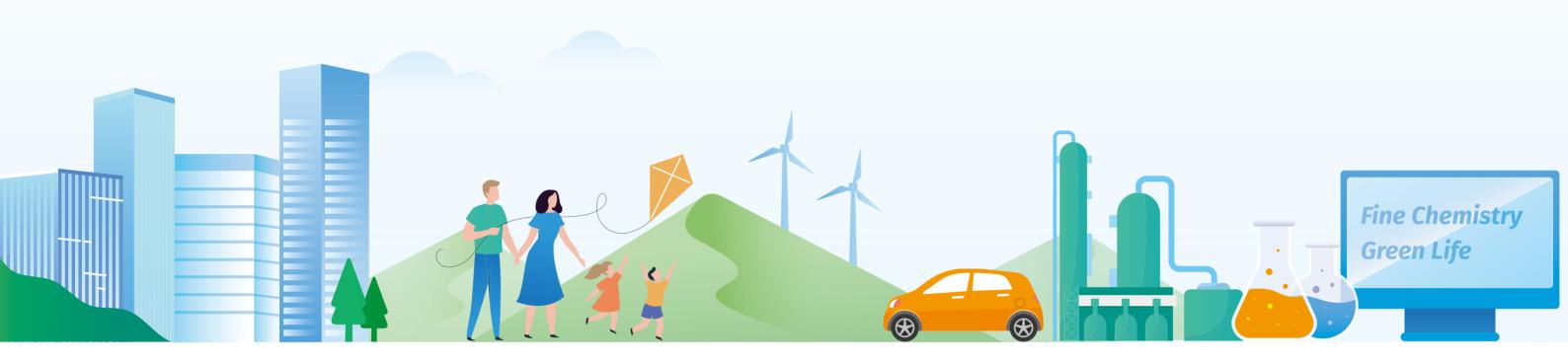


2021

Sinochem International **Sustainability Report** 



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### Our commitment to safety and environmental protection

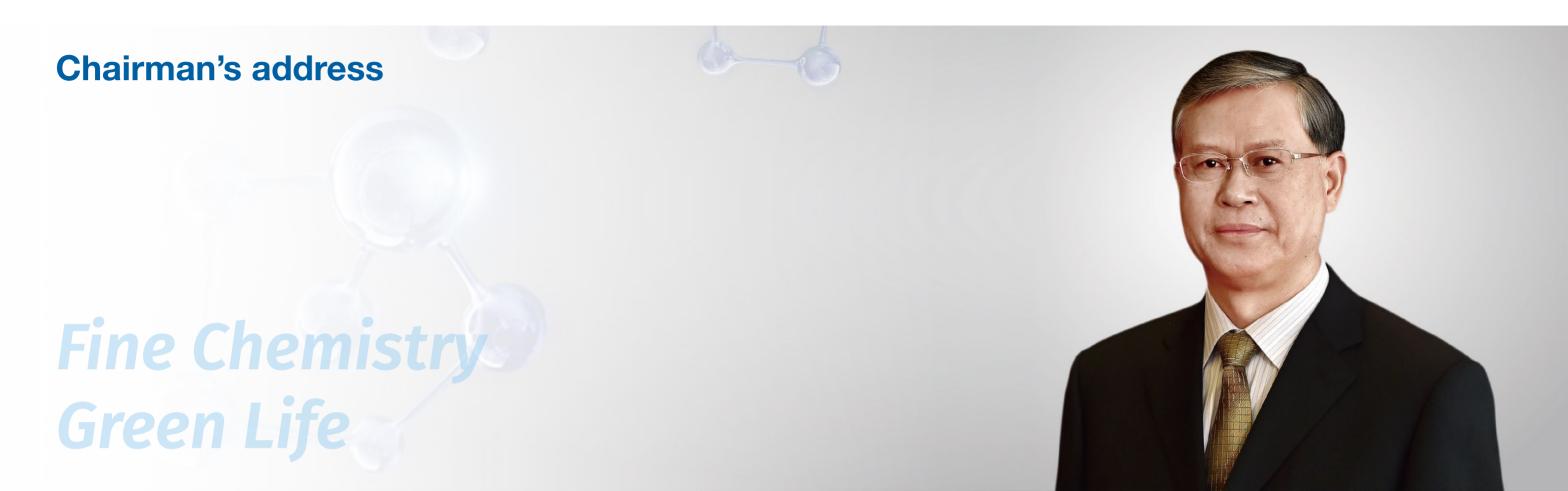
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2021 has been a highly unusual year to say the least. We witnessed the global economy recovering from the huge impact of the COVID-19 pandemic while China delivered a measured response to the unprecedented changes from the pandemic of the century. The said response was in the form of implementing high-quality developments that have yielded new results, thereby creating a good start for the 14th Five-Year Plan. Meanwhile, Sinochem Holdings was officially established in May 2021 as the largest integrated chemical enterprise in the world. As a crucial platform for the material sciences component of Sinochem Holdings, Sinochem International has ushered in a huge unprecedented opportunity.

This year, we embarked on an important mission to address the inadequacies and weaknesses of the chemical industry over the course of the 14th Five-Year Plan. This involved intensifying the focus of the business, actively developing the new material industry, fully implementing the construction of the Lianyungang Circular Economy Industrial Park, and embarking on strategic project investments in aramid, lithium battery and lithium battery cathode material. Guided by the value of "In Science We Trust", we achieved multiple breakthroughs in scientific research pertaining to core business areas. We also developed a batch of national-standard enterprises that are "specialized, streamlined, differentiated, and innovative" and promoted the coordinated development of the innovation chain and industrial chain segments.

This year, we continued to optimize our top-level ESG design and extend the management chain of sustainable development. Under its sustainable development committee, the company set up an executive committee and five professional sub-committees responsible for the implementation of key actions within their respective fields. This measure was done in order to ensure continuous improvement of integrated ESG value creation capabilities. Focusing on five areas, namely carbon reduction and emission reduction; health, safety and environmental protection; sustainable supply chain; sustainable governance and labor rights, we formulated sustainable development objectives under the 14th Five-Year Plan to plan for a sustainable future.

This year, we held fast to "green development" principles and worked hard towards building a competitive advantage in low carbon emissions. The company embarked on a carbon inventory exercise, whereby we established a carbon emissions database, commenced carbon peak and carbon neutralization research, and rolled out a comprehensive low carbon developmental plan. These measures were implemented to form a competitive market advantage driven by the vision of achieving "carbon neutrality". We also actively explored the "green finance" model and completed Sinochem International's first green financing exercise in history, which will be instrumental in helping the company fulfill China's "dual carbon" commitment.

This year, through creating shared value with various stakeholders, we established our corporate social responsibility roadmap with concrete actions. The company imposed stringent control measures over its production processes and product quality to provide our customers with green, innovative, safe and healthy chemical products. We also conducted CSR reviews and capability improvement training sessions for core suppliers to encourage our supplier partners to improve their sustainable development standards together with us. Besides that, a multi-level talent training system and diversified talent incentive mechanism were also established to help our employees achieve their full potential. In terms of contributing to the society, we worked tirelessly to render industrial assistance, consumption assistance, and monetary assistance for students in need. We hope to continue to participate in community building and charitable activities to contribute to rural development efforts and build a better world together.

Due to our outstanding sustainable development efforts, Sinochem International was successfully listed on the CSI Carbon Neutral Index of the Shanghai Environment and Energy Exchange (SEEE), the "ESG Pioneer 50 Index of Central State-owned Enterprises" under the State-owned Assets Supervision and Administration Commission of the State Council, and "Top 100 A-Share Companies in ESG" by Securities Times. The company also received multiple accolades from authoritative media bodies such as Sina Finance and China Sustainability Tribune.

The road ahead is long and arduous, and we need to keep forging ahead. In 2022, Sinochem International will enter a crucial developmental period for the industry, whereby we will seize the huge unprecedented opportunity presented by the national implementation of "dual carbon" objectives and the 14th Five-Year Plan. Driven by two major goals of industrial upgrading and green transformation, we will embark on science and innovation-based initiatives to aggressively develop the circular economy and green economy while fully maximizing the synergistic advantages of an integrated industrial chain. Sinochem International hopes to establish a new sustainable development roadmap and partner with stakeholders to address global challenges such as climate change. In doing so, we hope to achieve our goal of "becoming a role model for sustainability as a world-class fine chemical enterprise".

Li Fanrong, Chairman

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## **About Sinochem International**

### Company summary

Sinochem International Corporation is an international large-scale state-holding listed company (stock code: 600500.SH) with core competitiveness in the fields of intermediates, new materials, polymer additives and natural rubber, servicing customers in over 100 countries and regions worldwide. The company is committed to technological innovation, mechanism innovation, and model innovation, actively developing new growth drivers while striving to build a leading enterprise specializing in innovative new chemical materials.

Sinochem Holdings Corporation Ltd. ("Sinochem Holdings"), the actual controller of Sinochem International, is formed through the restructuring of Sinochem Group Co., Ltd. and China National Chemical Corporation Ltd. It is a leading state-owned enterprise under the supervision of State-owned Assets Supervision and Administration Commission of the State Council.

Since being listed on the Shanghai Stock Exchange in 2000, Sinochem International has been delivering good performance returns to its shareholders and society. Meanwhile, it has been in *Fortune's* "Top 100 listed companies in China" for several consecutive years while also gracing lists such as "Top 100 Chinese Listed Enterprises in Corporate Governance", "China's Best Board of Directors" and "China's Most Respectable Listed Companies".

Driven by the corporate vision of "Fine Chemistry, Green Life", Sinochem International aims to integrate its business practices with social values, pursue sustainable development, and strive to build a resource-saving and environment-friendly society. It is hoped that these measures will be instrumental in helping the company become a role model for sustainability as a world-class fine chemical enterprise.

Corporate Vision

Fine Chemistry, Green Life. We take safety, environmental protection and occupational health as our social responsibility, aim to build a China's leading innovative new chemical materials enterprise, and unswervingly promote the innovative development and industrial upgrading of China's new chemical materials industry.

Corporate Mission We strive to become a leading enterprise in innovative new chemical materials that is rooted in China while operating globally. We provide innovative, high-quality, green products and integrated solutions in the field of material science while sharing the fruits of growth with the society, customers, shareholders and employees.

Strategic Objectives

Upholding the value of "In Science We Trust", we implement an innovation-driven strategy and keep focusing on our core business of new chemical materials. We are committed to optimizing and upgrading core industries such as high-performance materials and polymer additives, aggressively developing strategic emerging industries, and appropriately developing lithium battery materials business by coordinating the industrial chain of lithium battery. By leveraging the strengths of Lianyungang Circular Economy Industrial Park and our self-owned breakthrough key technologies, we aim to be the leading enterprise in innovative new chemical materials with a reasonable industrial structure and extensive product portfolio.

To find out more, please visit our website www.sinochemintl.com



#### **Business overview**



#### Chemical intermediates

#### **Yangnong Group**

Yangnong Group operates three well-equipped production bases in China, boasting a leading market position and global influence in a series fine chemicals of aromatic hydrocarbon chlorination, nitration, and hydrogenation, as well as the production of epichlorohydrin.

#### Sinochem Hebei

With strengths in coal tar deep-processing, fine chemical intermediates, and functional new materials, Sinochem Hebei keeps extending the industrial chain to enrich its portfolio through the integrated development of research, production, and marketing. It has built up differentiation-based competitive advantages in fine chemicals.



#### Polymer additives

Sennics Co., Ltd.

Jiangsu FOPIA
Chemicals Co., Ltd.

The company has a number of R&D centers and production bases in China, producing rubber antioxidants, vulcanizing agents, vulcanizing accelerators, nitrobenzene, light stabilizers, UV absorbers, special flame retardants, etc. Its sales and marketing network spans across the key regions of Europe, North America, and Southeast Asia, with products and services delivered to customers in more than 50 countries and territories.



#### Pharmaceuticals and healthcare

#### Sinochem Health Co., Ltd.

Sinochem Health operates in the field of research, production, and sales of pharmaceuticals and healthcare products, boasting unique competitiveness in product innovation, large-scale manufacturing, product distribution, and foreign trade. It is a leading R&D, production, and sales service provider in segment markets like medical apparatus and instruments, nutritional ingredients, food additives and medicine.



#### Natural rubber

#### **Halcyon Agri Corporation Limited**

Our business covers natural rubber planting, processing, marketing, and the research, production, and value-added services of rubber chemicals. Halcyon has established a global presence in China, Southeast Asia, South Asia, Europe, Africa, and America. Now, it has developed an integrated business model covering upstream and downstream.



#### New materials

Lightweight materials	Sinochem Plastics Co., Ltd. ELIX Polymers S.L.
High-performance fibers	Sinochem High Performance Fiber Materials Co., Ltd.
Membrane materials	Sinochem Membrane Technology Co., Ltd. Ningbo RO Memtech Co., Ltd.

With the development and manufacture of Aramid fiber and composite materials, Sinochem International has made swift advancements in the field of lightweight materials and high performance fibers, further reinforcing its leading global position in automotive lightweight materials. Meanwhile, the company has also entered the membrane industry through the R&D and production of reverse osmosis membranes and nanofiltration (NF) membranes.



#### New energy

EV battery	Huai'an Junsheng Green Energy Co., Ltd. Yangzhou Sinochem Lithium Technology Co., Ltd.
Lithium battery	Sinochem (Ningxia) Lithium Battery
materials	Materials Co., Ltd.
Lithium	Sinochem (Hebei) Lithium Battery
battery recycling	Technology Co., Ltd.

Our new energy business focuses on lithium batteries and battery materials. The company runs production bases in Huai'an, Yangzhou (Jiangsu) and Zhongwei (Ningxia). At the same time, leveraging Sinochem's industrial chains, the company has quickly gained a presence in energy storage, battery recycling and other critical businesses to create a green energy ecosystem.



# Major domestic production bases

Sinochem International boasts a strong production and operations network, with advanced chemical parks such as the Sinochem Lianyungang Circular Economy Industrial Park, Sinochem Yizheng New Material Industrial Park, Sinochem Zhongwei Circular Economy Industrial Park, and Yancheng Binhai New Material Industrial Park. Sinochem International has also established factories in many places nationwide

#### Hebei

Sinochem Heibei Fuheng Co., Ltd. chemical intermediates

Sinochem Heibei Xinbao Chemical Technology Co., Ltd. chemical intermediates

Sinochem Heibei Fuding Chemical Technology Co., Ltd. chemical intermediates

Sinochem Hebei Lithium Battery Technology Co., Ltd. new energy (trial production)

Zhongwei, Ningxia, Sinochem Zhongwei Circular Economy Industrial Park

Ningxia Sinochem Lithium Battery Materials Co., Ltd. new energy

Ningxia Ruitai Technology Co., Ltd. chemical intermediates and new materials

# Lianyungang, Jiangsu — Sinochem Lianyungang Circular Economy Industrial Park

Jiangsu Ruiheng New Material Technology Co., Ltd. chemical intermediates and new materials

Sennics Co., Ltd. Lianyungang polymer additives (under construction)

Jiangsu Ruizhaoke Electronic Materials Co., Ltd. new materials (under construction)
Sinochem Lianyungang Petrochemical Storage Co., Ltd. public facilities

Sinochem Lianyungang Petrochemical Terminal Co., Ltd. public facilities

### Yangzhou, Jiangsu — Sinochem Yizheng New Material Industrial Park

Jiangsu Ruixiang Chemical Co., Ltd. chemical intermediates and new materials

Jiangsu Yangnong Kumho Chemical Co., Ltd. new materials

Sinochem High Performance Fiber Materials Co., Ltd. new materials

Sinochem Engineering Plastics (Yangzhou) Co., Ltd. new materials (under construction)

Sinochem Yangzhou Lithium Technology Co., Ltd. new energy (under construction)

#### Huai'an, Jiangsu

Huai'an Junsheng New Energy Science & Technology Co., Ltd. new energy (partially in operation)

Yancheng, Jiangsu — Sinochem Binhai New Material Industrial Park

**Jiangsu FOPIA Chemicals Co., Ltd.** polymer additives

#### Heze, Shandong

Sennics Co., Ltd. Shandong polymer additives

#### Tai'an, Shandong

Sennics Co., Ltd. Tai'an polymer additives Shandong Huahong Chemical Co., Ltd. polymer additives

#### Ningbo, Zhejiang

Sinochem (Ningbo) RO Memtech Co., Ltd. new materials

#### Tongling, Anhui

Sennics Co., Ltd. Anhui polymer additives

# Awards and recognitions

#### Sinochem International

Fortune China 500

No. 212

Top 500 Petrochemical ompanies in China

No. 17

Top 500 Petroleum and Chemical Listed Enterprises in China

No. 13

#### Yangnong Group

National Demonstration Enterprise for Tech Innovation

Excellent Enterprise for Tech Innovation in Jiangsu Province

#### Sennics

Excellent Innovative Enterprise in China's

Petroleum And Chemical Industry over the 13th

Five-Year Period

#### **Sinochem Plastics**

ICIS Top 100 Chemical Distributors

Asi

No.1

No.8



2021 Sustainability Report Sinochem International Corporation

# Sustainability strategy and management

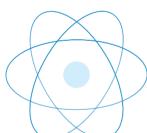
Sustainable development is the "golden key" to addressing current global issues. Sinochem International has elevated the status of sustainable development to its corporate strategy, having appointed the board of directors as the highest decision-making body for coordinating sustainable development. Other measures include formulating the sustainable development plan and goals under the 14th Five-Year Plan in 2021 and being committed to building a roadmap for sustainable development in the new stage of development.

### Sustainability strategy

Based on an integrated assessment of its current internal and external environments, Sinochem International has analyzed the challenges and opportunities faced by the enterprise. The company continues to integrate sustainable development concepts with corporate strategic planning, promote the implementation of the "FINE 2030 Action" goal as scheduled, and work towards the joint and sustainable development of enterprises, the environment and society.

#### **Challenges and opportunities**

- The chemical industry faces challenges in terms of costs, technologies, processes, management, and competition in alternative energy. Premiumization and differentiation are now the new direction of the industry's development
- China has rolled out a top-level designed "1+N" policy system for carbon neutrality and carbon peak goals, which has placed the chemical industry in the limelight as a key area of energy conservation and carbon reduction
- The 14th Five-Year Plan entails adherence to new development concepts, establishment of new developmental roadmaps, practical transformation of development models, and the implementation of more sustainable and safer forms of development



- Clean energy transformation is a long-term and inevitable trend. Traditional production methods and outdated production capacities in the chemical industry will gradually be phased out. It is imperative to promote high-efficiency and energy-saving equipment, develop clean technologies and green processes, and develop an integrated circular industry chain
- The accelerated transformation of green and lowcarbon transformation in the chemical industry will give rise to a new cycle of breakthroughs in new technologies and applications in the industry
- ESG investment concepts have become a mainstream investment strategy, with the capital market boosting the development of the green

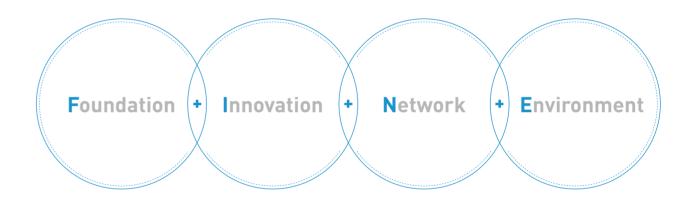


#### Sustainability objectives

To become a role model for sustainability as a world-class fine chemical enterprise.

#### Sustainability actions: "FINE 2030 Action"

Driven by the four action-based tracks, namely "foundation", "innovation", "network" and "environment", Sinochem International systematically promotes the establishment of a sustainability system. This involves planning a sustainable and integrated circular industrial chain, actively developing clean technologies and green products, promoting the formation of a green manufacturing system, and advocating for upstream and downstream enterprises in the industry to promote sustainable development together.



In 2021, Sinochem International published the "Fine 2030 Action Album" to share its progress and multi-dimensional performance in 2021.



#### "FINE 2030 Action" Objectives

- To increase the production quantity of sustainably
   Production quantity of sustainably developed

#### 2021 Progress

- related third-party certification

Note: "FINE 2030 Action" Objectives and 2021 Progress based on 2018

Sinochem International Corporation 2021 Sustainability Report

#### **Board statement**

#### Sustainability governance framework

Sustainability has been incorporated into the governance framework of Sinochem International. This includes appointing the board of directors as the highest decision-making and supervisory body for the company's sustainable development efforts. The board is responsible for formulating sustainability objectives and plans, leading the decision-making process for ESG initiatives, regularly monitoring and reviewing the completion of goals and providing recommendations for improvement. The board is also responsible for the management of employee misconduct and preventing the occurrence of controversial disciplinary incidents.

The Sustainability Committee established at the board level of the company is responsible for the management of sustainable development-related issues and the promotion of ESG-related tasks. Meanwhile, the Audit and Risk Committee is responsible for evaluating the potential risks that ESGrelated matters pose to the company's business model. The two committees are independent and have mutually complementary functions to ensure the orderly progress of sustainable development initiatives.



#### Sustainability goals over the 14th Five-Year Plan period

In 2021, the board of directors of the company identified the key areas most closely related to the development of the company based on the new development stage and latest sustainable development trends. These key areas were then used to formulate sustainable development strategy objectives during the period of the 14th Five-Year Plan (2021-2025). Under its sustainable development committee at the management level, the company has set up an executive committee and five professional sub-committees responsible for the implementation of key actions. These committees are required to report to the board of directors regularly. The board of directors regularly evaluates and reviews the implementation and progress of tasks while offering suggestions for improvement. The board is to ensure that goals are achieved according to schedule and the company continually improves its ability to create comprehensive economic, social and environmental value.

# Labor rights

Acceptance rate for employee complaints

Labor union coverage of employees with personnel contracts

#### Sustainable supply chain



Increase in cumulative coverage of Core Supplier sustainable procurement assessment



50 % 95 %

Increase in Supplier Code of Conduct signing rate



Increase in Core Supplier signing rate



Increase in cumulative coverage rate for supplier sustainable training



Increase in cumulative coverage rate for Core Supplier sustainable training



# Business secret leaks



# Decrease in comprehensive energy consumption per 10,000 yuan of output value compared to the end of the 13th Five-Year Plan

Carbon and emission

Decrease in carbon dioxide emissions per 10,000 yuan of output value compared to the end of the 13th Five-Year Plan

reduction

#### Health, safety, and environmental protection



13

Decrease in total amount of water pollutants (COD, ammoniacal nitrogen) compared to 2020

Decrease total amount of air pollutants (SO<sub>2</sub>/NOx/ VOCs) compared to 2020

- Fatal accidents []
- General and higher environmental emergencies []
- New occupational diseases []
- Major HSE issues causing negative public opinion []
- · Customer safety injury accidents for which the company is responsible []

Strategic Goals of Sustainable Development over the 14th Five-Year Plan Period

By the end of 2025, the EcoVadis rating will increase from top **32**% to top **20**%

### Sustainable governance

rate for all employees

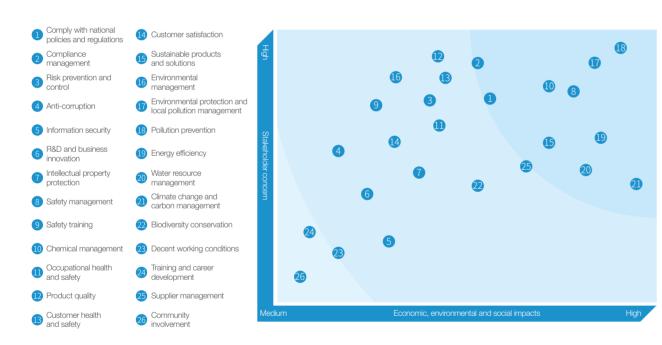
# Stakeholder engagement

Sinochem International regards their stakeholders highly and seriously takes into account their concerns over various issues concerning the company. By identifying major stakeholders and analyzing substantive issues, the company has derived comprehensive insights into the risks and opportunities of the enterprise while improving the management standards of sustainable development.

