



# 2023

ENVIRONMENTAL, SOCIAL  
AND GOVERNANCE REPORT



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# MESSAGE FROM THE CHAIRMAN



SPC will adhere to "challenging the advanced level and benchmarking the most stringent standard", consistently make overall plans for development and safety, accelerate the creation of a new situation in high-quality development, safeguard the legitimate rights and interests of investors with heart and soul, and open a new chapter in building a "domestic leading and world-class" energy, chemical and new materials company with a more energetic spirit and firmer and stronger pace!



2023 kicked off the comprehensive implementation of the spirit of the 20th National Congress of the Communist Party of China, and it's also the year of economic recovery and development after the smooth transition in COVID response phase. The domestic economy continued to recover, and the overall recovery showed an upward trend. However, the world economic recovery continued to be under pressure, the international crude oil price underwent significant turbulence, the consumption in the chemical market was sluggish, and there were still many uncertain and unpredictable factors. Facing opportunities and challenges, SPC took the initiative to seize the opportunity of market recovery, adhered to the development concept of "shifting the focus from oil refining to chemicals, chemicals to materials, materials to high-end ones, and petrochemical park to eco-friendly park", promoted control of safety and environmental protection, creation of benefit in production and operation, and construction of key projects, etc. in an orderly manner, and boosted new progress in various undertakings while upholding integrity and innovation.

**We persisted in integrating ESG into development strategy and production & operation.** We established the Strategy and ESG Committee of the Board to promote SPC's ESG construction from a strategic perspective, and fully integrated the core concepts and standards of ESG into the corporate development strategy and routine production & operation management. We deepened ESG practice, carried out the reform deepening and improvement actions, value creation actions by benchmarking first-class enterprises and various activities for quality improvement of the listed company, continuously improved the modernization of corporate governance system and governance capacity, and comprehensively guaranteed the high-quality sustainable development of the Company. SPC was awarded AA grade ESG rating of Chinese listed companies in 2022 (released by China Xinhua News Network Corp.).

**We persisted in improving the intrinsic safety more comprehensively.** Facing the severe and complicated situation of work safety, we stuck to overall development and safety, adhered to paying equal attention to development and safety, highlighted

strict management and shouldered all responsibilities earnestly, took strengthening institutional system construction as an important fulcrum to consolidate the management foundation, profoundly carried out the annual action of strengthening safety management, vigorously promoted the grid of grass-roots safety management, strengthened emergency management, focused on safety assessment of production units as well as intermediate inspection and rectifications, and enhanced process safety control. We adhered to strengthening risk prevention, intensified the performance of duties for major hazard sources, strictly implemented the dual prevention mechanism of safety risk classification control and hidden hazard investigation and governance, profoundly carried out centralized governance of safety risks of hazardous chemicals, completed hidden hazard rectifications such as special governance, comprehensively improved the intrinsic safety, and resolutely reversed the passive situation of work safety.

**We persisted in further promoting the harmonious coexistence between human being and nature.** SPC deepened the construction of green enterprise, continued to meet the challenge of pollution prevention and control, and protected our clear water, blue sky and pure land with great efforts. We strengthened fundamental management, strictly implemented the requirements for water pollution prevention and control, and conducted leakage detection and repair (LDAR), online monitoring and traceability on a regular basis; enhanced source control, vigorously carried out in-depth treatment of tank waste gas and VOCs, and implemented the revamp project for improvement of clean water and sewage separation. As a result, the discharge of major pollutants dropped significantly, the regional environmental quality continuously improved, and the satisfaction of surrounding residents significantly rose. We adhered to long-term ecological monitoring, strived to protect biodiversity, and make positive contributions to building a community of life on earth.

**We persisted in adequately releasing the kinetic energy of innovation driven development.** SPC adhered to the combination of independent innovation and collaborative innovation, strengthened the integration of internal and external resources, and strived to create more



major original achievements. We made every effort to strengthen and optimize the advanced material industry with carbon fiber as the core, and completed the construction of 48K large tow carbon fiber project (Phase I) and the 100-ton high-performance carbon fiber project and produced on-spec. products; Completed the construction of pilot test plant for commercial production of aeronautical composite materials, and manufactured large-size plates for the first time in the pilot test line of thermoplastic plates; Large tow carbon fiber was successfully applied to air-supported membrane structure network cable system and the longest wind turbine blade in the world; The Carbon Fiber Winter Olympic Torch Project won the 23rd China International Industry Fair Award; SPC presided over the drafting and release of the first large tow carbon fiber product standard in China; The innovation research institute was approved by CNAS. SPC positively promoted digital transformation, and basically completed the construction of smart plant with integrated production control, integrated supply chain optimization and equipment integrity as the main line.

**We persisted in making more comprehensive contributions to dealing with climate change.** We achieved a good combination of cogeneration, photovoltaic power generation and carbon capture and utilization to facilitate hitting the "dual carbon target". We started the construction of clean and efficient cogeneration units, and the energy efficiency will be increased from the current 60% to 87.8% after completion of construction. Cumulatively four photovoltaic power generation units were put into operation, with a total installed capacity of 16 MW, an average annual power generation of 18.86 million kWh and an annual reduction of carbon dioxide emission of more than 10, 000 tons. Green electricity transaction was conducted for the first time, with a total purchase of 45.99 million kWh throughout the year. Waste carbon dioxide was captured and processed into food-grade carbon dioxide, which achieved both economic and environmental benefits.

**We persisted in fulfilling our economic and social responsibilities more extensively.** SPC spared no efforts to guarantee the supply of oil products, and produced a total of 8.6666 million tons of refined oil products. Motor gasoline was delivered according to the

national VI B standards; We completed the construction of Jinhong jet fuel pipeline and put it into operation, and continuously improved the jet fuel output, which effectively guaranteed the jet fuel resources of target airports in East China. We went all out to ensure the power supply in summer peak, and made positive contributions to the power supply of East China Power Grid while ensuring the production in SPC. We accurately implemented 190 projects benefiting the masses and improved the well-being of employees. SPC continued to promote middle school education poverty alleviation in Baingoin County, Tibet, and cooperated in consumption assistance, and won the "Outstanding Contribution Award for Counterpart Consumption Assistance in 2022". We positively participated in public welfare actions, and SPC's "Babysbreath" volunteer service team was elected as the "Four 100" Best Volunteer Service Organization for National Learning Lei Feng's Volunteer Service in 2022. We continued to carry out "Public Open Day" activities and deepened the construction of harmonious relationship between enterprises and local government.

2024 is the 75th anniversary of the founding of the People's Republic of China, and a crucial year for implementing the objective-tasks of the 14th Five-Year Plan. Therefore, it is of great significance to implement various tasks in place. SPC will adhere to "challenging the advanced level and benchmarking the most stringent standard", consistently make overall plans for development and safety, accelerate the creation of a new situation in high-quality development, safeguard the legitimate rights and interests of investors with heart and soul, and open a new chapter in building a "domestic leading and world-class" energy, chemical and new materials company with a more energetic spirit and firmer and stronger pace!

Wan Tao  
Chairman

March, 2024

# ABOUT US

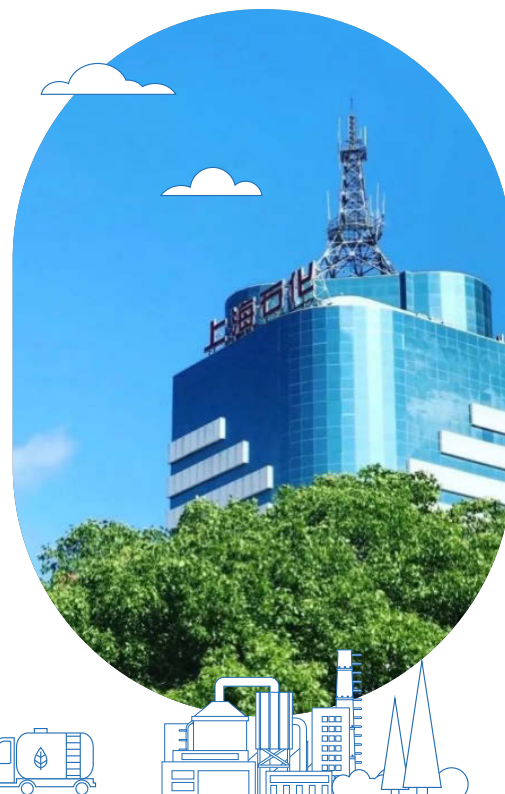
## SINOPEC SHANGHAI PETROCHEMICAL CO., LTD

### Company Profile

Located in Jinshan District, Shanghai, Sinopec Shanghai Petrochemical Co., Ltd. ("SPC" or the "Company") is a holding subsidiary of China Petroleum & Chemical Corporation, one of the major refining-chemical integrated petrochemical companies in China and is mainly engaged in production of various refinery and chemical products through petroleum processing.

The Company grows out of Shanghai Petrochemical Complex which was founded in 1972. In 1993, as one of the state-owned enterprises subject to the standardized reform of the shareholding system, SPC became the first joint stock limited company in China, with its shares listed in Shanghai, Hong Kong and New York at the same time.

In 2023, with the "top priorities of the country" in mind, anchoring the high-quality development orientation of digital intelligence and green innovation, SPC continuously promoted comprehensive technical revamp and quality upgrading, and made new progress. Carrying forward our cause into the future, SPC will unswervingly march forward towards the goal of building a "domestic leading and world-class" energy, chemical and new materials company!



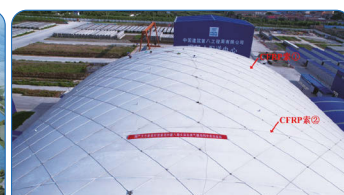
### Development achievements in 2023



Centralized grid connection  
of three new photovoltaic  
power stations



Start-up of clean and efficient  
cogeneration unit



New application of 48K large  
tow carbon fiber reinforced  
plastic rebar



Construction completion and  
operation of third loop 220 kV  
power supply incoming line project



Successful commissioning  
of tertiary electric desalting  
revamp project



Construction completion  
and operation of Jinhong jet  
fuel pipeline



# HONORS OF ESG



- Won AA Class ESG Rating of Chinese Listed Companies in 2022 Awarded by the Rating System of China Xinhua News Network Corp
- Won "CIIF Award" in the 23<sup>rd</sup> China International Industry Fair and the Excellent Product Award in New Materials Industry Exhibition
- Won the Excellent Innovative Product Award in the 19<sup>th</sup> China Composite Materials Exhibition-JEC
- Won the First Prize of Science and Technology Progress Award of 2022 China Petroleum and Chemical Industry Federation
- Won Individual Awards, including 1 Silver Award and 1 Copper Award in Operators' Competition of FCC Unit of 2022 National Industry Vocational Skills Competition
- Won Collective Second Prize and 1 Individual Gold Award in the Chemical Inspector Competition of 2023 National Industry Vocational Skills Competition
- Won the Title of "Four 100" Best Volunteer Service Organization for Learning Lei Feng's Volunteer Service in 2022
- Won Environmental Friendly Enterprise Authentication Certificate
- Won Collective Excellence Award of the Third (2023) National Emergency Rescue Technology Competition for Safety Production of Hazardous Chemicals
- Was Awarded the Honorary Title of "Advanced Full-time Fire Brigade of Enterprises and Institutions" by the Fire Rescue Bureau of the Ministry of Emergency Management of P. R. China
- Won the 2022 Shanghai Employee Rationalization Proposal Outstanding Achievement and Advanced Operation Method Innovation Award
- Was Elected as an Excellent Team in the 2022 Shanghai Key Project Meritorious Competition
- Won the Gold Award and Silver Award in the 2022 Shanghai Industrial Youth Innovation Competition
- Won the second prize of comprehensive appraisal in the field of investment and construction in Shanghai
- Won the second prize of comprehensive appraisal of energy statistics in Shanghai in 2023
- Won the third prize of comprehensive appraisal of industrial statistics in Shanghai in 2023
- Won the "Outstanding Contribution Award for Counterpart Consumption Assistance in 2022" in Shanghai
- Won the Gold Award of "3D Simulation Disposal Competition for Safety of Refining and Chemical Industry" in the Vocational Skills Competition of Shanghai Economic and Information System in 2023
- Won the Social Responsibility Contribution Award of Panorama Media Limited in the short video exhibition and broadcasting activities on corporate culture in capital market

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# 01

## CORPORATE GOVERNANCE



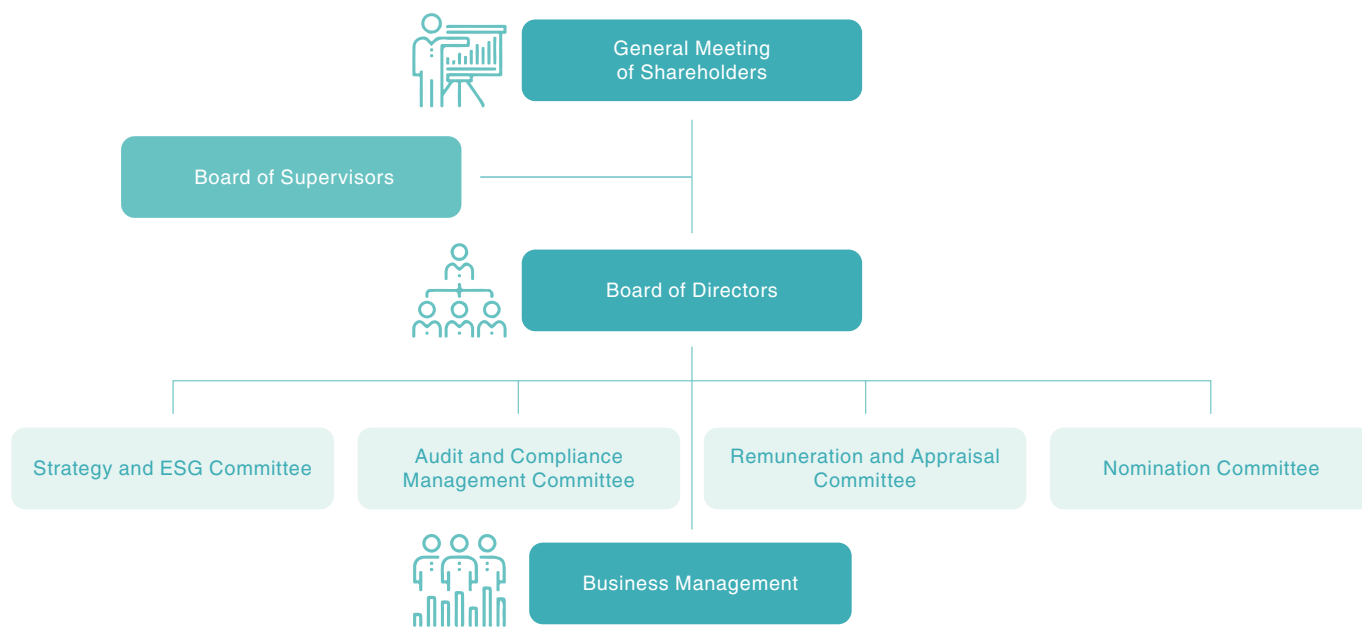
With promoting high-quality development as the main line in an all-around manner, SPC constantly integrated ESG concept into the whole process of corporate development strategy and operation. The Company positively boosted internal market-oriented management and established an effective incentive and restraint mechanism. SPC paid attention to safeguarding the legitimate rights and interests of investors, communities, customers, employees and other stakeholders, and improved the long-term mechanism of legal and compliant operation. Closely based upon technological innovation and digital transformation, SPC strived to develop core competitiveness towards the future.

- 01 Governance structure
- 02 Communication with stakeholders
- 03 Development strategy
- 04 ESG risk management
- 05 Integrity and compliance
- 06 Technological innovation
- 07 Digital transformation



# Governance Structure

The Company strictly abides by the Articles of Association and domestic and overseas securities regulatory provisions, and establishes a corporate governance structure composed of shareholders' meeting, board of directors, board of supervisors and management by benchmarking regulatory requirements and international rules, thus forming a coordination and balance mechanism with clear powers and responsibilities and compliant operation among the organ of power, decision-making body, supervisory institutions and management; Fully integrates ESG management into SPC's development strategy, business operation and management, and builds a scientific and specialized ESG management system and a clear and transparent ESG governance structure to continuously promote the sustainable development of the Company's business.



## General Meeting of Shareholders

As the highest authority of the Company, the general meeting of shareholders exercises its functions and powers according to law. In 2023, SPC held one general meeting of shareholders to review 12 proposals and formed resolutions.

Shareholders' meeting  
1 session

Number of resolutions  
12

## Board of Supervisors

The Board of Supervisors reports to the general meeting of shareholders and is composed of supervisors elected by the general meeting of shareholders and SPC's employees democratically. It supervises and inspects the Company's business activities, and inspects the performance of duties and responsibilities of the Board of Directors and the management. By the end of 2023, the Company had six supervisors, including three external supervisors. The Board of Supervisors held 8 meetings, reviewed and approved 15 proposals.

Meeting of the Board of Supervisors  
8 sessions

Number of proposals adopted by the meeting  
15

## Board of Directors

The Board of Directors is responsible to the shareholders, implements the resolutions of the general meeting of shareholders and exercises the decision-making power on all major issues of the Company. As the highest authority in management and information disclosure regarding the Company's ESG matters, the Board of Directors attaches great importance to sustainable development management by integrating ESG into the whole process of the corporate operation, and establishing an effective ESG management mechanism. Thanks to this, a governance structure with clear hierarchy and division of labor was formed and applied to effectively control ESG-related risks and further improve the corporate governance. In 2023, the Board of Directors held 9 meetings, reviewed and approved 44 proposals.

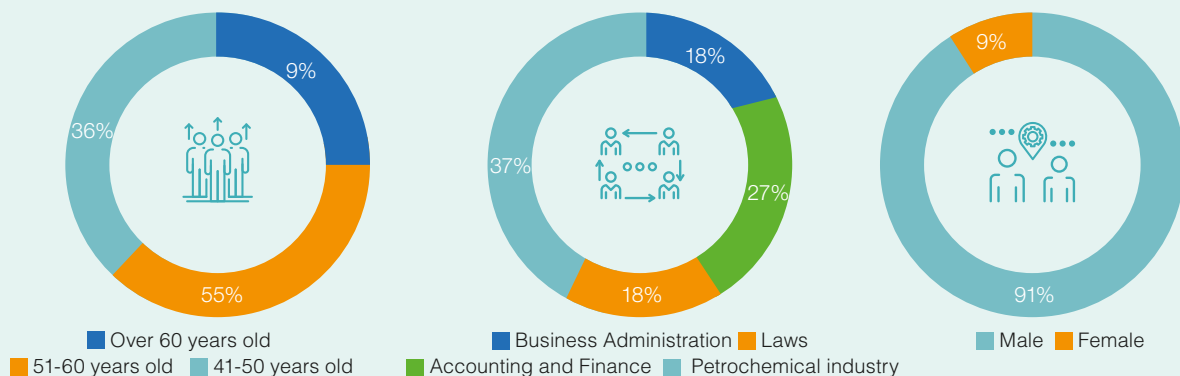
Meeting of the Board of Directors  
9 sessions

Number of resolutions  
44

## Board of Directors



In order to ensure the diversity and rationality of the decision-making of the Board of Directors, the members of the Board of Directors are from different areas of expertise and have various profession backgrounds. The Company has established a comprehensive independent director system, and selected and retained independent directors in strict accordance with the election procedures and conditions stipulated in the Articles of Association to ensure that the proportion of independent directors in the Board of Directors is not less than 1/3. Independent directors of the Company participate in the decision-making of the Board of Directors, feed back problems to the management and listen to reports, and guide the prevention and mitigation of risks. By the end of 2023, the Board of Directors of the Company had 11 members, of which 9.1% were female directors and 45.5% were independent directors.



## Special committees of the Board of Directors

The Company has four special committees under the Board of Directors, including Strategy and ESG Committee, Audit and Compliance Management Committee, Remuneration and Appraisal Committee and Nomination Committee, which provide advisory opinions and recommendations for the decision-making of the Board of Directors.

