S4.1 S4.2		
	Fulfill Responsibility of Anti-corruption	6.6.	B7			P44	
	Make Contribution to Social and Public Welfare Undertakings	6.8			S4.10	P44	
					S4.11		
					S4.13-S4.15		
Outlook of 2022					A1	P45	
Written comments on report on corporate social responsibility					A2	P46-49	
Index					A3	P50-51	
Briefing of this report						P52	
Form of Readers' Feedback					A4	P53	

BRIEFING OF THIS REPORT

Report release cycle

Once every year

Fourteenth report of social responsibility

Present report is the fourteenth report on corporate social responsibility released by SPC, which includes the efforts and achievements made and scored by SPC in terms of economy, environment and society for sustainable development in 2021.

Time frame of the report

This report was developed on the basis of the data ranging from January 2021 to December 2021. However, we also adopted the data of the past three years since 2019 for certain quantity of achievements, so as to reflect the variation tendency in time.

Definition of key topics

SPC practice of corporate social responsibility

Reference standards of the report

References are made to the Guidelines for Environment, Society and Management Report (2019) issued by the Stock Exchange of Hong Kong Limited, the Guidelines on Enterprise Social Responsibility (SEO-CSR1.0) issued by Shanghai Federation of Economic Organization, ISO26000: Guidelines on Social Responsibility (2010) issued by International Standardization Organization, and Guidelines for Release of Report on Sustainable Development of Petroleum and Natural Gas Industry issued by the International Association of Environmental Protection in Petroleum Industry.

Reliability guarantee of the report

Present report does not contain intentionally fictitious fact, misleading statement or omission of major events and we guarantee its accuracy and authenticity.

Data sources

All data of the report are sourced from SPC official documents and statistical reports and have been reviewed by competent authorities.

Abbreviations of the report

SPC and the Company as mentioned in the report refer to Sinopec Shanghai Petrochemical Co., Ltd.

Scope of the report

The scope is consistent with SPC business coverage area.

Improvement of the report

We aim at giving play to the dialogue roles of the report, interpreting the value and impact brought about by SPC's fulfillment of social responsibilities and jointly discussing with stakeholders about the opportunities and challenges faced by us in the course of development and then seeking solutions. We welcome readers to propose your comments and recommendations on the report.

Ways to access to the report and extended reading

You can also read the electronic version of this report by visiting the website (<http://www.spc.com.cn>).

FORM OF READERS' FEEDBACK

Dear readers:

We appreciate your reading of 2021 SPC Report on Social Responsibility. We attach great importance to and expect your feedback comments about SPC sustainable development and this report. Your comments and recommendations are important references for us to improve the performance of social responsibility. You can send your feedback to us by mail, email or fax. We warmly welcome and sincerely appreciate your precious comments.

Name:

Company:

Contact telephone:

Email box:

Your assessment of our report:

Your assessment of this report:	Excellent	Good	Average	Poor
How do you like the rationality of the structure of this report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can you understand SPC concept of social responsibility and characteristics of practice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is this report reader friendly and readable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How do you like the content arrangement and format design of this report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is your overall assessment of this report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Your recommendations on SPC Report on Corporate Social Responsibility:

Your recommendations on SPC sustainable development:

You can contact us at:

Address: 48 Jinyi Road, Jinshan District, Shanghai 200540, China

Telephone: 86-21-57941941

Fax: 86-21-57940050

Email box: spc@spc.com.cn



Sinopec Shanghai Petrochemical Company Limited

Address: 48 Jinyi Road, Jinshan District, Shanghai, PRC

Tel: 86-21-57941941

Fax: 86-21-57940050

Website: www.spc.com.cn

E-Mail: spc@spc.com.cn

Postal Code: 200540