# Analysis of substantive issues

Following communication with our stakeholders and in-depth research and analysis of the development situation of the chemicals industry both domestically and globally as well as of broader state policies, the company has, based on the relevant domestic and international standard requirements, company strategy, and our core competitive strengths, etc., created the following update of 48 items to the issue pool.

Survey questionnaires were sent to internal and external stakeholders. We then identified 26 issues of substantive concern and ranked them by importance along the two dimensions of "economic, environmental, and social impacts" and "stakeholder concern" based on the survey results and expert input. The company's Board of Directors then compared these results to the latest development strategy of the company to form an issue analysis matrix in order to identify the report items for key disclosure.



# Stakeholder identification and communication

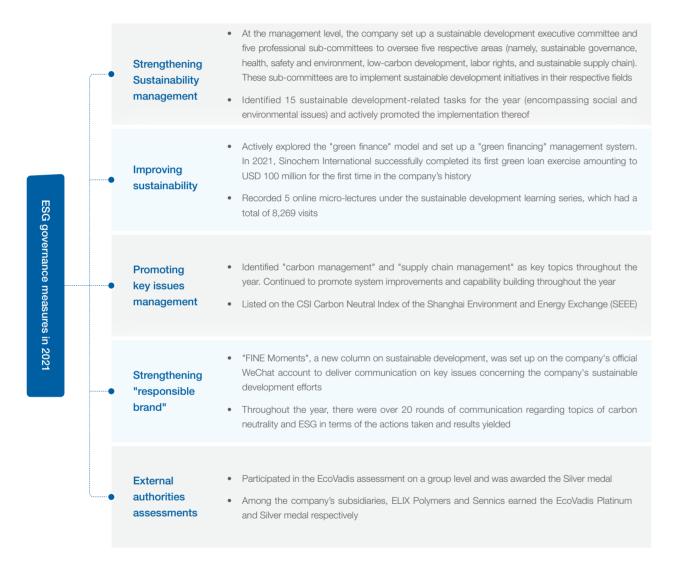
To identify main stakeholders, company executives and external experts were tasked to assign scores to stakeholders based two aspects, namely "the influence each stakeholder has on the company" and "the degree of influence the company has on stakeholders". In 2021, the company identified issues of concern to stakeholders through administering survey questionnaires, to which corresponding communication strategies were formulated based on the questionnaire findings.

#### Ways of Response to Stakeholders

Stakeholders	Issues of concern	How to respond	
Government/ Supervisory Bodies	<ul> <li>Compliance with national policies and regulations</li> <li>Anti-corruption</li> <li>Environmental management</li> <li>Environmental protection and local pollution</li> <li>Climate change and carbon management</li> <li>Water resource management</li> <li>Energy efficiency</li> </ul>	<ul> <li>Periodic work reports</li> <li>Project approval</li> <li>Annual sustainability reports</li> <li>Participating in policy research and planning</li> </ul>	
Shareholders/ Investors	Compliance management     Anti-corruption     Risk prevention and control	Shareholder meetings     Investor meetings     Online/tele-seminars     Investor Q&A     Periodic financial reports	
Clients	<ul> <li>Product quality</li> <li>Sustainable products and solutions</li> <li>Customer health and safety</li> <li>Customer satisfaction</li> <li>Information security</li> </ul>	Building a customer service platform     Customer satisfaction surveys     Client meetings and interviews     Collecting customer feedback     Handling customer complaints	
Suppliers	Supplier management	Supplier training     Supplier review	
Employees	<ul> <li>Occupational health and safety</li> <li>Safety management</li> <li>Safety training</li> <li>Decent working conditions</li> <li>Training and career development</li> </ul>	Workers' Congress     Employee training     Cultural and sports activities     Employee satisfaction surveys     Collecting and responding to employee comments and suggestions	
Community	<ul> <li>Community involvement</li> <li>Chemical management</li> <li>Pollution prevention</li> <li>Biodiversity conservation</li> </ul>	Public open house     Public service     Community communication activities	
Industry Associations/ Partners/ Research Institutions	<ul><li>R&amp;D and business innovation</li><li>Intellectual property protection</li></ul>	<ul> <li>Participating in industrial forums</li> <li>Participating in standard formulation</li> <li>Strategic cooperation</li> </ul>	

### Highlights of the year for ESG governance

Sinochem International has continuously improved its sustainability management system, strengthened the management of substantive issues, built employee awareness and capabilities in terms of sustainable development, and promoted the establishment of a responsible brand in a planned and deployed manner. These measures have created a responsible form of competitiveness that is compatible with the sustainable development concepts espoused by the enterprise.



#### CASE

#### Sinochem International completes its first green loan of USD 100 million

In November 2021, Sinochem International successfully signed a USD 100 million green loan agreement with Crédit Agricole (CIB) in Singapore through its wholly-owned overseas subsidiary, Sinochem International (Overseas) Pte. Ltd. The loan, which has been drawn, is the first green loan in Sinochem International's history. It will go into investing in initiatives such as energy efficiency improvement, pollution prevention, green transportation and creating a circular economy, which will help the company to further improve the standard of ESG governance and sustainable development.

#### Sinochem International listed on the CSI Carbon Neutral Index of SEEE

In October 2021, the CSI Carbon Neutral Index of the Shanghai Environment and Energy Exchange (abbreviation: SEEE Carbon Neutral Index, index code: 931755) officially announced that the securities of 100 Shanghai and Shenzhen listed companies were listed as index samples. Sinochem International was included in the list due to its outstanding performance in reducing carbon emissions. The SEEE Carbon Neutral Index, which is compiled by China Securities Index Co., Ltd. and the SEEE, aims to provide performance benchmarks and investment targets for carbon-neutral investments in the capital market.

Sinochem International actively participates in and responds to various sustainable development initiatives launched by the local government, industry, and domestic and international society, contributing to the sustainable development of mankind through the indepth implementation of corporate social responsibility.

#### Sustainability-related initiatives or goals that Sinochem International has participated in

- Responsible Care
- ICC Business Charter for Sustainable Development
- United Nations Global Compact
- Sustainable Development Goals

- Catalan Climate Change Office
- Operation Clean Sweep
- China Goldenbee CSR 2030

Note: Subsidiaries set their own respective commitment goals and action plans when participating in various initiatives

#### 2021 Sustainability honors



In September 2021, the case of Sinochem International's "Continuously promoting the establishment of five-star factories and building HSE core competitiveness" was included in the ESG Blue Book of Central Enterprise Listed Companies (2021) by the State-owned Assets Supervision and Administration Commission of the State Council, and was rated as an excellent ESG case

In September 2021, Sinochem International ranked 31st on the State-owned Assets Supervision and Administration Commission of the State Council's "Central Enterprise ESG Pioneer 50 Index," reaching the level of Outstanding, with four stars

In October 2021, Sinochem International was included in the Securities Times ESG Top 100 List of A-Share Companies In November 2021, the "Sinochem International Green Technology and Smart Factory Case" won the Golden Key Award issued by *China Sustainability Tribune* 

In December 2021, Sinochem International won the 2021 Best Corporate Governance (G) Responsibility Award issued by *Sina Finance* 

In December 2021, Sinochem International was included in the Sina Finance China ESG Excellent Enterprise List, and ranked first within the basic chemical industry

In December 2021, "Sinochem International 2020 Sustainability Report" won the 2021 Excellent Corporate Social Responsibility Report Award issued by *China Sustainability Tribune* 





# Low-carbon development to help achieve the 3060 goals

Coping with climate change and low-carbon transformation and development have become common challenges faced by all of humanity. Sinochem International implements the national "dual carbon" goal, carries out the requirements of the *Carbon Peak and Carbon Neutrality Declaration of China*'s *Petroleum and Chemical Industry* joined by Sinochem Holdings, promotes a clean and low-carbon energy structure, and vigorously promotes clean technologies and energy-saving equipment. The firm actively deploys new green industries, and continues to take responsibility for an active green and low-carbon transformation, and for promoting the building of a community with a shared future for mankind.

#### **Governance: Co-management and overall promotion**

Sinochem International attaches great importance to the management of climate change and carbon emissions reduction. It has established a sustainable development committee under the board of directors to incorporate low-carbon development into its sustainability strategy, and clarifies the strategic position of the "dual carbon" goal from the perspective of top-level design. The Sustainable Development Committee has a low-carbon development sub-committee under the company's management level, which is responsible for refining and consolidating the company's work in low-carbon development and other fields.

#### 2020 Established the Sustainable Development Committee

Regularly reviews or considers strategies, goals and key performance indicators related to sustainable development including addressing climate change; makes decisions and deploys work related to carbon emissions reduction; supervises the promotion and implementation of various tasks, and reports to the board of directors regularly

#### 2021 Set up the Low-carbon Development Sub-committee

Responsible for budget planning, comprehensive management, planning, project approval, inspection and supervision in carbon reduction and emissions reduction, energy efficiency, green technology, innovative research and development, etc.; formulates a special greenhouse gas management budget; incorporates energy saving and carbon reduction into the performance appraisal system; clearly relates responsibilities and plans in annual performance

#### Strategy: Far-sighted and scientific deployment

Sinochem International publicly released its "Energy Management and Climate Change Policy," which incorporates the improvement of energy management and response to climate change into the company's operation and management. The firm also compiled a list of greenhouse gases in accordance with relevant national laws and regulations, which is dynamically adjusted and updated according to the actual situation every year. The company is comprehensively sorting out energy-savings and emission reduction projects, carrying out a carbon inventory of production enterprises, engaging third-party agencies to carry out professional inspections and issuing inspection reports for key enterprises, establishing a carbon emission database, and monitoring the greenhouse gas emissions of all production and operation enterprises. Sinochem International is also establishing a regular communication and coordination mechanism for its "dual carbon" work, initiating research on peak carbon and carbon neutrality paths, formulating the "Peak Carbon and Carbon Neutrality Action Plan," and comprehensively deploying low-carbon development plans. Continuing to deepen carbon information disclosures, it accepts regulation by the government or other regulators, and will gradually explore climate change disclosure.

By hiring from outside and training internally, the company has rapidly carried out the construction and layout of a "dual carbon" professional talent team. On the one hand, key employees in the fields of operation, technology, and strategy are selected to learn low-carbon management, carbon asset management, carbon verification policy background, management standards and practices, timely update knowledge reserves, and obtain certification qualifications. On the other hand, the market-oriented introduction of new energy technologies and 76 R&D and technical marketing employees, promotes green power research, helping the development of green industries and green transformation and upgrading.

## Sinochem International's roadmap to achieve carbon peak and carbon neutrality goals

#### Two main stages

Enhance low-carbon: promote the transformation of energy structure, carry out research and development and promotion of low-carbon technologies, and tap the potential of carbon reduction

Work toward zero carbon: comprehensively realize energy transformation, comprehensively promote low-carbon technology, and make certain progress in carbon reduction technology

#### **Five main actions**

#### Action 1: Improve energy management

- Carry out carbon inventory work, clarify carbon emission structures, improve supply chain carbon account books, and compile greenhouse gas emission reports
- Build a carbon emission management system, and continuously improve carbon emission management performance through the implementation of control and monitoring.

#### Action 2: Promote energy substitution

- Deploy energy storage business and develop application scenarios such as photovoltaic, wind power, and nuclear energy according to local conditions
- mission

   Strategic cooperation

  with energy companies to

  obtain affordable and clean

  energy to meet the energy

  formance

  ementation

  opitoring

#### rgy Action 3: Strengthen production and emission reduction

- Optimize product structure and production process, optimize upstream and downstream configuration, and improve the layout of the circular economy industrial chain
- Strengthen resource recycling, realize synergy of pollution reduction and carbon reduction, promote energy cascade utilization, reduce carbon loss in production processes, and reduce process emissions.
- Eliminate outdated equipment and withdraw outdated production capacity

#### Action 4: Implement carbonnegative measures

- Strengthen cooperation with the government to carry out afforestation, carbon sink certification, etc.
- Promote the use of technology using carbon dioxide as a refrigerant

#### Action 5: Build a lo carbon brand

2021 Sustainability Report

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  - Publish a low-carbon transformation plan and formulate a low-carbon brand promotion plan
  - Participate in climate change related initiatives
  - Link low-carbon brands to form low-carbon brand competitiveness

#### Sennics launches "Towards the Blue" low-carbon business model transformation action plan

On November 22, 2021, Sennics, a member company of Sinochem International, released the "Towards the Blue" low-carbon business model transformation action plan. It announced that the plan will optimize the product mix, optimize the integration of energy-saving and emission-reduction technologies, strengthen energy management, and use clean energy. Four major actions to achieve the national goals of "peak carbon and carbon neutrality" and "energy consumption intensity and total amount control," and explore a green transformation path that integrates enterprise development and emissions reduction.



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2021 Sustainability Report Sinochem International Corporation

#### Risk management: Planning ahead

Based on its own business development, Sinochem International actively identifies and evaluates climate risks and opportunities, regularly reviewing, updating, and formulating forward-looking countermeasures to mitigate the impact of climate change on the company's business. It strives to strengthen the supervision of the implementation of "dual carbon" work, strengthen the main responsibilities at all levels, and do a good job in the supervision of new energy conservation and emission reduction projects and renovation projects at all bases, as well as in the construction of carbon emissions and carbon verification business capabilities.

	Potential impact	Responses
Physical risks	Extreme weather events such as storms, floods, and extreme cold may damage production facilities and disrupt value chains; temperature increases caused by long-term climate change will expose companies to risks such as increased power demand and changes in product quality	Strengthen HSE management, set user emergency teams, closely monitor weath changes, issue early warnings in a time manner, and initiate emergency response.
Transitory risks	China may implement stricter environmental protection and safety regulations. Failing to avoid or reduce the adverse impact on the climate will lead to higher and higher compliance costs and operational risks  The low-carbon transition will accelerate the development of clean technologies, and the cost of technological innovation will increase. Measures such as carbon capture and storage, and carbon allowance purchases will increase operating costs	Pay close attention to the construction of the legal system in the field of carbon emissions, strengthen the publicity and training regarding the latest policies and regulations, and ensure that the company operates in compliance with regulations     Increase investment in science and technology, and set up green processes and clean technology in a forward-looking fashion
Transitory opportunities	Green development will force adjustments in industrial structure, which will inevitably bring new technological innovations and investment opportunities. New materials and new energy have great potential for future development     As markets shift to lower-carbon products and services, creating a low-carbon and green image is crucial for the company     The rise of green investment will promote the development of low-carbon enterprises in the capital markets	Vigorously develop green industrisuch as new materials and new energand create an integrated upstream and downstream circular industrial chain Improve carbon emissions informatidisclosure, continue to sort out and promote the company's low-carbon measures and achievements, and build low-carbon brand image

#### Goal orientation: Performance targets at every level

Sinochem International has strategically put forward the development goal of reducing comprehensive energy consumption and carbon dioxide emissions during the 14th Five-Year Plan period, demonstrating its determination to achieve a low-carbon transformation. It is also formulating specific plans for diagnosis and benchmarking, conducting feasibility studies of clean energy alternatives, introducing energy-saving technologies, and referring to advanced experience. The company regularly reviews the implementation of emission reduction measures and the completion of carbon reduction targets, and promotes energy conservation and emission reduction through process upgrades, equipment upgrades, energy substitution, and recycling, to build green and sustainable competitive advantages.

	2025 Targets	Progress in 2021
Comprehensive energy consumption per 10,000 yuan of output value	15% decrease compared to 2020	21.36% decrease compared to 2020
Carbon dioxide emissions per 10,000 yuan of output value	18% decrease compared to 2020	20.75% decrease compared to 2020

**Mey performance indicators** 

Greenhouse gas emissions per ton of product

137 tons of carbon dioxide/ton of product

A year-on-year decrease of

8.05%

Note: This data does not include overseas subsidiaries

Key carbon reduction projects implemented

Greenhouse gas emissions reduced

71,500 tons

Direct (Scope 1) greenhouse gas emissions

1.5813 million tons

Indirect (Scope 2) greenhouse gas emissions

0.986 million tons



#### Sinochem International and Honeywell launch a low-carbon transformation demonstration project

On October 22, 2021, the low-carbon transformation demonstration project jointly built by Sinochem International and Honeywell was put into operation at Sennics Tongling Plant under Sinochem International. The project uses Honeywell UOP Kellert thermal oxidation furnace technology to achieve energy savings and carbon reduction. It reduces emissions of the "three wastes," creating a resource-saving and environmentally friendly green production model in the industry, and contributing to China's "double carbon" goal.



#### Sinochem International energy conservation and carbon reduction initiatives

#### Process upgrades

- Sennics Anhui applied high-voltage frequency conversion energysaving technology to reduce the unit consumption of coal-tohydrogen electricity, saving 173.29 tons of standard coal annually, reducing carbon emissions by approximately 991.94 tons, and saving 958,800 yuan
- Jiangsu Ruixiang of Yangnong Group ("Yangnong Ruixiang") carried out the technical transformation of its boiler exhaust steam recovery technology. By recovering waste heat, it conserved approximately 3,121 tons of standard coal annually, reducing carbon emissions by about 8,114 tons, and saving 3.45 million yuan
- The use of a high-performance waste heat boiler and steam condensate recycling has been adopted at the Yangnong Ruiheng Nitrochlorobenzene energy conservation project to reduce system steam consumption, with an estimated energy saving of around 194 tons of standard coal and a carbon emission reduction of around 630 tons for 520,000 yuan in savings each year
- Huai'an Junsheng New Energy added NMP online recycling and processing systems, and temperature and humidity control systems, to effectively reduce energy consumption and pollution

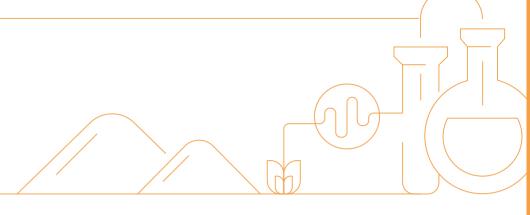
#### Equipment upgrades

- Yangnong Ruixiang invested 4.7 million yuan to upgrade and renovate its ammonia refrigeration evaporators, replacing spiral tube water tank evaporators and thermosiphon dry evaporators with small, highly energy-efficient thin film evaporators. This allows annual energy savings equivalent to 554 tons of standard coal, reducing carbon emissions by about 1,150 tons
- Yangnong Ruixiang's lithium bromide system energy-saving renovation project uses two electric-driven screw-type compression chillers instead of steam-type lithium bromide units. This allows annual energy savings equivalent to 5,000 tons of standard coal, reducing carbon emissions by about 13,000 tons, and saving 3.5
- Sinochem High Performance Fiber's Common Utilities Energy-Saving Project uses more effective water cooling units, which are safer and quieter than air cooling units, reducing energy consumption and maintenance costs for electricity and water. This permits an annual savings of about 4,919 tons of standard coal, reducing Carbon emission by approximately 2,325.3 tons, saving 2.925 million yuan
- Yangnong Kumho eliminated 6 sets of circulating water pump motors, saving approximately 184 tons of standard coal annually, and reducing carbon emissions by about 1,025 tons



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# Fulfilling commitments to help accomplish SDGs

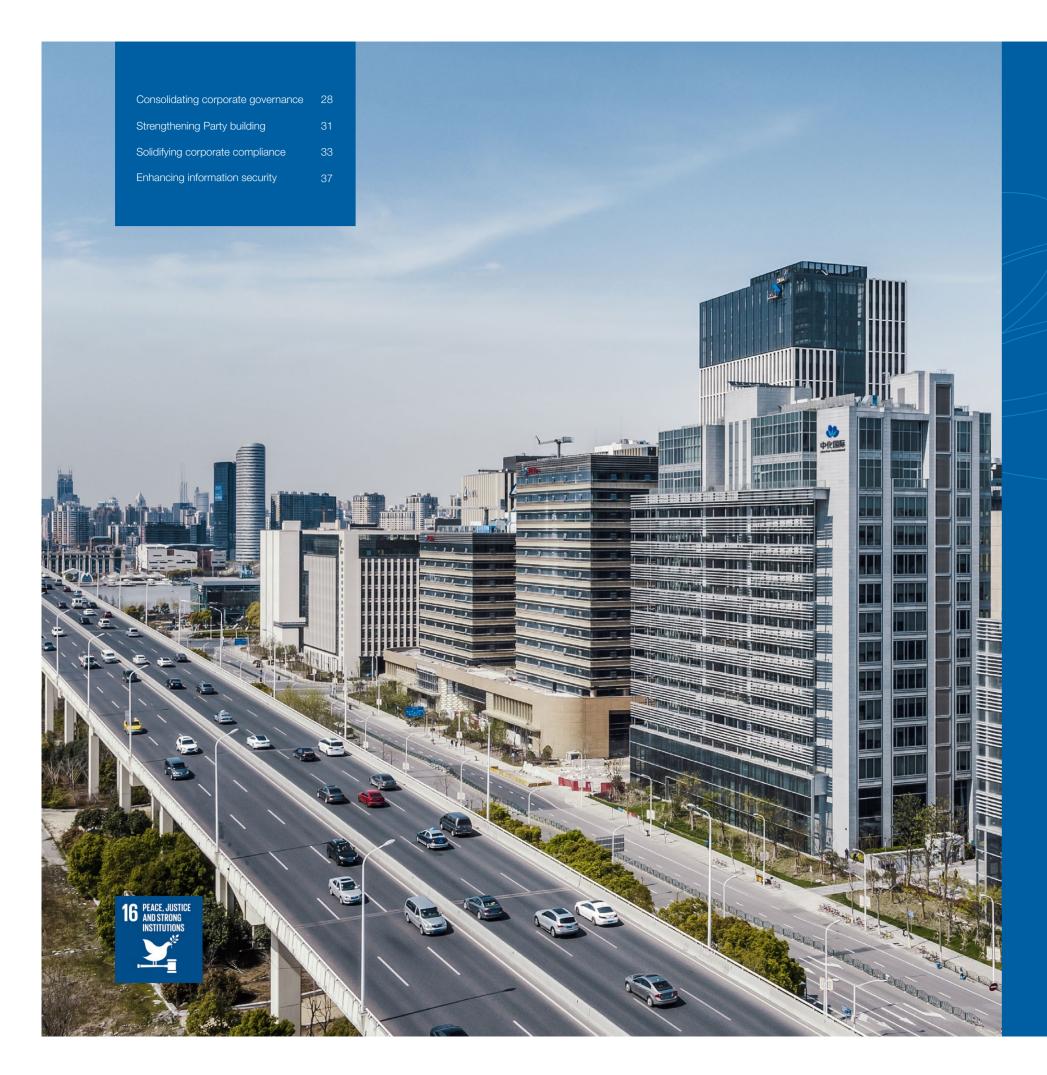


2021 Sustainability Report

Sustainable Development Goals	Our framework for action	Our operational performance
1 NO POVERTY	<ul> <li>Increase poverty alleviation assistance, make efforts in industrial assistance, consumption assistance, and education assistance, consolidate and expand the achievements of poverty alleviation, and effectively connect with rural revitalization</li> </ul>	<ul> <li>Helped to sell 24,000 kilograms of agricultural products in poverty-stricken areas, in the amount of 2.16 million yuan</li> </ul>
2 ZERO HUNGER	Carry out a series of assistance measures to help poor people obtain a satisfactory income and reliable social security	2.02 million yuan invested in helping employees in need
3 GOOD HEALTH AND WELL-BEING	<ul> <li>Improve the occupational health and safety management system, identify occupational health risk factors and actively improve them, and regularly organize physical examinations for employees</li> <li>Organize various cultural and sports activities, mental health training, etc. to help employees work happily and live a healthy life</li> </ul>	<ul> <li>Occupational disease incidence 0</li> <li>Occupational health examination rate 100%</li> <li>203 million yuan invested in safety and health</li> <li>Organized 907 cultural and sports activities throughout the year</li> </ul>
4 QUALITY EDUCATION	Make supporting education an important action in the field of social responsibility to help improve education quality and opportunities	<ul> <li>Participated in "Making Dreams         Come True" sponsorship campaign         and donated 236,200 yuan to         students in need</li> </ul>