### Strategy and ESG Committee

Be responsible for studying the Company's development strategy, major investments and other major issues and putting forward opinions to the Board of Directors; Provide advice to the Board of Directors on ESG related strategies, planning and decision-making; Pay attention to the Company's ESG commitment and performance, study the Company's ESG related matters, review the Company's annual ESG report and provide advice to the Board of Directors. In 2023, the Strategy and ESG Committee held one meeting.

### Audit and Compliance Management Committee

Be responsible for proposing to retain or replace external audit institutions and communicating between SPC's internal and external audit and compliance; Supervise the Company's internal audit system, compliance management system and their implementation; Audit the Company's financial information and its disclosure; Review the internal control system of the Company. In 2023, the Audit and Compliance Management Committee held four meetings.

### Remuneration and Appraisal Committee

Be responsible for formulating and reviewing the remuneration policies and plans of directors and senior managers; Formulate the performance assessment criteria for directors and senior managers of the Company and conduct assessment. In 2023, the Remuneration and Appraisal Committee held four meetings.

### Nomination Committee

Be responsible for providing recommendations to the Board of Directors on the selection and appointment procedures, criteria and job qualifications for directors and senior managers of the Company. In 2023, the Nomination Committee held three meetings.



## Business Management

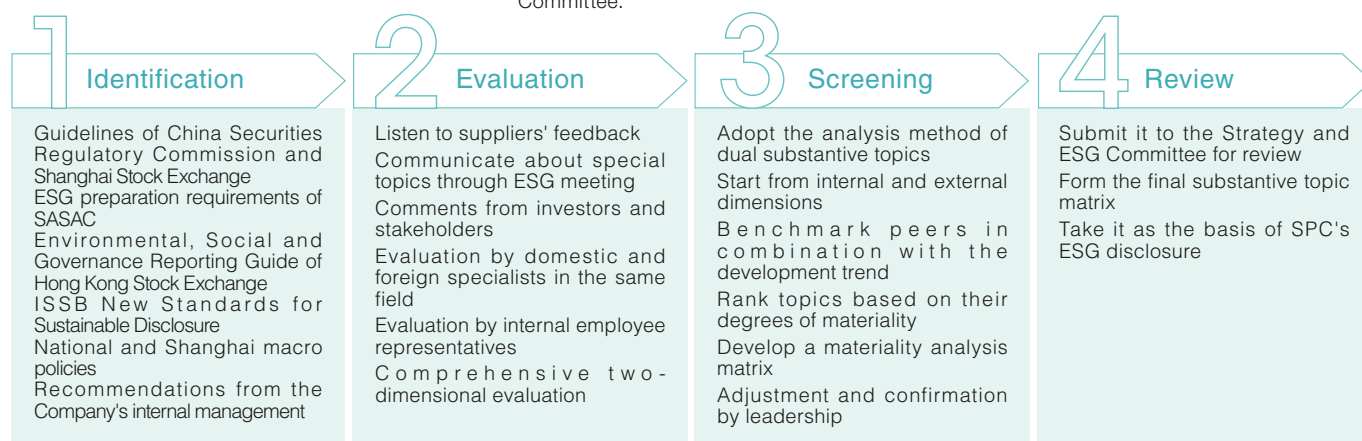
The Company's management includes the general manager, deputy general manager, chief financial officer, secretary of the Board of Directors and other leaders. The business management organizes the implementation of the resolutions of the Board of Directors according to the requirements of the Board of Directors, and is responsible for promoting the implementation of ESG matters, and regularly reports to the Board of Directors to ensure the implementation of the Company's strategy.

# Communication with stakeholders

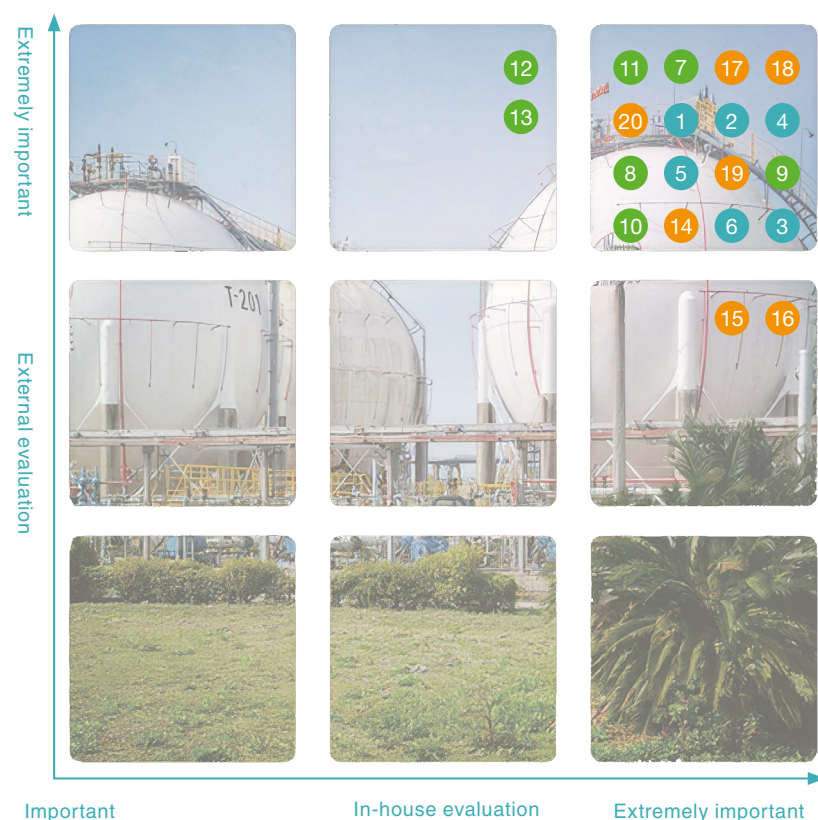
The Company attaches great importance to communication and collaboration with stakeholders, systematically and comprehensively conducts survey of stakeholders, continuously optimizes the workflow for analysis of ESG substantive topics, establishes a normalized communication mechanism with all stakeholders, pays attention to investor relations management, consolidates the foundation of ESG governance, and strives to create value for customers, business partners and the society.

## Analysis of Substantive Topics

SPC further improves the materiality analysis process for ESG topics, and determines substantive topics that have important impact on the Company and stakeholders through main steps of identification, evaluation, screening and review by Strategy and ESG Committee.



## SPC's matrix of ESG substantive topics in 2023



## SPC's ESG substantive topics in 2023

Classification of topics	Ser. No.	Substantive topics
 Environment	1	Energy management and climate change
	2	Water management
	3	Atmospheric pollution management
	4	Hazardous waste management
	5	Develop circular economy
	6	Biodiversity protection
 Society	7	Product responsibility and customer service
	8	Construct responsible supply chain
	9	Employee rights and development
	10	Serve the integration of Yangtze River Delta
	11	Industrial upgrading and creation of employment
	12	Community co-construction
	13	Dedicate to public welfare undertakings
 Governance	14	Governance structure and development strategy
	15	Communication with stakeholders
	16	Investor relations management
	17	Integrity and compliance
	18	Safety risk management
	19	Technological innovation
	20	Digital transformation

## Stakeholders' engagement

Joining hands with stakeholders is the long-term momentum driving SPC's high-quality development. In order to fully understand the needs of stakeholders, SPC positively expanded the communication channels, maintained normal and diversified communication with stakeholders such as the government, investors, customers, the public, peers, employees, suppliers and communities, and responded to the expectations and demands of relevant parties in a timely manner.

### Identification of stakeholders

### Expectations and demands

### Communication and responses



#### Government and regulatory agencies

- Implementing the goals of carbon peak and carbon neutrality, and facilitating industry progress
- Legal and compliant operations, safe and reliable products
- Making innovations in scientific research and technology, paying attention to operations and results
- Promoting Party building to lead and control safety risks

- Executing polices and inspecting institutions
- Discussions, symposiums, communication and reporting
- Project review and approval, governmental supervision
- Signing agreement and establishing cooperation



#### Investors

- Sound performance and stable tendency
- Intensifying operation and disclose information
- Data security and privacy protection
- Green development, promote employment

- General meeting of shareholders and information disclosure
- Teleconference and corporate visit
- Road show and corporate annual report
- Communication about ESG related topics



#### Customers

- Performing product responsibilities and focusing on high-end supply
- Serving customers wholeheartedly and safeguarding their rights and interests
- Paying attention to product safety and creating petrochemical quality together

- Customer visits and satisfaction surveys
- Sending resident experts to provide on-site services
- Providing online and offline services



#### The public and media

- Improving operational information transparency
- Providing quality products and services
- Maintaining good public relations

- Carrying out news report and publicity
- Facilitating communication between the public and the media
- Holding Public Open Day activities



#### Peers and industry groups

- Achieving shared growth through discussion and collaboration, and advancing win-win cooperation
- Drawing on each other's strengths, and facilitating industry transformation
- Promoting honest performance and discussing risk prevention and control

- Exchanges and mutual visits, and cooperative research and development
- Industry forum and expansion of platforms
- Co-construction of Party building, pairing communication



#### Employees

- Guaranteeing occupational health and safeguarding the rights and interests of employees
- Polishing vocational skills and providing a development platform
- Improving the mechanism of poverty alleviation and enhancing the care measures

- Staff meeting and training on occupational health
- Corporate culture activities and internal communication platform
- Understanding employees' demands via grassroots visits media



#### Suppliers and partners

- Open, equitable and fair procurement
- Integrity and compliance, and mutual benefit and win-win
- Be committed to building green supply chain

- Supplier communication, evaluation and training
- Promoting green procurement and warehousing
- Improving supplier management institutional system



#### Community

- Industrial upgrading, enhancing local employment
- Supporting public welfare and facilitating collective prosperity
- Coping with climate change and green development chain

- Volunteer services, public benefit and charity
- Community activities and risk assessment
- External survey, popularization of science on environmental protection

## Safeguarding the rights and interests of investors

The Company attaches great importance to investor relations management, always adheres to the principle of information disclosure such as "truthfulness, accuracy, timeliness and completeness", improves the quality of information disclosure, strengthens communication with investors, strives to improve the corporate governance and the effect of market value management, and adequately protects the legitimate rights and interests of investors.



High-quality, compliant and efficient information disclosure

- Completed regular disclosure of the contents and data of the annual report, interim performance report and Q1 and Q3 reports
- Released 44 interim announcements, including resolutions of the Board of Directors and the Board of Supervisors, resolutions of the general meeting of shareholders, performance forecasts, etc.
- Released the first ESG report (15th Social Responsibility Report) and obtained adequate affirmation of relevant rating agencies.

- Actively participated in offline investor exchanges, held performance presentation conferences and various forms of presentation roadshows
- Organized performance briefing, fully communicated with participants, and strived to protect the interests of minority investors
- Actively participated in investor meetings, and had face-to-face exchanges with fund managers and securities analysts to discuss development
- Interacted with investors both online and offline



Innovation in investor relations management proved effective



Improved governance level and market value management

- Drafted the work plan, prepared for the BOD meeting and the general meeting of shareholders, and completed the deliberation and disclosure of daily related party transactions
- Successfully completed the general election of new directors and supervisors, completed the preparation of the meeting in compliance and efficiency, and all the proposals were adopted
- Optimized the functions of special committees of the Board of Directors, established Strategy and ESG Committee, and strengthened ESG decision-making and management
- Conducted repurchase of H shares. As of 31 December 2023, a total of 70.192 million shares were repurchased

### Cases Innovated "Public Open Days" events

SPC held Public Open Day events with multiple themes, inviting local governments, brother enterprises and residents around the communities to visit SPC to feel and understand the corporate development. A total of 43 sessions of events were held throughout the year, with 5,848 participants attending the online and offline Public Open Day events, among which 4,143 person times watched the online Public Open Day event of the middle school in Baingoin County, Naqu, Tibet. Besides, SPC actively carried co-construction of Party building, and normalized and institutionalized communication with residents in Jinshan District, surrounding towns and communities.

The Company practiced the green development concept, strived to create benefit through operations, and seriously implemented the attitude and spirit of the corporate ESG governance, winning unanimous praise of the visitors.





# Development strategy

The Company thoroughly implemented the spirits of the CPC's 20th National Congress, upheld the new development concepts of "innovation, coordination, green, openness and sharing", actively responded to the national strategic goals of "dual carbon", Shanghai's strategic requirements of "south-north industrial transformation" and Sinopec's industrial strategic layout of "one base, two wings and three new growth poles", and deeply implemented the six major development strategies of "value-led, market-oriented, innovation-driven, talents-based enterprise development, green and low-carbon, integrated development". SPC firmly shifted its focus from oil refining to chemicals, chemicals to materials, materials to high-end ones, petrochemical park to eco-friendly park, and strived to build a "domestic leading and world-class" energy, chemical and new materials company.

## Strategic vision

Build a "domestic leading and world-class" energy, chemical and new materials company

## Development ideas

Shifting from oil refining to chemicals, chemicals to materials, materials to high-end ones, petrochemical park to eco-friendly park



## Development strategy

Value-led, market-oriented, innovation-driven, talents-based enterprise development, green and low-carbon, integrated development

## Development concept

Innovation, coordination, green, openness and sharing

## ESG risk management

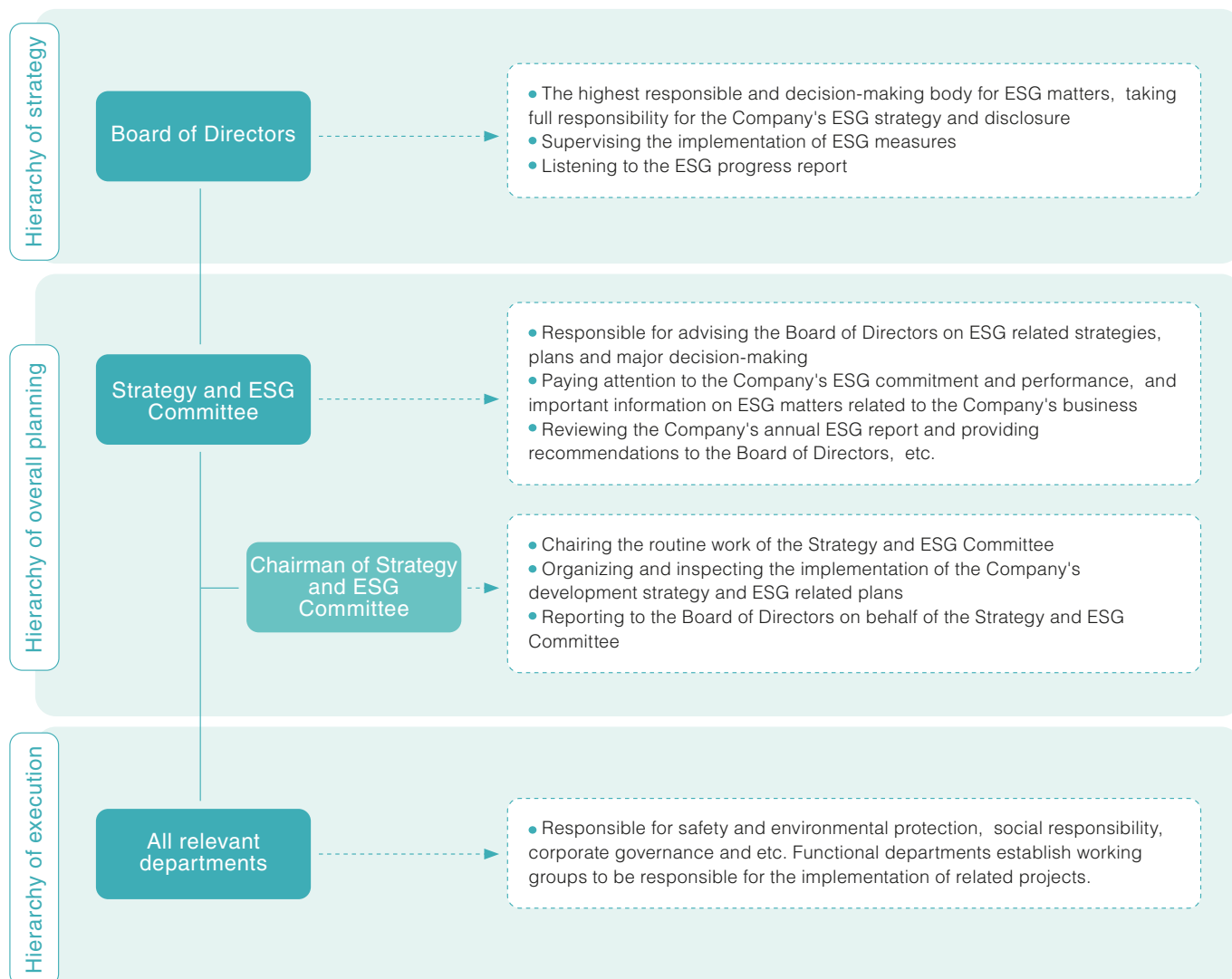
Strengthening ESG risk management capability is conducive to improving the comprehensive risk management system, further enhancing the core competitiveness and promoting the sustainable development of enterprises. We attached great importance to ESG risk management and fully integrated it into the corporate operation and management as a component of SPC's development strategy. We improved the ESG risk management framework this year, including the hierarchy of strategy, the hierarchy of overall planning and the hierarchy of execution. In addition, we identified and took the initiative to respond to major ESG risks through risk management and control to guide the sustainable development of operations and business.



## ESG Risk Management Framework

SPC has established the Strategy and ESG Committee, which is composed of 6 directors, to advise the Board of Directors on ESG-related strategies, planning and major decision-making.

Strategy and ESG Committee



## ESG risk identification and governance

To fully understand the evaluation and expectation of stakeholders on SPC's work in ESG risk management and respond to the requirements of stakeholders, we identified, evaluated, studied and judged ESG risks through the following four steps.



The Company carries out ESG risk identification, analysis and evaluation every year, strengthens risk monitoring, early warning and analysis through quarterly monitoring, special inspection and internal audit of major risks, continuously optimizes risk management measures, ensures the effective operation of risk management mechanism, and continuously improves management efficiency and risk management.



# Integrity and compliance

The Company persists in strengthening internal control, preventing risks and promoting compliance, strictly abides by the Anti-Monopoly Law of the People's Republic of China, Anti-Unfair Competition Law of the People's Republic of China and other relevant laws and regulations, integrates the legal compliance into the business and incorporates such into the process, and cultivates and shapes the corporate culture of standardized operation, honesty and integrity.

## Standardized operation

### Legal and compliant assurance of supply

Rules of SPC on Administration of Material Procurement and Supply Resources

Rules of SPC on Management of Material Purchasing by Invitation to Bids

Rules of SPC on Management of Material Supply

Rules of SPC on Manufacturing Supervision Management of Equipment and Materials

Rules of SPC on Management of Material Quality Acceptance Inspection

Rules of SPC on Management of Waste Materials Disposal

### Establishment of close and clean enterprise and partner relations

In 2023, a total of 922 partners were inquired about bribery files, 1,218 written proposals for clean maintenance were issued, 913 letters of responsibility for clean co-construction were signed with partners, and 1,117 letters of commitment for clean maintenance were signed with employees.

Establish a "white list" of dual-identity partners

Dynamic removal of partners

Partners' qualification compliance review

Monthly inspection of cargo rights risk management and control

Third-party audit of carrier

Registration of qualifications for self-marketing and self-pickup carriers

Promote standardized management of business outsourcing

### Strict supplier management

■ Quantitative evaluation of comprehensive strength of suppliers. Based on EPEC's standard index, the comprehensive strength of suppliers is evaluated from the dimensions of legal person credit authentication, product quality evaluation, dynamic evaluation of contract performance and market performance, and the quantitative evaluation results are applied to procurement businesses such as bidding and price inquiry & comparison.

■ Strictly implement supplier on-site review procedures. In the on-site review and evaluation criteria, social responsibility review indicators are established, such as waste discharge and treatment compliance, contribution to social development, compliance with laws and regulations, and business violations. If any of them are not met, the supplier will be rejected.