· Provide employees with a diverse and fair • Female employees account for working environment, implement gender equality 24.6% of total employees and equal pay for equal work • **4%** executives are women · Regularly carry out training and health lectures for female employees to support the career development of female employees • Strictly implement the provisions on leave for female employees during pregnancy and breastfeeding, protect the rights and interests of female employees, and promote the construction of "mommy huts" and mother-baby rooms to provide convenience for female employees who are breastfeeding • Continuously improve the recycling rate of water Water reuse rate 92.01% resources and reduce the consumption of fresh water through measures such as equipment renewal and process optimization • The energy consumption per ton of • Actively develop new energy business, and deploy energy industry chains product is **0.38** tons of standard • Improve energy efficiency and reduce energy coal equivalent, a year-on-year consumption through R&D and technological decrease of 5% improvement · Provide employees with stable job opportunities, • 8.03 million yuan invested in employee a good working environment, competitive salary, and benefits • 28.35 training hours per employee • Build a broad career development platform, with smooth career development channels, and • Participating employees 25,171 provide targeted training programs • 100% employees took part in vocational • Establish a multi-incentive mechanism covering or skill-related training the short-, medium- and long-term to achieve simultaneous growth of employee income and enterprise development

Sustainable evelopment Goals	Our framework for action	Our operational performance	Sustainable Development Goals	Our framework for action	Our operational performance
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	<ul> <li>Adhere to the strategy of driving scientific and technological innovation, build an integrated scientific and technological innovation system, and focus on the construction of scientific and technological innovation capabilities and the construction of scientific and technological talent teams</li> <li>Continue to increase investment in scientific research, promote product innovation and structural adjustment, and provide innovative and sustainable solutions</li> <li>Participate in the formulation of national and industry</li> </ul>	<ul> <li>Total investment in research and development was 1.485 billion yuan, a year-on-year increase of 26.14%</li> </ul>	13 CLIMATE  ACTION	<ul> <li>Formulate peak carbon and carbon neutrality action plans, and comprehensively deploy low-carbon development plans to help achieve the "dual carbon" goal</li> <li>Promote a clean and low-carbon energy structure, vigorously promote clean technologies and energy-saving equipment, actively deploy new energy and new industries, reduce greenhouse gas emissions, and help mitigate global warming</li> </ul>	<ul> <li>Implemented 29 key carbon reduction projects, reducing greenhouse gas emissions by 71,500 tons</li> <li>Greenhouse gas emissions were 1.3 tons of carbon dioxide per ton of productions a year-on-year decrease of 8.05%</li> </ul>
O REDUCED INEQUALITIES	<ul> <li>Prohibit child labor and forced labor</li> <li>Prohibit any form of discrimination such as gender, region, religion, nationality, etc.</li> <li>Improve employee diversity in terms of gender, ethnicity and other attributes, and fully guarantee</li> </ul>	incidents of child labor, forced labor, discrimination, etc.	14 LIFE BELOW WATER	<ul> <li>Protect the marine ecological environment and biodiversity, and take action to reduce plastic waste</li> <li>Increase the recycling of wastewater, upgrade and renovate the sewage field, and strive to ensure that the discharged sewage meets the discharge standards</li> <li>Develop bio-based degradable material PHA to reduce white pollution</li> </ul>	100% compliance rate for wastewn discharge
1 SUSTAINABLE CITIES AND COMMUNITIES	<ul> <li>Carry out in-depth investigation and management of hazardous chemicals and related factories and parks for potential safety hazards, with strict accident investigations and accountability</li> <li>Fight the "Battle of Pollution Prevention and Control,"</li> </ul>	100% compliance rate for exhaust emission and industrial enterprise noise	15 LIFE ON LAND	All projects must carry out environmental impact assessments as required, and take targeted ecological protection and restoration measures to protect biodiversity	<ul> <li>100% of the projects carry out environmental impact assessment</li> <li>No significant impact on the ecolog environment</li> </ul>
	actively promote "Retreating from the City to the Park", and improve the level of urban environmental protection and safety  Have employees share information about ecological protection with the community		16 PEACE. JUSTICE AND STRONG INSTITUTIONS	<ul> <li>Abide by business ethics, strengthen supervision, and prevent corruption</li> <li>Adhere to the rule of law and compliant operation, and build an authoritative and efficient audit and supervision system</li> </ul>	<ul> <li>0 corruption and bribery-related laws</li> <li>100% coverage of anti-corruption training for key positions</li> </ul>
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	<ul> <li>Enhance chemical and waste management and the environmentally sound management of chemicals and waste throughout their life cycle to reduce adverse impacts on human health and the environment</li> <li>Implement a sustainable production model, strictly enforce national and local pollutant discharge standards, and continuously strengthen the HSE management system to ensure safe production, occupational health and environmental protection standards</li> </ul>	<ul> <li>765 million yuan invested in environmental protection</li> <li>3 newly established "green factories"</li> <li>0 major environmental pollution incidents</li> </ul>	17 PARTINERSHIPS FOR THE GOALS	<ul> <li>Strictly abide by relevant laws and regulations, and participate fairly in market competition</li> <li>Establish innovative partnerships, jointly build a sustainable supply chain, and help suppliers improve their sustainable development capabilities</li> <li>Support international initiatives such as the United Nations Global Compact, actively participate in international organizations and industry associations, and promote cooperation</li> </ul>	<ul> <li>1,532 suppliers have signed the Code of Conduct</li> <li>92 companies have completed supplier social responsibility management training</li> </ul>



# Integrity and compliance for steady operations

#### Management philosophy

Practice "focusing on the center, serving the overall situation, keeping the bottom line, and creating value," and strive to carry out more responsible business behavior

#### Management objectives

Zero occurrences of trade secret leaks, 100% coverage of anti-corruption education and training in key positions, 100% coverage of information security personnel training

#### Management strategy

Adhere to the rule of law, improve the governance structure and compliance decision-making mechanisms, and treat every business partner with integrity, respect and fairness

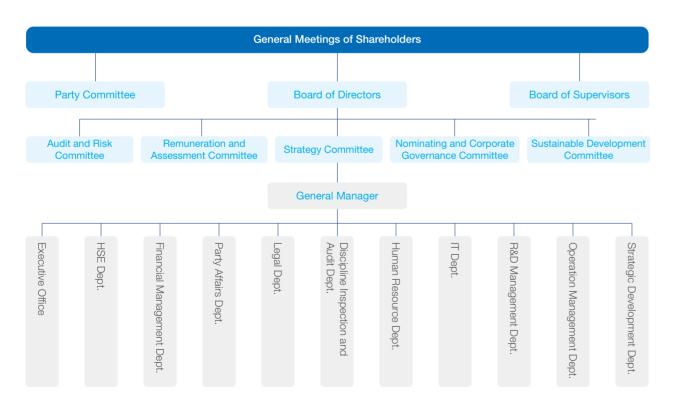
# Consolidating corporate governance

# Governance structure

Sinochem International abides by the *Company Law, Securities Law, Governance Guidelines for Listed Companies*, and relevant laws and regulations of the China Securities Regulatory Commission. It strengthens the normative construction and operation of the board of directors, strengthens the core role of decision-making, and steadily improves the level of scientific and accurate decision-making and governance.

The company has established a governance structure consisting of the general meeting of shareholders, the board of directors, the board of supervisors and professional committees, etc. It authorizes the management of the company to be responsible for operations, with clear rights and responsibilities, close cooperation, and standardized operations. The board of directors consists of seven directors and has five professional committees. The board of directors provides support and advice for efficient, standardized, and scientific decision-making. As independent directors, three industry experts with professional backgrounds in finance, law, accounting and mergers and acquisitions, serve as the chairpersons of the Nomination and Corporate Governance Committee, the Remuneration and Evaluation Committee, and the Audit and Risk Committee, respectively. Independent directors account for more than half of the professional committees, helping to ensure independent and prudent decisionmaking. Employee representative supervisors are elected by the company's employee representative meeting, in line with the Company Law and the company's articles of association and other relevant regulations to protect the legitimate rights of employees in corporate governance.

The company provides training to newly appointed directors. It covers the company's business and operation overview, organizational structure, statutory and supervisory obligations of directors and supervisors, and the scope of responsibility of each committee. This helps to ensure that directors have the necessary understanding of the company's operations and business development, so that they can perform their duties properly under regulations and company rules.





### Key measures to improve corporate governance in 2021

Formulated the "Implementation Plan for Strengthening the Construction of the Board of Directors." This includes the six major functions and powers including decision-making power of the board of directors for medium and long-term development, the right to select and appoint managers, the right to evaluate the performance of managers, the right to manage the salary of managers, the right to manage employee salary distribution, and the right to manage significant financial matters.

# 2021 meeting of the Board of Directors and Supervisors

Shareholder meetings

Board meetings

10

Meetings of the Board of Supervisors

7

Audit Committee meetings Salary and
Assessment
Committee meetings

4

Meeting of the Sustainable Development Committee

1

#### 2021 Corporate governance honors



Sina Finance's

2021 Best Corporate Governance (G) Responsibility Award

The board of directors of Sinochem International won the Golden Round Table Award and the Special Contribution Award for Board Governance of Chinese listed companies

#### **Further reading**

For corporate governance-related policies, responsibilities, and member information, please refer to the "Sinochem International 2021 Annual Report" or the company's official website

http://www.sinochemintl.com

# Information disclosure and investor relations management

#### Information disclosure in 2021

Periodic reports

Company announcements

4

79

Market value management reports

4

Sinochem International strictly abides by regulatory and compliance requirements to disclose information that investors are concerned about, and continuously improves the quality of disclosure to ensure the authenticity, accuracy, completeness, timeliness and fairness of information disclosure. In August 2021, Sinochem International received an A-level evaluation in the Shanghai Stock Exchange's 2020-2021 information disclosure work evaluation for listed companies.

Based on the *Investor Relations Workbook*, Sinochem International has established a robust two-way communication mechanism and platform for investors. It periodically responds to investors' questions via its official WeChat, investor hotline, SSE e-interactions, and other platforms. Performance briefings, resolution announcements, news information, shareholders' meetings, etc., ensure that investors have prompt and accurate important information about factors such as company strategy, major events, corporate operations and financial performance, and continue to improve information transparency and credibility in the capital market.

The company attaches great importance to protecting the rights and interests of shareholders, especially small and medium investors. It strengthens two-way communication with small and medium investors through visits, special internet phone exchanges, one-to-one (or one-to-many) roadshows, and small-scale strategy meetings to enhance investor confidence.



Sinochem International held a performance briefing



Sinochem International Official Wechat launched the "Board Secretary e-Interaction" platform

#### 2021 Investor communication meetings

Performance briefings

Investor communication meetings

4

Strategic meetings, institutional roadshows, and telecom surveys

20

Investor questions answered on the SSE e-interaction platform

27

Published pieces of important company information via the official WeChat

52

Telecom seminars

# Strengthening Party building

Sinochem International adheres to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, resolutely implements the spirit of General Secretary Xi Jinping's important instructions and the major decisions and arrangements of the Central Committee of the Communist Party of China (CPC) and the important arrangements of the Sinochem Party Group, and solidly promotes the "Year of Party Building, Innovation and Expansion of Central Enterprises." It carries out high-quality history learning and education about the CPC as well as "I do practical things for the masses" practice activities. It always adheres to and strengthens the Party's leadership throughout the company's reform, innovation and development process, providing a strong guarantee for the smooth realization of business goals. In 2021, the company had 13 Party committees, 99 Party branches, and 1,692 active Party members.

#### Sinochem International Party Committee High Performance Sinochem Health Subordinate Party Yangnong Group Sennics Sinochem Plastics Fibers Party Committe Party Committee Party Committee Party Committee Branch Party Comm 4 Party Committees 2 Party Committees 2 Party Committees 2 Party Committees 2 Party Committees 22 Party Branches 33 Party Branches 10 Party Branches 12 Party Branches 13 Party Branches 9 Party Branches

#### Key measures for Party-building work in 2021

#### Theoretical training

- Strictly implemented the "Party priority issue" system, i.e. to convey and implement the spirit of General Secretary Xi Jinping's series of important speeches, and the spirit of major meetings as well as documents of the Central Committee of the CPC
- Carried out in-depth study of the spirit of the 6th Plenary Session of the 19th Central
  Committee of the Communist Party of China, relying on the theoretical study center group
  of the Party committee, "three meetings and one lesson," themed Party days, and other
  means to carry out special study and seminars
- Strengthened the study of political theory at the grassroots level, compiled and distributed the Red Engine learning materials, and organized more than 920 assorted learning activities

#### Grassroots party building

- Compiled the "Work Manual for Standardized and Regularized Construction of Grassroots Party Branches" to deepen standardization and regularized management
- Established the "Five-star Party Branch" of Sinochem International, and strengthened demonstration and leadership
- Adopted the carrier and project system of "Party construction and joint construction" and "No violations and no accidents involving Party members," to give full play to the role of the Party organization as a fighting fortress and the vanguard and exemplary role of Party members

#### Inspection and rectification

- Standardized the rectification of the inspection and feedback of the superior Party organization
- Paid close attention to "three new" (new technologies, new projects, new teams) enterprises, and strictly carried out political inspections

#### Party history study

- Established a leading group for the study and teaching of Party history, carried out more than 250 special studies in the form of centralized study, special training, expert lectures, exchanges, and seminars, etc., and organized 211 regular activity meetings on Party history study and education
- Promoted the study and education of Party history with the practice activity of "I do practical things for the masses." A total of 371 practical things have been done for the masses, and 37 coronavirus pandemic prevention and control projects have been assisted
- Adhered to history and practice, focused on the company's business management practices, key core technology research, project construction, low-carbon green development, etc., and carried out thematic activities
- On the theme of "One Hundred Years of Inheritance of the Red Spirit, Hundreds of Warriors Strive for the Best," carried out a series of activities to celebrate the 100th anniversary of the founding of the Party, and organized a series of celebration activities such as mini-Party lectures and exhibitions, theme choruses, recitations, exhibitions, and painting activities

2021

Key performance indicators

Sinochem International Model Party Branches

2

Party-building accomplishment reports

9

Party-building activities

1,656

Participants

21,736





The commendation conference for outstanding Party members,
Party workers and organizations



The Sinochem International Party Committee went to Jinggangshan to hold a special training course on Party history learning and education



## Celebration of the 100th anniversary of the founding of the Communist Party of China and the third mini-lecture of the CPC

2021 was the 100th anniversary of the founding of the Communist Party of China. To thoroughly study and implement the spirit of General Secretary Xi Jinping's important "July 1st" speech and better inherit the red genes, Sinochem International held a celebration of the 100th anniversary of the founding of the Communist Party of China and the third minilecture of the CPC. This helped to focus on improvements in Party-building quality and efficiency in the year of consolidating and deepening the group's inspection and rectification of Party-building culture, bringing together the enthusiasm of the majority of cadres and workers to love the Party, the country and the company, as well as a passion for innovation and entrepreneurship, to present for the centennial of the Party's founding.



# Solidifying corporate compliance

#### Risk management

In accordance with social ethics, business ethics and market regulations, Sinochem International has strengthened internal control, risk prevention and compliance promotion measures. These steps are set to facilitate the transformation and improvement of risk management and compliance management in terms of value protection and value creation.

In terms of the "Risk Management Regulations" and "Internal Control Management Regulations" formulated by Sinochem International, the company revised the "Risk Event Reporting Management Work Measures" in 2021. This involved improving comprehensive risk management and internal control management measures, establishing a digital risk control system, and ensuring full coverage of risk control management. On a regular basis, reports on risk response, internal control and internal audit were presented to the Audit and Risk Committee of the Board of Directors. In 2021, the company had no major business risk events.

As an A-share listed company, Sinochem International discloses the "Internal Controls Evaluation Report" signed by the board on a yearly basis and performs both internal and external control audits. In recent years, there have been no major weaknesses in the company's internal controls and the company's overall operations are effective.











Sinochem International's key risks identified in 2021

#### Key measures for risk prevention and control in 2021

Updating internal control guidelines

- Revised the "Internal Control Guidelines"; introduced new components such as "Basic Norms for Corporate Internal Controls",
   "Guidelines for the Application of Corporate Internal Controls", and "Explanation of Corporate Internal Control Norms"
- Completed the revision of major risk points, overall control, incompatible job responsibilities and key control points related to 25 important business management areas

Digital risk control management system

- Crystallized the strategic goals of "digital risk control and management" and established six online "risk review boards" to
  enable the monitoring of current business risk indicators and establish early risk warning mechanisms
- Established an inter-departmental project team to formulate a work plan and build a business information system for financial derivatives

Credit risk big data platform  Continued to implement the establishment of a credit risk big data platform, comprehensively assessed the credit risk of trading partners, and created an end-to-end digital management process involving pre-event prevention, during-event dynamic monitoring and early warning mechanisms, and post-event analysis and summary

Internal control management for "three new element-based enterprises"

- Established a pilot program for improving internal control management, explored the integration of risk, internal controls and compliance systems, streamlined and refined a set of rule templates for cross-departmental processes while continuing to promote the implementation thereof
- Organized an enhanced training seminar on internal control management for "three new element-based" subsidiaries (new technologies, new projects, new teams) to support the enterprise in terms of preliminary risk management and improving operational efficiency under the premise of compliance

Management and control of the "two funds"

 Achieved the yearly objective for the management and control of the "two funds" (accounts receivable and inventory), and improved working capital management

Sinochem International Corporation 2021 Sustainability Report

#### **Operational** compliance

Sinochem International attaches great importance to compliance management, strengthens the compliance management system, strictly implements the "Export Control Compliance Management Measures" and "Export Control Compliance Management Manual," improves the level of legal operation and management, promotes the construction of a rule of law culture, to lay a long-term foundation for the company's compliance with corporate regulations.

The company has formulated various tax management methods and procedures, and integrated the tax work mechanism into its operations business-wide, thus establishing whole-of-process tax management for projects and contracts. The use of a tax information management system has helped realize the automatic collection of tax data for tax declarations, risk management, and other processes; automatic rule verification for declaration data; ands statistics for various indicators, effectively reducing tax-related risks as a result. We have also worked to increase tax compliance awareness among all employees through the enhancement of our efforts to share changes in the tax laws and experience-sharing, etc.

#### Compliance management initiatives in 2021

Launching contract management system

 Formally launched the contract management system. connecting multiple business systems, optimizing the closedloop management of contracts, and improving the efficiency of contract generation and approval

#### Daily compliance supervision

- Issued a number of notification requirements such as the "Trade Compliance Manual", "Trade Compliance Guidelines", and "Compliance Risk Alert on Economic Sanctions". and did a good job in various compliance risk investigations
- Internally reviewed antiunfair competition, and strictly reviewed ordinary contracts and followup of major strategic projects to ensure compliance with relevant legal provisions

Continued to do a good job in the followup management of major and larger legal disputes, triple control before, during, and after the event, and in the prevention, control and early warning of legal

#### Raising employee compliance awareness

- Organized a series of legal popularization and compliance publicity activities during the Constitution Publicity Week; organized a series of legal popularization activities such as legal knowledge contests, special legal training, and open legal courses
- Strengthened awareness of anti-unfair competition, anti-monopoly, antimoney laundering, and other compliance, and carried out relevant legal training

#### Key performance indicators

Comprehensive review of important rules and regulations, important decisions, and major contracts

Lawsuits against corruption and bribery, unfair competition, antitrust or anti-monopolistic practices

Compliance trainings

Employee compliance training coverage

Major lawsuits or arbitration cases identified by the Rules Governing the Listing of Stocks on the Shanghai Stock Exchange

#### **Anti-corruption** and anti-bribery

Sinochem International abides by business ethics and market rules, formulates the "Sinochem International Anti-Corruption Policy" and "Anti-Corruption System Management Measures", adheres to integrity, compliance, and clean operation, establishes and improves clean business management measures and restraint mechanisms, and does not seek illegal gains. It opposes any form of commercial bribery, corruption, smuggling, extortion, fraud, or unfair competition

The company signs the "Supplier Integrity and Integrity Commitment" with all suppliers, which clearly eliminates any form of corruption or dishonesty, including bribery, conflict of interest, fraud, and money laundering related to public officials or business partners to influence decision-making, misappropriation, concealment, and influence peddling.

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#### Anti-corruption and anti-bribery initiatives in 2021

Improving corporate codes

- Formulated and released 5 inspection-related systems, compiled and released the "Inspection Work Manual" to further standardize and regularize the construction of Party conduct and clean government and anti-corruption work
- · Upgraded and optimized five types of special audit SOPs, and continuously verified and optimized them in audit projects

Empowering digital management

- Launched the "Integrity Risk Blacklist System", and included companies that may have integrity risks during routine supervision and inspections into the monitoring list, realizing early detection, early warning, and early intervention of "blacklisted" companies
- Continued to develop audit big data models, and use digital audit methods for promotions

Improving supervision efficiency

- Continued to deepen the implementation of the large-scale supervision system, formulated and coordinated the implementation of supervision plans, and formed an overall coordination and organic closed loop of supervision work
- · Carried out a supervision and inspection "look back" on the problems raised in the previous supervision and inspection, and no rectification delays or omissions were found
- Sorted out and analyzed the integrity risk points according to the three levels of high, middle and low, deploying and controlling high-risk links such as project construction and procurement bidding, and effectively avoiding integrity risks
- · Comprehensively used various audit forms such as accountability audits, project audits, special audits, etc., to achieve audit coverage of key units, important processes, and major risks of the company

#### Business ethics training

- · Continued to strengthen anti-corruption and anti-bribery training for directors, company executives, key positions, and all employees, and comprehensively enhanced integrity awareness through annual integrity education conferences, integrity education campaigns, grassroots research and publicity, and experiences sharing sessions
- Strengthened integrity education and built a "integrity education case library" of 90 cases

Sinochem International announces the reporting channels through company websites at all levels, sets up and publishes six reporting hotlines and six reporting e-mails, and places reporting mailboxes in offices and factory workshops for open access. The company has established a reasonable whistleblower mechanism and whistleblower protection system, and announced whistleblower protection policies on the company's official website.



Reporting hotline: 021-31768859



Reporting email: antifraud@sinochem.com



Sinochem International Corporation 2021 Sustainability Report

#### Key performance indicators

Lawsuits related to corruption and bribery

Anti-corruption training for key

4.193 participants

Integrity training for key Talks on integrity

100 %

Anti-corruption training for directors

Totalina

Anti-corruption training for emplovees

849

 $12,857 \hspace{0.1cm} \mathsf{participants} \hspace{0.1cm} 20,925 \hspace{0.1cm} \mathsf{hours}$ 

Business sites conducting internal audits or risk assessments on

100%



#### Intellectual property protection

Sinochem International has established a scientific and technological innovation management committee, continuously implemented the "Intellectual Property Management Regulations," "Patent Risk Management Measures," and other systems, incorporated intellectual property protection into R&D projects, technical cooperation and daily operation and management processes, improved the intellectual property management system, and strengthened intellectual property protection awareness. This enhances the company's ability to protect its own intellectual property rights, as well as the rights of partners, from infringement.

#### Measures to strengthen intellectual property protection in 2021



#### System implementation

- Fully implemented the intellectual property management of the whole life cycle of scientific and technological innovation projects, carried out intellectual property layout around five key projects, and cooperated with fifteen projects to carry out intellectual property risk management to prevent infringement risks
- Carried out intellectual property management risk self-examination and self-correction and intellectual property assessment, investigated and understood the implementation of the system, formulated improvement measures, and formed closed-loop management

#### Capacity upgrades

- · Carried out a series of activities for IP (intellectual property) Confidentiality Month, as well as 18 IP training and publicity activities throughout the year to create a legal culture that respects IP
- Held legal training on "Intellectual Property Risk Management and Control," hired external professional lawyers to explain and analyze intellectual property risks involved in daily operations and how to deal with disputes, to enhance employees' awareness of rights protection

#### **೨**⋒**୬1** Key performance indicators

Trade names registered (including wholly-owned and holding companies)

136

Trade names registered overseas (including wholly-owned and holding companies)

Trademarks registered

Pendina applications

167 20

Patent layout for strategic projects

FTOs patent analysis for R&D and investment projects

Patent applications

243

Invention patents included

165

Year-on-year increase in patent licensing

23.7%

#### Key honors in 2021



Sennics was recognized as a "Shanghai Patent Work Pilot Enterprise'

Two processes of Yangnong Group won the 2021 China Petroleum and Chemical Industry **Federation Patent Excellence Award** 

One process of Yangnong Group won the 22nd China Patent **Excellence Award** 

### **Enhancing** information security

Sinochem International has formulated the "Administrative Measures for Confidentiality" and "Administrative Measures for Information Security." The company has also established and improved the organizational structure and assessment system for confidentiality work, implemented the responsibility system for confidentiality work, clarified the scope of confidential information, formed a work flow for classification, and gradually built scientific and standardized information security systems to rigorously prevent information leakage accidents.

The company strictly protects customer data and sensitive information, and it is strictly prohibited to share, transfer, or disclose users' personal information to any other company, organization or individual without permission. The company signs confidentiality agreements with all suppliers, partners, and information technology personnel to protect the business secrets of partners and comprehensively ensure the security and stability of enterprise and customer information.

#### Information security priorities in 2021

#### System improvements

- Revised the "Administrative Measures for Confidentiality" to refine some regulations on commercial secrets; newly drafted "Administrative Measures for State Secret Carriers" and "Administrative Measures for Confidential Software" to improve relevant authority and process management
- Revised the "Regulations on Cyber Security Management," formulated the "Network Security Standards" and "Cyber Security Notification Management Rules," and strengthened the company's network security systemization, standardization, and process construction

#### Organizational security

- Set up a full-time information security manager to be responsible for the company's information system security work, and hired external security engineers to provide on-site services to strengthen information security assurance
- Introduced a confidentiality assessment system to promote full coverage of all employees' confidential software
- Carried out information security risk assessments, drafted the "Information Security Risk Assessment Report," formulated solutions and emergency measures, and promptly checked the implementation of rectification

#### Capacity upgrades

- Prepared and released information security knowledge training courseware, conducted training for new employees, and improved the information security awareness of all employees
- Comprehensively enhanced employees' awareness of confidentiality by carrying out multi-form and multi-channel confidentiality publicity and education, such as training on confidentiality training platforms and special training on National Security Day
- Published the standards and requirements for the information infrastructure construction of subsidiaries, strengthened information security management and deployment during the infrastructure construction period of the enterprise; conducted network security assessments on subsidiaries' production systems
- Promoted subsidiaries to complete the network convergence work, greatly improved network security, and successfully
  passed the Blue Action-Network Attack and Defense Exercise

#### Accreditation

- Completed the ISO 27000 management system review, and completed the ISO 27001 three-year review, and obtained the certificate
- Continued to promote the comprehensive network security protection platform project for industrial enterprises, and completed the mid-term inspection of the Shanghai Municipal Commission of Economy and Information Technology
- Started the network security level protection evaluation, invited a third party to test and analyze the overall security of the information system, and put forward rectification suggestions
- Passed six items of information security Grade 2 and one item of Grade 3

#### Setting standards

Undertook the industrial Internet innovation and development project of the Ministry of Industry and Information
Technology - the construction of the industrial enterprise network security comprehensive protection platform project,
formulated a three-year network security plan, standardized construction in keeping with the current national laws,
regulations, and standards, and formed industry solutions



The Confidentiality and Intellectual Property Forum

#### 2021 Key performance indicators

Complaints due to invasion of customer privacy

0

Information leaks

0

ISO 27001 information security management system certification

100%

Note: The network data center is operated and maintained by the Sinochem International Headquarters, and the subordinate enterprises do not independently carry out information security management system certification



More than 6,000 people participated in the confidentiality guiz



# Innovation empowerment to drive growth

#### Management philosophy

Adhering to Sinochem's "In Science We Trust" philosophy, the company implements an innovation-driven strategy, undertaking the development mission of new chemical materials during the 14th Five-Year Plan period, and promoting the transformation and upgrading of China's chemical industry with its core competitiveness in science and technology

#### Management objectives

Continue to maintain double-digit growth in scientific and technological research and development investments, continuously improve the quantity and quality of scientific research transformation, and achieve 100% coverage of scientific and technological personnel training

#### Management strategy

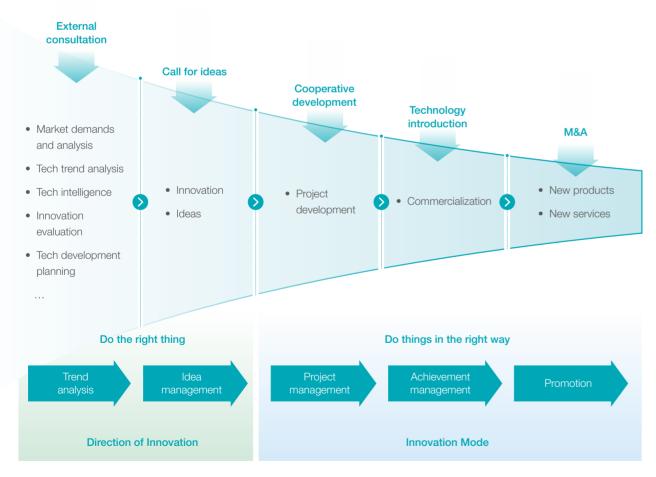
Continue to increase investments in science and technology, optimize the technological innovation system, focus on the introduction of leading talent, stimulate the vitality of technological innovation, improve the transformative ability of innovation achievements, and vigorously promote digital and smart transformation

# Improving the innovation system

The concept of "In Science We Trust," driven by innovation, is rooted in the soil of Sinochem International's strategic transformation. In 2021, the company formed the 14th Five-Year special plan for science and technology, relying on an innovation platform with new chemical materials and engineering technology as the core, continuing to promote the IPD innovation management system, building a secondary research and development structure and an integrated technology innovation system, and comprehensively improving scientific research strength and core competitiveness. It actively promotes the transformation of scientific research achievements, and creates an innovation engine in the field of new chemical materials.

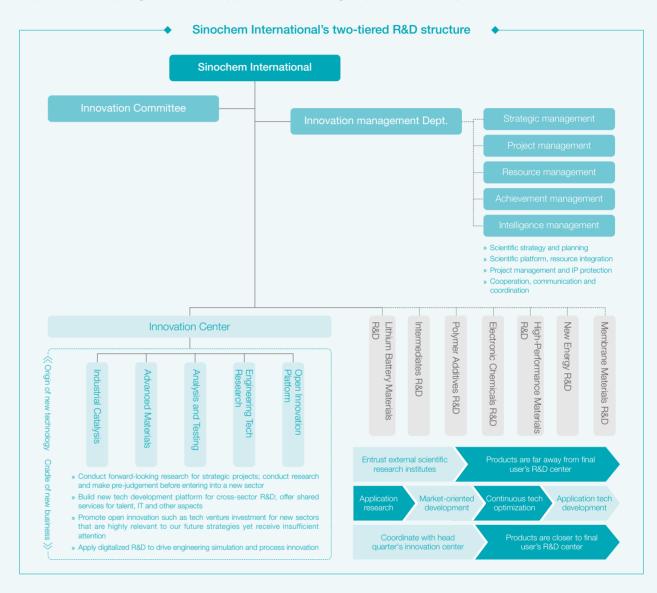
#### **Integrated R&D**

Based on the innovative management concept of I2P (Idea to Profit) and the innovative IDP (Integrated Product Development) management system, the company revised and released the "R&D Project Management Measures," strengthened project management, improved the whole life cycle management system of R&D projects, and created a "R&D Project Management Method." It has the core capabilities of a technological innovation system that integrates basic research, process development, engineering research, and product application research and development.



Sinochem International's R&D process system based on I2P (Idea to Profit)

The company built a two-tiered R&D structure with clear responsibilities and internal and external coordination, constructed a collaborative R&D platform, and comprehensively promoted scientific and technological R&D in the three dimensions of "joint internal cooperative R&D, exploring external market opportunities, and creating independent innovative products."



#### Sinochem International's core R&D platforms



2021 Sustainability Report Sinochem International Corporation

#### Key platforms built in 2021

#### Sinochem International Science and Technology Innovation Center

• As part of the overall strategic layout of HQ's "think tank" service company, it formed six technology platforms for industrial catalysis, advanced materials, special nylon, high-end composite materials, engineering centers and analysis and testing centers. It also carries out shared technology research, business incubation and forward-looking exploration



#### High-Performance Fiber Material Application Research and Development Center

- · Built platforms for technology research and development, application technology, analysis, and testing, and focuses on the research and development of parallel industry chain products and upstream and downstream products
- Established an inspection and analysis platform that conforms to CNAS standards, and leads the formulation of industry product standards
- Completed the listing of the Yangzhou Enterprise Technology Center and the Jiangsu High-Performance Fiber Application Engineering Research Center



#### Lithium Battery Material Research and Development Platform

• Built the Ningxia R&D platform, planned the Yangzhou Research Institute, and focused on nextgeneration product development while taking into account basic research and engineering application research and development



#### Lithium Battery Resource Cycle R&D Laboratory

• Relying on the green recycling project for waste ternary lithium EV batteries, it established a joint laboratory with the Chinese Academy of Sciences, carrying out long-term comprehensive cooperation, and implementing research on efficient and environmentally friendly recycling of valuable metals



#### New Functional Materials Technology Center

• Executed the strategic research and development of Sinochem's new materials, undertook external cooperation and technical verification of new product projects of external commissions, and verified proprietary technology industrialization



#### Key performance indicators

Investment in scientific and technological research and development Year-on-year

Research projects

Researchers

1.485 billion yuan 26.14%

#### **Transformation** of scientific and technological achievements

The company has established a project transformation planning solution, issued the "Engineering Research Management Measures," accelerated the transformation of mature key technologies and existing basic research projects, realized the coordinated development of an "innovation chain-industrial chain," and created a hotbed for chemical technology innovation.

#### Key scientific and technological achievements transformation projects in 2021



#### Key technological innovation honors in 2021

Yangnong Group was recognized as a National Technology Innovation Demonstration Enterprise by the Ministry of Industry and Information Technology

Sinochem Hebei Lithium Technology was rated as a national technology-based small and medium-sized enterprise

Sennics was recognized as a China Petroleum and Chemical Innovation Model Enterprise over the 13th Five-Year Plan Period

Jiangsu Ruisheng was rated as a high-tech enterprise in Jiangsu Province



Ningxia Ruitai was awarded as a technological innovation demonstration enterprise in the Ningxia Autonomous Region

Two advanced processes were selected Technology's Technology and Product Catalogues Encouraged for Promotion and Application in the Petrochemical and Chemical Industry

Two green processes were selected into the Petrochemical Green Process Directory (2020 Edition) by the China Petrochemical Federation

Yangnong Group won first prize in the 2021 China **Innovation Methods Competition** 

# "Zhuan Jing Te Xin" enterprises



In 2021, the Politburo meeting of the CPC Central Committee raised the development of "Zhuan Jing Te Xin" (specialized, streamlined, differentiated, and innovative) small and medium enterprises (SMEs) to the national level for the first time. It pointed out that "It is necessary to strengthen technological innovation and the resilience of the industrial chain and supply chain, strengthen basic research, promote applied research, and carry out special projects to supplement and strengthen the chain. Take action to speed up solutions to the 'bottleneck' problem, and develop 'Zhuan Jing Te Xin' SMEs."

"Zhuan Jing Te Xin" literally refers to specialization, streamline, differentiation, and innovation, a roadmap to guide SMEs towards cutting-edge industries. Sinochem International is committed to cultivating a group of "Zhuan Jing Te Xin" enterprises that focus on niche markets, have strong innovation capabilities and high market share, master key core technologies, and have excellent quality and efficiency, to help improve the overall level of technological innovation of the company.

#### Sinochem International's "Zhuan Jing Te Xin" Subsidiaries

#### National Level

#### Sennics Anhu

Listed in the Ministry of Industry and Information Technology's first batch of "Zhuan Jing Te Xin" Little Giant enterprises, and recommended for governmental support as a national-level "Zhuan Jing Te Xin" Little Giant enterprise (the second batch of the first year)

#### Sinochem Hebei Fuheng

Listed in the Ministry of Industry and Information Technology's second batch of "Zhuan Jing Te Xin" Little Giant enterprises, and recommended for governmental support as a national-level "Zhuan Jing Te Xin" Little Giant (the first batch of the first year)

#### Yangnong Kumh

Listed in the Ministry of Industry and Information Technology's third batch of "Zhuan Jing Te Xin" Little Giant enterprises

#### Municipal Level

Yangnon Group Labeled as a "Zhuan Jing Te Xin" Little Giant enterprise (manufacturing) by Industry and Information Technology Department of Jiangsu Province

Sinochem Hebei Fuheng Listed in the second batch of "Zhuan Jing Te Xin" demonstration enterprises of Hebei Province

Sinochem Hebei Xinbao Listed in the second batch of "Zhuan Jing Te Xin" demonstration enterprises of Hebei Province

Sennics

Labeled as a "Zhuan Jing Te Xin" SME (2021-2022) of Shanghai

# Inspiring innovative talents

Sinochem International focuses on cultivating innovative talents, creating an innovation environment and cultural atmosphere that encourages innovation and tolerates failure. It builds an incentive system for scientific and technological innovation covering the whole life cycle, fully enhances the subjective initiative of R&D personnel, attracts more outstanding talents to join scientific research teams, and improves scientific and technological innovation.

#### Initiatives to incentivize innovative talents in 2021

### System improvement

- Revised the "Technology Incentive Plan," clarified the project establishment and assessment requirements, built a project team based on the IPD concept, allocated bonuses, sorted out incentive policies, and refined incentive standards
- Formulated and published the "Administrative Measures for Professional and Technical Titles", set up an evaluation
  expert database, and organized the evaluation of intermediate professional titles in the engineering series

### Strengthened

- Identified leading and pilot talents, and gained a firm understanding of high-level talent allocation, the talent gap, and demand in the field of science and technology
- Clarified the classification standards, carried out a complete sequence of scientific and technological personnel inventory, and completed the talent inventory report



Full Lifecycle Technology Incentive System of Sinochem International



#### Sinochem International implements risk deposits for three types of innovative projects

For projects with large investments, big challenges, and a certain degree of risks, Sinochem International encourages employees to pay risk deposits through bonus deferrals or cash contributions. When the project fails, the risk is limited to the risk deposit; when the project is successful, employees can receive a reward up to 3 times the risk deposit.

By implementing the risk deposit mechanism, the Sinochem International Aramid project team overcame difficulties and successfully achieved the industrialization goal. PA 66, hydrogen peroxide method epichlorohydrin, C3 and other major strategic projects all promote the realization of industrialization goals through the implementation of risk deposits.



#### Yangnong Group sets up "In Science We Trust" Innovation Award to boost innovation vitality

In 2021, Yangnong Group set up the "In Science We Trust" Innovation Award, and distributed 4.07 million yuan of scientific and technological awards throughout the year to stimulate the vitality of scientific and technological innovation. At the same time, for major R&D and industrialization projects such as hydrogen peroxide method epichlorohydrin, PA 66 and its key intermediates, a 1:3 risk fund incentive plan was established to connect benefits to the core members of the project to stimulate the development of innovative businesses.



203

#### Key performance indicators

R&D personnel recruited

Core talents recruited in the field of new energy and new materials

84

Training sessions for scientific Coverage of technical and technological personnel personnel training

100

# Boosting industrial upgrade

 While increasing independent innovation, Sinochem International has joined hands with the Chinese Academy of Sciences, Tsinghua University, Fudan University and other colleges and universities and other partners in the field of new materials and new energy to integrate the advantages of multiple parties to promote the construction of research platforms, the development of innovative projects, and the development of key technological research. This helps to accelerate the transformation of scientific and technological achievements, and promotes the shared progress of the industry with open innovation.

#### Sinochem International

- Established a joint laboratory with the Chinese Academy of Sciences to carry out research and development of green recycling processes for waste ternary lithium EV batteries
- Signed a strategic cooperation agreement with Wells Advanced Materials and Zhejiang Jingyuan to carry out strategic cooperation on the UD cloth adhesive project and composite aramid PTFE hollow fiber membrane

#### Sennic



 Cooperated with East China University of Science and Technology on the stability of plastic additives

- Built an industry-university-research cooperation base with Qingdao University of Science and Technology
- Cooperated with Shenyang Chemical Research Institute to carry out reaction risk research and other cooperation
- Cooperative research on organic wastewater treatment with the Dalian Institute of Chemical Physics, Chinese Academy of Sciences

#### Yangnong Group



- Cooperated with the Dalian Institute of Chemical Physics, Chinese Academy of Sciences for CHB catalyst development
- Co-established a high-efficiency catalytic technology joint R&D center with the School of Chemistry and Chemical Engineering, Xiamen University
- Continued to promote in-depth cooperation with Tsinghua University, Zhengzhou University, Donghua University and the Institute of Organic Chemistry, Chinese Academy of Sciences

# Open innovation platform



Collaborative research projects

Joint innovation platforms

# Driving the digital transformation

Focusing on the digital transformation strategy of "Sinochem Online," with intelligent manufacturing at its core, Sinochem International has formulated the planning guidelines of "one horizontal and one vertical, first vertical and then horizontal" based on vertical insight and horizontal collaboration, with the principle of "fully online, full chain." Guided by the "Platform + Scenario" planning blueprint, it employs the forward-looking deployment of the "digital and intelligent chemical industry" layout, continuous breakthroughs in transformation and upgrading, and promotion of digital innovation and empowerment.

#### Digitalized operation

#### Driven by value

Being business-oriented, put operation at the core of our work under the guidance of value chain

Support expansion of business, especially innovative business, through product value chain covering R&D, engineering, production, supply chain and marketing

#### Focus on scenario

Focus on 2 digitalized application scenarios: plant and chemical industry park

Based on their application needs, operation units will focus on plant digitalization and chemical industry park integration

#### Digitalized coordination

#### Empower platform

Develop reusable platform to support rapid growth of business

V

Develop platforms for core application, data integration, shared services to enhance cross-BU coordination and promotion

#### Data fusion

Set up unified data lake and consistent data criteria to improve the quality of data property

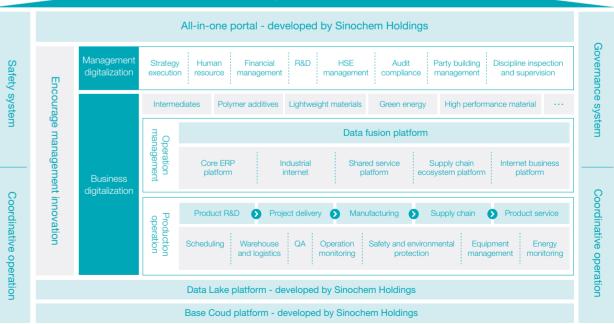


Establish data criteria control system by building Digital Cloud and Data Lake, to elevate data concentration and analysis ability

Digitalized governance: reshape headquarters, digitalized BU control process, shared services and so on, to develop a corporate operation mode powered by platform development and scenario application

Sinochem International's Digital Governance Model

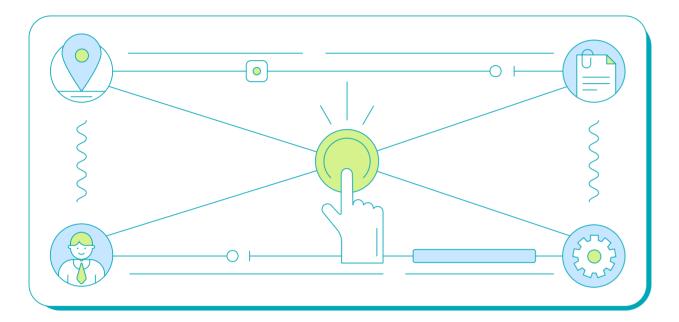
#### An innovative and digitalized fine chemical enterprise



Sinochem International's "Digital Intelligence Chemical" layout

#### **Smart factory**

The company implements the requirements for the integration of industrialization and the construction of smart factories, and runs through all links such as design, production, management, and service. With the intelligence of key manufacturing links as the core, the end-to-end data flow as the foundation, and network interconnection as the support, the company is becoming more efficient, green, and safe, with optimal production control. The company participated in the preparation of the national standard GB/T 40647-2021 (English standard name: Intelligent Manufacturing-System Architecture), and the relevant standards has been officially released on May 1st, 2022.



#### Yangnong Group

- Engineering project management digital platform: Achieving standardization and regularization of project management links, as well as cross-regional sharing of information, experience and resources
- Safety production management and control platform: Establishing a basic database covering hazardous chemical production, use, operation, transportation, and hazardous waste utilization and disposal enterprises to achieve closed-loop management of major safety risks

#### Lianyungang Park

New industrial Internet technology platform:
 Accomplishing digital functions and support including tanker production, tanker truck inplant logistics management, HSE five-inone (major hazards, safety risk management, hazard management, operation permit management, personnel positioning management) and emergency rescue

 Digital management platform of the Thailand factory: The first attempt to accomplish business functions such as production planning, production scheduling, materials handling, energy balance, and quality control processes based on the IATF 16949 quality management system

Sennics

#### Sinochem High Performance Fiber

Digital platform for safe production:
 Providing digital visualization tools for the whole production process, using data collection and big data model analysis to form the digital management of the whole process, from incoming raw materials to the delivery of finished products

Key

digitalization

projects in

2021

#### Yangzhou Lithium Battery

 MES system: Tracking raw materials, semi-finished products, finished products, process data, inspection reports and other information to achieve a fully traceable quality management system; achieves digital equipment management through the interconnection of equipment processing data and parameter data

# Digitalization of industrial parks

Focusing on its digitalization strategy, the company has formulated a development path of "standardization, integration, visualization and intelligence" for industrial parks. It focuses on global perception, optimization and integration, collaborative sharing, and independent prediction to vigorously promote the integration and efficiency of industrial parks through digitalization, so as to build world-class chemical industrial parks.



#### Sinochem Lianyungang Industrial Park launches information integrations system

The information integration system of Sinochem Lianyungang Industrial Park Management Co., Ltd. was successfully launched. The project sorts out the whole process of the company's warehousing and wharf business in the park, ranging from demand, procurement, and storage to financial payment, etc. Additionally, it establishes a system covering business modules such as production management, in-plant logistics management, safety, health and environmental protection, emergency command, and equipment management. This provides the ability to achieve full-process coverage, full-process supervision and integrated management and control in business areas such as safety, environmental protection, emergency response, and production.

The launch of the information integration system has realized multiple application achievements such as the whole-process management of production operations, the improvement of logistics and transportation efficiency, equipment, and safety supervision, and coordinated emergency rescue. This has greatly improved the accuracy and transmission of information under the integrated operation mode of the industrial park. Efficiency drives the development of Lianyungang Circular Economy Industrial Park towards standardization, integration, and intelligence.

#### Key honors in 2021



The Smart Management Information System of Sinochem Lianyungang Circular Economy Industrial Park won the

2021 Energy Enterprise Informatization Innovation Achievement and Practice Case Award issued by the

China Information Association



Sinochem Lianyungang Circular Economy Industrial Park



# Diverse solutions for better lives

#### Management philosophy

A focus on the new materials and new energy industries, with high-quality, green, and sustainable chemical products and comprehensive solutions that would serve the national economy and the people's livelihoods as well as create a better life for the general public

#### Management objectives

To deepen our business focus, build a world-class material scientific platform, extend the application of new materials and new energy on a continued basis, and promote the green development of the high-end manufacturing industry.