### Strengthen contract management

■ Set up 10 contract management operation supervision and inspection items such as contract performance compliance, and form a quarterly report mechanism for contract management;

■ Promote the revision of the standard contract sample text, in combination with the construction of informationization projects;

■ Carry out activities related to contract management post inspection, investigate and self-examine problems in contract management, and improve the contract compliance awareness and contract standardization level of all employees;



## Compliance management

### Ensure compliance of material procurement

In 2023, an automatic deactivating function was set up in the supply resource management system for the expired important qualification certificates. Important qualifications such as production license and business license of trading suppliers were all within the validity period, which ensured the compliance of material procurement.

### Establish compliance management list

- List of compliance risks in key business areas
- List of compliance duties and responsibilities for important positions
- List for control of key business process compliance

### Build an iron army of compliance management

- Promote the implementation and effectiveness of the chief compliance officer system
- Strengthen the development of part-time compliance administrators

### Carry out special actions for compliance management

The Company carried out a campaign of bimonthly zero violation of discipline for all employees. According to the three disciplinary requirements of "process discipline, operation discipline and labor discipline", the Production Department and Human Resources Department of the Company went to relevant organizations and departments to carry out inspections and urge rectification.

## Combat corruption and advocate integrity

### Strengthen honest employment

■ Improve and perfect the network system for construction of the Party culture and clean government and anti-corruption responsibility system;

■ Statements of Responsibility for Construction of the Party Conduct and Clean Government and Anti-corruption in 2023 were signed level by level.

### Investigate integrity risks

■ Carried out investigation of post integrity risks, and found out 1051 posts with integrity risks, and made targeted risk notification and integrity reminder.

■ Centering on key links such as bidding management and material procurement, SPC paid close attention to key project construction to find out potential integrity risks.

### Carry out integrity education

■ Carry out daily education, warning education and special education

	Times	Participation person times
Study of special topics on Party culture and clean government	582	14808
Study and discussion of cases	287	7244
Organize watching of warning education films	81	2172
Members of the leading group attended special Party lectures on clean government	164	3897

■ Carried out activities of anti-corruption education month;

■ Strengthened the publicity and implementation of Sinopec Regulations on Punishment of Employees, completed the centralized publicity for 18 secondary organizations and 4 organ departments, and adopted the mode of dispatching employees by SPC for learning and in combination with the secondary organizations' centralized learning, individual self-study and in-depth learning, so as to achieve full coverage of learning.

## Strengthen supervision

### Strengthen the supervision of leading cadres

Carry out the activities of "loose-leaf binder" and "portrait" for the integrity of middle-level leaders, and strengthen the supervision of top leaders and peers.

### Continue to promote the standardization of daily supervision talks

In 2023, SPC's leaders conducted 189 person/times of talks with middle-level leading cadres, and various secondary organizations conducted 2, 870 person/times of heart-to-heart talks.

### Focus on daily supervision

■ Standardize the reporting system for major issues;

■ Act as a gatekeeper in supervision of personnel selection and employment, and participate in the supervision of "standing up" of all middle-level management staffs for competitive employment throughout the whole process;

■ Solidly carry out special rectification of problems in violation of the spirit of eight regulations of the central government and outstanding problems in certification of the bill of quantities as well as gaining remuneration through part-time work.

### Deepen the work of "major supervision"

SPC promoted the linkage of discipline inspection (walk-around inspection), finance, auditing and other departments, gradually achieved strength collaboration, information sharing and achievement sharing, and improved the quality and efficiency of "major supervision".

■ Carried out 10 "major supervision" projects such as special supervision of 250 KTPA thermoplastic elastomer project;

■ Conducted regular walk-around inspections on 6 organizations (departments and offices), including Safety and Environmental Protection Department and Oil Refining Division.

### Improve the petition & reporting mechanism



■ Smoothen the petition & reporting mechanism

Prepare and distribute the Pocket Book of Reporting and Accusation to all employees to publicize the acceptance scope and reporting channels of reporting and accusation.

■ According to the principle of "centralized management and hierarchical handling", the petition of reporting and accusation shall be subject to unified management of SPC's discipline inspection and supervision department, and shall be handled after review and approval level by level.

■ Conscientiously implement the relevant requirements of national laws and regulations on the protection of whistle-blowers, and strictly keep confidential the information of whistle-blowers and the contents of reports and accusations.



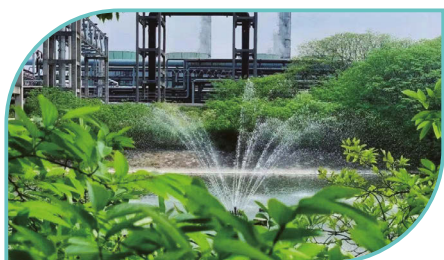
# Technological innovation

## Promote improvement of competitiveness through scientific and technological innovation

With assumption of the national strategic scientific and technological strength as an important mission, SPC took the initiative to undertake challenging for key core technologies such as large tow carbon fiber and its composite materials. The Company persists in laying out innovation chain with industrial chain and extending industrial chain with innovation chain, and strives to develop scientific and technological innovation into the core driving force of the Company's high-quality development.

In 2023, SPC totally invested RMB 187 million in research and development, and applied for 128 patents, including 100 national inventive patents.

The Company always takes scientific and technological innovation as the foundation, and considers key core technology challenging as the traction to promote the realization of major tasks and objectives of the state and Sinopec. The Company is committed to enhancing the application fields and product value of advanced materials such as carbon fiber, strives to make innovations and create efficiency, and constantly consolidates the value creation of scientific and technological innovation.



### Promote green and low-carbon development

- Develop energy-saving and low-carbon technologies: energy efficiency improvement technology, biomass coupling power generation technology, etc.;
- Develop pollution prevention and control technology: pollution prevention and control information technology, precise pollution control technology, etc.



### Promote optimization of production operations

- Focus on the smooth process operation: the integration of informationization and intelligent technology with the production process;
- Promote the adjustment of product mix: "shift from oil refining to chemicals" and "shift from oil refining to special products", and develop the chemical industry towards the high end ones.



### Promote research and development of advanced and special products

- Challenging for large tow carbon fiber to meet the standard and reach the production capacity;
- Research on key application fields of carbon fiber composites;
- Development of new polyolefin products, etc.

## Reform of organizational mechanism for scientific and technological innovations

In 2023, SPC further deepened the mechanism reform of SPC's scientific and technological system according to the requirements of benchmarking world-class value creation actions and in-depth improvement of the reform, constantly stimulated the innovation consciousness and potential of scientific and technological backbones, and boosted the Company's strategy of "talents-based enterprise development".

### Improve MPRC management for SPC's new products

- Perfect MPRC management system for new products;
- Set up MPRC working group and challenging group for new products;

### Continue to promote the project management mechanism of "open competition mechanism to select the best candidates"

- Based upon the nodes, track, coordinate and evaluate the scientific research topics that adopt the project management through "open competition mechanism to select the best candidates".



### Strengthen the construction of innovation platform

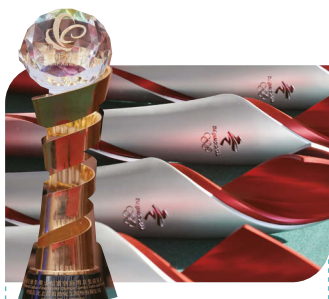
- Promote the optimization and integration of the National Engineering Research Center for Synthetic Fibers;
- Give full play to the platform role of joint research institute and key laboratories;

### High-quality operation of the technological challenging mechanism

- Continue to promote challenging for the "Ten Dragons" project;
- Continue to promote the project of "open competition mechanism to select the best candidates"

## Promoting advancement for key core technologies

In 2023, SPC further formed the entire product pedigree advantages of carbon fiber "general grade + high performance" and "small tow + large tow", and positively broke through the new material technology field, laying a solid foundation for SPC's transformation and creation of benefit.



### Carbon Fiber Winter Olympic Torch

The world's pioneered "Application and Integration Technology of Carbon Fiber for Winter Olympic Torch", which was developed and mass-produced by SPC, won CIIF award of the 23rd China International Industry Fair.

### Green high performance polypropylene for autoclave foaming

Won the second prize of scientific and technological progress of China Petroleum and Chemical Industry Association in 2022.

It occupies above 30% of the domestic market.



### High performance resin for polyethylene pipe

Won the first prize of scientific and technological progress of China Petroleum and Chemical Industry Association in 2022 and the Outstanding Product Award in New Materials Industry Exhibition of the 23rd China International Industry Fair.

## Strengthen intellectual property management

The Company strictly abides by the requirements of the Intellectual Property Law of the People's Republic of China and other laws and regulations, actively implements the rectification measures of Sinopec on the standardized management of intellectual property, and constantly improves the protection and management of intellectual property. In 2023, SPC organized the rectification of the findings generated by special investigation of intellectual property, and effectively protected the Company's intellectual property by strengthening the special study of intellectual property rights and the training & publicity of laws, regulations and policies, improving the management system and mechanism of intellectual property rights, perfecting the comprehensive protection of intellectual property rights of key projects, improving the daily confidentiality management of technical knowhow, strictly implementing the requirements of external technology license management, regularly verifying the part-time jobs of in-service personnel and implementing compensation for non-competition agreement.



### Number (pieces) of inventive patent applications from 2021 to 2023



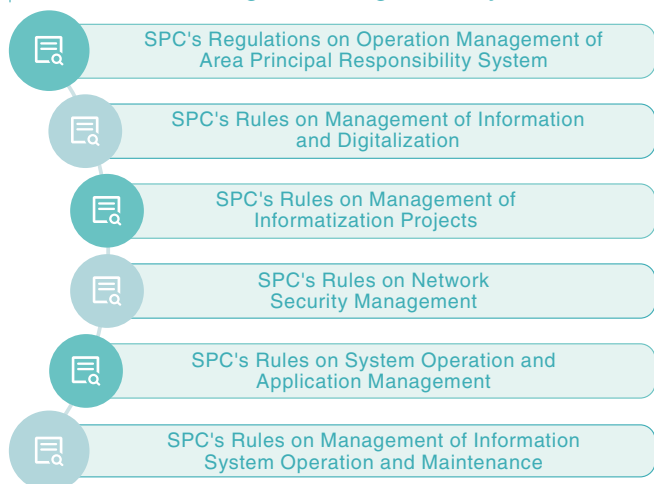
## Mitigate health and safety risks

To minimize the product health and safety risks, prior to introduction of new technologies or processes into the research and development, SPC has conducted identification of hazard sources according to HSE management requirements, performed risk assessment for all identified hazard sources according to evaluation standards, and determined the highest risk level and the maximum possible impact range, summarized the identified risks and worked out the risk control measures.

# Digital transformation

Considering the digital transformation as a breakthrough to improve the corporate operation performance and management efficiency, SPC applies Internet of Things, big data, digital technology and automation equipment to improve the supporting facilities for digital infrastructure, and makes innovations with digital empowerment management mode.

## Construction of digital management system



In November 2023, SPC obtained AAA-class evaluation certificate of digitalization and industrialization integration management system.

## Innovation for digital technology empowerment management

### Digital gestation of a new mode of electrical management

SPC utilizes the QR code in maintenance acceptance, and allocates "ID card" for new electrical equipment. With the help of information platform and "Internet of Things", a remote monitoring platform was established to unlock the new mode of electrical management and promote the shift of electrical transformation and distribution system to automatic operation. SPC achieved the in-depth management requirements for power distribution system of "centralized monitoring, accident prevention, rapid emergency repair and economic operation".

By 2023, more than 50,000 records have been accumulated, and the application of equipment "QR code" has gradually matured and been widely used in all aspects of routine electrical operations.

Functions achieved by digitalization of electrical management

Paperless rounds-inspections

One-time execution and automatic platform summary of basic work

Assessment of operations via the big data analysis in platform system

Traceability of some business information

## Improve service level through digital technology

### Establish an integrated management and control platform

Online test run phase I of the integrated management and control platform, integrate it with the intelligent marketing system, systematically manage the Company's customers, products, plans, prices and logistics, and form a framework of an integrated management and control platform of "platform + application".

### Promote the pilot application of robot automatic invoicing process

Based on the existing SAP system and Golden Tax system, design related configuration and operation rules, and realize the automatic process of invoicing of purchase order, voucher export, modification of voucher information, generation of invoice, invoice return and invoice printing, and achieve the automatic invoicing function.

### Strengthen the information management of in-house logistics

Improve the speed of logistics information processing and transmission, enhance the efficiency and quick response ability of logistics activities, strengthen logistics benefits, break through the blocking points, solve difficulties, eliminate sore points, and improve weak links related to in-house logistics.

### Line up the competitive price transaction process of self-marketed products on petrochemical e-trade platform

Line up the competitive price transaction process of self-marketed products on petrochemical e-trade platform, provide more choices for business development, and successively realize competitive price transaction of polyolefin, C5 and other products.

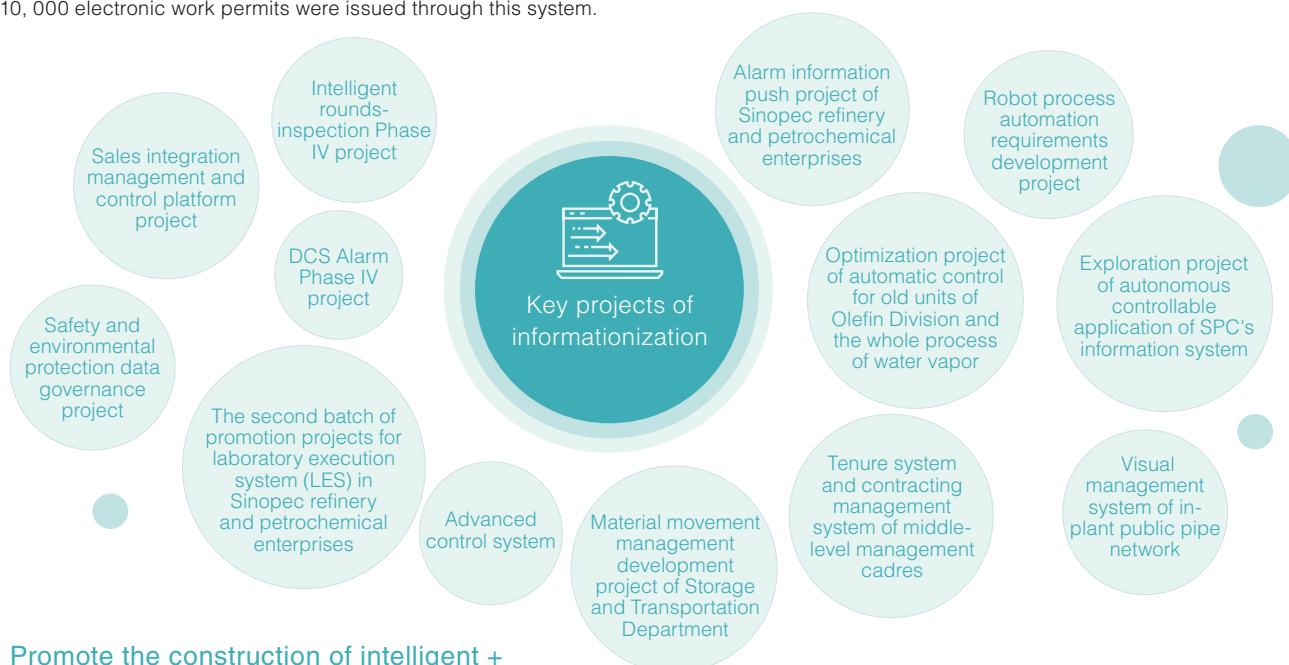
## Upgrading of digital infrastructure

### Promoting the construction of digital projects

In 2023, there were 52 informatization projects under construction, and 28 projects had completed acceptance or met requirements of acceptance.

■ Intelligent rounds-inspection system--has covered all production units of SPC, and more than 500 rounds-inspection instruments of various types have been in operation. More than 2,500 sets of rounds-inspection points/inspection routes are arranged on site, involving more than 80,000 kinds of equipment of various types, with over 3,500 registered users, and more than 120,000 rounds-inspection data are generated every day.

■ On-site safety management and control platform--the acceptance was successfully completed in 2023. The system is directly extended to on-site management and control through Internet of Things technologies such as personnel card, explosion-proof handheld terminal and NFC touch-sensitive device, which realized the effective integration of management system and direct operation link management process. In 2023, about 110,000 electronic work permits were issued through this system.



### Promote the construction of intelligent + zero carbon storage

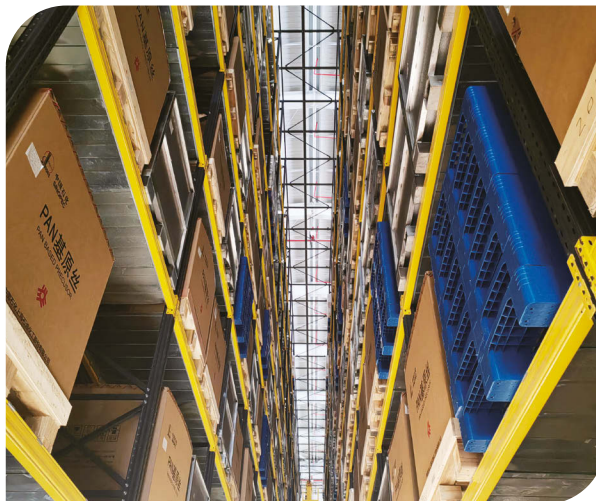
#### intelligent + zero carbon storage

##### Automated three-dimensional warehouse

An automated three-dimensional warehouse, a supporting facility of SPC's 48K large tow carbon fiber warehouse, was officially put into operation. This is the first time that SPC applied advanced automated three-dimensional warehouse technology to large-scale production unit. The automated three-dimensional warehouse is equipped with more than 4,700 storage bins, which adopt automatic disembarking, packaging, transportation, storage, product data acquisition and quality inspection information uploading, thus improving the operation efficiency of large tow carbon fiber production, reducing labor costs and ensuring the traceability of product information.

##### Zero carbon robot warehouse

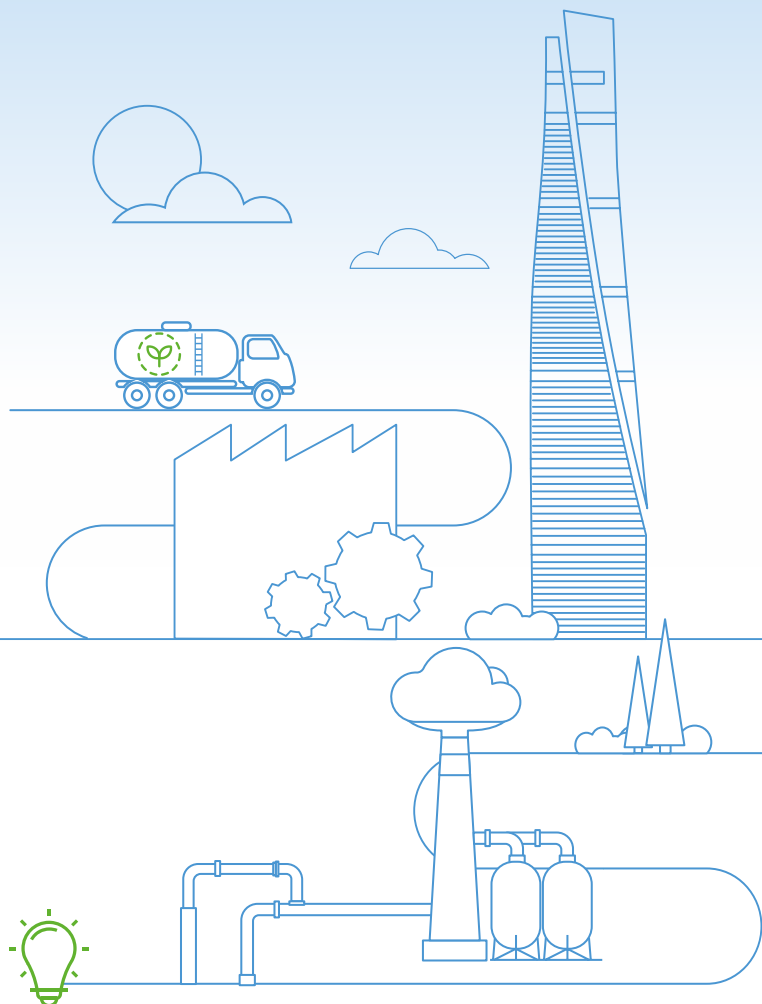
SPC's first robot warehouse has completed the hardware debugging, and 14 robot "warehouse keepers" will take over the manpower to pick up the goods in batches for 6,500 goods allocations, which is three times higher than that of manual warehouse keepers with the same area. The photovoltaic power station on the roof of the robot warehouse can meet the needs of online power consumption and charging of handling robots, and realize zero carbon emissions, and ensuring the traceability of product information.