#### Management strategy

Adherence to scientific and technological innovation, further development in green industries, the building of a green brand, and the development of more sustainable, greener, and better-quality product solutions

# Cultivating new materials

The new chemical materials industry is a high-tech, high-value-added industry focused on basic materials related to the development of various major fields of the national economy including the energy, industry, communications, transportation, construction, and more. Sinochem International seeks to step up the pace of the development of its new materials business, and continues to work to amplify its strengths in the area of epoxy resin and polymer additives, etc., as well as cultivate its presence in high-potential industries such as the ABS and aramid industries as part of its efforts to promote the green development of high-end manufacturing.

#### **Epoxy resin**

Against of the backdrop of the national goals of peak carbon dioxide emissions by the year 2030 and carbon neutrality by 2060, the transformation of the energy structure has been accelerated and the domestic wind power industry has developed rapidly. Sinochem International's epoxy resin product, which is a high-performance material, has high environmental tolerance, low shrinkage, and good mechanical properties. It is the preferred base material for the preparation of large wind turbine blades as its use can help ensure the operating efficiency and service life of said blades in harsh environments.

In addition, epoxy resin can also be used in for insulation and packaging purposes in the case of electronic and electrical products such as smartphones, tablet computers, copper-clad laminates, and PCB printed circuit boards, as well as in the industrial coatings used in automobiles, ships, containers, etc., and the floorings in factory workshops, schools, and underground garages, etc. It is an important basic material for the development of new energy, new infrastructure, and other fields.

Sinochem International has directed its efforts towards the epoxy resin industry for nearly 15 years, and its production facilities in Yangzhou and Lianyungang bases have a production capacity of up to 350,000 tons per year, placing the company at the top in the country.

# Lightweight materials

ELIX Polymers, a professional supplier of high-quality ABS (acrylonitrile-butadiene-styrene) and a member company of Sinochem International, develops and produces eco-friendly ABS products for the automobile manufacturing, medical, electrical equipment, electronic equipment, and other industries. With the ECO ABS-NF thermoplastic, new generation ABS/PC, bio-based ABS (ABS/PLA), low-density electroplating ABS/PC, and other materials it has developed, the company has turned in an outstanding performance in terms of reducing energy consumption and carbon emissions.

#### CASE

#### **ELIX** launches green brand **E-LOOP**

In February 2021, ELIX officially launched "E-LOOP," a green brand that represents its circular economy initiatives in the areas of products, designs, and services and its long-term goal of helping ELIX, its customers, and partners to achieve sustainable development together.





Then, in July, ELIX launched its first E-LOOP products, the E-LOOP H801 MR and the E-LOOP M220 CR25, which are manufactured using mechanically recycled materials and ISCC Plus-certified chemically recycled materials. The E-LOOP product line minimizes the use of fossil resources based on the principle of recycling and regeneration, thus promoting the development of a circular economy for thermoplastics and product recycling, reducing our carbon footprint, and aiding in climate protection.



# High-performance membranes

Mankind faces enormous challenges in the area of water resource management due to climate change, resource constraints, and other factors. The development of innovative technologies and solutions has become the best approach to promote the green transformation of the water treatment industry. With its cutting-edge innovations in separation membrane technology, Sinochem International has helped to promote the development of the circular economy and sustainable development with its provision of membrane materials and products such as reverse osmosis membranes, nanofiltration membranes, degassing membranes, electrically driven ionic membranes and water purification equipment that are widely used in zero-discharge, ultrapure water, sewage reuse, seawater desalination, brackish water desalination, special separation, and water purification setups, etc.

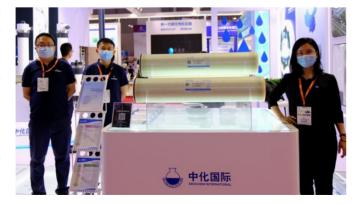


Automatic membrane rolling machine

#### CASE

#### Sinochem International launches SINAENRO® reverse osmosis membranes

In June 2021, Sinochem International unveiled its SINAENRO® reverse osmosis membrane product line at the 14th Shanghai International Water Treatment Exhibition. The product line employs a unique formula as well as innovative base film preparation technology and interfacial polymerization technology to improve product permeability and cleaning resistance, and at the same time, the smart operations and maintenance system is used to improve the operational efficiency of the reverse osmosis membrane system.



#### Polymer additives

Additives are indispensable in the preparation of polymer materials such as plastics, rubber and fibers. As the market trends towards low-carbon and high-efficiency materials, the development production of new, green and high-performance additives is now needed more than ever.

Sinochem International's rubber additive products can improve the quality and service life of rubber products such as motor tires, and at the same time, green formulas are used to aid the development of an environmentally friendly motor tire industry. In 2021, Sinochem entered the international plastic additives business, further growing its portfolio of products with items such as photostabilizers and flame retardants. Photostabilizers are used to shield from, or absorb, ultraviolet light, slow down photochemical reactions, delay or prevent photoaging, and extend the life of plastics, while flame retardants are used to effectively ensure the safety of plastics and greatly reduce the flammability of plastics.



#### Sinochem International acquires FOPIA Chemicals in its foray into the field of plastic additives

In August 2021, Sinochem International completed its acquisition of Jiangsu FOPIA Chemicals Co., Ltd., in what was its official foray into the plastic additive business. Through this acquisition, Sinochem International was able to round out and strengthen its existing rubber additive business, and create a level of synergy with the company's existing engineering plastics, epoxy resin, and other businesses.

FOPIA is capable of producing 5,000 tons of benzophenone UV absorbers, 5,000 tons of hindered amine light stabilizers, 5,000 tons of pelleterine intermediates, 2,000 tons of photoinitiators, and 10,000 tons of phosphorus flame retardants each year. Its CEPPA flame retardant production capacity is the largest in the world.



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#### **Aramid fiber**

High-performance fibers are an important part of China's emerging industries strategy. With their high strength and modulus, etc., Sinochem International's para-aramid products have broad applications in the fields of electronic communication, lightweight materials, environmental protection, protective equipment, and marine development, etc., providing customers with complete technical solutions.









#### Electronic communications

· Ideal for the non-metallic reinforcement of optic fiber cables, widely used in outdoor and indoor optic fiber cables, FTTH cables, and ADSS cables

#### Lightweight materials

- Broadband wavetransmitting material that can be used to manufacture aircraft and spacecraft fuselages, wings, tails, and other parts, as well as structural components that can withstand impact
- For tire cords, brake pads, high-pressure

cylinders, and others

Reinforced pipelines used for oil and gas extraction and transportation

Marine

development

 Various cables used in deep-sea exploration and the fisheries and fishing industries

#### Protective equipment

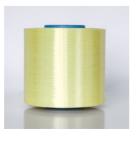
For the production of protective clothing (flameresistant suits, flame- and heatresistant work clothing), protective gloves, etc.

#### Composite

Composites made with para-aramid can be used in wind power systems, aviation containers, building reinforcement, sports equipment, etc.

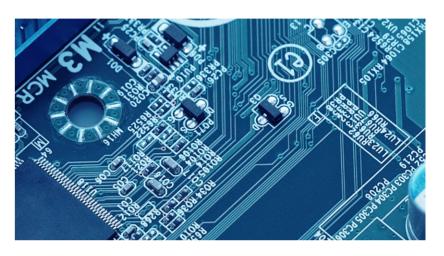
#### Sinochem International completes production of para-amid facility with an annual production capacity of 5,000 tons

In 2021, Sinochem International completed the construction of a facility capable of producing 5,000 tons of para-aramid each year. The facility's "high-strength, high-tenacity aramid fiber and downstream product preparation technology" has been evaluated and determined by the China National Textile and Apparel Council to be of international leading level. At present, Sinochem International offers 200D, 400D, 800D, 1,000D, 1,500D and other aramid products in the following categories: general, high-modulus, and high-strength aramids. At the same time, it also offers a diverse variety of high value-added products such as staple fibers, yarns, twisted yarns, woven fabrics, and pulp.



#### Hydrocarbon resin

The rapid development of the communications industry has led to new requirements needs in terms of the dielectric properties of traditional resins, and the applications of higher-performance hydrocarbon resins for communication base station PCBs have become more salient. Sinochem International has, on the basis of its high-performance polyolefin resin project, further developed hydrocarbon resin that offer the advantages of low dielectric loss and slow dielectric constant. These resins can meet the current industry demands for high frequencies and high speeds, and have broad market application prospects.



At present, the Sinochem International Science and Technology Innovation Center is in a partnership with Kumho Yangnong, which has yielded several formula samples that are currently being tested.

## Committed to clean energy

Against the backdrop of the state's goal and vision of peak carbon emissions by 2030 and carbon neutrality by 2060, the new energy industry (with the most representative being the lithium electronic battery arena) has ushered in a historic opportunity for development. In recent years, Sinochem International, with its vision of "Cleaner Energy," has created an entire industry chain from lithium resources to battery recycling and thus facilitated sustainable transportation by relying on the use of lithium battery materials, lithium battery manufacturing and battery recycling and other fields as well as its strengths in lithium ore resources.



#### Our progress in new energy in 2021



 Ningxia Zhongwei 10,000 tons/year Construction of NCM cathode material project has been completed and now production is online, supplying key domestic EVs, "small EVs (i.e., electric-powered two-wheelers and the like)," and customers in the digital appliances spaces

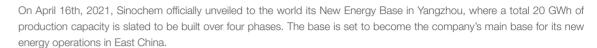


- Trial production has commenced at Phase I of the Huai'an EV battery project, with production capacity growing smoothly and key indicators such as material utilization rate and assembly FPY reaching mainstream industry levels
- Sinochem International has unveiled its New Energy Base at Yangzhou that is slated to become Sinochem's main base for its new energy operations in East China. The base is where the important Sinochem-BMW Group mission of the research and development of advanced battery technology and the production of high-efficiency EV batteries will take place



 Hebei Sinochem Lithium Battery Technology has been named in the Ministry of Industry and Information Technology's list of Industry-Standard Conditions for the Comprehensive Utilization of Waste Power Batteries for New Energy Vehicles (Batch III), meaning that the company has put in place a complete system and the requisite operational management capabilities in terms of qualifications, channels, technologies, scale, etc., when it comes to the echelon utilization of decommissioned EV batteries

#### The unveiling of Sinochem International's New Energy Base in Yangzhou



The Yangzhou base has already achieved breakthroughs in core technologies such as battery cell and module technologies and pack R&D and manufacturing. It has mastered the entire process of R&D and manufacturing for lithium battery materials and core components, and the base's lithium battery products will be used in scenarios that include electric vehicles, large tools, industrial and commercial energy storage, etc. The base is also set to provide battery module products for BMW's i3 model.



#### R&D advancements in the area of new energy in 2021

Continued efforts to build a new energy research and platform and to successfully build the first highenergy-density ternary pouch cell battery

foray into high-energy prismatic cells for commercial vehicles, and energy storage cells and systems

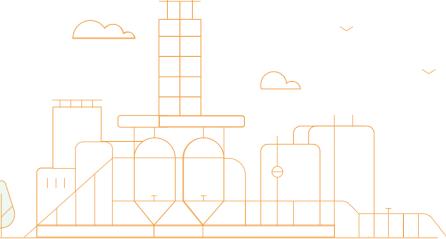
Signed strategic partnership agreements with Zhejiang Hozon New Energy Automobile Co., Ltd., Sichuan Camy New Energy Co., Ltd., Wuxi Lead Intelligent Equipment Co., Ltd. and other partners, market development, channels, and branding and to work together with these partners to lead and promote the future of the lithium battery industry

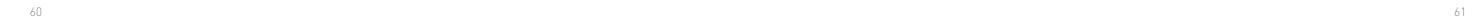
















# Our commitment to safety and environmental protection

#### Management philosophy

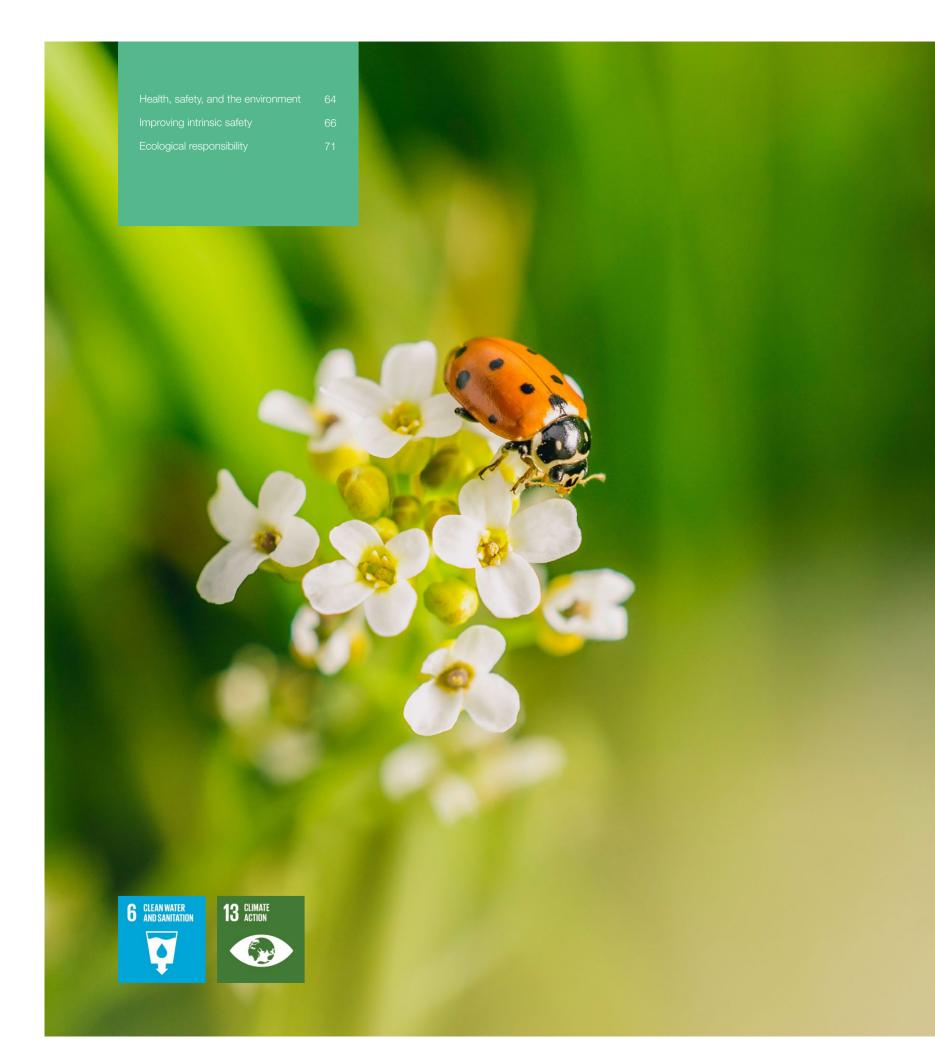
Staying aware of "red lines" at all times so that we may fulfill our social responsibility in terms of safety, environmental protection, and health, and through systematic management, to establish an all-staff, whole-of-processet of mechanisms for HSE risk identification, control, and management to build our HSE core competitiveness, thus ensuring safe operation at the enterprise and realizing value protection and value creation.

#### Management objectives

Zero accidents resulting in serious injury or worse, zero general environmental incidents, zero new occupational disease cases, and zero major negative public-opinion incident

#### Management strategy

Sustained efforts to improve the HSE management system, the improvement of the management and control of the whole process of safe production, ensuring the safety and health of our employees, fighting the tough battle of pollution prevention and control, and promoting energy savings, carbon emissions reduction, and efficiency enhancements to realize green and sustainable development



# Health, safety, and the environment

Sinochem International has implemented safe production standards and ISO 45001/ ISO 14001 system requirements and integrated these with the company's actual needs to form a world-class, distinctively Sinochem 24-factor HSE management system as well as summed up 546 items of good practice. The company has created a HSE Committee which is responsible for coordinating HSE management as well as a Health, Safety and Environment Sub-Committee under the Sustainable Development Executive Committee which is responsible for promoting work safety, occupational health, and environmental protection.

The company holds HSE Committee meetings on a quarterly basis to review and make decisions relating to its HSE strategy and performance, and also follows up on the implementation of key HSE work and performance indicators of subsidiary enterprises through HSE monthly reports each month. In day-to-day work, the HSE information platform is used to dynamically monitor the operational situation and for early risk warnings to ensure the safety and control of various operations.

In 2021, the company successfully passed the "three-in-one" QMS-EMS-OHSAS review and achieved the "Four Zeroes" goal for five years in a row.



#### **HSE** objectives

Zero accidents resulting in serious injury or worse, zero general environmental incidents, zero new occupational disease cases, and zero major negative public-opinion incident



#### Our HSE management program

Health and safety, with prevention at the fore; environmental protection and green action to fulfill our responsibilities; people-centered with full participation; and shared growth for sustainable development



#### Our safety vision

To become a fine chemicals enterprise trusted by society, customers and employees by eliminating all safety accidents, creating great chemical products, and contributing to a green living environment



#### Our safety mission

To build our HSE core competitiveness and thus fulfil our social responsibility in terms of safety, environmental protection, and health and become a model for innovative and targeted safety management in the chemicals industry

Our HSE management system "Management Regulations on Health, Safety, and Environmental Protection", "Administrative Measures for Health, Safety, and Environmental Protection System Construction and Document Control", "Management Measures for the Prevention and Control of Health, Safety, and Environmental Protection Risks", "Measures for the Management of Health, Safety, and Environmental Accidents", "Measures for the Management of Hidden Hazards Relating to Health, Safety, and Environmental Protection Accidents", "Working Rules of the Health, Safety, and Environmental Protection Committee", "HSE Risk Control Standard for Contractors"

#### Measures for better HSE management in 2021



### Revision of system procedures

- At headquarters, the optimization of 83 HSE system items according to industry standards, and at our subsidiaries, the optimization of 285 HSE system items according to professional standards and operating procedures
- Organized the participation of frontline employees in the revision of the Standard Operation Sheet (SOS) and the careful examination and organizing of our HSE system through the JCC (Job Cycle Check), as well as completed the sorting and revision of 462 SOPs for 440 positions



### Building a professional workforce

- 360-degree preappointment HSE assessment and safety disclosure for general manager candidates were carried out at subsidiaries, with unqualified candidates based on HSE assessment disqualified
- Appointed 126 DuPont
   Safety Managers covering
   the 24-factor HSE system
   at various levels, including
   52 Senior Safety Managers
   who are responsible for
   putting advanced safety
   management concepts into
   practice
- Awareness-raising and training program on the new Work Safety Law at HQ and various units



### Building up the "5-Star" program

- "Five-star Factory/PLUS" program work has been carried out in combination with the introduction of HSE best practices, organized cross checks and led DuPont Safety Managers to conduct on-site "pulse-taking" consultations at various enterprises on 62 occasions
- Established 7 audit groups to conduct Five-Star/PLUS audits/acceptance
- Subsidiary enterprises have continued to carry out the "Two Elements a Month" campaign, thus deepening the implementation of the 24-factor HSE program and management tools



### Enhanced operational discipline

- Established and improved various mechanisms designed to prevent violations as well as compiled the Operational Discipline guidelines, carried out hidden-hazard management on multiple occasions, organized a total of 136 typical violations
- Subsidiaries carried out 58 special inspection and implemented the dynamic monitoring of high-risk operations and processes, thus identifying new environmental risks and violations in a timely manner
- Efforts also made to strengthen the enforcement of life-critical clauses, with a total of 63 persons dismissed or expelled from subsidiaries breaching said clauses, including 42 contractors and 1 blacklisted
- "OD partner" activities were carried out to strengthen OD implementation, and through OD pairing and mutual assistance unsafe behaviors could be effectively reduced, with the unsafe behavior incidence decreased by 55.6%



#### Sinochem International HSE case selected for SASAC's ESG Blue Book of Market-Listed Central Enterprises

In September 2021, the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council released its first-ever *ESG Blue Book of Market-Listed Central Enterprises*. Sinochem International's "Sustained Efforts to Promote the Establishment of 5-Star Plants and to Build HSE Core Competitiveness" case study was listed in the Blue Book as an Outstanding ESG Case.



#### Key performance indicators

Accidents with serious injury or worse

0

Work-related fatalities

work-related injuries

Davs lost due to

Deaths per 1 million man-hours worked

Major negative HSE public-opinion incidents

0

100

Employees (including third-party employees) covered by HSE audits

00 %

Five Star Plant

17

Five-Star Research Institute

1

2021 Sustainability Report Sinochem International Corporation

### **Improving** intrinsic safety

#### Work safety

Sinochem International has increased investments in intrinsic safety by focusing on risk management and control, improving the levels of safety management and control, while also improving employee safety and protection through occupational disease prevention, equipment updates, process optimization, on-site control, energy isolation, PPE usage, etc.

The company has formulated the "Management Measures for Safe Production" and other systems as well as worked to promote the implementation of the 24-factor HSE management system in order to ensure more robust safety production responsibility and enhanced hazard management and enhanced control and management of hidden hazards. All frontline employees are encouraged to participate in all aspects of work safety to contribute to a safer workplace.



Employees' family members were invited to experience Tai'an Sennics's safe working environment firsthand during the plant's Open Day

#### Work safety measures in 2021

Strict control of risks at source

- · Increased investment in intrinsic safety and sped up improvements in the area, the full implementation of chemical risk assessment on all fronts, the implementation of process hazard analysis and process automation transformation, and vigorous efforts to promote "automation to replace manpower, mechanization to reduce manpower'
- Implementation of HSE risk control for new companies and M&A projects and the development and implementation of intrinsic safety improvement plans
- For new projects, the formulation of project construction HSE management standards, preventative management, efforts to enhance HSE management along the entire project construction process, early intervention by area staff, and strict implementation of risk management and control for on-site operations
- The company has carried out a comprehensive process safety evaluation for its various equipment, used PHA (process hazard analysis) tools such as HAZOP (hazard and operability study) to fully identify various process risks, and put in place targeted safety measures to ensure process safety and control. We will worked with our suppliers over the long term to raise our HSE level. We have also collected data on incident "near-misses" using our information platform and conduct comprehensive analysis and used Heinrich's law to identify warning signs in a timely manner to prevent production safety incidents

- Routine "pulse-taking" safety inspections, including unannounced inspection, day-to-day inspections, comprehensive inspections, special inspections, and holiday inspections, etc., to uncover and rectify safety hazards
- · Continued to carry out contractor HSE rectification for projects under construction with full implementation of the "Six-Step Method" to strictly ensure HSE compliance; 89 special inspections were carried out on key projects under construction at various locations, along with 109 special inspections on contractor management. We will worked with our suppliers over the long term to raise our HSE level. We will worked with our suppliers over the long term to raise our HSE level

Special rectification

- Continued to carry out the special "Picking Out Iron Wire" campaign to promote the elimination of design flaws and the "low, old, and the bad" across the board
- Carried out special rectification for high-frequency operations
- Routine "Red Ribbon" activities have led to the uncovering and rectification of 32,508 hidden hazards
- Repeat Hidden Hazard Control exercises are carried out together with special initiatives for the Top 5 hidden hazards; hazard repeat rate has decreased by 72% year-on-year



- · Piloted the construction of our safe production IT platform that comprises five sub-platforms for construction equipment, technology, safety, training, and emergency response
- We have also collected data on incident "near-misses" using our information platform and conduct comprehensive analysis and used Heinrich's law to identify warning signs in a timely manner to prevent production safety incidents

#### **Management** Mey performance indicators

Investment in safety and health measures

Kev equipment risk control rate

Production safety accidents of level general and above (including contractors)

#### Major honors in 2021



Won first prize for management innovation from the China Petroleum and Chemical Industry Federation in the "Putting Special 'Red Ribbon' Safety Management Activities into Practice" campaign

Sinochem International won the title of the 14th National Petrochemical Enterprise Management Innovation Demonstration Enterprise

#### Occupational health

Sinochem International has formulated the "Occupational Health Management Measures" and worked continually to improve its occupational health and safety management system, strengthen its occupational health supervision, and strengthen management at the source. It has also continued to carry out occupational disease hazard identification and hazard management alongside various training and other special activities to eliminate potential occupational health hazards and improve the occupational health level and safety awareness of all employees.