# 02

## RESPONDING TO CLIMATE CHANGE



SPC profoundly implements the concept of green and low-carbon development, incorporates responding to climate change into the strategic planning of enterprise development, positively carries out actions of energy conservation and carbon reduction, strengthens carbon emission management, promotes green and low-carbon transformation of energy, and makes petrochemical contributions to helping China hit the strategic target of “dual carbon” and empower high-quality development.

01 Top-level design for responding to climate change

02 Reducing greenhouse gas emissions

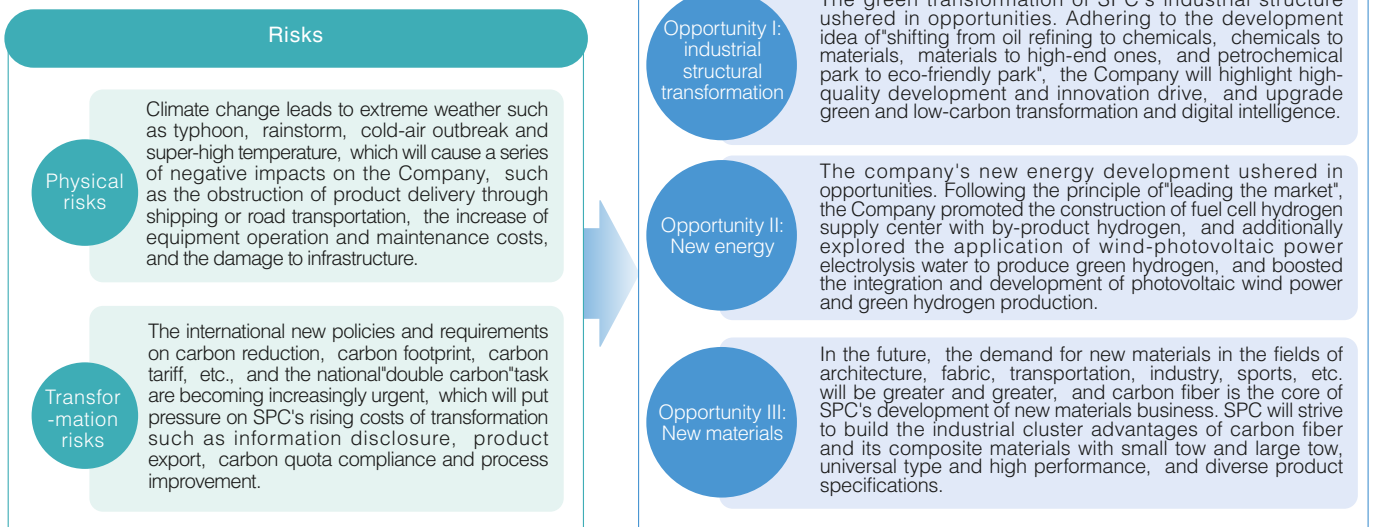
03 Promoting low-carbon energy transformation



# Top-level design for responding to climate change

In 2023, global energy prices underwent turbulence, international green barriers took shape in an accelerated manner, domestic economic recovery drove energy consumption demand to rebound, and the pressure of green and low-carbon transformation of petrochemical enterprises increased significantly. SPC carried out the national "dual carbon" strategic target requirements, thoroughly implemented the national action plan for carbon peaking before 2030, executed the "14th Five-Year Plan" for energy development in Shanghai, and continuously optimized the top-level design for coping with climate change.

## Risks and opportunities in coping with climate change



## Strengthen the strategic deployment to cope with climate change

- Issued the White Paper on Green Development of Shanghai Petrochemical Company Limited.
- Formulated the Special Incentive Plan for Energy Saving Management of SPC in 2023, and the Key Points of Energy Saving, Water Saving and Carbon Reduction of SPC in 2023.
- Formulated the Action Plan for Improving Energy Measurement and Monitoring Ability of Shanghai Petrochemical Company Limited.
- Formulated the Solutions for Production Operations under Extreme Weather Conditions



## Implement the strategic task of carbon reduction

- Implemented the Action Plan of SPC on Carbon Peak before 2030.
- Strictly implemented the Action Plan for Improving Carbon Data Quality.
- Rolled out 35 actions of energy conservation and carbon reduction and 72 actions of optimization of energy conservation.
- Carried out the campaign of "I offer one proposal for energy conservation and emission reduction".
- Started the green and low-carbon special action of "complementing deficiencies and strengthening the weak points".



# Reducing greenhouse gas emissions

The Company attaches great importance to greenhouse gas emission management, and has scored remarkable achievements in energy conservation and carbon reduction. SPC has successfully accomplished the 2023 annual assessment indicators of Shanghai and Sinopec such as total energy consumption and intensity, total CO<sub>2</sub> emissions and energy consumption reduction rate per unit output value. As a result, the CO<sub>2</sub> emission intensity decreased by 19.23% on a year-on-year basis, and the scope of cumulative CO<sub>2</sub> emission reduction continued to expand.

Carbon emission target: By 2025, SPC's carbon emission intensity of the output value shall decrease by 5% compared with 2020.

## Strictly controlled total emissions and intensity of CO<sub>2</sub>

Total CO<sub>2</sub> emissions in 2023

**9.0046** million tons

Direct emissions (scope 1)

**8.7318** million tons

Indirect emissions (scope 2)

**272,800** tons

CO<sub>2</sub> emission intensity in 2023

**1.47**

tons/10,000 RMB

Decrease by  
**19.23%**  
on a year-on-year basis

Accomplishment of Sinopec assessment indicators in 2023:



Accomplishment of assessment indicators

The annual assessment indicator of total fuel and power consumption is **3,717,200** tons of standard coal, and the actual consumption is **3,224,800** tons of standard coal. So the annual assessment indicator was accomplished.

The annual assessment indicator of total CO<sub>2</sub> emissions is **10.5065** million tons. The annual assessment indicators were met.



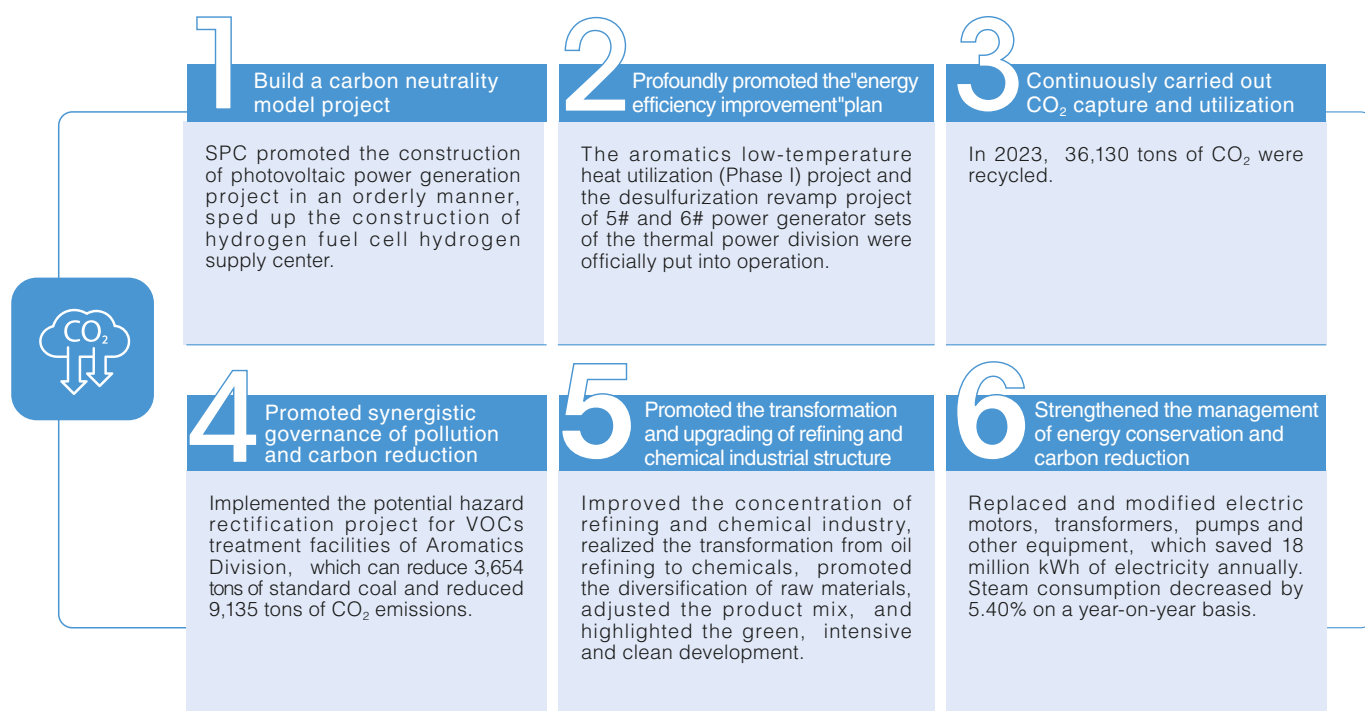
### Remarkable effect of the emission reduction in new energy projects

In 2023, SPC's four photovoltaic power generation units cumulatively generated **7.7775** million kWh of electricity throughout the year, reducing **4,436** tons of CO<sub>2</sub> emissions and saving **1,789** tons of standard coal, equivalent to planting **240,000** trees.

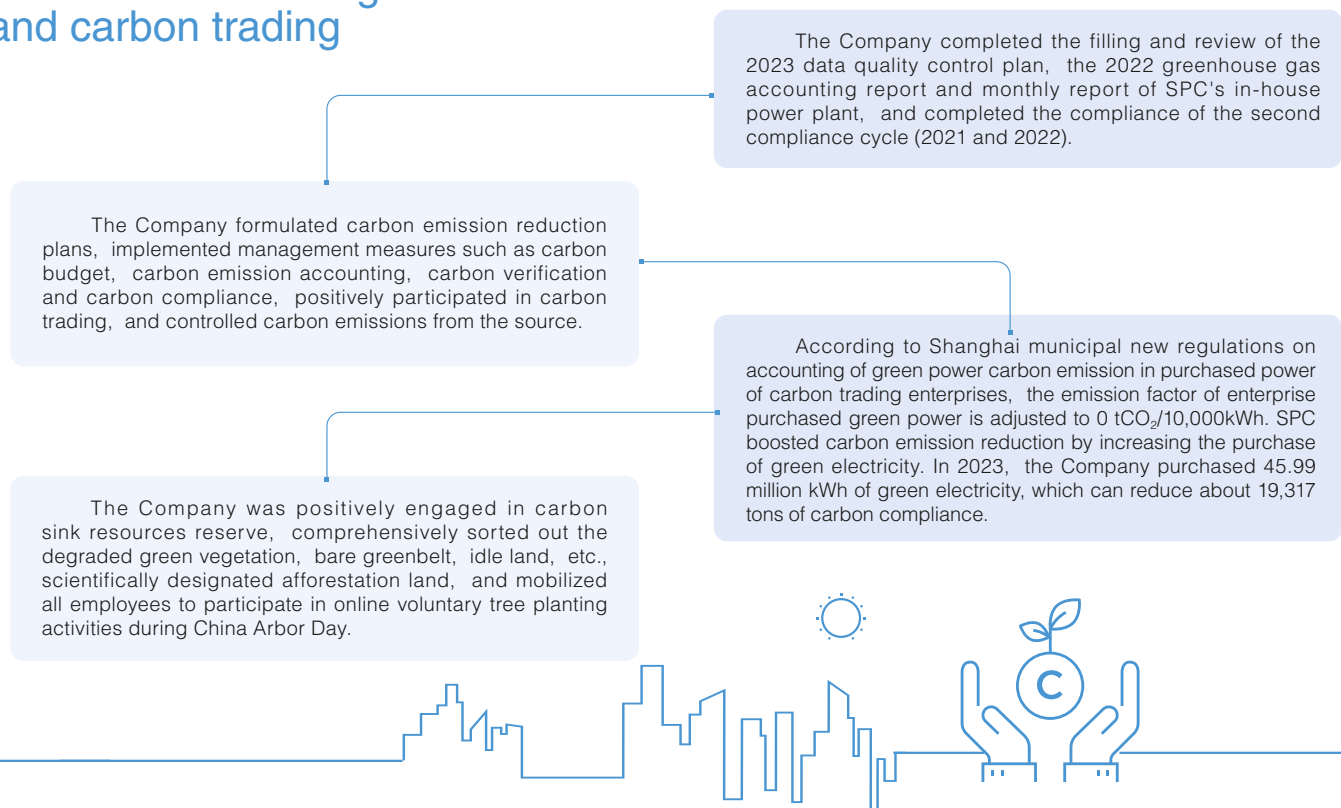
### Strengthen the management of other greenhouse gas emission reduction

In 2023, the total emissions of SPC's other greenhouse gases, such as methane, nitrous oxide, hydrofluorocarbons and sulfur hexafluoride, amounted to **20,946** tons of equivalent CO<sub>2</sub>, accounting for only **0.23%** of the total emissions. In terms of management measures, SPC didn't directly discharge biogas (methane) produced by anaerobic sewage, but adopted flare burning method to reduce the impact on global warming potential.

## Promote energy conservation, carbon reduction and benefit improvement through multiple measures



## Carbon asset management and carbon trading



## Promoting low-carbon energy transformation

The Company continued to promote green and clean energy construction, actively carried out energy-saving technological revamp projects, vigorously developed renewable energy projects such as photovoltaic and wind power, continuously optimized the energy structure, and realized the transformation of energy structure from fossil energy to "fossil + renewable" energy.

Energy consumption target: By 2025, SPC's energy consumption intensity of the output value shall decrease by 5% compared with 2020.

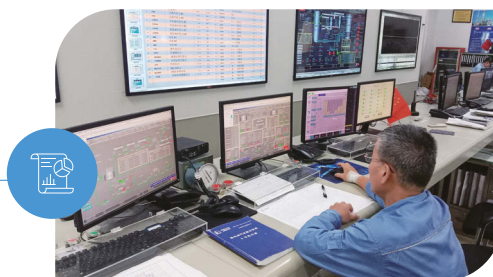
### Total energy consumption and intensity in 2023

Total industrial energy consumption

**7.617** million tons of standard coal

Comprehensive energy consumption of industrial output value

**1.21** tons of standard coal/10,000 RMB



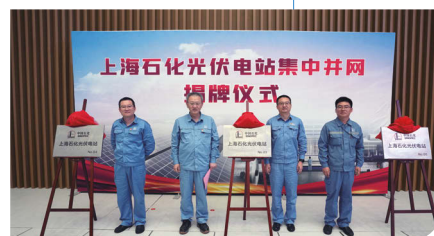
### Promote the optimization and adjustment of energy structure

■ Accelerated the construction of green and low-carbon comprehensive energy demonstration zone for production of hydrogen through wind power and photovoltaic power. In 2023, SPC generated 7,777,500 kWh of photovoltaic power. Besides, SPC promoted the construction of hydrogen supply center.

■ Control the consumption of power coal. SPC's coal consumption decreased to below 2 million t/a.

■ Promoted electrification revamp. SPC has completed the revamp of shore power energization facilities for ships at SPC's in-house terminal, providing 344,000 of shore power for ships throughout the year.

■ Increased the ratio of "green electricity" utilization. SPC purchased "green electricity" from the electricity market to promote clean energy consumption, and the proportion of "green electricity" accounted for 9.94% of purchased electricity (excluding the power supply to other companies).



SPC's main energy consumption in past three years

Indicators	Unit	2021	2022	2023
Coal consumption	10 KT standard coal	175.21	173.52	167.55
Electric power consumption (excluding power consumption for external supply)	10,000 kWh	306,914	266,993	289,618
Crude oil consumption	10 K tons	1,377.63	104,5.33	1,413.07
Natural gas consumption	100 million m <sup>3</sup>	5.19	4.67	5.08

# 03

## GREEN AND SAFETY



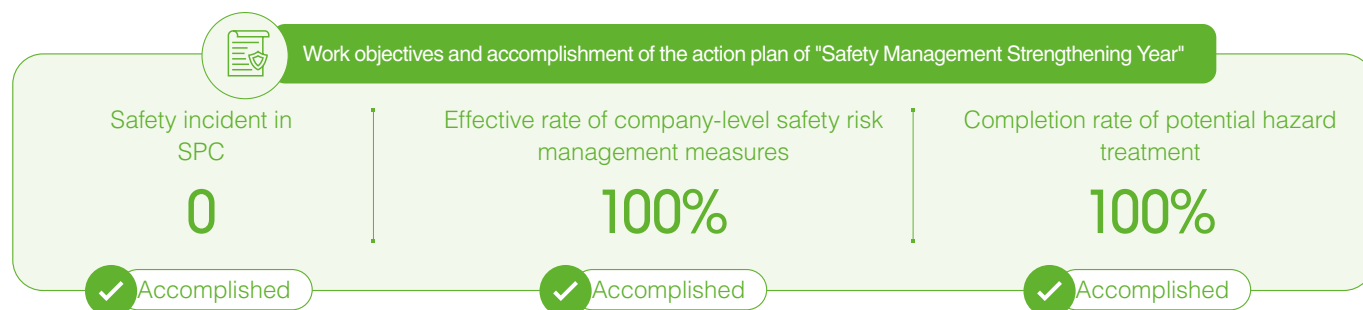
Considering safe development and green development as the premise and foundation of enterprise survival and sustainable development, SPC firmly established the concept of safe development, continuously improves HSE system, strengthens environmental protection, develops circular economy, attaches great importance to biodiversity protection, promotes the construction of green enterprise, and comprehensively improves the intrinsic safety and environmental protection.

- 01 Strengthening safety management
- 02 Intensifying environmental protection
- 03 Developing a circular economy
- 04 Protecting biodiversity



## Strengthening safety management

In 2023, the Company profoundly studied and implemented the national spirit on work safety, strictly abided by the new Work Safety Law and Shanghai Municipal Regulations on Work Safety, adhered to the principle of "Three Managements and Three Must", solidly promoted the implementation of the action plan of "Safety Management Strengthening Year" and other document requirements, continuously improved the HSE system, and won the combat of work safety. Firmly adhering to the concept of safe development and considering system construction as the fulcrum, SPC strengthens the implementation of responsibility system, strictly controls safety risks, enhances the "three basics" work, promotes grass-roots safety grid management, intensifies supervision of operation safety, strengthens contractor management and control, boosts risk control of network security, implements HSE system requirements in all activities, and persistently focuses on HSE management.



## Adhering to strict management and strengthening the implementation of safety management responsibilities

In 2023, the Company issued the Action Plan for the Safety Management Strengthening Year, strictly following the principle of "Three Managements and Three Must", practically implementing safety led by leadership, business and technical support, and effective execution by grassroots organizations, carrying out special assessment and reward measures for safety and environmental protection, and implementing HSE responsibilities of all employees.