The company has signed "Collective Labor Contract" with the trade union that addresses issues such as employee occupational health and safety protection. The HSE Committee, which comprises the chairman of the labor union, frontline employees and worker representatives, makes decisions on health and safety-related issues on behalf of all employees and works to ensure that our employees' right to know and participate in decision-making are upheld.

#### 2021 Occupational health management initiatives

- · Carried out work to identify and analyze various occupational disease hazards to obtain a clearer picture of occupational disease hazards present within the enterprise
- · Enhanced various controls at source and completed six occupational disease hazard control projects to reduce employees' exposure to occupational disease hazards

#### lanagerial competency

· Conducted job suitability assessment for occupational health management personnel, with a total of 39 people deemed as having passed the comprehensive ability assessment

#### Raising awareness of

- Multiple forms of publicity for greater awareness of the basics of occupational health hazards and protection
- Organized various events, including the Occupational Disease Prevention Law Publicity Week, Occupational Health Expert, and the Occupational Health Protection Knowledge Contest
- · Organized mental health training. promote the use of the "mood board" etc., to help employees relieve work and life stress

#### outine epidemic prevention and

- Formulated the "Emergency Plan for the Prevention of COVID-19" and "Work Plan for Response to the COVID-19 Epidemic" to establish a routine epidemic prevention and control organizational system
- · Acquired and regularly distributed antiepidemic materials, organized special inspections for epidemic prevention and control, and coordinate staff vaccinations (96% of employees have been vaccinated against COVID-19 at the time of writing)
- Strictly enforced the entry and exit control of outside personnel as well as the hierarchical management of personnel in different epidemic prevention and control risk areas in accordance with requirements set down by local authorities

#### \_202]

#### Key performance indicators

Employee occupational health examination rate

100%

Passing of occupational health and safety management system certification audits and internal audits at subsidiary enterprises

100 %

Occupational health management filing rate

100%

Passing of workplace employee health and safety risk checks

100%

Allocation and correct use rate of workplace protection equipment

100%

Occupational disease cases in the whole year



Shandong Huahong has installed flanged sampling valves on its process pipeline and tank openings to reduce risks to staff performing sampling work



Signing ceremony at Yangnong Group Publicity Week of Occupational Disease Prevention and Control

Sinochem International continues to carry out training for all HSE staff based on a points system and developing annual training plans to help its subsidiary enterprises to improve their HSE training matrix based on their individual and industry-specific needs. "Micro-classes" have been introduced to the existing array of training forms together with activities such as Safety Production Month and A Hundred Days of Safety Action in what are sustained efforts to improve the professional capacity of the HSE management team and the HSE awareness of all employees. All frontline employees undergo a minimum of 72 hours of HSE training in their first year of employment, while other employees are required to undergo at least of 48 hours of HSE training each year. The company also looks at training outcomes to ensure that visible improvements have been made.

#### 2021

#### **Key performance indicators**

HQ has carried out "Big Shot Lectures" training sessions

32

Persons completed 10 credits or more

634



The company has formulated and improved the "Emergency Plan for Production Safety Incidents" and "Emergency Plan for Health, Safety, and Environment-Related Incidents" as part of its efforts to establish an emergency management system, put in place various emergency equipment and facilities, set up an emergency expert database and a full-time emergency team, and conducted unscripted drills to test its emergency response capabilities, thus enhancing the emergency rescue and coordinated response capabilities of units at all levels during emergency situations.

#### 2021 Measures to improve emergency management capacity

### Revision of emergency response plans

- Led subsidiary enterprises in the revision of the "Emergency Plan for Production Safety Incidents"
- Involved all employees in the revision of 625 emergency card sets for various positions, thus enhancing the scientific basis, rigor, and operability of said cards for various posts

#### Unscripted drills

 Conducted 263 emergency drills such as fire rescue, emergency leakage, epidemic prevention and control, emergency evacuation, and personnel treatment drills

### Established joint emergency response mechanisms

 Led various enterprises in Lianyungang Industrial Park to establish a joint emergency response mechanism



Joint Emergency Response Drill of Sinochem International -Yangnong Group - Jiangsu Ruiheng



Yangnong Ruiheng Firefighting Contest



Sennics Anhui Hazardous Chemical Spill Emergency Plan Exercise



Sinochem High Performance Fiber Raw Material Tank Fire Emergency Drill

CASE

#### New Emergency Rescue Center at the Sinochem Lianyungang Industrial Park

On November 26th, 2021, Sinochem officially opened its Emergency Rescue Center located at its Lianyungang Industrial Park. The opening of the Center will greatly enhance the fire safety and emergency rescue capabilities of the Sinochem Lianyungang Industrial Park, provide strong assurance to park tenants, and facilitate ongoing efforts to build a collaborative and integrated park.



2021

Key performance indicators

Emergency drills conducted

263

Participants

19,237



# Chemicals management

Sinochem International has established a full-process monitoring system for the collection, storage, transportation, treatment, and disposal of hazardous chemicals in accordance with the "HSE Risk Management and Control Standards" for Hazardous Chemicals. Based on the "Hazardous Chemicals Procurement Management Evaluation Plan," the company also regularly conducts risk assessments with its hazardous chemical suppliers which cover core elements such as qualifications review and assessment, hazardous chemical transportation compliance, and hazardous chemical transportation management, etc. This ensures control and compliance when it comes to raw material procurement and the transportation of hazardous chemicals.

As the baseline safety standard continues to improve, at present, the company's chemical management risks are largely in the area of third-party shipping. To effectively control related risks, the company has adopted a stringent third-party logistics supplier audit and access system, and also conducts regular re-evaluations to establish a high-standard logistics supplier team for greater safety in terms of chemicals transportation and storage.

#### 2021 Measures for the procurement management of hazardous chemicals

• Reviews of the qualifications of suppliers of hazardous raw materials Supplier management • Implementation of dynamic supplier assessments to ensure that they hold the necessary Improved system construction and standardized procurement management systems, Procurement management system processes, evaluation criteria, and other documents Assessment of the • Regular assessments of the transport control and compliance of hazardous chemicals transportation of suppliers hazardous chemicals • Clarified the quality indicator requirements for hazardous chemicals procurement Procurement Strict adherence to procedures in implementation of the hazardous chemicals inspection management and delivery management processes On-site operational On-site assessment and inspection of hazardous chemicals handling, warehousing, and management of hazardous chemicals

#### Measures for the of handling hazardous chemicals

For laboratory chemicals, the company has advocated the minimization of laboratory reagents and samples, the use of reagent-free analytical techniques, and non-polluting samples, etc., to guard against the risk of pollution and ensure risk disclosure throughout the entire process

Packaging containing hazardous waste are to be labeled, and hazardous chemical waste are to be stored in cooler locations; waste containing sharps is collected and transferred to a special department for further processing

# **Ecological** responsibility

Sinochem International has formulated the "Measures for Environmental Protection" and "Management and Emergency Plan for Health, Safety and Environmental-Related Incidents" as part of its efforts to identify on all fronts the possible impact of the company's activities and products on the environment in its fight against pollution. Taking "Creating a Green Factory" as its key starting point, the company has committed to the concept of environmental protection throughout the entire production cycle, promoting the use of green and clean production technology at the source, paying close attention to the implementation of clean production in the production process, and insisting on investing in advance in the area of end management for the sake of more targeted and effective environmental protection and so that it may help guide the green and low-carbon development of the chemicals industry.

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#### Mey performance indicators

Total investment in environmental protection

765 million yuan

Percentage of employees in subsidiary enterprises trained in environmental issues

100%

Total energy saving investment

83.78 million yuan

Percentage of subsidiary production enterprises with environmental management certification

100%

Environmental pollution incidents

Percentage of subsidiary enterprises conducting environmental risk assessments

100%

# Pollution prevention

Through design, high-quality construction, and high-stand operations as well as the formulation of various systems (such as the "Environmental Protection Management Measures", "Environmental Protection Responsibility System", "Rules for Environmental Protection Responsibility Investigation and Management", and "Soil Pollution Risk Management Measures"), the company has worked to promote the deep development of pollution prevention and control and standardize its management of pollutant emissions. The company has also worked to enhance its operational management and maintenance of its environmental protection facilities, introduced new environmental protection technologies, and improved its end-to-end management capabilities to ensure that the discharge of waste water and waste gas from the company's subsidiaries is far below the standard discharge limits and to prevent the occurrence of environmental pollution incidents.

#### Wastewater treatment measures and management

- Implement the separation of sewage from clean water and rainwater; process wastewater is transported through aboveground pipelines; and separate and specific transportation and quality processing based on waste categories
- Strict implementation of the record system for operation process indicators and equipment operation records at wastewater treatment facilities, with records including items such as substances added, and monitoring frequency, etc.
- The flow direction of the drainage pipe network and the exhaust pipe network are clearly marked; use of standardized markings; no bubbling or other signs of leakage; open displays of network work diagrams

#### Exhaust gas emission monitoring and management

- Sustained efforts to improve emissions management, including the establishment of the "One Enterprise, One Policy" plan for VOC management; implemented in-depth VOC management projects, promoted the use of fully sealed samplers, etc.; leak detection and repair (LDAR) has been carried out at 13 enterprises where VOCs may be an area of concern
- 2 enterprises identified based on the List of Toxic and Harmful Air Pollutants have developed and promoted the plant boundary early warning system
- Completed the conversion of all natural gas boilers for ultra-low emissions
- Measures taken with construction projects, coal, cinder, coal ash storage yards and other places include: Airtight storage facilities, wet operations, sprinkler facilities, dust suppression nets, etc.

# Pollution prevention and control management measures in 2021



#### Solid waste management and control

- Inhouse-built hazardous waste incinerator has helped enhance internal hazardous waste disposal capacity and reduce the amount of outsourced hazardous waste disposal
- Carried out technological transformation for the recycling of by-products to achieve resource maximization

#### Soil pollution monitoring and management

- Establishing of a soil life-cycle monitoring mechanism with enterprises of various types for the regular monitoring of soil and groundwater quality
- Conducted special surveys on the soil risks of enterprises in 13 kev industries

#### Monitoring and rectification of pollution sources

- Carried out environmental due diligence in cases of mergers and acquisitions/integration of entity enterprises and proposed rectification plans for environmental issues and hidden hazards
- 11 enterprises and 52 sets of online monitoring systems are connected to Sinochem's environmental monitoring station, providing early warnings for various scenarios including zero value, lower than detection baseline value, continuous fixed value, exceeding standard value, etc.
- Formulated and issued the "Procedures for Responding to Abnormal Environmental Data," establishing processes for the handling of such scenarios

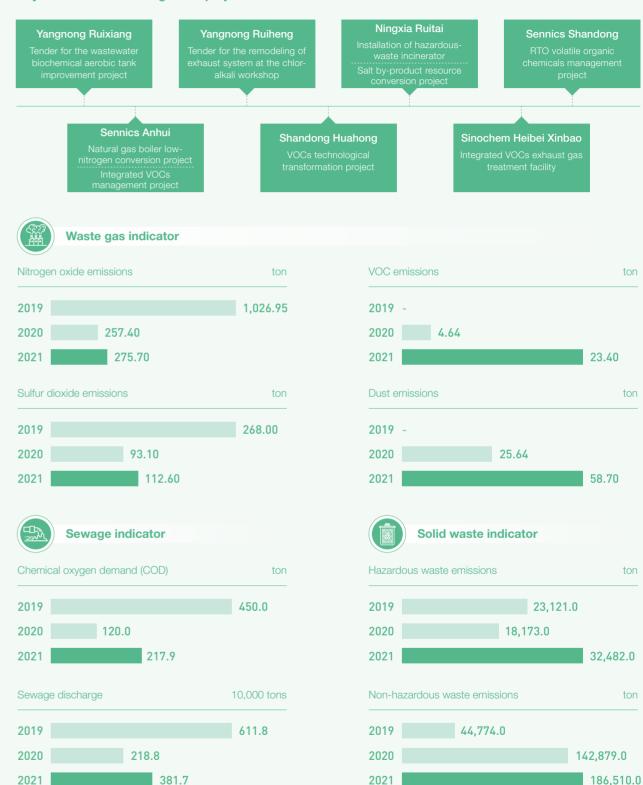


Yangnong Ruiheng exhaust gas adsorption equipment for chlorobenzene production



Yangnong Ruitai hazardous waste incineration

#### Key environmental management projects in 2021



Note: 1. In 2021, Sinochem High Performance Fiber's 5,000 ton/year aramid fiber project and Ruiheng Phase I project at Lianyungang Industrial Park reached full production capacity. Besides, the data includes Ninoxia Buitai for the first time, thus resulting in the significant increase in emissions compared to 2020

- 2. The data does not include oversears subsidiaries. In 2021, Ningxia Ruitai was incorporated into the statistics for the first time
- 3. Please refer to the 2021 Sinochem International Annual Report for more details on emissions by each subsidiary production enterprise

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#### **Key performance indicators**

Compliance rate of exhaust gas, wastewater discharge, and industrial enterprise noise

100%

Compliant solid industrial waste disposal rate

100 %

Hazardous waste disposed of by contractors

32,482 tons

Major leak incidents on record

#### Energy conservation and emissions reduction

The company has formulated the "Administrative Measures for Energy Conservation" and incorporated energy consumption into its management indicators with energy consumption analyzed on an annual basis. It has also continued to carry out energy savings assessment, energy audits, energy balance tests, equipment performance tests and other work as a way to finetune its energy consumption, and to promote resource recycling and greater energy efficiency through technological innovation, process transformation, and production management on all fronts.

#### Key measures to conserve energy and reduce emissions in 2021

Equipment transformation and upgrading

Has, through the use of energy efficiency control systems and other equipment upgrades such as eliminating low-efficiency heat exchangers, improving blower machinery and equipment, using high-efficiency transformers and motors, improving the application of canned pumps, improving power factors, upgrading refrigeration unit equipment, utilizing heat recovery from boilers and drainage systems, improving pipeline insulation, and replacing high-efficiency energy-saving traps to save energy and lower power usage

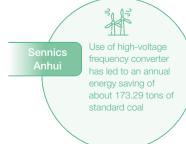
Implemented peak shaving and frequency conversion, timing the operation of certain units and equipment based on their temperature and product status, and turning on and off capacitor compensation devices in a timely manner to ensure that steam, electricity, and chilled water are reasonably and effectively supplied to each production unit to reduce unnecessary energy consumption

Rational and coordinated use of

Special management improvement measures

Carried out automation improvements and enhanced energy scheduling management to improve energy efficiency monitoring with power supply and distribution system equipment, water supply and drainage equipment, HVAC equipment, and air conditioning equipment; carried out benchmarking work on the energy consumption of boilers and heating furnaces and using thermal/infrared imaging to monitor energy loss and improve metering equipment availability; implementation of waste heat and waste gas recovery and reusing condensate water to replace steam, etc.

#### Key energy-saving technology projects in 2021



Yangnong
Ruixiang

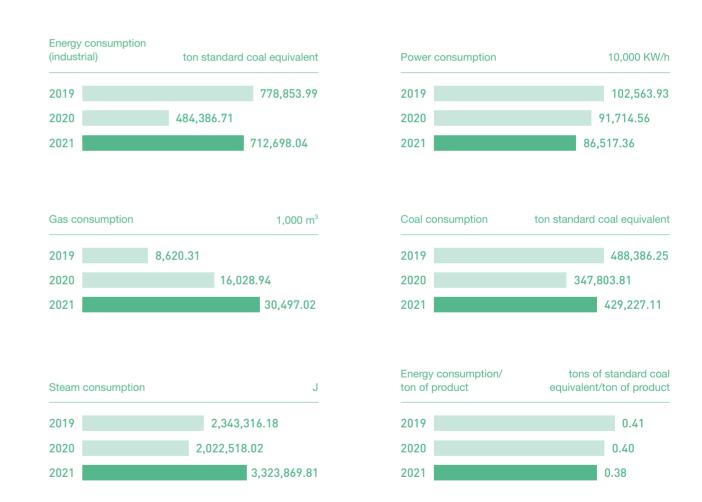
Upgrading and retrofitting of ammonia evaporators has saved about 554.13 tons of standard coal annually

mmonia as 54.13 rd coal

Joint energy-saving project with public works has saved about 4,366,100 kWh of electricity and about 536.60 tons of standard coal equivalent per annum



Air-pressure system post retrofitting as part of the joint energy-saving project with public works of Sinochem High Performance Fiber



Note: 1. In 2021, there was a significant increase in energy consumption (industrial) due to Sinochem High Performance Fiber's 5,000-ton aramid fiber project and Ruiheng Phase I project at Lianyungang Industrial Park reaching full production compared to 2020

- 2. The data does not include oversears subsidiaries. In 2021, Ningxia Ruitai was incorporated into the statistics for the first time
- 3. Energy consumption per ton of product has continued to decrease thanks to adjustments to the energy structure, such as coal-to-gas conversion

# Water management

The company continues to promote good water management through regular compliance checks on water use as well as efforts to improve the water recycling rate and reduce water consumption through equipment renewal and process optimization. All the company's water resources are derived from the municipal water supply, and neither water intake nor sewage discharge has had a significant impact on the water source.

# Key water management measures in 2021

#### Water conservation

• Implementation of cleaner production, optimizing of production processes, and the introduction of energy-saving and water-saving technologies

#### Water recycling

- The water circulation station increases the concentration ratio of circulating water by replenishing steam condensate and increases the amount of water reused
- Refrigeration unit upgrades and waste heat utilization projects have helped to reduce the amount of steam used in production processes
- Use of steam condensate in the water circulation system, evaporative cooling for cooling purposes, and superheated steam to replenish water and heating water
- Sewage purification using reverse osmosis, which also helps to recover water

#### Key water conservation technology projects in 2021

#### Jiangsu Ruixiang

High-silicon steam condensate recycling project has led to water savings of around 560,000 tons a year

#### Sennics Anhui

Use of anti-fog water saving devices in circulating water cooling tower has led to water savings of 7,800 tons a year



#### Sinochem Heibei Fuheng

Recycling of steam condensate on the Chemicals I workshop floor has led to water savings of about 9,000 tons a year

#### Jiangsu Ruixiang

Condensate recovery and diamine distillation waste heat recovery project has led to water savings of around 75,000 tons a year



#### Sinochem Heibei Xinbao

Steam condensate recovery project has led to water savings of about 7,200 tons a year



Note: 1. In 2021, there was a significant increase in fresh water consumption (industrial) due to Sinochem High Performance Fiber's 5,000-ton aramid fiber project and Ruiheng Phase I project at Lianyungang Industrial Park reaching full production compared to 2020

- 2. The data does not include overseas subsidiaries. In 2021, addition of Ningxia Ruitai to the statisitics
- 3. How the reuse rate is calculated: (Circulating water consumption + Reclaimed water consumption) / (Circulating water consumption + Reclaimed water consumption + Reclaimed water consumption) / (Circulating water consumption + Reclaimed water consumption + Reclaimed water consumption) / (Circulating water consumption + Reclaimed water consumption) / (Circulating water consumpt

# Environmental advocacy

The company continues to develop green plants and upgrade its existing green facilities, and to promote green innovation along the entire production process from equipment and raw material procurement to packaging and production with the goal of building an efficient, clean, low-carbon, and circular green manufacturing system. We will continue to develop and improve our green production processes, make our production processes cleaner, and reduce waste and emissions as part of our contributions to the development of the circular economy.

The company attaches great importance to biodiversity and conservation, and has carried out EIAs and biodiversity impact studies in the project pre-feasibility study stage and plant site selection stage to fundamentally eliminate and reduce its impact on the ecosystem. All of the company's plants and projects are located far away from biological reserves, and all production and manufacturing processes have no significant impact on the ecological environment.

#### **%** Sey performance indicators

As of end-2021, Sinochem International has built green plants by the standards of the Ministry of Industry and Information Technology

8

Green plants by the standards of the China Petroleum and Chemical Industry Federation

provincial standards

Green plants

according to

7/

#### Major honors in 2021



Sennics Shandong won
"Green Plant" title from
the Ministry of Industry and
Information Technology

Sinochem High Performance Fiber and Shandong Huahong won "Green Plant" title from the China Petroleum and Chemical Industry Federation Sennics Anhui won "13th Five-Year Plan Advanced Unit" title from the China Petroleum and Chemical Industry Federation

Sinochem International continues to develop and improve our green production processes, make its production processes cleaner, and reduce waste and emissions as part of its contributions to the development of the circular economy.



#### A green hydrogen-peroxide method of epichlorohydrin production

The Lianyungang Industrial Park 150,000-ton epichlorohydrin project, independently developed and realized by Sinochem International, is the world's first commercial hydrogen-peroxide direct-oxidation-process project. Compared to traditional processes, this process results in significantly cleaner production and competitive advantages on various fronts. The commissioning of this plant will greatly contribute to efforts to a greener industry.



#### Green processes in the production of nitrochlorobenzene



In 2021, Sinochem International adopted what was the world's first suspension crystallization process in the production of nitrochlorobenzene and achieved a product purity of over 99.8%; the waste heat generated is recovered by the steam compressor to generate low-pressure steam for reuse, saving 51840t/a of medium-pressure steam; an advanced extraction process is also used, reducing wastewater by 50% and making production cleaner.



#### New TMQ process named in the Green Petrochemical Process Directory (2020 Edition)

The TMQ process developed in-house by Sennics, a subsidiary of Sinochem International, effectively increases the effective content of its TMQ products as well as reduces waste generation and leads to greener production. The process was included in the *Green Petrochemical Process Directory (2020 Edition)* released by the China Petroleum and Chemical Industry Federation in January 2021.

As an advocate of sustainable consumption, the company utilizes recyclable packaging materials, etc., for its product packaging; works to reduce resource and energy consumption for products and materials in storage, transportation, and other process links; has worked to establish a packaging recycling management system; realizes packaging recycling monitoring along its entire production process; and minimized packaging pollution.

#### Sustainable consumption initiatives at subsidiary companies



#### Yangnong Group

- Raw and auxiliary materials carrying environmental protection and energy-saving marks are used, and products are mainly shipped in tank trucks, which cuts down on the use of packaging barrels
- Conveying the environmental impact of the product to the customer in the form of disclosure statements



#### Sennics

 Recycled-paper bags, plastic composite bags, sharing trays, and other packaging are used alongside environmentally friendly water-based paints



#### Sinochem Heibei Xinbao

 Guidance provided to customers on the need to build storage tanks for hazardous chemicals (2-methylnaphthalene and quinoline) and provision of the relevant technical support to reduce the use of galvanized iron barrels



#### Sinochem Lithium Technology

• Provision of product RoHS (Reduction of Hazardous Substances) reports to drive customers to adopt pallet recycling



# **Creating value** with partners

#### Management philosophy

Maximize our own advantages, work together with stakeholders for mutually beneficial and win-win partnerships, and live in harmony wire society

#### Management objectives

Ensure customer satisfaction, sustainable development capabilities of supply chain partners, employee capabilities and value, and continuous improvement of the community environment

#### Management strategy

Implement professional management improvement measures, build a supply chain information system platform, continue to establish excellent operational standards, protect employee rights and improve employee satisfaction, conduct training for sustainable development awareness and capabilities, and continuously improve the talent training system

# Improving customer satisfaction

# **Excellent** operations

2021 Key performance indicators

As of end-2021, production subsidiaries awarded SES bronze medals

6

Number of subsidiaries awarded SES silver medals

1



#### **Product quality**

Based on the "customers first" concept, Sinochem International continuously strives to improve product quality, innovate service capabilities, strengthen communication with customers, obtain and consolidate customer opinions and integrate them into product and service quality improvement measures, continue to improve customer satisfaction, and demonstrate responsibility to our customers.