Major occupational-disease-inductive accidents 0

Major fire accident 0

Physical examination rate of occupational health 100%

On-the-job signing rate of HSE commitment 100%

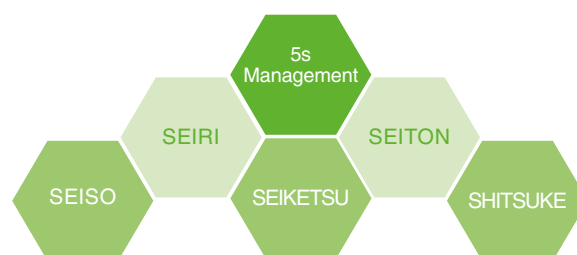
## Strictly controlling risks and resolutely holding the bottom line of work safety

In 2023, SPC revised the "Detailed Rules for Implementation of Accidents (Incidents) in SPC", strictly implemented the dual prevention mechanism, continuously strengthened the management and control of potential safety hazards, and improved the compliance operation ability; The Company adhered to strengthening safety through science and technology, promoted the in-depth application of digital intelligence platform as well as risk assessment such as HAZOP analysis and safety integrity level (SIL) of in-service units, improved the intrinsic safety of units, and kept the bottom line of work safety.



## Strengthening the "Three Basics" work and comprehensively consolidating the foundation of work safety

SPC comprehensively carried out the 5S management, issued the Comprehensive Visual Management Manual of SPC, rolled out the visual standard of safety signs, and consolidated the foundation of "three basics"; Positively promoted the list of standardized operations of finger pointing to refine operation steps to specific posts, standardize operation management, and ensure "zero errors" in production operation process and "zero errors" in process handover to maintenance.



## Promoting the grid management of grass-roots safety management and ensuring seamless safety management

In 2023, the Company revised the Detailed Rules for the Implementation of Safety Scoring of All Employees, implemented the grid management of "assigning responsibility to specific persons, covering the entire process, radiating the whole job site and ensuring safety together", carried out the "top leader" contracting system for each organization, organized all employees to learn the "life-saving clause", and strictly managed violations of the "life-saving clause" to ensure seamless safety management.

## Strengthening the management and control of contractors and ensuring that the risks of safety accidents are controllable

The Company strictly implemented the concept of "Like father like son!", revised and improved the rules for contractor assessment management, and intensified the strength of rewards and punishments; Focused on promoting the contractors' QHSE system review, incorporated contractors into 5S management training, and carried out the real-name system and "hat sticker" management for contractors' workers to ensure that the risk of safety accidents are under control.



Real-name system management  
for contractors' workers



## Promoting network security risk management and building a defense line for network security

The Company revised "SPC's Rules on Network Security Management" and held a series of activities of Network Security Publicity Week to enhance the awareness of network security and prevention ability of all employees; Promoted investigation of network security risks and treatment of potential hazards, thus setting up a strong defense line for network security.



## Conducted discussions on safety issues and improved the safety control throughout the whole process

In 2023, the Company revised the Rules on Management of Hazardous Waste Storage Warehouses, and carried out all-staff discussions on "What do you think of safety? How do you solve the problems of safety? How do you deal with safety?" by centering on the safety management problems that are easy to occur in various links such as the warehouse receipt, storage and warehouse delivery of hazardous wastes, striving to improve the safety control in the whole process.



Organized the  
learning  
of "life-saving clause"

## Strengthened the safety supervision of direct operations and fully ensured the safety of field operations

The Company put the intelligent rounds-inspection system online, carried out risk assessment of forecast operation, strengthened direct operation safety supervision with total value of operation risk, and implemented the operation mode of "six dos and six don'ts" to effectively mitigate operation risk. The Company vigorously promoted standardized site construction, and carried out training on practical operations and emergency fire drills, so as to enhance employees' safety awareness and skills, and ensure site operation safety.



Carrying out  
on-site safety



Assessment of  
intelligent  
rounds-inspection  
system



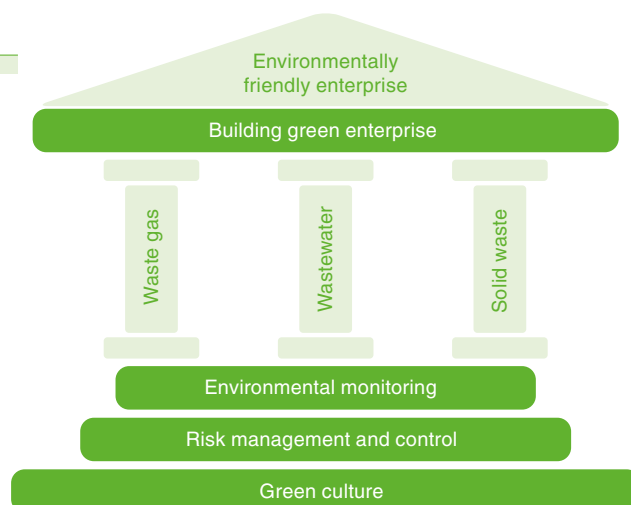
Strengthen  
emergency fire drills



Training on practical  
operations on site

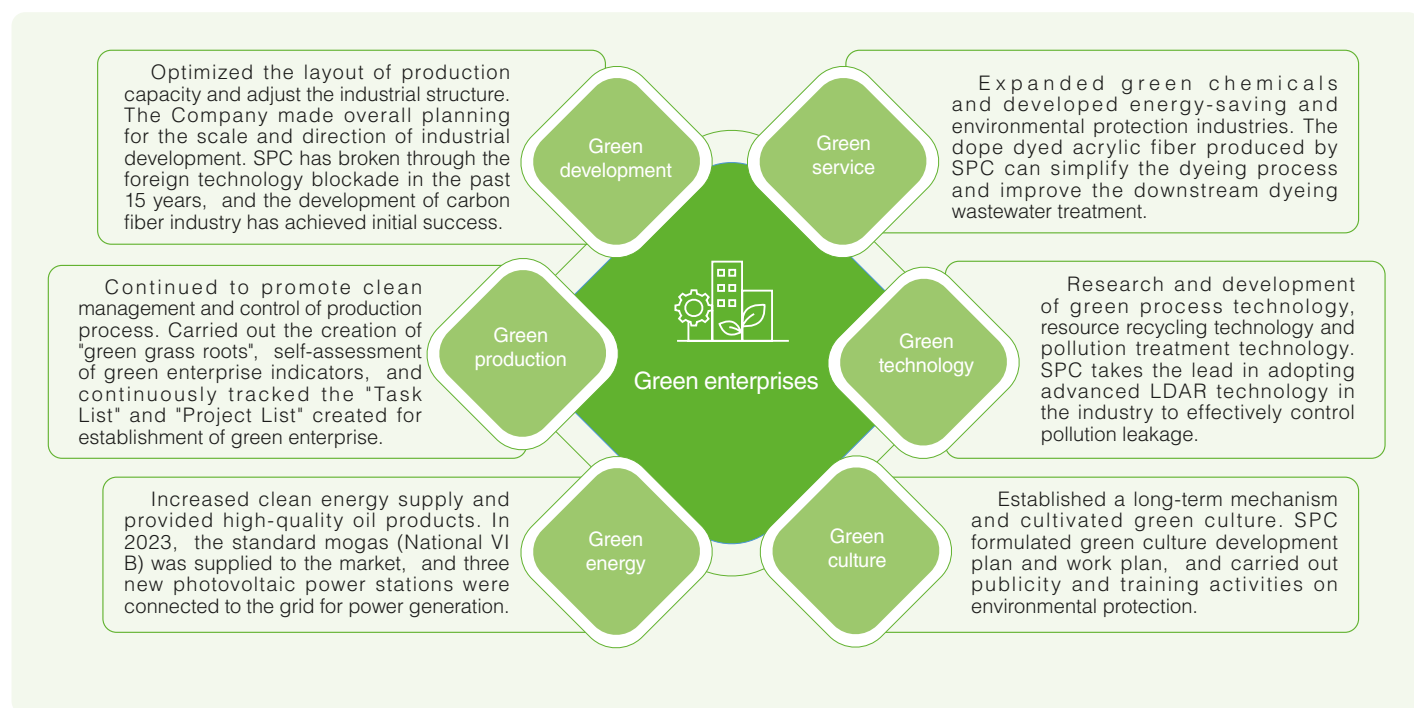
## Intensifying environmental protection

The Company strictly abided by the laws, regulations and normative documents on pollution prevention and control formulated by the State and Shanghai municipality, and considered building an "environment-friendly enterprise" as our goal. SPC positively fulfilled the entity responsibility of corporate environmental protection, continuously and deeply fought the tough battle of pollution prevention and control, and further promoted the construction of green enterprises.



## Building green enterprises

Building a green enterprise is an important action for SPC to implement the green and low-carbon development strategy, shift from passive treatment to proactive planning, build a green competitive advantage, and step forward to high-quality development. It is an inevitable choice to ensure the survival and sustainable development of the enterprise and build a domestically leading and world-class company specialized in energy chemical products and new materials. SPC builds green enterprises from six aspects: green development, green energy, green production, green service, green technology and green culture. The Company successfully passed Sinopec's revalidation of green enterprise and won the title of Green Enterprise in 2023.



## Pollution prevention and control throughout the whole process

The Company strictly abides by the requirements of laws and regulations such as Environmental Protection Law of the People's Republic of China and Environmental Impact Assessment Law of the People's Republic of China, strictly controls the discharge of various pollutants in the production process, continuously improves the management measures and treatment capacity of wastewater, waste gas and solid waste, and keeps in reducing the discharge of pollutants. The Company strictly implements the environmental monitoring standards, and constantly upgrades the pollution emission monitoring system and treatment facilities to ensure the stable and compliant discharge of all pollutants.

### Source control

**Recycling, source reduction.** Strictly implement the principles of solid waste reduction, recycling and hazard-free treatment, and carry out creation of "waste-free enterprises".

**Improve the monitoring standard and conduct accurate traceability.** Set up an internal three-level alarm mechanism with a standard higher than the alarm level of key industry parks in Shanghai to implement early warning; At the same time, establish a traceability working group to carry out traceability with the group leader's department as the core; Besides, set up big data analysis of atmospheric traceability to quickly judge the composition and emission mode of air pollution; Complete running of electronic rounds-inspection of all 120 stations throughout the whole process in the "Environmental Monitoring Socialized Service Supervision System".

**Carry out leak detection and repair (LDAR).** SPC is a pilot company for LDAR in Shanghai. In 2023, the Company successfully completed LDAR task, the detection rate achieved entire coverage, and all leakage points were repaired, which effectively controlled VOCs leakage.

VOCs concentration at the boundary of Weiliu Station decreased by **21.5%** on a year-on-year basis

Flare discharge has been the lowest in the past **5** years

CEMS uploading rate **95%**  
Shanghai municipal standard requirements for environmental pollution is 75%

### Clean production

**Upgrade production equipment.** Based upon various environmental protection treatment and revamp projects, the Company solves the problems of low standard, old and damaged equipment to reduce pollution emissions in production links.

**Strengthen control and maintenance.** Strictly follow the maintenance principle of "no gas emissions to the air, no oil falling onto the ground". In 2023, there were no alarms from monitoring stations or external complaints arising from maintenance.

**Strengthen production management.** Carry out the special environmental protection activities of "all employees take actions to find out peculiar smell", and mobilize the employees of the Company to find out the hidden dangers of environmental protection around them.

COD emission **632.38 tons**  
Annual target < 700 tons

**100%**  
Comprehensive compliance rate of discharged wastewater

### Terminal treatment

**Strengthen desulfurization and denitration treatment.** In 2023, the operation rates of desulfurization and denitration facilities were both 100%, and the efficiencies were 99.40% and 84.37%, respectively. The Company's assessment objectives were accomplished.

**Improve pollutant treatment capacity.** Prepare the index standard of pollutant treatment process to ensure the stable operation of the treatment plant. Strengthen research and development of pollution treatment technology, promote technological innovation and improve treatment efficiency.

**Strengthen pollutant compliance management.** Strictly abide by the relevant requirements of pollutant discharge and disposal. Especially for hazardous wastes, "daily removal of daily wastes" was implemented. In 2023, all hazardous wastes were disposed of in compliance with applicable regulations.

Solid waste compliance disposal rate **100%**



## Typical cases of pollution prevention and control

### In-depth treatment of waste gas from storage tanks

The waste gas from the gas storage tank is sent to the thermoelectric boiler for co-combustion treatment via additional pipelines, which can realize the effective treatment of VOCs in the tank farm and reduce the waste gas disposal cost.

### Build "the most beautiful Suitang River"

Improve the stormwater and sewage separation facilities in the plant area, and establish a four-level rounds-inspection mechanism of "Safety and Environment Department, Pipe Network Supervision Department, Workshop with Jurisdiction and Maintenance Contractor" to ensure that sewage will not flow into Suitang River.

### Recycling of slop oil

2# olefin unit of Olefin Division completed the recycling of washed slop oil in quenching system during shutdown in new plant area. A total of more than 240 tons of slop oil were recycled, which realized emissions reduction and benefit improvement.

## Strengthen management and control of environmental risk

Management and control of environmental risk is the last line of defense for enterprises to ensure environmental safety and prevent sudden environmental accidents. By taking five major measures, SPC has built a perfect environmental risk management and control system and constantly consolidated the foundation of environmental protection.

### Environmental risk identification and assessment

Carry out index assessment for environmental risk source. In 2023, SPC had no extremely high environmental risk sources.

### Prevention and control of water and soil pollution

Carry out the investigation of hidden dangers of soil and groundwater. In 2023, SPC conducted traceability and detailed investigation of soil and groundwater in small ethylene plot.

### Emergency management of environmental protection

Strengthen the management of environmental risk sources and formulate comprehensive emergency plans for sudden environmental incidents.

### Investigation and treatment of potential hazards of environmental protection

Establish a list of potential hazards projects of environmental protection, and promote the rectification of potential hazards projects of environmental protection in an orderly manner.

### Supervision of radioactive source

Strengthen radioisotope monitoring and accept the investigation of emergency radiation treatment organized by the competent department.



## Promoting green culture

Green culture is an important component of corporate culture. The core connotation of the corporate green culture is to dedicate clean energy, practice green development, build a "clean, efficient, low-carbon and recycling" green clean energy and chemical enterprise, which coexists harmoniously with surrounding communities and natural environment.

### Leading by cadres

Learn the important concepts of national ecological civilization construction and green development by means of cadres on duty and taking advantage of the Party committee meeting and central group's learning, and give full play to the leading role of leading cadres at all levels in green culture construction.



Wan Tao,  
Chairman of Directors

We should profoundly study General Secretary Xi Jinping's thought of ecological civilization, firmly set up the concept of green development, and resolutely hold the red line of environmental protection.



Guan Zemin,  
General Manager

We should strengthen the confidence in green development for transformation and upgrading of petrochemical enterprises. Focusing on green and low carbon, we should protect the increment and raise the inventory in place.

### Application of scenario

#### Green purchasing

Cultivate green procurement culture, create green procurement standards, establish green procurement lists, select green raw materials, and promote quantity and waste reduction in packaging.

#### Green officing

Promote paper-free officing, adopt recycled office supplies such as environmental friendly ones and recycled office supplies, and strengthen the management of energy-saving, water-saving and fresh air systems.



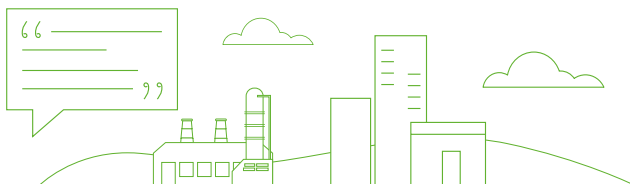
### Publicity of image

#### Carry out theme publicity and output the influence of green culture

In combination with the "June 5th" World Environment Day, "Energy Conservation Publicity Week", "Low Carbon Day" and other activities and by means of media such as television, newspapers, WeChat official account, mobile newspapers and etc., publicize the concept of corporate green culture.

#### Open the corporate door to verify the green enterprise image

SPC is an open organization of environmental protection facilities in Jinshan District. In 2023, a total of 43 sessions of Public Open Day were held, with 5,848 online and offline participants.



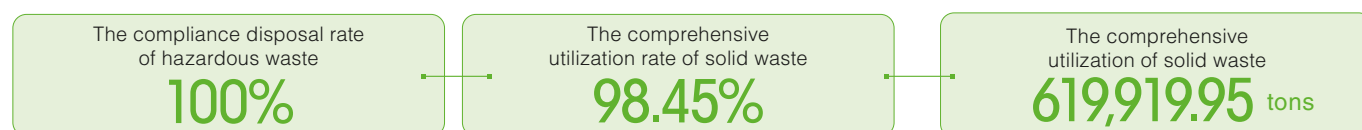
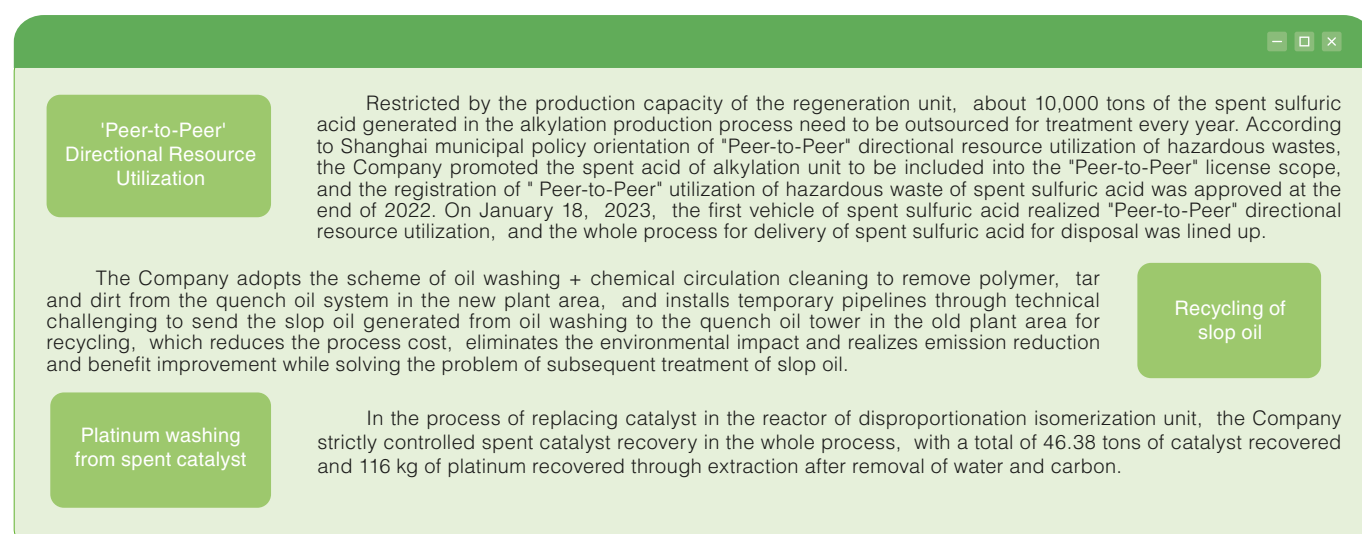


## Developing a circular economy

The Company is committed to developing circular economy, promoting clean production, carrying out comprehensive utilization of resources, earnestly following the principle of quantity reduction, reuse and recycling, implementing the construction requirements of Shanghai municipal "waste-free city" and Sinopec's "waste-free group", and preparing "SPC's Work Plan for Construction of Waste-free Enterprise" to lead the green and sustainable development of the industry.

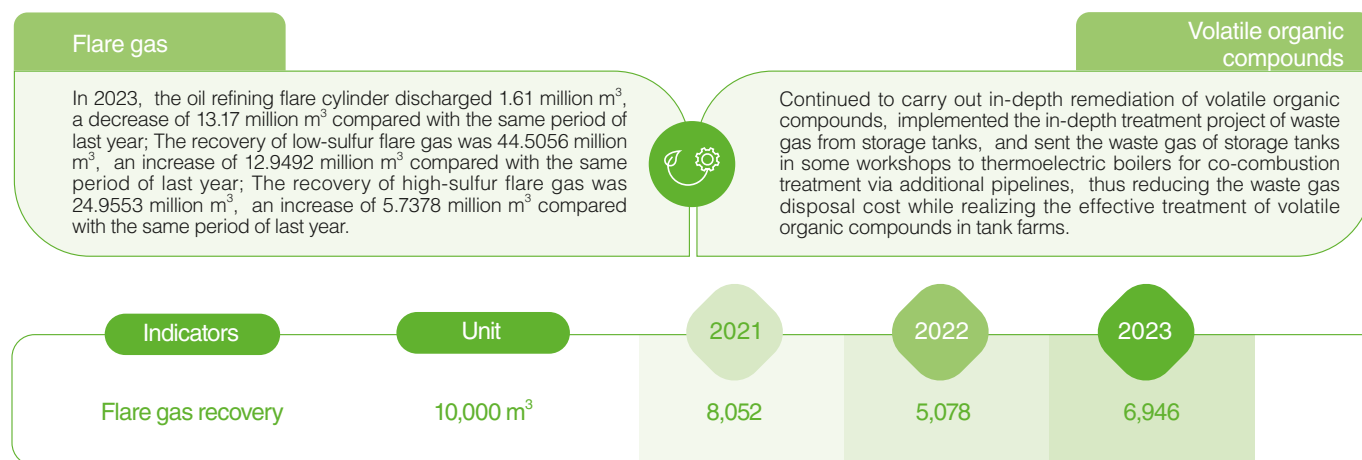
## Solid waste recycling

The Company strictly follows the principles of quantity reduction, recycling and hazard-free treatment in terms of solid waste disposal, and promotes the source quantity reduction, centralized collection, utilization and disposal, supervision and monitoring capabilities of solid waste and hazardous waste. In 2023, the total amount of solid waste was 629,653.98 tons and hazardous waste was 79,131.08 tons respectively.



## Recycling of waste gas

The Company continuously optimized the waste gas recovery plan, strictly controlled the process management of waste gas recovery, accelerated the technology research and development to realize the upgrade of waste gas recovery equipment, and further improved the waste gas recycling.



## Water resources utilization

The Company positively promotes water saving from the source, strengthens the optimization of various water types, and improves the technical and economic level. SPC further accelerates scientific research and innovation, boosts challenging of production and operation, and steadily improves water resources management and water resources utilization efficiency. Under the premise of the existing production capacities, the target of industrial water intake shall be reduced by more than 5% compared with 2020 at the end of the "14th Five-Year Plan", saving more than 5 million m<sup>3</sup> of water, and the total amount of water intake is under control. At present, SPC has no problem in obtaining applicable water resources.

Indicator	unit	2021	2022	2023
Total industrial water intake	10 KT	4768	3742	3646
Water consumption per output value	tons/10,000RMB	7.72	8.14	5.95

### Scientific and technological innovation

Carried out **13** scientific research projects and applied for **9** patents.

Research of RO treatment process for water saving and emission reduction of circulating water:

Completed membrane screening through challenging key problems, obtained the optimized membrane cleaning formula, designed and set up the side-line testing unit, and formed the process package. Applied for 2 inventive patents and 2 utility model patents.

Intelligent circulating water system in refining and chemical enterprises:

Successfully developed intelligent energy management optimization system, set up intelligent circulating water management platform, and expanded new ideas, new routes and new directions for overall energy saving optimization of circulating water system.

Research of hydrophilic modification and application performance of enhanced ultrafiltration membrane:

Studied the performance, cost, operation and maintenance of domestic and imported membranes in MBR unit through comparisons, so as to provide a basis for implementing substitution with domestic membrane to reduce the cost of MBR unit.

### Optimized various water types

Strengthened the optimization of various water types and improved the technical and economic level.

#### Circulating water system:

implemented production and operation optimization of some water units and energy-saving revamp of pumps, explored the best balance point for controlling different parameters of circulating water unit, and significantly reduced the fresh water makeup rate; Increased the proportion of reclaimed water makeup in circulating water unit, optimized the sewage discharge mode in water unit, improved the concentration multiple of circulating water and reduced fresh water consumption. In 2023, the fresh water makeup rate of circulating water system was 9.78%.

#### Sewage system:

strengthened index monitoring, timely investigated and adjusted off-spec. indicators; Carried out offline cleaning of MBR membrane module on a regular basis, and the water yield of MBR reached the historical optimal level; The adaptability revamp project of the pipe network of some sewage transfer system in the South Line was put into operation, and the sewage reuse achieved remarkable effect. In 2023, the reuse amount of sewage was 8,966,500 tons, and the reuse rate of treated water reached 51.66%.

#### Industrial water system:

adhered to the measures of water intake optimization, depressurized water supply, sludge water reuse, leak detection of pipe network, etc., strictly implemented daily tracking and weekly summary, and realized the double benefits of green production and cost reduction.

#### Domestic water system:

The Company completed the revamp project of domestic water pipe network, realized the real-time dynamic monitoring of domestic water consumption, and implemented timely investigation, leakage elimination and freeze protection in winter. In 2023, the domestic water consumption reduced by 355,700 m<sup>3</sup> on a year on year basis.

## Protecting biodiversity

The Company strictly implements the national Opinions on Further Strengthening Biodiversity Protection and Shanghai municipality's Implementation Opinions on Further Strengthening Biodiversity Protection, and protects biodiversity by optimizing ecological parks, building garden factories, enhancing ecological monitoring and reducing ecological impacts, so as to boost ecological balance and realize harmonious coexistence between human being and the nature.

### Continue to carry out ecological monitoring

As Sinopec Group's first batch of "Beautiful Petrochemical Industry-Ecological Emission Landscape", the ecological park in the plant area has rich vegetation and wide ponds, and raises sika deer, ostrich, black swan, horse and peacock to work as environmental "inspectors", thus becoming a unique ecological environment monitoring system. By way of strengthening water body fluidity, increasing plant species, expanding existing areas and functions, water quality monitoring, ecological monitoring and environmental protection display are integrated into one body to realize the organic integration of enterprise development and environmental protection. Strengthen the monitoring of indicators in wastewater and waste gas, establish and improve the rounds-inspection mechanism, and minimize the impact on biodiversity.



### Build a garden plant



Pay attention to the greening system construction, strengthen the training, assessment and inspection of specialized greening companies, and continuously improve the level of refined maintenance. Adopt enterprise newspapers, TV, WeChat working groups and other multimedia means to vigorously publicize the role of nationwide voluntary tree planting, greening and ecological environmental protection, advocate that everyone is responsible for protecting greening, and create a good mass base for building garden plant. Strengthen environmental protection, reduce the impact of harmful gases on green plants, and create favorable conditions for plant diversity. Co-construct and share green homes by building the "most beautiful Suitang River", carrying out special rectification and holding tree planting activities.

### Maintain/increase green area

Formulate the land resources planning for SPC, and reserve the medium and long-term green land resources. Strict implement the approval system for occupation of greenbelt, and prohibit unnecessary occupation of greenbelt. Take advantage of the idle land, old plant buildings and open spaces after dismantling of discarded and old units to build ecological forest belts and increase (maintain) green areas.



Green area

3.0285 million m<sup>2</sup>

Green coverage ratio

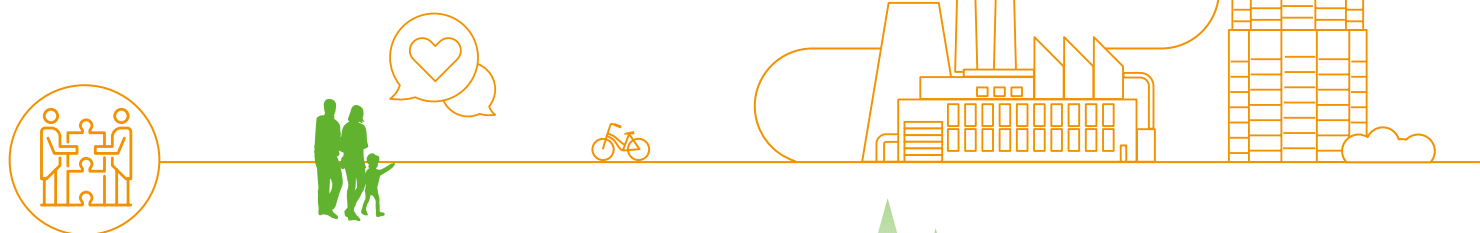
42.2%

Additional and revamped green area

41,600 m<sup>2</sup>

# 04

## SERVING SOCIETY



SPC always keeps "Top priorities of the country" in mind and fulfills mission responsibility. The Company bravely takes the core responsibility of the national strategic scientific and technological force and improves the supply and service capacity of high-end petrochemical products; continues to promote the construction of a responsible supply chain to drive the entire supply chain to achieve sustainable development; respects and safeguards the rights and interests of its employees and promotes the common growth of its employees and itself; and persists in providing energy for better living of the people, boosting the community development and selflessly devoting to the society.

- 01 Fulfilling product liability
- 02 Building a responsible supply chain
- 03 Employees' rights and interests & development
- 04 Boosting community development
- 05 Contributing to public welfare undertakings

## Fulfilling product liability

According to the requirements of Guiding Opinions on Promoting the High-quality Development of Petrochemical and Chemical Industry during the 14th Five-Year Plan, SPC continuously improved the market competitiveness of carbon fiber products, expanded the application of carbon fiber and its composite materials in more fields, accelerated the development and commercial production of new materials, and promoted the high-quality development of regional petrochemical industry in 2023.

## Focusing on high-end supply

SPC promoted the deep integration of industrial chain and innovation chain in 2023, strived to boost breakthroughs in new materials and new energy industries by considering large tow carbon fiber as the core, and endeavored to implement high-quality development.

### Wind power generation

Realized the first batch application of 48K large tow carbon fiber, a special material for wind power generation.



### Civil works

The 100-meter domestic large tow carbon fiber cable made of 48K large tow carbon fiber reinforced plastic rebar was successfully applied to the aggregate yard with air-supported membrane structure in Changshen Expressway Project of China Construction Eighth Engineering Division Corp. Limited, which is the longest carbon fiber cable applied so far in the field of civil engineering in China.



### Aerospace

The implementation of the domestic aviation carbon fiber reinforced thermoplastic composite test line project marked an important step in the field of carbon fiber thermoplastic composites.



### Large-tow carbon fiber and composite materials



### High performance polyolefin

The Company's 4# polyethylene plant is the only one in China that is able to massively produce base resin, a black pipeline material, and it is also the plant with the most complete serialized grades of various types of pipeline materials in China;

Completed the production of new low-density products FS2200 and ternary random copolymerization products F800EBX for spinning, carried out metallocene catalyst testing and made breakthroughs.



### The most beautiful life



### New energy



Shanghai local high-purity hydrogen underwent staged undersupply in late May. SPC rationally arranged hydrogen for production and timely arranged delivery of a batch of high-purity hydrogen through the hydrogen supply center to meet the market demand.



## Serving customers with utmost sincerity

The Company strictly abided by laws and regulations, including the Law of the People's Republic of China on Protection of Consumer Rights and Interests and Anti-Unfair Competition Law of the People's Republic of China and other laws and regulations applicable for the product and service advertisement, labels and privacy. Safeguarded the rights and interests of customers, and fully guaranteed that relevant issues fed back by customers are addressed appropriately. The Company practiced the concept of "service-driven marketing", improved the product service, and persisted in pursuing customer satisfaction.

In 2023, the Company received no product complaints, and the satisfaction of SPC's products and services had been on an upward trend for five consecutive years.

### Safeguard customers' rights and interests

#### Respond to customer feedback seriously

■ The Company handled customer complaints and suggestions according to the Customer-related Process Management Procedures of SPC and Product Sales Management Rules of SPC and updated relevant procedures promptly according to their actual needs.

#### Emphasize customer's privacy protection

■ The Company explained the purpose of the information collection to customers to gain their permission before collecting necessary sales-related information.

■ Business personnel strictly observed the Company's applicable confidentiality regulations by signing a confidentiality agreement and accepted the supervision by the discipline inspection department.

### Transformation towards "service-driven marketing"

#### Customized solutions

■ Established MPRC group for new products and integrated challenging group for production, marketing and research, interfaced with upstream and downstream markets and customers in time, and provided customized solutions and overall solutions.

■ Provided point-to-point service from production site to customer site, and focused on the customer stickiness.

#### Tracking service mechanism

■ In the form of sales service professional group, responded to customer service information in time through matrix mode;

■ Optimized some user service processes on BPM platform;

■ Continuously improved the e-trade platform and enhanced the purchasing experience.



## Creating SPC's quality

The Company strictly abides by laws and regulations such as Product Quality Law, Metrology of the People's Republic of China, formulates and constantly improves quality management rules and systems such as Quality Management Measures of SPC and Detailed Rules for the Implementation of Quality Accident (Incident) Management of SPC, further strengthens product quality control, and conducts a comprehensive investigation on the standardability of the Company's product delivery quality management to ensure stable product quality. The Company pays close attention to the technological development of the industry, actively participates in the formulation and revision of many national and industry standards, and promotes the high-quality development of the industry.

In 2023, the Company's product spot-check passing rate reached 100%, without any recall of sold products due to quality, safety, and health concerns.

### The Company presided over the drafting of the first large tow carbon fiber product standard in China

The group standard "Industrial Polyacrylonitrile-based Large Tow Carbon Fiber Yarn" drafted by SPC was officially released in 2023, which is the first product standard for large tow carbon fiber in China.

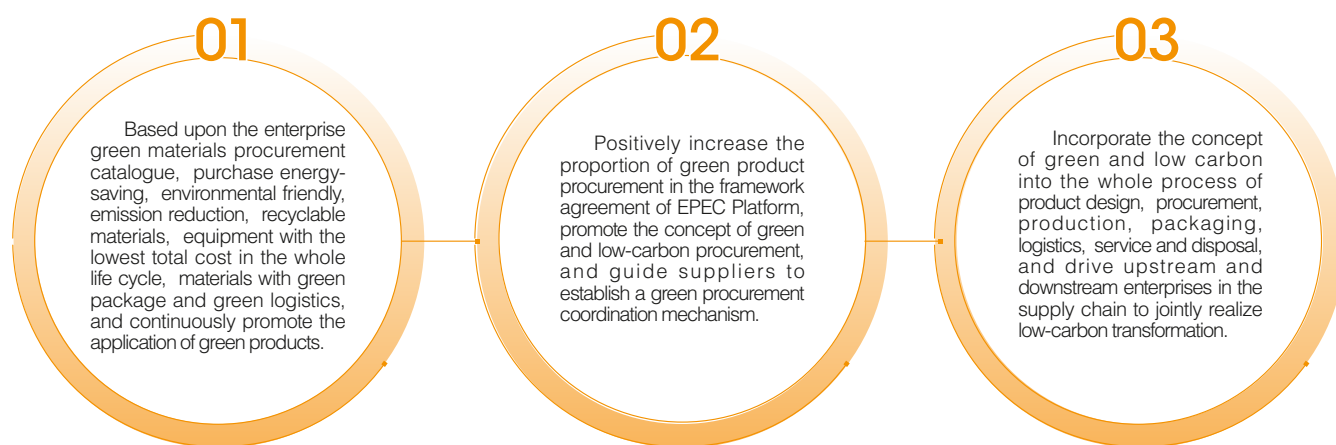
The standard specifies the terms and definitions, classification and code number, requirements, test methods, inspection rules, packaging, marking, transportation and storage of industrial grade polyacrylonitrile-based large tow carbon fiber yarns.



# Building a responsible supply chain

The sustainable development of the Company needs innovation and the recognition of customers and partners. In order to maintain a long-term and stable cooperative relationship, SPC aims at safety, timeliness, green and economy, and builds a responsible supply chain for mutual benefit and win-win and creates a bright future.

## Promote green procurement and boost the dual-carbon target



## Give priority to purchasing materials in national green tax refund catalogue



In response to the call of the state, enterprises are encouraged to use materials in the green tax refund catalogue to reduce emissions and improve the environment. In the process of project construction and production demand, the Company promotes the purchase of green tax refund materials as a key task according to the state preferential tax policies for enterprises' procurement of three special equipment, namely, "energy saving, water saving, environmental protection and work safety".

Control from the source of the plan, require the demand organizations to give priority to the product name, performance parameters and implementation standards that meet the tax refund catalogue when providing technical documents; Cooperate with finance department to collect and report the relevant data of performance parameters after the equipment is put into operation, so as to ensure satisfaction of the tax refund requirements.

In 2023, the Company purchased a total of RMB 55.12 million of materials in green tax refund catalogue, which can enjoy the national tax refund. As a result, low carbon and environmental protection was achieved while benefits are being created.

## Procurement of high-performance equipment

Since 2020, the Company has successively invested 1,688 sets of intelligent lighting lamps in equipment, including 1,080 sets of intelligent three-proof lamps and 608 sets of intelligent explosion-proof factory lamps. Intelligent lighting fixtures have a function of 0 ~ 100% accurate dimming and can be automatically adjusted to achieve the purpose of energy saving.

The annual power consumption of the Company before equipment procurement and revamp is 611,915 kW·h, and the annual power consumption is reduced to 254,064 kW·h after revamp, the energy consumption is reduced by about 60%, and the annual carbon dioxide emission is reduced by 280,913kg. Procurement of high-performance equipment can reduce equipment maintenance and labor costs, the rounds-inspection frequency is reduced through intelligent management and the average service life of lamps is extended.

## Promote green packaging, achieve controllable safety and cost-saving

In order to promote green and reduced packaging, the Company conducted overall survey of the packaging of purchased chemical materials, sorted out the list of propagable varieties, coordinated with relevant parties in the supply chain, discussed and studied together with them, and gradually promoted the green and reduced packaging under the premise of controllable safety.



### Case 1

In order to reduce the procurement cost of plastic particle packaging film, the Company discussed with relevant departments to continuously promote the thinning and formula improvement of FFS heavy packaging film, and reduced the procurement cost by thinning the heavy packaging film while ensuring the strength of packaging bags.

In 2023, the Company purchased 2,594.6 tons of heavy packaging film with a thickness of 0.12 mm, which reduced the amount of heavy packaging film by 432.52 tons compared with last year's 0.14 mm heavy packaging film. The Company saved the production and procurement costs without affecting the product packaging quality.



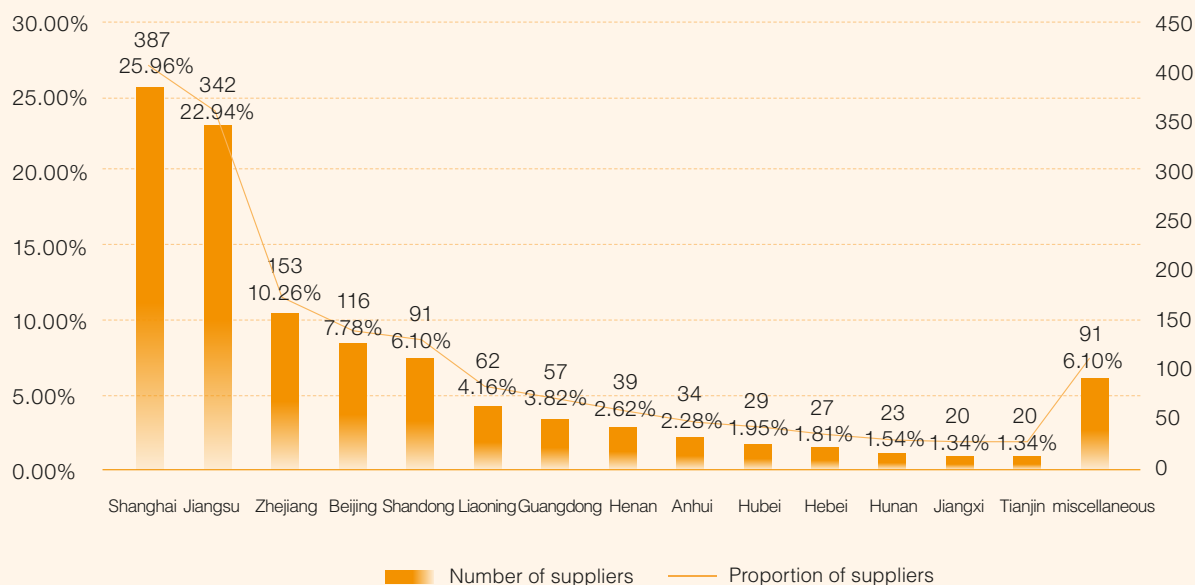
### Case 2

In 2023, the Company cumulatively completed modification of nearly 100 kinds of green packages for purchased chemical materials with large consumption, achieving the goal of reducing the amount of hazardous waste disposal and saving the disposal cost.