Based on the unique characteristics of the enterprise, the company has built the Sinochem fine chemical Excellence operation System (SES) encompassing the entire process from customer opportunities to production and operations. The system features a three-stage evaluation mechanism that awards bronze, silver and gold medals based on the stages in which the enterprises are at. This helps the enterprises make continuous improvements in terms of cost, safety, quality and other aspects. In 2021, all new production enterprises of the company had fully deployed the SES system, which immensely improved the management of production operations and overall quality.



#### Major honors in 2021



Yangnong Ruixiang was awarded second prize in the 4th Central Enterprise QC Group Results Presentation Competition

The company has implemented overall quality management measures, formulating "Quality Management Measures for Production Enterprises" and "Process Quality Management Standards for Production Enterprises". In 2021, the company issued "Administrative Measures for Customer Health and Safety Protection" to implement strict controls over the production process and product quality as well as exercise responsibility over the health and safety of customers.

#### Main tasks of product quality management in 2021

#### Standardizing quality management

- Pushed subsidiaries to obtain certifications such as ISO 9001, IATF 16949 and other quality certification systems, participate in certification renewal audits, and formulate quality control standards and control procedures
- Introduced new documents and revised several quality management systems and procedural documents
- Pushed production enterprise subsidiaries to apply for CNAS accreditation for their inspection and analysis laboratories and attain international standard laboratory status

#### Quality building training sessions

- Organized system standard training and internal auditor training to improve the quality management capabilities of employees
- Set up quality academies and quality month activities to promote quality culture
- Set up excellent operation network classes and launched 21 courses throughout the year. These sessions, which were attended by employees 56,300 times collectively, encouraged employees to master quality management skills

#### Strict controls of product quality processe

- Issued the "Customer Health and Safety Risk Factor Checklist" for timely self-examination and improvement
- Applied the new version FMEA tool, performed risk analysis through PFMEA analysis of key processes, established control strategies and control plans, and effectively managed process risks
- Standardized the management principles for changes to processes, equipment, packaging, customer requirements and standards to reduce risks arising from changes

#### Responsible product campaign

 Determined that all products must come with One Sheet and One Label (namely, a safety data sheet and safety label), which list in detail the parameters of the product and the short-term and long-term impact on safety and environmental protection



#### CASE

#### Sinochem International passes SGS 3-in-1 certification review

In 2021, Sinochem International successfully passed the certification review of SGS "3-in-1" integrated management system (namely, the ISO 9001:2015 Quality Management System, ISO 14001:2015 Environmental Management System, and ISO 45001:2018 Occupational Health and Safety Management System). To date, Sinochem International has passed the international system certification reviews for 11 consecutive years. Through the continuous optimization and improvement of system management processes and efficiency over numerous years, the company has effectively reduced the quality-related risk in operations and management, which has been instrumental in providing strong support for the development of the company's core business.

#### Major honors in 2021



Sennics won the "National Top 100 Quality Inspection Integrity Award" issued by China Association for Quality Inspection Yangnong Ruixiang was awarded the "Excellent Quality Management Group" title from Jiangsu Province and Yangzhou Municipality

# Key performance indicators

Product recalls



Production subsidiaries with ISO 9001 certification

93.3%

Production subsidiaries' labs accredited by CNAS

5

2021 Sustainability Report Sinochem International Corporation

#### Customer satisfaction

The company has formulated regulations for customer satisfaction evaluations and complaint handling management, established a robust integrated service system, provided a host of pre-sale, during-sale and after-sale customer services, and ensured that products and services meet customer requirements. Furthermore, the company has also set up platforms and organizations for customer service and complaint handling to solve customer problems in a timely manner. Customer satisfaction surveys are also carried out on a regular basis to learn about customer needs and their opinions on products and services, following which rectification plans are formulated to better maintain customer relationships.



#### Sinochem International launches WeChat product service center

To improve customer service standards, Sinochem International launched its WeChat product service center which employs digital marketing methods to address customer needs. The platform hosts data of over 100 self-run star products by Sinochem International and industry solutions to provide customers with speedy and convenient services. These include accurate query responses according to classification of products and application fields, viewing and downloading options for product information and industry application manuals, applications to request for samples, and online consultations.



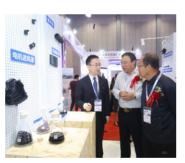


#### Sennics online and offline marketing model well-received by customers

In March 2021, Sennics conducted online auctions and live broadcasts for chemical products during the International Exhibition on Rubber Technology in the Greater Bay Area. These activities were very wellreceived by customers, as they found that marketing products online is a more intelligent method which allows for greater price transparency, a better purchasing experience, and more convenient services that fulfil consumer needs.



Online auction broadcasted live



Offline product introduction to customers

#### **Key performance indicators**

Customer complaint handling rate

Violations in terms of product information, service information and labels

Customer satisfaction rate

97.7%

Violations in terms of health and safety impact from products and services

Marketing violations

# Strengthening partnerships

Sinochem International has formulated regulations such as "Supplier Code of Conduct", "HSE Management Measures for Project Contractors" and "Labor and Employment Management Measures" that require all suppliers to sign the "Supplier Code of Conduct" and "Integrity Agreement". These regulations were established to prevent violations of laws and regulations and avoid commercial bribery.

The company observes sustainable development principles over the entire procurement and business process, incorporating environmental safety, labor and human rights, social responsibility and other relevant terms into the evaluation criteria. It also performs on-site CSR reviews of core suppliers, implements hierarchical management and assessments, and ensures the prompt removal of non-conforming suppliers. Meanwhile, the company has developed a sustainable supply chain training package to conduct sustainable procurement training for internal procurement employees and external suppliers, which will improve the sustainable development capabilities of suppliers and lead partners in building a sustainable supply chain.

100% access review of suppliers

Provide training for at least 300 suppliers on sustainable supply chain

50% procurement value certified by sustainable procurement assessment

On-site review of 20% supplier's sustainable supply chain

significant procurement accident

Sinochem International's Goal to Build a Sustainable Supply Chain - To be completed at end 2022

#### Key tasks to build a sustainable supply chain in 2021

#### Setting medium-term goals

Supplier assessments

• Formulated short and medium-term goals for sustainable procurement and set specific quantitative indicators for the sustainable procurement work of subsidiary enterprises

 Subsidiaries have incorporated commitments to procurement integrity, labor rights, environmental protection and social responsibility in primary raw material purchase agreements, requiring suppliers to abide by their commitments and undergo monitoring and auditing in terms of social responsibility and sustainable development

#### Supply chain informatization

• Launched the SRM system online for 4 subsidiary enterprises and launched the MDM system online for 7 subsidiary enterprises. Continuously optimized and extended system functions to improve the standard of informatization in the supply chain

#### Supply chain training sessions

- Conducted special training sessions on "Building a Sustainable" Supply Chain" and "Supplier Evaluation" for subsidiary enterprises. These sessions were attended by participants nearly 100 times collectively
- Conducted sustainable development training sessions for 92 suppliers, of which included 46 core suppliers
- Compiled and published a sustainable supply chain training package for suppliers
- Used the "3S Sustainable Supply Chain Partner Network" official WeChat account to host exchanges and educational sessions. We also issued regular communication and announcements on the task updates of the company's sustainable supply chain

85



Sinochem International Corporation 2021 Sustainability Report

#### Number of suppliers, 2021

Total

2,159

 East China (Shandong, Jiangsu, Anhui, Zhejiang, Fujian, Shanghai)

1,559

North China (Beijing, Tianjin, Hebei, Shanxi, Inner Mongolia)

245

Northeast China (Liaoning, Jilin,

Qinghai, Shannxi, Gansu)

Northwest China (Ningxia, Xinjiang,

Southwest China (Sichuan, Yunnan,

Guizhou, Tibet, Chongging)

Heilongjiang)

**Key performance indicators** 

Number of suppliers that signed the

1,532

70.96%

Core suppliers that signed contracts with clauses on environment, labor, and human rights

# Growing with employees

**Employee rights** 

Sinochem International is highly concerned about protecting employees' rights and interests, adhering to equal employment and non-discriminatory employment, and creating a diverse and equal working environment for employees. The company is also committed to conducting training to improve sustainable development awareness and capabilities, ensuring the continued improvement of the talent training system, and helping employees realize their self-worth. Meanwhile, Sinochem International also cares for employees' physical and mental health while helping them balance work and life in order to foster a harmonious employeeemployer relationship. In 2021, Sinochem International had a workforce of 25,171 employees.

The company strictly abides by the laws and regulations of China and the various overseas regions it operates in, having formulated the "Human Resources Management Regulations" and "Labor Contract Management Measures". Meanwhile, it has also published the "Labor and Human Rights Policy", which strictly prohibits the employment of child labor, forced labor, discrimination, harassment, and human rights violations. We are committed to ensuring gender equality and wage equality, protecting the rights and interests of employees, and providing employees with a diverse, non-discriminatory, fair and just working environment.

The company and the trade union signed a "Collective Labor Contract", "Special Contract for the Protection of Special Interests of Female Employees" and "Collective Wage Agreement". It has been agreed that both parties reserve the right to propose ad-hoc consultation meetings to negotiate and revise the relevant clauses in the contract and annexes, which will be subsequently passed and filed based on the original process. The company also views human rights clauses as a significant factor in key investment acquisition agreements.

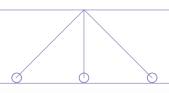
> Sinochem International also provides a complaint and feedback channel for employees, whereby employees can report violations of employee rights and interests to the company's human resources department by phone, email or directly in person. The company promises to protect the complainant, verify the reported situation, promptly implement corrective measures for violations of laws and regulations, and deal with relevant personnel involved.



Complaint hotline: 021-31768820



E-mail address for complaint submissions: employeecaring@sinochem.com



Local sourcing procurement rate of suppliers

99%

Social responsibility management training for core suppliers

Procurement officers trained in

73%

"Supplier Code of Conduct"

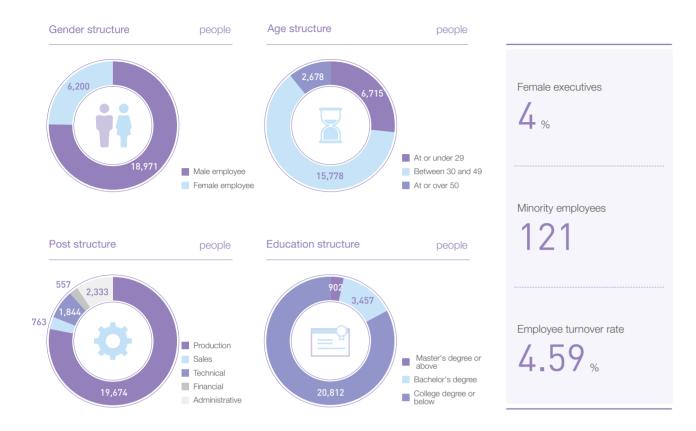
South China (Guangdong,

Central China (Hubei.

Hunan, Henan, Jiangxi)

Guangxi, Hainan)

86



Sinochem International respects employees' legal rights of free association and collective bargaining, and does not object to employees participating in legal activities of local legally-registered trade unions based on the premise of non-compulsion and non-violation of local laws.

The company has established a democratic management system in the fundamental form of the employee representative meeting, whereby a 100% participation rate of employee representatives is ensured. Under the trade union, an employee welfare committee and a labor dispute committee have been established. Initiatives include focusing on the democratic management of major issues involving the key interests of employees, developing the trade union's new media service platform ("Happiness Station"), regularly holding employee symposiums and executive luncheons, garnering over 20 opinions from employees and handling them effectively, and safeguarding the employees' rights to information, participation and supervision.

#### 2021 Key performance indicators

Coverage rate of labor and human rights policies for new employees

100 %

Subsidiaries subject to human rights reviews or impact assessments

58%

Employees trained to prevent discrimination and human rights violations

100%

Human rights violations such as child labor, forced labor, discrimination, etc.

0

Security personnel trained in human rights policies or specific procedures

100%

Union membership rate of long-term employees

100%

# Talent development

The company places emphasis on talent recruitment and talent training, encouraging the recruitment of college graduates, industrial workers and senior managers from local communities. It also continuously improves the talent promotion mechanism, ensures smooth career development channels, and builds various channels that are conducive to talent exchanges. Furthermore, the company also provides targeted training for employees at different career development stages to help employees tap and achieve their full potential.

#### Key measures to promote employee career development in 2021

#### Improving the promotion system

 Expanded the career development channels of professional and technical employees. 19 employees passed the assessments and were awarded the rank of mid-level engineers

#### Promoting competition mechanisms

 Promoted innovative recruitment mechanisms originating from the headquarters to business units

#### Addressing local employment issues

 Every industrial base organized special talent recruitment exercises to address local employment issues and safeguard human resources for various projects

#### Building a team of talents

- Developed a comprehensive talent inventory focusing on three core teams and five key lines while cultivating an in-depth inventory of more than 200 people. The inventory results were closely integrated with and effectively linked to talent selection and training components
- Based on business needs, the company focused on selecting outstanding high-potential young people to be trained in the front lines of the business. In 2021, there were 12 individuals from the headquarters who were assigned to rotation-based/temporary job placements in subsidiary companies and 3 individuals from subsidiary companies who were assigned to rotation-based job placements in the headquarters



#### Active recruitment of outstanding college graduates

Based on the concept of "actively expanding our reach in target colleges and universities", Sinochem International has worked on fostering deep relationships between the company and educational institutions. To date, the company has partnered with over 100 institutions of higher education in various regions such as Jiangsu, Anhui, Hunan, the three northeastern provinces (Heilongjiang, Jilin and Liaoning), Henan and Shandong, covering all the chemical colleges and universities in these regions and over 40,000 students in radiation chemical and chemical majors. The company has also established a collaborative training scheme with a college and established a strategic partnership with two colleges, whereby interns will train at the company's bases. In 2021, Sinochem International organized and participated in over 50 presentations and mutual-selection recruitment exercises, interviewed over 1,200 students and signed tripartite agreements with 368 individuals. These initiatives brought a strong surge of new talent into the organization.

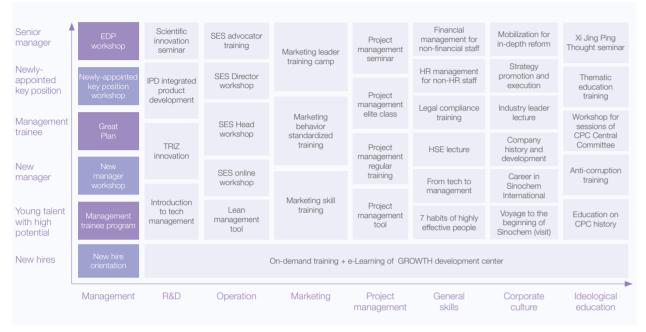


#### Special talent recruitment exercise to promote the employment of local workers

Sinochem International has several new projects concentrated in its industrial bases. In order to fortify the front-line team and promote the employment of local workers, the company has conducted special talent recruitment exercises in chemical parks such as Lianyungang, Zhongwei, Yizheng, Tai'an, and Huai'an, whereby multiple methods were employed to attract and recruit outstanding talents. These measures were instrumental in building the project teams with skills encompassing on-site production, equipment, technology, quality, HSE, research and development, engineering, and procurement. In 2021, a total of 864 people were recruited across the various industrial bases.

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According to its "horizontal × vertical" training structure, the company implements various key projects and training series on topics such as management talents, research, production and marketing, project management, and general skills. To enhance the training content of the previous years, new training modules in cultural education and ideological education have been introduced to provide a wider scope of training.



Sinochem International's talent development system

#### Key employee training projects in 2021

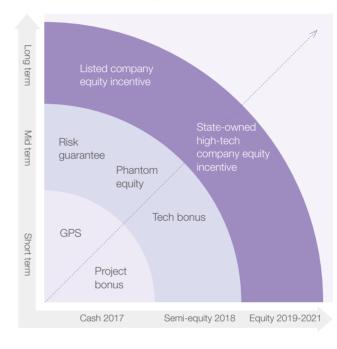
 Lectures were delivered by internal field experts to create an effective channel for front-line employees to understand the company's strategy

# Training camp for "three new

 Continued to empower management teams and professional teams to boost business growth and innovative business implementations for new products, new teams and new projects

- Yangnong Group: Key job training and first-line marketing manager training
- Sinochem Plastics: Standardized sales training
- · Sinochem Hebei: Capabilityimprovement training for industrial base managers and high-potential youth
- Sinochem High Performance Fiber: Training by in-house trainer

The company has established a multi-incentive mechanism covering short-term, medium-term and long-term durations, having implemented incentive measures such as equity incentives, executive stock holdings, risk guarantees for major projects, and job dividends in technology companies. These measures, which directly and intricately link employee incentives with their responsibilities, abilities and contributions, effectively drive employees to develop themselves and boost their enthusiasm to perform.



#### **Employee incentive and assessment** measures in 2021

- Based on best market practices and national policy research, the company formulated the medium to long-term 2.0 incentive scheme and the 2.0 innovation incentive scheme for key talents while exploring business partner mechanisms
- · Performed the organizational formulation of schemes involving risk guarantees for major projects and revenue sharing incentives

- Incorporated sustainable development and HSE in organizational performance assessment, with the assessment results having a direct impact on the performance and bonuses of company executives
- · Highlighted and emphasized the management direction for sustainable development and established sustainable development-related awards in the annual award and commendation ceremony

# CASE

#### Yangnong Group strengthenes incentives for innovative talents

Yangnong Group continued to strengthen incentives for technological innovation through the establishment of the "Technology Progress Award + Technology Incentive + Goal Achievement Award + Profit Sharing Award + Outstanding Performance Award". The group also implemented the combined incentive model of a risk fund incentive scheme and milestone incentive for key strategic projects to fully maximize the innovative strengths of talents. In 2021, the company successfully passed the re-evaluation for the "Model Technical Innovation Enterprise" title.







#### **Key performance indicators**

Training completed per employee

Collective hours of employee

28.35 hours 713,598 hours 281,502

Employee participation in

Participating employees

25,171

Investment in employee

8.03 million yuan 100 %

Employees with vocational or skill related training

Employees regularly assessed for performance and career development

#### Welfare and care

The company has formulated "Remuneration and Welfare Management Measures" and "Leave Management Measures". While ensuring that the starting salary level is not lower than the local minimum wage standard, the company established a compensation management mechanism that fully reflects job value and employee performance. It also makes full payments for employee social security and provident funds while continuing to improve the employee welfare system. The company also provides accidental injury, medical insurance and other supplementary commercial insurance plans, health check-up plans, paid annual leave, maternity/paternity leave, parental leave, special protection for female employees, and housing subsidies for talents. These welfare policies effectively support the health and lives of their employees and their family members.

2021 Key performance indicators

Social insurance coverage

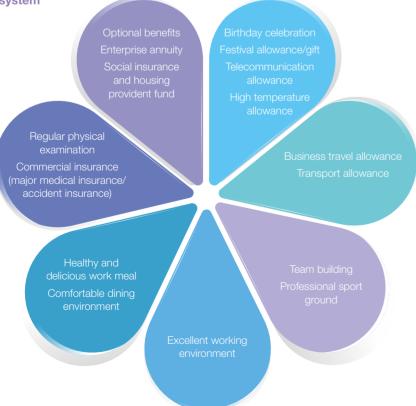
100%

CA

#### 2021 employee satisfaction survey

In December 2021, Sinochem International conducted the 2021 employee satisfaction survey. This involved collecting employee opinions from 9,218 employees via an online survey. The employee satisfaction score was 75%, which indicates a steady form of improvement from the previous year. The higher-than-average employee satisfaction score in the chemical industry indicates that management improvements have yielded significant results and employees have an improved perception of and stronger sense of identity with the company. Based on the survey results, the company will conduct special research, formulate rectification plans and track the implementation thereof, and regularly review the improvement results.

Sinochem International's diversified welfare system



The company organizes a wide range of cultural and sports activities to enhance the mental state of employees, promote team building, and improve employees' sense of belonging and unity. Meanwhile, we endeavor to help employees in difficult situations, carry out practical projects to improve livelihoods, implement "care-based initiatives throughout four seasons" and extend festival greetings in order to demonstrate warmth and care to employees and retired employees.



#### **Employee wellness activities**

In 2021, Sinochem International organized a series of employee wellness activities in conjunction with the 100th Anniversary of the Founding of the Communist Party of China. To mark the 100th anniversary celebration, a variety of recreational and sports activities were organized to encourage employees to improve their physical fitness levels and build team energy.



The company won the first prize in the 2021 Choral Competition of Enterprises Directly Managed by Pudong New Area in Celebration of the 100th Anniversary of the Founding of CPC



First "GROWTH" Cup Staff Football League

2021 Sustainability Report Sinochem International Corporation

#### CASE

#### Sinochem International's 20th anniversary of southward relocation

In July 2021, Sinochem International held an event to commemorate Sinochem International's 20th anniversary of southward relocation from Beijing to Shanghai. With the event theme being "everything in the past leads up to the future", the company revisited its move from Beijing to Shanghai by recounting its journey in market-oriented exploration and entrepreneurship in industrialization. The event aimed to convey to all its employees the "southward relocation spirit" that symbolizes innovation and entrepreneurship. In the same month, the company held a celebration to commemorate Sinochem International's 20th anniversary of southward relocation, whereby contemporary melodies were sung during theatrical performances and commemorative honors were issued to the old employees who relocated from Beijing.





Key performance indicators

Investment to assist employees in difficult situations

2.02 million yuan

Cultural and sports activities

Participating employees

11,200

# Improving the livelihood of the community

#### Rural revitalization

Sinochem International adheres to the public welfare concept of "from society we come, the society we serve". By maximizing its professional expertise and resource advantages, the company actively carries out activities such as rural revitalization and community care programs, which have yielded results in promoting positive interactions between the company and society while building a harmonious society.

Sinochem International subscribes to the idea of integrating government leadership and multi-party participation in implementing the fundamental strategies and goals of China's poverty alleviation and rural revitalization efforts. To this end, it has deployed various entities under Sinochem Holdings to actively render consumer assistance, industrial assistance and student donations. It is hoped that these measures will establish a strong link between poverty alleviation and rural revitalization strategies while laying the foundation for further rural revitalization efforts.



Sennics Shandong donated towards the "homes of hope" initiative in Heze city

#### Key assistance measures towards rural revitalization in 2021

#### Industrial assistance

- Over the span of 2020 to 2021, Sinochem Pharma worked closely with its assisted Da Qaidam center to make procurements of nearly 1,000 tons of H acid and K acid while assisting the local people's hospital in procuring one unit of digital medical X-ray imaging equipment
- Sennics Tai'an assisted in the planting of 650 honeysuckle saplings in a poor village within the Ningyang Economic Development Zone

#### Donation to needy students

- Participated in the "make a dream come true" movement for assisting needy students by making a donation of 236,200 yuan. Donated over 1,000,000 yuan over the span of four years
- Sennics Shandong donated six "homes of hope" and 60,000 yuan to the impoverished counties of Heze city
- Tai'an Sennics donated 50,000 yuan to the impoverished Caishi village in Ningyang Economic Development Zone

#### Consumption assistance

• Procured agricultural products worth 2,015,960 yuan from Sinochem Holdings' assisted centers and procured agricultural products worth 144,100 yuan from other assisted regions

2021

**Key performance indicators** 

Helped to sell of agricultural products from poverty-stricken areas

24,000 kg

Sales amounted to

2.16 million yuan



# Community Development

Sinochem International actively participates in community building by continuously performing volunteer services and community communication initiatives while actively participating in social public welfare efforts. Through practical actions that effectively improve the level of medical care, education, environment, and cultural acumen of local residents, the company hopes to build a sharing and harmonious society together.