In 2023, the Company cumulatively saved a total of 5,620 packaging barrels (including 1,985 lubricating oil barrels and 3,635 barrels of three chemical agents); After it was required to adopt lining bags for purchasing paint, the hazardous waste packaging barrels were reduced by nearly 20 tons.

By the end of December 2023, there were 1,491 suppliers having service relations with SPC.

Number and proportion of region-based suppliers



注

Note: The number and percentage of suppliers included in miscellaneous of the chart are: Sichuan (17, 1.14%); Fujian (15, 1.01%); Shaanxi (15, 1.01%); Heilongjiang (11, 0.74%); Gansu (10, 0.67%); Chongqing (9, 0.60%); Jilin (4, 0.27%); Overseas (3, 0.20%); Guangxi (2, 0.13%); Ningxia (2, 0.13%); Hainan (1, 0.07%); Inner Mongolia (1, 0.07%); Yunnan (1, 0.07%).

# Employees' rights and interests & development

## Fair and inclusive employment policy

The Company strictly abides by the Labor Law of the People's Republic of China, and creates a diversified, fair and inclusive career development platform for employees of different nationalities, genders, religious beliefs and cultural backgrounds in recruitment, promotion and dismissal, human rights and is responsible for reviewing and confirming the employment practices and systems every year, and reviewing links such as the recruitment of new employees and the daily management of human resources, and prohibits the use of child labor and forced labor. In 2023, the total number of employees was 7,526, and the turnover rate of employees was 0.66%.



Proportion of female employees  
**17.49%**



Proportion of employees under 30 years old  
**17.34%**



Proportion of dispatched workers  
**1.71%**

## Salaries and welfare to share development

The Company shares the development achievements with employees, provides various legal and supplementary salaries and welfare for employees, creates better living for employees, and makes employees enjoy their work.

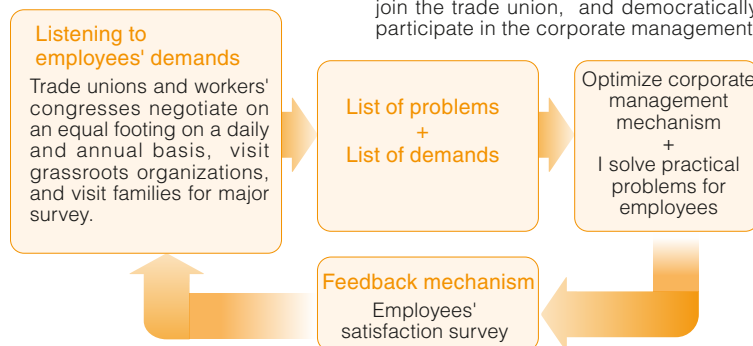
Legal welfare	Company supplementary welfare
100% of the employees of the Company sign collective contracts and enjoy legal rights such as fair salary, five social insurances and one housing fund, the right of rest and right to leisure, and health and safety protection; The Company tries its best to avoid employees' working overtime, and offers fair remuneration if it is really necessary for employees to work overtime.	The Company provides employees with supplementary pension insurance, supplementary medical insurance, mutual assistance for employees, care for poverty stricken employees, good rest, dining, commuting, recuperation, leisure and entertainment facilities, rich cultural and sports activities, parties and other additional benefits.

The Company implements incentive salary mechanism, including incentive annuity and increasing the proportion of daily incentive distribution in employees' income, forming a virtuous circle of stimulating employees' vitality and upgrading enterprises' development.

Employees are the greatest wealth of an enterprise. The Company attentively listens to employees, cares for employees, safeguards and promotes employees' rights and interests, and forms a community of destiny with employees to grow together and share development achievements.

## Communication mechanism of listening attentively

The Company abides by the Trade Union Law of the People's Republic of China, etc., and listens attentively to the voices of employees through the mechanisms of trade unions, workers' congresses, equal consultation, grassroots research, employees' satisfaction survey, etc., thus solving the urgent and difficult problems of employees. 100% of the employees of the Company join the trade union, and democratically participate in the corporate management.



## Warm and harmonious staff home

The Company cares for employees attentively, provides various services and assistances according to the needs of different types of employees, and creates a warm and harmonious "home culture" of living and working in peace and contentment.

Caring for needy employees	Caring for front-line employees
<ul style="list-style-type: none"> <li>■ Relying on supplementary medical insurance and the Company's employee assistance mutual fund, etc., to support employees at all levels</li> <li>■ Understanding the difficulties of employees in time and helping them accurately</li> <li>■ Carrying out annual consolations at festivals and helping those who are suddenly stricken by poverty</li> <li>■ Hierarchical and classified assistance of off-post needy people</li> </ul>	<ul style="list-style-type: none"> <li>■ Comprehensively upgrade the activity center of the "Staff Home"</li> <li>■ Improve facilities such as "staff cabin" and locker room</li> <li>■ Carry out standardized repairs of dormitories</li> <li>■ Improve the dining environment and food quality</li> <li>■ "Send coolness in summer" to help employees prevent heatstroke and cool down</li> </ul>
Caring for women workers	Caring for the youth
<ul style="list-style-type: none"> <li>■ Providing training for women workers on rights safeguarding ability</li> <li>■ Helping women workers grow and creating fair promotion opportunities</li> <li>■ Weekend schools for female employees to enrich their cultural and sports activities</li> </ul>	<ul style="list-style-type: none"> <li>■ Implementing the mechanism of "I solve practical problems for the youth"</li> <li>■ In response to the youth difficulties in making friends, organize parties</li> <li>■ Provide young people with the convenience of settling down policies such as public rental housing</li> </ul>
Caring for the retirees	Caring for special groups
<ul style="list-style-type: none"> <li>■ Paying subsidies and various consolation money in full amount and on time</li> <li>■ Organizing physical examination</li> <li>■ Assist in reimbursement of medical expenses and claims settlement</li> <li>■ Funding university study for the elderly</li> </ul>	<ul style="list-style-type: none"> <li>■ Recruit the disabled for employment and arrange jobs suitable for their physical condition</li> <li>■ Provide door-to-door service to work-related injuries</li> <li>■ Provide subsidies to those who have lost their labor force</li> <li>■ Offer condolences and subsidies to the families of deceased (retired) employees</li> </ul>

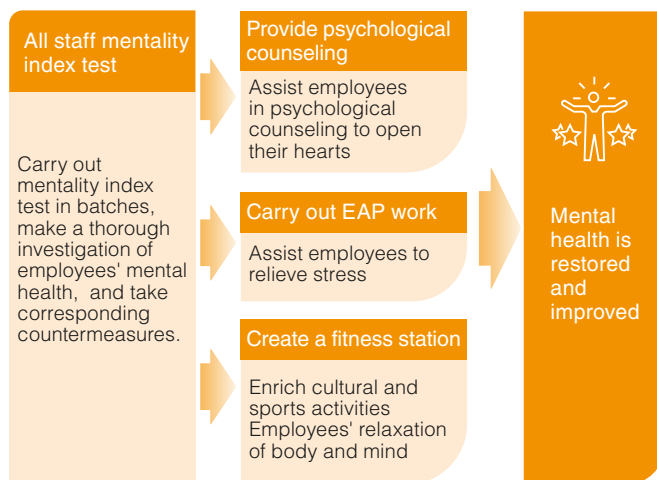
## Protect the health of employees

Health is the foundation of employees' career development and enjoyment of life. The Company abides by the Work Safety Law of the People's Republic of China, Occupational Disease Prevention Law of the People's Republic of China, etc., and establishes a multi-department synergetic comprehensive health management mechanism to protect employees' physical and mental health, and regularly inspects and supervises the mechanism of health management.

Full coverage of physical examination + health management in the whole process to maximize protection of employees from occupational diseases.



The Company takes multiple measures to pay attention to and care for the mental health of employees



Allocation of first-aid equipment such as automated external defibrillator in the workplace  
Help employees improve their first-aid and self-rescue ability

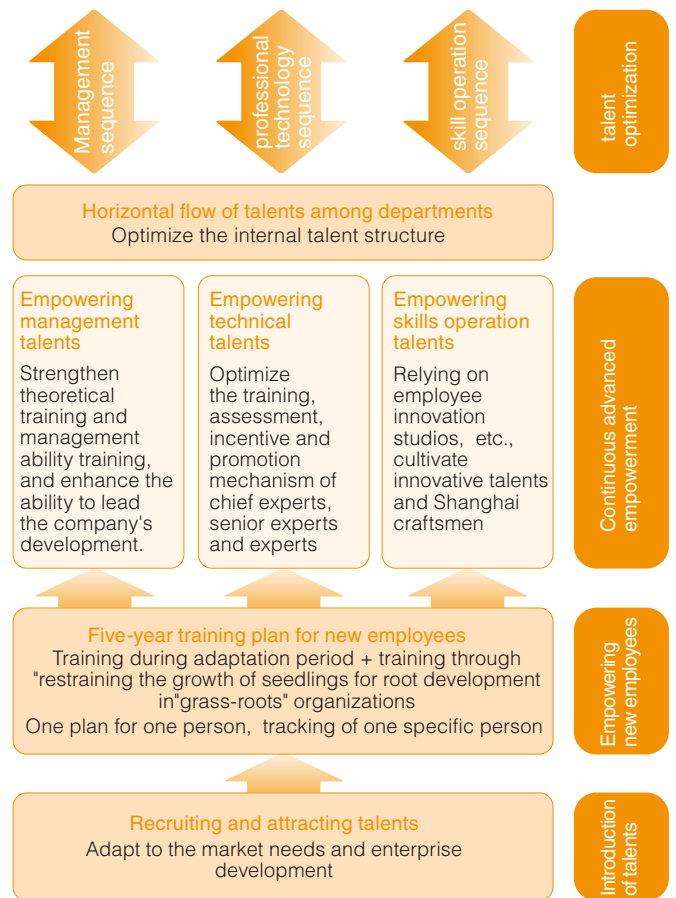


## Empowering employees to grow

Talent is the core competitiveness of an enterprise. Following the Vocational Education Law of the People's Republic of China, etc., the Company improves the top-level design in terms of talent training and growth channels, and adopts precise measures for different categories to empower employees to grow and grow together with employees.

Talents are introduced, cultivated and selected fairly according to the Administrative Measures for Staff Training of SPC (Trial) and the Administrative Measures for Talent Growth Channels of SPC.

Three ascending channels create multiple opportunities, Cadres can be either promoted or demoted, and personnel survive the fittest



Competitive recruiting and selecting cadres, who can be either promoted or demoted.

Middle-level cadres are the key backbone. The Company promulgated and implemented SPC's Rules on Boosting Management of Cadre Promotion and Demotion, and implemented the mechanism of competitive recruitment and selection of middle-level and grass-roots management cadres, with the competitive recruitment ratio reaching 80.3%.





## Boosting community development

The Company integrates into the development of surrounding communities, Shanghai and Yangtze River Delta, establishes an interactive development mechanism with the surrounding areas, serves the surrounding areas in terms of infrastructure and energy supply, and forms an industrial ecological circle for integrated development and co-growth.

### An ecological circle of synergetic transformation and integrated development

By establishing joint development coordination agencies and interconnection of energy infrastructure, the Company has formed a community of mutual promotion, win-win and integrated development with local governments and industry partners in Shanghai and the Yangtze River Delta region in terms of energy transformation and industrial green and low-carbon transformation.

#### Jointly promote the transformation and upgrading of chemical industry cluster in Shanghai

The Company has established a joint development mechanism with Jinshan District of Shanghai and Shanghai Chemical Industry Park to jointly promote the transformation and upgrading of chemical industry cluster in Jinshan district, the south wing of Shanghai's "North-South Transformation".

#### Integrate into the integrated development of clean energy in the Yangtze River Delta

The Company participated in the establishment of the Yangtze River Delta Hydrogen Energy Infrastructure Industry Alliance, and was elected as the chairman unit of the Industry Alliance, contributing to the integrated green development of the energy field in the Yangtze River Delta.

### Sharing of public service

#### Interconnection of infrastructure

##### Pipeline interconnection

Completed the construction of Jinhong jet fuel pipeline, which can transport millions of tons of jet fuel to Hongqiao Airport every year

##### Science popularization service

Relying on Shanghai Museum of Petrochemical Science and Technology and Carbon Fiber Exhibition Center, the Company provides science popularization services to the surrounding areas

##### Guaranteed power supply

SPC's power generator sets supply power to the surrounding areas and becomes a component of the regional power supply network

##### Emergency linkage

Participate in the co-construction of the National Hazardous Chemicals Emergency Rescue (Shanghai) Base to improve the emergency linkage capability

##### Guaranteed oil product supply

Stable supply of cleaner energy such as National VIB gasoline to boost upgrading of the national gasoline standard

### Explore a new path of common prosperity

#### Innovate a new model of co-construction between enterprises and local government

##### Company-specific departments

Main products  
Achievements of environmental protection reform  
Achievements of new energy development

##### Surrounding specific towns and villages

History and culture  
Tradition of revolution  
Achievements in beautiful countryside construction

##### Workshop of common prosperity

Send projects to villages  
Send employment to household  
Send skills to persons  
Send policies to home  
Small workshop promotes big common prosperity

### Pay taxes honestly and create employment opportunities for the surrounding areas

**12.818** billion RMB

In 2023, the Company paid taxes of RMB 12.818 billion

**82.37%**

In 2023, the company's localized employment ratio was 82.37%

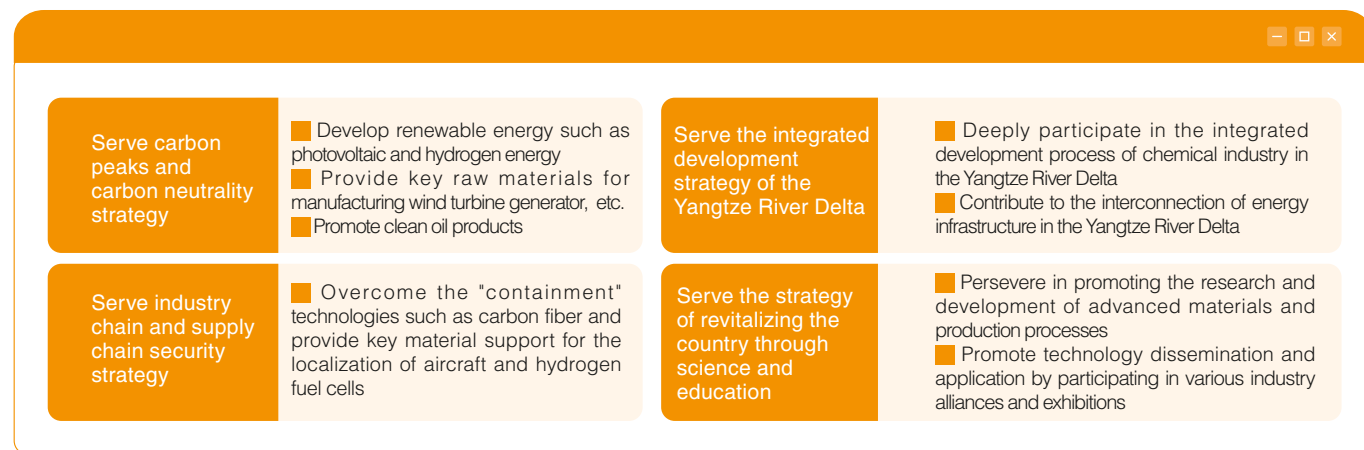
**9.05** million RMB

The Company invested RMB 9.05 million to support the development of surrounding areas

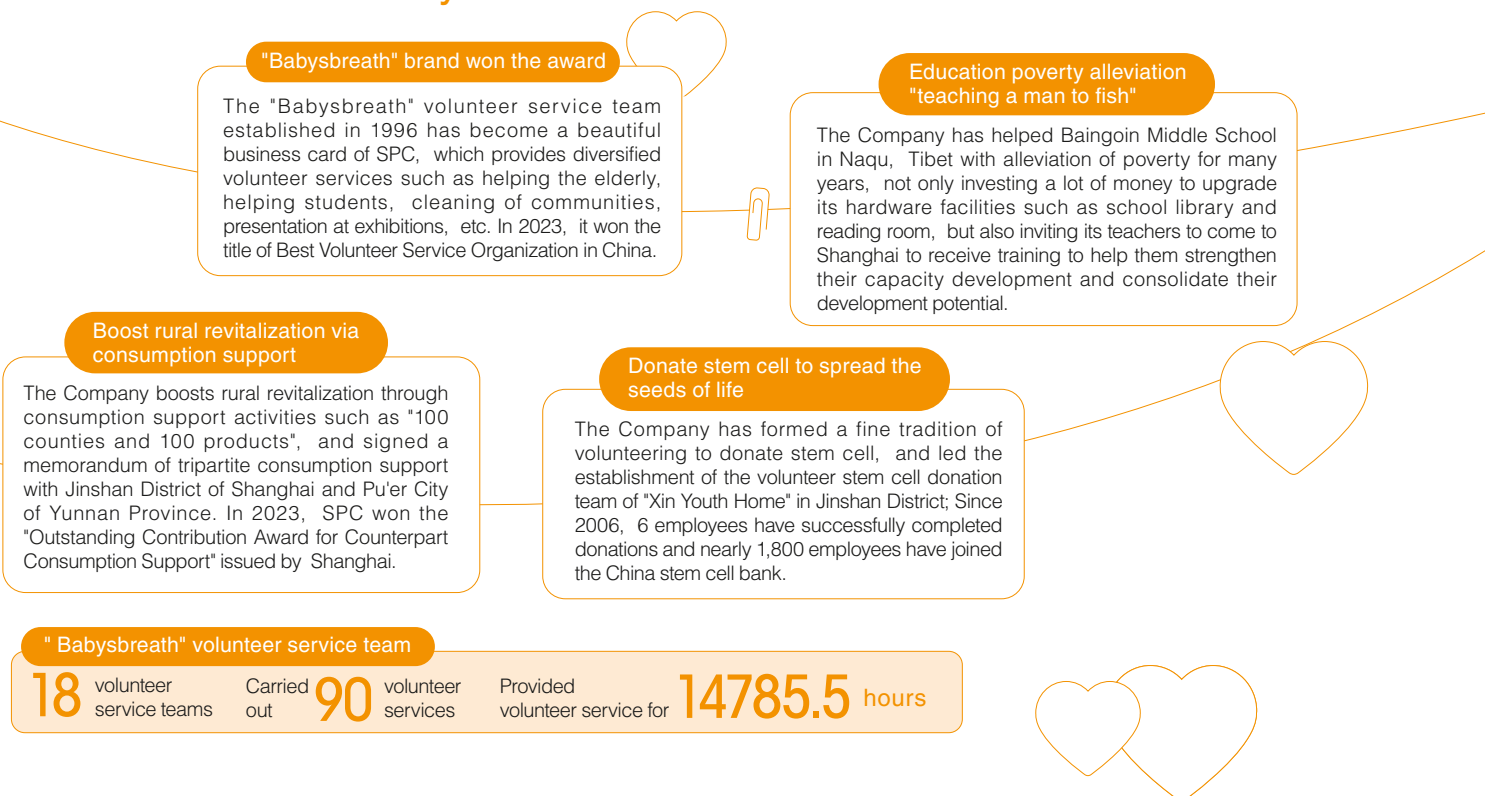
## Contributing to public welfare undertakings

The Company positively serves the national strategy and considers national development as the biggest opportunity of enterprise development; Continues to carry out public welfare projects such as rural revitalization and education poverty alleviation, and builds the "babysbreath" volunteer service brand for decades and wins a good social reputation.

Integrate into the national strategy and realize the enterprise's own value in the national development.