#### "Children and Technology: Creating a New Future" Technology Day fosters technology know-how among youth

On 22 May 2021, Sinochem International organized its fourth open day with the theme "Children and Technology: Creating a New Future" in Shanghai. The range of activities, which aimed to expose children to science-related experiences and develop their exploratory capabilities, adopted practical means to help children understand science and be inspired by science.



"Children and Technology: Creating a New Future" Technology Day

#### CASE

#### Yangnong Ruixiang's Chemical Repair Section devotes itself to public welfare and volunteer services

Yangnong Ruixiang's Chemical Repair Section (under the Production and Operations Department) participated in pandemic-relief donations and social welfare initiatives. As of end-2021, the section provided financial assistance to 13 impoverished students with a total donation amount of 12,000 yuan collected from all its members. The "Youth Volunteer Service Station" set up by the section, which catered to all the employees of Yangnong Ruixiang, provided services such as repairing bicycles, changing zippers and affixing buttons for work clothes, and cleaning eyeglasses with ultrasonic waves. These efforts have won unanimous praise from all parties. In 2021, the Chemical Repair Section won the "20th Nationwide Youth Model Unit" Award.



Group Photo of Yangnong Ruixiang's Chemical Repair Section (under the Production and Operations Department)

#### 2021

#### **Key performance indicators**

Donation

 $1 \text{\_} 309 \text{ million yuan}$ 

Beneficiaries of public welfare activities

879

Volunteer activities

48

Volunteer service hours

14,874

Participating employees

2,429



# **Outlook for 2022**

2022 is the year in which the 20th National Congress of the Communist Party of China will take place. It is also a crucial year in the implementation of the 14th Five-Year Plan which has been rolled out nationwide. Against the backdrop of China's "dual carbon" objectives and this era of chemical industry reforms in terms of quality, efficiency and drivers, Sinochem International has its eyes set on the objective of "building a leading enterprise in the field of innovative new chemical materials". To this end, the company has accelerated its sustainable development strategy by leveraging its integrated circular industry bases and focusing on building key industry chains. Meanwhile, it also works on consolidating and enhancing key competitive advantages such as technological innovation, safety, low-carbon and environmental protection. It is hoped that these measures will build a new development roadmap, promote the high-quality transformation and development of China's chemical industry, and contribute to a sustainable future for mankind.

# Strengthening the industrial chain while building a new developmental roadmap

We aim to accelerate transformation and upgrading efforts through applying forms of thinking related to the industrial chain, thereby promoting the concept of "extending the chain, supplementing the chain, and strengthening the chain". We work towards consolidating superior resources, expanding key industrial chain advantages such as epoxy resin and polymer additives, and intensifying the cultivation of several high-potential industrial chains such as ABS, aramid, and PA 66. Through these measures, we hope to create an industry cluster with leading technologies, significant integration advantages, and various forms of key competitive advantages. Through "addressing weaknesses and plugging gaps", we aim to promote the security and stability of the industrial chain and supply chain, drive the creation of an advanced "industrial chain ecosystem" in China's chemical new material industry, and hone the key capability of "lengthening the industrial chain".

# Deploying the innovation chain and promoting the transformation of scientific research achievements

Driven by the value of "In Science We Trust", we aim to strengthen original innovation capabilities and create a high-throughput innovation engine. By focusing on the key areas of the chemical new material industry and the company's key industrial chains during the 14th Five-Year Plan period, we will implement project roadmaps in a rational manner, promote breakthroughs in key research and development, and ensure the coordinated development of the "innovation chains" and "industrial chains". Through identifying demand concentration points and industrial convergence points, we hope to promote the application of scientific research achievements in major fields of the national economy such as the energy, industry, communication, transportation and construction sectors to improve lives through technology.

# Improving the ecological chain and creating a "low-carbon" competitive advantage

We intend to implement the national action plan of "carbon peaking and carbon neutrality" and systematically deploy "dual carbon" tasks while exploring the building of a full life cycle energy conservation and environmental protection system. Meanwhile, we will also continue to promote the construction of an integrated circular economy industrial park, improve the resource utilization chain, and conduct directional research on clean energy alternatives. By focusing on developing clean production and applying green technology, we will promote the implementation of energysaving and low-carbon projects, improve the green financing management system, and transform green and low-carbon elements into practical business advantages. These actions, which will continuously enhance the company's value, actively promote active green and low-carbon transformation initiatives as we assume the shared responsibility of building the future of mankind.

# Improving the value chain and promoting the company's transformation and upgrading efforts

We aim to promote the company's sustainable development strategy objectives under the 14th Five-Year Plan, implement the 2022 sustainable development action plan, and keep strengthening the ESG governance system and governance capabilities. By working on these areas before they are required by industry policies and customers, this enhances the key competitive advantages of the company in terms of sustainable development and builds the company's sustainable brand image. We will also continue to foster long-term stability, mutual trust and win-win partnerships with suppliers and partners in the upstream and downstream segments of the industrial chain while promoting the sustainable and coordinated development of the value chain and its shared value.

# Addressing key concerns

O:

In May 2021, Sinochem Group and ChemChina underwent a reorganization exercise to form Sinochem Holdings, the world's largest integrated chemical company. What strategic significance does this have for Sinochem International? Will this affect Sinochem International's strategic plans?



A:

The establishment of Sinochem Holdings is beneficial to the development of Sinochem International. Upon completion of the said reorganization exercise, Sinochem Holdings has been awarded the strategic mission of building a world-class chemical enterprise. Its business scope was also revised from five fields previously to eight fields encompassing life science, material science, basic chemicals, environmental science, rubber tires, machinery and equipment, urban operations, and industrial finance. As a subsidiary platform of Sinochem Holdings for premium material sciences, Sinochem International has revised its strategic goals accordingly, being committed to building a world-class material science platform on the strategic basis of building a technology-driven innovative fine chemical enterprise. Meanwhile, according to the relevant design principles of the industrial chain, strong coordination efforts and asset adjustment measures will be performed internally within Sinochem Holdings to gain a key status in the industry.



In October 2021, China released the Working Guidance For Carbon Dioxide Peaking And Carbon Neutrality In Full And Faithful Implementation Of The New Development Philosophy and the Action Plan for Carbon Dioxide Peaking Before 2030. These documents are expected to accelerate the establishment of the "1+N" policy of carbon peaking and carbon neutrality system. What are the measures Sinochem International has implemented in terms of achieving carbon peak and carbon neutrality?



A:

Sinochem International has always given a strategic status to climate change intervention and green and low carbon measures. In 2021, the company carried out a comprehensive investigation regarding the current status of carbon management and the assessment of low-carbon development capabilities during the 14th Five-Year Plan period. Following this, the company then conducted research on carbon peaking and carbon neutrality routes, formulated the "Carbon Peaking and Carbon Neutrality Action Plan", and comprehensively deployed low-carbon development plans. Meanwhile, the company also actively promotes clean technologies and energy-saving equipment, strengthens energy-saving target assessments and energy-saving review management while improving the standard of energy consumption per unit product in the industry. These measures are aimed to gradually improve the level of energy efficiency and water efficiency management. The company has also formulated sustainable development objectives during the 14th Five-Year Plan. By the end of 2025, the company is committed to reduce the "comprehensive energy consumption per 10,000 yuan of output value" and "carbon dioxide emissions per 10,000 yuan of output value" by 15% and 18% respectively from the indicators at the end of the 13th Five-Year Plan.



Based on the new development phases of the 14th Five-Year Plan, does Sinochem International have a phased plan for sustainable development? How do we make sure the plan is on schedule?





With a focus on five areas, namely carbon reduction and emission reduction; health, safety and environmental protection; sustainable supply chains; sustainable governance; and labor rights, Sinochem International has formulated sustainable development objectives under the 14th Five-Year Plan. The company has also set up a sustainable development executive committee and professional sub-committees responsible for the implementation of key actions in five areas. Based on the company's development status and goals, we formulated the sustainable development promotion plan and key improvement actions for 2022. Meanwhile, the company continuously strengthens the supervisory and decision-making roles of the board of directors while assigning responsibilities to specific persons in charge and responsible departments at various levels. The board of directors evaluates and reviews the implementation and progress of sustainable development initiatives, offers suggestions for improvement, and ensures that sustainable development goals are achieved according to schedule.



What is the main roadmap of Sinochem International in terms of technological innovation, including areas such as key projects, products and technical reserves?



A:

Technological innovation is the key competitive advantage of Sinochem International. In terms of technological innovation investments, Sinochem International has invested 1.485 billion yuan in 2021 and over 3.5 billion yuan into R&D efforts over the past five years. The company's R&D spend, which accounts for more than 4% of industry revenue, is considered a leading standard within the industry. In the European Commission's R&D investment scoreboard of global enterprises in 2020, Sinochem International was part of the global top 1000 while being ranked third among Chinese chemical enterprises in terms of R&D investments. In the future, the company will continue to maintain a high level of capital investment.

Out of the company's R&D investment fund for technological innovation in 2021, 39.5% was allocated to new chemical materials, 29% to lithium batteries and lithium battery materials, 14.1% to polymer additives, and 7.4% to lightweight materials and special materials. These investments are set to strengthen the key competitive advantages of the main businesses. The remaining part of the fund went to investments in common key technology research and prospective technology research.



How does Sinochem International view the Lianyungang Industrial Park project? What is the progress of the C3 project and the planned start-up time?



A:

By focusing on the fine chemical industry with new chemical materials as its core component, Sinochem International aims to leverage the Lianyungang Circular Economy Industrial Park and our self-owned breakthrough key technologies. It is hoped that this will help us build a leading enterprise in innovative new fine chemicals that is based on a reasonable industrial structure and offers an extensive product portfolio.

The Lianyungang C3 project is constructed based an integrated park concept, which enables a high degree of integration and comprehensive utilization of by-products. In turn, this greatly reduces the levels of energy consumption, material consumption and three waste emissions (industrial wastewater, waste gases and residues). The total investment for phase one of the project amounted to 13.913 billion yuan for the ongoing construction of production facilities with an annual output of 600,000 tons of PDH, 650,000 tons of phenol & acetone, 240,000 tons of bisphenol A, 400,000 tons of PO and 150,000 tons of ECH as well as related public and auxiliary engineering facilities. Certain parts of the facilities were completed and commenced production at the end of 2021 while the entire phase one project is planned for full completion in 2022. Upon commencing production, the project is expected to contribute around 11 billion yuan to average annual sales revenue.

# **Appendix**

# Report descriptions

This report is the 18th Sustainability Report published by Sinochem International.

#### Report time frame

1 January 2021 to 31 December 2021. Certain parts of the content refer to previous years or reflect the latest information on company operations.

#### Report publication frequency

This report is an annual report.

#### Report scope

Includes the company's headquarters and its holding subsidiaries at all levels.

#### Name-related descriptions

For ease of expression, ""Sinochem International (Holdings) Co., Ltd." is referred in this report as "Sinochem International", and its parent company "Sinochem Holdings Co., Ltd." is referred to as "Sinochem Holdings".

#### Basis of report preparation

This report is based on the Shanghai Stock Exchange's Corporate Social Responsibility Report guidelines, Guidance on Social Responsibility Reporting under China's National Standard GB/T36001-2015, the State-owned Assets Supervision and Administration Commission of the State Council's Guiding Opinions on the Implementation of Corporate Social Responsibility by Central Enterprises, United Nations' Ten principles of the Global Compact, Global Sustainability Standards Board's (GSSB) Sustainability Reporting Standards (Core option of GRI Standards), Corporate Social Responsibility Guidelines under the International Organization for Standardization's ISO 26000: 2010 international standard, and EcoVadis' rating standard.

#### Report preparation process

O1 Develop a report preparation plan and set up a report preparation team

Identify stakeholders and important issues, and define a reporting framework

Report writing, revisions and improvements

Review by the company's leadership

Report is published, feedback is collected for continuous improvement

#### Source of data

The data used in the report comes from the company's official documents and statistical reports. Due to statistical reasons, appropriate corrections have been made in the report on relevant data from previous years. In case of discrepancies, the data stated in this report shall prevail.

#### How to retrieve the report

You may visit Sinochem International's official website (www. sinochemintl.com) to browse the report online or download the digital version of the report.

# Key performance indicators

Category	Key indicators		Unit	2019	2020	2021
	Economic revenue	Operating income	100 million yuan	532.3	541.6	806.5
<u>^</u> î		Total assets	100 million yuan	531.5	559.4	579.7
Economy		Net profit attributable to shareholders of listed companies	100 million yuan	4.76	3.07	21.75
	ippovation	R&D investment	100 million yuan	9.68	11.77	14.85
		R&D personnel	person	1,844	1,041	905

Environment	Environmental managemen	Environmental protection investments	10,000 yuan	55,649	42,381	76,509
	Pollution prevention	Exhaust gas and wastewater discharge compliance rate, factory boundary noise compliance rate	%	100	100	100
		Standardized disposal rate of industrial solid waste	%	100	100	100
	Resource utilization	Energy consumption per ton of product	tons of standard coal equivalent/ton of product	0.41	0.40	0.38
		Fresh water consumption per 10,000 yuan of output value	ton/10,000 yuan	-	33.31	20.37
	Climate change	Greenhouse gas emission reduction	ton	26,564.87	225,766.38	71,500
		Greenhouse gas emissions per ton of product	tons of CO <sub>2</sub> /ton of product	1.72	1.49	1.37

	Employee rights	Number of employees	person	26,299	26,979	25,171
		Minority employees	person	103	51	121
	Employee training	Employee training investments	10,000 yuan	735	323.66	803
		Training time per employee	hour	12.93	15.77	28.35
		Employees who have undergone vocational or skill-related training	%	100	100	100
**\$\$	Health and safety	Work-related deaths	person	0	0	0
		Lost working days due to work injuries	day	0	0	0
Society	Supplier management	Total number of suppliers	supplier	1,291	1,870	2,159
		Suppliers who have signed the "Supplier Code of Conduct" agreement	supplier	-	504	1,532
	Product liability	Product complaint handling rate	%	100	100	100
	Anti-corruption	Corruption and bribery related lawsuits	-	0	0	0
	Community involvement	External donations	10,000 yuan	131.5	75.0	130.9
		Social contribution per share	yuan	2.08	2.11	4.08

Note: Unless otherwise specified, the currencies stated in this report are all in Chinese yuan

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# **Expert Assessment**

The 2021 Sinochem International Sustainability Report is the 18th sustainability report to be released by Sinochem International. The report, centered on the challenges and opportunities on the company's horizon, systematically and comprehensively explicates Sinochem International's philosophy, measures, case illustrations, and key performance indicators in its efforts at sustainable development, as well as illustrates Sinochem International's leading and exemplary role in promoting sustainable development and its ceaseless efforts at establishing a world-class model for sustainable chemical enterprise development.

#### Corporate and social responsibility in response to the foci of state strategies and social concerns

The report actively responds to international hotspots, state strategies, and the concerns of our stakeholders with a focus on the disclosure of corporate plans and our progress in ESG (Environmental, Social, and Governance) work, environmental protection, and other fields during the year. The report also looks back on the key points of our CSR performance for the year through the two topics of "low-carbon development to help achieve the 3060 goal" and "Fulfilling commitments and helping accomplish SDGs," thus framing the company's CSR efforts within an international perspective and its responsibilities to the country. In the area of sustainable development, in the report the company has disclosed for the first time its strategic sustainable development goals for the 14th Five-Year Plan period as well as its goals and annual progress in terms of low-carbon development and sustainable supply chain, with a reflection of the company's consistent responsibility, belief and accountability.

#### Focusing on management methods and data disclosure to enhance accountability and transparency

In the report, the company has also added disclosures on its management approach in various sections, including information on its management philosophy, management objectives, and management strategies. It has also presented in a systematic manner its sustainable development strategies and actions taken in this area, and how it manages issues of concern. The comprehensive use of GRI standards, the Shanghai Stock Exchange's ESG guidelines, the EcoVadis rating and other standards and requirements have helped to enhance the company's information disclosure for more complete and targeted data disclosure. The company has also shed light on statistical range and its calculation method for its environmental performance indicators, as well as made its data more comparable, so that stakeholders can have a more specific and clear understanding of how it is doing in terms of its corporate responsibilities.

#### Variety of presentation methods used to make the report more reader-friendly

The report is well structured, logical, concise, and informative. Thanks to the use of the issue matrix, logic diagrams, statistical diagrams, key performance [indicators], etc., alongside beautiful images and case illustrations in the report, the reader is able to clearly understand the company's value proposition and sustainable development. The report is highly readable and has a number of memorable "hooks," which add to the pleasure of reading.

The year 2022 is a key year in our efforts to build a socialist modern country on all fronts and in our march towards the second centenary goal. It is a critical year for the implementation of the 14th Five-Year Plan and the two goals of peaking CO<sub>2</sub> emissions before 2030 and achieving carbon neutrality by 2060. Sinochem International, guided by the state's carbon goals and the company's 14th Five-Year sustainable development goal, looks forward to the accelerated implementation of its sustainable development strategy as well as the continued improvement in its responsibility competitiveness in a way that is in line with the sustainable development of the enterprise, as it seeks to contribute even more to a more broadly sustainable future.

VIN Cafa:

Founder and Chief Expert and Founder of GoldenBee Deputy Secretary-General, ISO 26000 Global Stakeholder Network

### **Third Party Assurance**



#### **Independent Assurance Statement**

#### Introduction

TÜV Rheinland (Guangdong) Ltd., member of TÜV Rheinland Group, Germany (hereinafter "TÜV", "We") has been entrusted by the management of Sinochem International Corporation (hereinafter "Sinochem International", "the Company") to conduct independent assurance of 2021 Sustainability report (hereinafter "the Report"). All contractual contents for this assurance engagement rest entirely within the responsibility of Sinochem International. Our task was to give a fair and adequate judgment on 2021 Sustainability report.

The intended users of this assurance statement are stakeholders having relevance to the Sinochem International overall sustainability performance and impacts of its business activities during 2021 (1 January 2021 ~ 31 December 2021). TÜV Rheinland is a global service provider of Corporate Social Responsibility (CSR) & Sustainability Services in over 65 countries, having qualified professionals in the field of Corporate Sustainability Assurance, Environment, Social and Stakeholder Engagement. We have maintained complete impartiality and independence during the assurance engagement, and not been involved in the preparation of the Report contents.

#### Assurance Standard

The independent assurance was carried out in accordance with AccountAbility AA1000AS v3, covering defined principles of Inclusivity, Materiality, Responsiveness and Impact.

#### Scope & Type of Assurance

Our Assurance engagement covers the following:

- GRI Sustainability Reporting Standards (GRI Standards) and the criteria for Core option in accordance with the GRI Standards, and information and data related to economics, environment & social, and material topics and sustainability performance disclosed in the Sinochem International 2021 Report, also defined in reporting boundaries
- Evaluation of disclosed information and data in the Report as per the Assurance Standards.
- Type-1, Moderate Assurance Level as per AA1000AS v3.

Limitation: The assurance engagement was conducted via on-line video connection to have communication with relevant departmental managers who are responsible for sustainable development in the Sinochem International, and remote access to documents and records as required due to Covid-19. TÜV has not conducted any consultations with external stakeholders. The verification is implemented based on the data and information provided by Sinochem International, assuming that they are complete and true.

#### Assurance Methodology

TÜV has challenged the Report contents and assessed the process undertaken by Sinochem International from source to aggregation in disclosure of information and data pertaining to sustainability performance. Our judgment is based on the objective review of reported information as per criteria defined under Assurance Standards, that is, principles of Inclusivity, Materiality, Responsiveness and Impact.

Analytical methods and the performance of interviews as well as data verification were used as per random sampling, to verify and validate the correctness of reported data and contents in light with contractual agreement and the factual Sinochem International corporate sustainability strategy as mentioned in the Report. Our work covered interviews with Sinochem International representatives including senior management and relevant employees who collected, summarized and reported the disclosures. The approach deemed to be appropriate for the purpose of assurance of the Report since all data therein could be verified through original proofs and/or verified database entries

The Assurance was performed by our multidisciplinary team of experienced professionals in the field of Corporate Sustainability, Environment, Social and Stakeholder Engagement. We are of the opinion that our work offers a sufficient and substantiated basis to enable us to come to a conclusion mentioned below and based on the content of our contract.



#### Adherence to AA1000AS v3

**Inclusivity:** Sinochem International has identified key stakeholders by analyzing the company's impact on stakeholders and stakeholders' impact on the company. The company followed stakeholder engagement process and communicated with its stakeholders in proper approaches (for instance, survey questionnaire) to collect and understand views and expectations from its stakeholders, which provided information basis for assessment of material sustainability topics.

**Materiality:** Sinochem International has assured materiality assessment process. The company has analyzed materiality of topics concerned by its stakeholders, by fully considering sustainability contexts in the industry, expert opinions and so on, and by integrating risk assessment methodology, eventually defined material sustainability topics (including pollution prevention, environmental protection, health and safety, climate change, compliance management, etc.) and disclosed them in the Report.

**Responsiveness:** Sinochem International has drawn up and made all-out effort to implement 15 work plans about sustainability in 2021, which cover a number of social and environmental topics. The company disclosed important information and key performance on ESG matters, for instance, 29 major projects of carbon drop was implemented to reduce greenhouse gas emission, which positively responded concerns of key stakeholders.

Impact: Sinochem International has strengthened ESG governance in 2021, and established five executive sub-committees in sustainability, focusing on areas of carbon drop and emission reduction, health and safety, sustainable supply chain, labor and human rights, and sustainable governance. The company has launched strategic goals in corresponding five areas by applying processes of impact assessment, risk management and performance management, etc. In 2021, the company has comprehensively carried out carbon accounting, established database of carbon emission, and started path and action plans for carbon peak and neutrality.

#### Conclusion

In conclusion, we can mention that no instances or information came to our attention that would be to the contrary of the statement made below:

- Sinochem International 2021 Sustainability Report meets the requirement of Type-1, Moderate Assurance Level according to AA1000AS v3, and the criteria for Core option in accordance with the GRI Standards.
- The Report includes statements and claims that reflect Sinochem International sustainability achievements and challenges supported by documentary evidence and internal records.
- The performance data we found in the Report are collected, stored and analyzed in a systematic and professional manner and were plausible.
- TÜV Rheinland shall not bear any liability or responsibility to a third party for perception and decision about Sinochem International based on this Assurance Statement.



For TÜV Rheinland Group

Daniel Pan
Technical Manager for Corporate Sustainability
7 June 2022, Shanghai, China

# Feedback form

Thank you for reading the 2021 Sustainability Report for Sinochem International. We value and look forward to hearing your feedback on the company's sustainability efforts and this Sustainability Report. Your opinions and suggestions help us continuously improve the disclosure standards of corporate social responsibility and promote corporate social responsibility management and practices. You could fill out the form below and send us feedback by post or email. We welcome and sincerely appreciate your valuable comments!

Your overall impression of this report
☐ Very Good ☐ Good ☐ Average ☐ Slightly Poor ☐ Poor
Do you think this report had a reasonable structure?
☐ Very Reasonable ☐ Reasonable ☐ Average ☐ Slightly Unreasonable ☐ Unreasonable
Do you think this report is readable?
☐ Very Reasonable ☐ Reasonable ☐ Average ☐ Slightly Unreasonable ☐ Unreasonable
How well is the information you are concerned about disclosed in this report?
☐ Fully Disclosed ☐ Mostly Disclosed ☐ Disclosed ☐ Partially Disclosed ☐ Not disclosed
Information you are concerned about that is not reflected in this report:
Your suggestions on our sustainability effort or on this sustainability report:
Contact us:
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