Be enthusiastic about public welfare undertakings and positively contribute to the society



# ESG

## key performance table

### Environmental performance (E)

Indicators	Unit	2023	2022	2021
Pollutant discharge				
Chemical oxygen demand (COD) emissions	Ton	632.38	719.32	671.09
Ammonia nitrogen emissions	Ton	3.77	11.11	26.23
Exhaust emissions	100 million m <sup>3</sup>	465.20	405.36	419.32
Sulfur dioxide (SO <sub>2</sub> ) emissions	Ton	180.43	152.02	199.76
Nitrogen oxide (NO <sub>x</sub> ) emissions	Ton	1096.52	954.84	1067.59
Hazardous waste emissions	10,000 tons	1.45	1.63	1.65
Non-hazardous waste discharge	10,000 tons	61.51	59.18	70.54
Energy consumption				
Total industrial energy consumption*	10 KT standard coal	761.7	518.6	632.3
Comprehensive energy consumption of industrial output value*	Ton standard coal/10,000 RMB	1.21	1.09	0.99
Natural gas consumption	100 million m <sup>3</sup>	5.08	4.67	5.19
Coal consumption	10,000 tons	167.55	173.52	175.21
Crude oil consumption	10,000 tons	1413.07	1045.33	1377.63
Comprehensive energy consumption of oil refining	Kg standard oil/ton	52.04	57.40	50.98
Electric power consumption (excluding power consumption for external supply)	10,000 kWh	289618	266993	306914
Water resource				
Total industrial water intake	10,000 tons	3646	3742	4768
Water consumption per unit output value	Ton/10,000 RMB	5.95	8.14	7.72
Reuse rate of industrial water	%	98.02	98.05	97.83
Water consumption per ton of oil processed	Ton/ton	0.38	0.48	0.40
Water discharge per ton of oil processed	Ton/ton	0.12	0.15	0.16
GHG emissions and management				
Total carbon dioxide emissions	10,000 tons	900.46	835.44	946.75
Scope 1 emissions	10,000 tons	873.18	809.37	902.30
Scope 2 emissions	10,000 tons	27.28	26.07	44.45
Carbon dioxide emission intensity	Ton/10,000 RMB	1.47	1.82	1.53

\* In 2023, some units were adjusted to raw material consumption units, and the comprehensive energy consumption increased. According to the new statistical scope, the data in 2022 was 6.6093 million tons of standard coal, and the comprehensive energy consumption of industrial output value was 1.39 tons of standard coal/10,000 RMB in 2022.

## Social performance

Indicators	Unit	2023	2022	2021
Employment and training				
Total number of employees	persons	7526	8007	8230
-Number of male employees	persons	6210	6545	6656
-Number of female employees	persons	1316	1462	1574
-Number of employees of 30 years old and below	persons	1305	1054	796
-Number of employees between 31 and 50 years old	persons	3005	3477	3989
-Number of employees of 51 years old and above	persons	3216	3476	3445
-Total number of non-regular or dispatched workers	persons	129	153	164
-Local employment rate	%	82.37	93.08	91.38
Employee turnover rate*	%	0.66	0.30	0.29
-Turnover rate of male employees	%	0.47	0.22	0.23
-Turnover rate of female employees	%	0.20	0.07	0.06
-Turnover rate of employees of 30 years old and below	%	0.50	0.24	0.19
-Turnover rate of employees between 31 and 50 years old	%	0.13	0.06	0.07
-Turnover rate of employees of 51 years old and above	%	0.03	0	0.03
Occupational health				
Annual death toll of employees' work-related injuries	persons	0	0	1
Annual mortality rate of employees' work-related injuries	%	0	0	0.0120
Lost days due to work injury	Days	1613	3540	3950
Incidence rate of occupational diseases	%	0	0	0
Number of persons participating in occupational safety and health training	Person/times	52447	45910	51839
Occupational health examination rate	%	100	100	100
Employees' vocational training**				
-Training participation rate of senior managers	%	100	/	/
-Training participation rate of middle-level managers	%	100	/	/
-Training participation rate of grass-roots employees	%	100	/	/
-Average training duration for senior managers	Hours	155	/	/
-Average training duration for middle-level managers	Hours	102	/	/
-Average training duration for grass-roots employees	Hours	126	/	/

\* Employee turnover rates mentioned in this report are all domestic data, and the Company has no employees outside China.

\*\* Training participation rate and average training duration classified by gender are not available.

Indicators	Unit	2023	2022	2021
Signing rate of labor contract	%	100	100	100
Coverage of collective contracts	%	100	100	100
Coverage of social insurance	%	100	100	100
Coverage of training on anti-commercial bribery	%	100	100	100
Number of corruption lawsuits filed and concluded against companies and employees	Case	0	0	0
Money investment to support the development of surrounding areas and communities	10,000 RMB	905	994	1028.7
Supply chain				
Purchase rate by invitation to bids	%	88.30	88.38	89.74
Manufacturers' direct supply rate	%	99.34	99.66	99.77
Ratio of suppliers passing the ISO 14000 environmental management system certification	%	69.22	65.73	64.60

## Governance performance

Indicators	Unit	2023	2022	2021
Legal tax payment and product quality				
Total tax payment	100 million RMB	128.18	136.65	144.89
Number of inventive patent applications	Case	100	82	81
Customer satisfaction	%	99.67	99.11	98.70
One-time resolution rate of customer service telephone complaints	%	100	100	100
Product sampling pass rate	%	100	100	100
The percentage of the total number of products sold or shipped that need to be withdrawn for safety and health reasons	%	0	0	0
Safety management				
Major fire and explosion accident	Case	0	0	0
Major environmental pollution accident	Case	0	0	0
Major occupational-disease-inductive accidents	Case	0	0	0
Major chemicals leakage accident	Case	0	0	0



# Basis of key data compilation

**Hazardous waste:** refers to solid, liquid, gaseous and other wastes that may do harm to human health and natural environment due to their toxicity, corrosiveness, infectivity, radioactivity or other characteristics (relevant laws and standards mainly include the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, the List of Hazardous Wastes and a series of Chinese national standards).

**Harmless waste:** Solid wastes not included in the category of hazardous wastes are considered as harmless wastes, which generally do not have obvious toxicity, corrosiveness, infectivity, radioactivity and other hazardous characteristics.

**Accounting method of major pollutant discharge:** It has been linked with pollutant discharge permit and environmental protection tax, and the total amount of pollutant discharge is calculated by actual measurement method. According to the provisions on pollutant discharge permit, the pollution discharge data in the report are calculated by the actual measurement method.

**Total industrial energy consumption:** refers to the physical quantity of various energies actually consumed in the production and living process of the Company, which is obtained after conversion according to the calculation method and conversion coefficient specified in Sinopec Comprehensive Statistical Reporting System 2022. Its calculation formula is as follows: Total energy consumption (tons of standard coal) =  $\sum$  physical quantity of energy actually consumed by enterprise production  $\times$  standard conversion coefficient, for example, the standard conversion coefficient of raw coal is 0.7035 tons of standard coal/ton, that of crude oil is 1.4286 tons of standard coal/ton, that of natural gas is 12.9971 tons of standard coal/10,000 m<sup>3</sup>, and that of electric power is 1.229 tons of standard coal/10,000 kWh. The total energy consumption is calculated according to the actual energy consumption of the enterprise multiplied by the standard conversion coefficient.

**Total carbon dioxide emissions:** The Company's carbon emission accounting boundary is the legal person boundary, and the accounting method is Sinopec Comprehensive Statistical Reporting System for 2022. The data sources of carbon emission factors are from measured values (if any) (coal, petroleum coke, flare gas and C2 recovered gas), or the default values issued by IPCC, if no measured values are available. At present, the Company only calculates Scope I and Scope II, while Scope III is temporarily not calculated due to lack of channels for collecting activity data. In addition, the Company's other greenhouse gases, such as methane, nitrous oxide, hydrofluorocarbons and sulfur hexafluoride, emit a total of 20,946 tons of equivalent carbon dioxide, accounting for 0.23% of the total emissions. The Company does not directly emit biogas (methane) generated by anaerobic sewage, but adopts flare burning method to mitigate the impact of warming trend.

**Scope 1 Emissions:** refer to the total amount of carbon dioxide emissions from fixed emission sources, mobile emission sources, process emission sources and fugitive emission sources generated by the Company's production and operation.

**Scope 2 Emissions:** refer to the indirect carbon dioxide emissions generated by the Company's consumption of purchased electricity and purchased heat (steam).

**Calculation formula of carbon dioxide emission intensity:** carbon dioxide emission intensity = carbon dioxide emission/prime operating revenue of SPC's main body (calculated in 10,000 RMB).

**Occupational health examination rate:** In strict accordance with the requirements of Technical Specifications for Occupational Health Surveillance, the Company earnestly carried out occupational health surveillance for employees, standardized pre-job, on-the-job and off-the-job occupational health examination for employees, and completed occupational health examination rate by 100%, and intervention rate for abnormal personnel such as occupational contraindications reached 100%.

**Employee turnover rate:** The employee turnover rate in this report is domestic data, and there are no employees at abroad.

**Total amount and proportion of packaging materials used by finished products:** Not applicable. As the packaging materials used by the Company are diverse, and the Company's modes of product delivery are diverse, involving iron, steel, wood, plastic, woven bags, etc.; And multiple types are involved, including barrel-shaped, box-shaped, bag-shaped, etc., with various sizes. Besides, some packages can be reused. Therefore, the Company does not have the actual conditions for comprehensive statistics of the number of packages.

# Third-party Assurance Report

No.	
Title of report	
2023 Annual Environmental, Social and Governance Report	
Company name	Sinopec Shanghai Petrochemical Company Limited
Company Profile	<p>Located in Jinshan District, Shanghai, as the holding subsidiary of China Petroleum &amp; 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 is mainly engaged in producing various kinds of refinery products and chemical products through petroleum processing.</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.</p> <p>SPC's total tax payment in 2023 amounted to RMB12.818 billion.</p> <p>In 2023, SPC made the development achievements in "start-up of clean and efficient cogeneration units, concentrated connection of three new photovoltaic power stations to the grid, and new application of 48K large tow carbon fiber reinforced plastic rebar".</p> <p>In 2023, SPC won AA Class ESG Rating of Chinese Listed Companies in 2022 Awarded by the Rating System of China Xinhua News Network Corp., "CIIF Award" in the 23rd China International Industry Fair and the Excellent Innovative Product Award in the 19th China Composite Materials Exhibition-JEC.</p> <p>SPC adheres to "challenging the advanced level and benchmarking the most stringent standard", consistently makes overall plans for development and safety, accelerates the creation of a new situation in high-quality development, safeguards the lawful authority of investors with heart and soul, and strives to build a "domestic leading and world-class" energy, chemical and new materials company, thus contributing to promoting sustainable economic development and fulfilling social responsibilities etc.</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: <a href="http://www.spc.com.cn">http://www.spc.com.cn</a>.</p>
Report Issue	Sixteenth issue of corporate social responsibility report and the second issue of ESG report.
Assessment basis	Rating Standards for ESG Reports of Chinese Enterprises (2023)
Assessment method	Assessment was conducted in writing for SPC's 2023 Environmental, Social and Governance Report (hereinafter referred to as the Report) in accordance with the requirements of Rating Standards for ESG Reports of Chinese Enterprises (2023) to verify and assess the process, substantiality, integrity, comparability, readability and innovation of the Report.

## Assessment issues

### Process

SCP followed nine process elements in preparing the Report: including the organization, planning, identification, research, initiating, preparation, assurance, release and summary. The Board of Directors controlled the overall direction and key nodes, and was responsible for the final review of the Report; The Report was positioned as an important tool for compliant information disclosure on performance of responsibilities, improvement of ESG management, enhancement of stakeholders' communication, and strengthening of brand value, with clear positioning of functional value; 20 substantive issues of ESG were identified in combination with national macro policies, SPC's development strategies and social concerns.

The Report will be made in both English and Chinese languages in electronic and printed versions, with the electronic version to be uploaded on the websites of Shanghai Stock Exchange, Hong Kong Stock Exchange and SPC(<http://www.spc.com.cn>).

### Substantiality

The Report systematically discloses SPC's governance structure and development, product responsibility and customer service, construction of responsible supply chain, employee's rights and development, safety risk management, technological innovation, energy conservation and emission reduction, developing a circular economy, responding to climate change, protection of biodiversity, and integrity and compliance, and other key issues in petrochemical industry.

1. Governance of sustainable development. SPC promotes ESG construction from a strategic perspective, fully integrates the core concepts and standards of ESG into the corporate development strategy and routine production & operation management, and comprehensively ensures the high-quality sustainable development of the Company through persistent improvement of the modernization of corporate governance system and governance capacity.
2. Responding to climate change. SPC issued the White Paper on Green Development of Shanghai Petrochemical Company Limited in 2023, and rolled out 35 actions of energy conservation and carbon reduction and 72 actions of optimization of energy conservation. As a result, the CO<sub>2</sub> emission intensity decreased by 19.23% on a year-on-year basis, and the cumulative capacity of CO<sub>2</sub> emission reduction continued to expand.
3. Green and safety. SPC strengthened safety management, intensified environmental protection, developed a circular economy, paid more attention to protection of biodiversity, facilitated harmonious development with the nature, and strived to improve the intrinsic safety and environmental protection in 2023. The total discharge of chemical oxygen demand, ammonia nitrogen, sulfur dioxide and nitrogen oxides of major pollutants all met the requirements of assessment indicators, and the comprehensive compliance rate of discharged industrial wastewater reached 100%, the compliant disposal rate of solid waste reached 100%, and the compliant disposal rate of hazardous waste reached 100%.

In 2023, there were no casualties, and the occupational health examination rate was 100%

4. Serving the society. SPC always keeps "Top priorities of the country" in mind and fulfills mission responsibility. The Company bravely takes the core responsibility of the national strategic scientific and technological force and improves the supply and service capacity of high-end petrochemical products; continues to promote the construction of a responsible supply chain to drive the entire supply chain to achieve sustainable development; respects and safeguards the rights and interests of its employees and promotes the common growth of its employees and itself; and persists in providing energy for better living of the people, boosting the community development and selflessly devoting to the society.

The Report is made in details and full contents, thus having good performance of substantiality.

Integrity	The main content of the Report systematically discloses SPC's key ESG performance indicators from such perspectives as "corporate governance, responding to climate change, green and safety, and serving the society", thus presenting advanced performance of integrity.
Comparability	The Report disclosed the comparative data of many key performance indicators such as "waste gas emissions", "total industrial energy consumption", "total carbon dioxide emissions", "number of female employees" and "major fire and explosion accidents" for three consecutive years, thus possessing good vertical comparability.
Readability	The Report comprehensively expounds the concept, actions and effectiveness of corporate annual fulfillment of responsibilities from four aspects, such as corporate governance, responding to climate change, green and safety, and serving the society, communicates and responds to the expectations and demands of stakeholders, thus presenting a clear framework structure. 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.
Innovation	Focusing on the responsible actions and achievements of SPC in corporate governance, responding to climate change, green development and safety, and serving the society, the Report manifests the undertakings of central enterprise to implement macro policies; The Company established the strategy for the Board of Directors and ESG Committee to promote SPC's ESG construction from a strategic perspective, and fully integrated the core concepts and standards of ESG into the corporate development strategy and routine production & operation management, thus presenting good innovative performance.
Overall comments	The critical information, data and activities of fulfillment of social responsibility disclosed by the Report are basically in conformity with the standard requirements of Guidelines for Disclosure of Corporate ESG (T/CERDS 2-2022).
Recommendations of improvement	Adjust the product liability performance indicators (including product safety and quality, customer service and equity indicators) into social performance indicators.
Statement	The assessment comments are only specific to the Report.

Auditor: Wang Xiulan

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

Date of Audit: March, 2024



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	Communication with stakeholders	Principles of report	GOV-5		P08-10
	Development strategy				P11
	ESG risk management	Climate change- Risk management	SOC2	Risk management	P12-13
	Integrity and compliance	B7- B7.1 B7.2 B7.3	GOV-3 GOV-4		P14-15
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Responding to Climate Change	Top-level design for responding to climate change	Climate change Governance Strategy Risk management	CCE-1 CCE-2 CCE-3 CCE-4 CCE-6	Corporate governance Corporate strategy Risk management	P21
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Titles	Subtitles	ESG (2023)	IPIECA (2020)	TCFD	Pages
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	Employees' rights and interests & development	B1- B1.1 B1.2 B2- B2.1 B2.2 B2.3 B3- B3.1 B3.2 B4- B4.1 B4.2	SHS-2 SHS-3 SOC-1 SOC-3 SOC-4 SOC-5 SOC-6 SOC-7 SOC-8 SOC-15		P40-41
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# About this report

This report is the 16th CSR report and the second ESG development report issued by Sinopec Shanghai Petrochemical Co., Ltd. This report addresses SPC's concept of sustainable development and policies as well as its efforts in terms of environmental protection, social responsibility and corporate governance in 2023, while responding to the expectations and concerns of stakeholders.

## Time range

From January 1, 2023 to December 31, 2023. In view of continuity and comparability, it appropriately adopts the data of three years since 2021.

## Reporting period

This report is an annual report.

## Data source

All data in the report are sourced from official documents and statistical reports of SPC.

## Scope of report

Consistent with the business coverage of SPC

## Description of appellation

For the purpose of presentation and reading, "Sinopec Shanghai Petrochemical Co., Ltd." is also stated as "SPC", "the Company" or "we" in the report.

## Reporting language

This report is available in both English and Chinese. In case of any discrepancy, the Chinese version shall prevail.

## Review and approve

This report has been approved by the Board of Directors of the Company on 20 March 2024.

## Report standard

This report is prepared in accordance with Shanghai Stock Exchange's No. 1 Guidelines for Self-supervision of Listed Companies in Shanghai Stock Exchange Standardized Operation, Guidelines for ESG Information Disclosure of Listed Companies in Shanghai Stock Exchange and Hong Kong Stock Exchange's Rules on Environmental, Social and Governance Report, with reference to ESG Assessment Guide for Listed Companies of China's Petroleum and Chemical Industry, Report on Recommendations of Task Force on Climate-related Financial Disclosures issued by the Task Force on Climate-related Financial Disclosures (TCFD), Guidelines for Publishing Sustainable Development Reports by Oil and Natural Gas Industry jointly issued by International Petroleum Industry Environmental Protection Association and American Petroleum Institute (API), GRI General Standards (2021 Edition) and GRI 11: Oil and Natural Gas Industry Standards (2021 Edition) issued by Global Sustainability Standards Board (GSSB), No. 1 International Standard for Sustainable Disclosure of Financial Reports: General Requirements for the Disclosure of Financial Information Related to Sustainable Development and No. 2 International Standard for Sustainable Disclosure of Financial Reports: Disclosure of Climate-related Financial Information issued by International Sustainability Standards Board (ISSB), ISO26000: Guidelines for Social Responsibility (2010) issued by the International Organization for Standardization, as well as ten principles of the United Nations Global Compact and the requirements of the Global Compact for disclosure of annual progress.

## Report promotion

The Company undertakes that there is no false record, misleading statement or material omission in the Report and assumes legal liabilities for its authenticity, accuracy and completeness.

## Disclaimer

This report includes forward-looking statements. Except for historical facts, all events and statements (including but not limited to premises, objectives, estimates and business plans) that may or will take place belong to the category of forward-looking statements. Due to the impact of external variable factors, the development or trends of facts in the future may be different from foregoing statements. Unless otherwise required by the regulatory agencies, the Company has no obligation or responsibility to update such forward-looking statements that are made by it in the report before 20 March 2024.

## Access to the report and further reading

For further information, please visit the website of the Company (<http://spc.sinopec.com/>) to browse or download the electronic text of this report.

# Readers' feedback

Dear readers:

We appreciate your reading of 2023 SPC's ESG Report. 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 comments on this report:

Your comments on 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's concept of ESG 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 comment on this report?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Your recommendations on SPC's ESG Report:

## Your recommendations on SPC's sustainable development:

### You can contact us at:

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