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中石化煉化工程（集團）股份有限公司
SINOPEC Engineering (Group) Co., Ltd.*

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

(Stock Code: 2386)

Annual Results Announcement for the Year ended 31 December 2021

The Board of Directors ("**Directors**") (the "**Board**") of SINOPEC Engineering (Group) Co., Ltd. (the "**Company**") is pleased to announce the audited results of the Company and its subsidiaries for the year ended 31 December 2021. This announcement, containing the full text of the 2021 Annual Report of the Company, complies with the relevant content requirements of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited in relation to preliminary announcements of annual results. The full text of the 2021 Annual Report of the Company is also published on the website of The Stock Exchange of Hong Kong Limited (www.hkexnews.hk) and on the website of the Company (www.segroup.cn). The printed version of the 2021 Annual Report of the Company will be delivered to the shareholders of H shares of the Company in April 2022.

Publication of the Results Announcement

The Chinese and English versions of the Results Announcement are available on the website of the Company (www.segroup.cn) and on the website of The Stock Exchange of Hong Kong Limited (www.hkex.com.hk). In the event of any discrepancies between the English version and the Chinese version, the Chinese version shall prevail.

By Order of the Board
SINOPEC ENGINEERING (GROUP) CO., LTD.
JIA Yiqun
Chief Financial Officer, Secretary to the Board and Company Secretary

Beijing, the PRC
20 March 2022

As at the date of this announcement, directors of the Company are: SUN Lili#, XIANG Wenwu#, WANG Zizong, Li Chengfeng*, WU Wenxin*, JIANG Dejun#, HUI Chiu Chung, Stephen+, JIN Yong+ and YE Zheng+.*

Executive Directors
* *Non-executive Directors*
\+ *Independent Non-executive Directors*

This announcement is available on the website of Hong Kong Exchanges and Clearing Limited(www.hkex.com.hk) and on the website of the Company (www.segroup.cn).

* *For identification purposes only*

CONTENTS

COMPANY PROFILE

The Group is a leading energy and chemical engineering company in the PRC with strong international competitiveness and can provide domestic and overseas clients with overall solutions for petrol refining, petrochemicals, aromatics, coal chemicals, inorganic chemicals, pharmaceutical chemicals, clean energy, storage and transportation facilities, environmental protection and energy saving, among other industry sectors. The Group is an integrated service provider for the whole industry chain and the whole life cycle in energy and chemical industry and can provide overall industry chain services including engineering consulting, technology licensing, project management contracting, financing assistance, EPC (engineering, procurement and construction) contracting, as well as design, procurement, construction and installation, lifting and transportation of large equipment, pre-commissioning and start-up.

After nearly 70 years of continuous development, the Group currently has one academician of the Chinese Academy of Sciences, three academicians of the Chinese Academy of Engineering and nearly 10,000 professionals. The Group has rich project management and implementation experience, and owns and cooperatively owns patents and know-how in

core business areas. The Group has delivered on schedule hundreds of modern factories with enormous investment, complicated process, advanced technology and high quality to clients in more than 20 countries and regions around the world, established long-term and steady cooperative relationships with large energy and chemical enterprises at home and abroad, maintained an extensive and stable client base, and enjoys remarkable industrial influence and social reputation.

In the future, adhering to the development orientation of “Integrated Service Provider with Whole Industry Chain and Whole Life Cycle in Energy and Chemical Industry”, the Group will base itself on the energy and chemical engineering construction industry, continuously broaden its business scope and extend its value chain, take “Engineering Innovation” and “Value Creation” as the development engines, deepen the implementation of the six development strategies of “Value-Oriented, Innovation-Driven, Green & Clean, Talent-Based, Globalization-Targeted, Fusion & Symbiosis”, comprehensively improve the level of safe, efficient, green and low-carbon service in the business chain, and create a new momentum in achieving the corporate vision of “Building the world’s leading technology-oriented engineering company”.

BASIC INFORMATION OF THE COMPANY

LEGAL NAME

中石化煉化工程(集團)股份有限公司

CHINESE ABBREVIATION

中石化煉化工程

ENGLISH NAME

SINOPEC ENGINEERING (GROUP) CO., LTD.

ENGLISH ABBREVIATION

SINOPEC SEG

LEGAL REPRESENTATIVE

Mdm. SUN Lili

AUTHORISED REPRESENTATIVES

Mr. JIANG Dejun

Mr. JIA Yiqun

SECRETARY TO THE BOARD, COMPANY SECRETARY

Mr. JIA Yiqun

REGISTERED ADDRESS

Building 8, Shenggujiayuan, Shenggu Middle Road, Chaoyang District, Beijing, the PRC

CORRESPONDENCE ADDRESS

Building 8, Shenggujiayuan, Shenggu Middle Road, Chaoyang District, Beijing, the PRC

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WEBSITES ON WHICH THIS ANNUAL REPORT IS PUBLISHED

Website designated by The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange"):

http://www.hkex.com.hk

The Company's website:

http://www.segroup.cn

PLACE OF LISTING OF SHARES, STOCK NAME AND STOCK CODE

H Shares: Hong Kong Stock Exchange

Stock name: SINOPEC SEG

Stock code: 2386

UNIFORM SOCIAL CREDIT CODE

911100007109349087

NAMES AND ADDRESSES OF AUDITORS

PRC:

BDO China Shu Lun Pan Certified Public Accountants LLP

Room 1410, 14th Floor, Fanli Mansion, No. 22 Chaoyangmenwai Street, Chaoyang District Beijing, the PRC

Overseas:

BDO Limited

25th Floor, Wing On Centre, 111 Connaught Road Central, Hong Kong

NAME AND ADDRESS OF LEGAL ADVISORS

PRC:

King & Wood Mallesons

17th-18th Floor, East Tower, World Financial Center, 1 Dongsanhuan Zhonglu, Chaoyang District, Beijing

Hong Kong:

Herbert Smith Freehills

23th Floor, Gloucester Tower, 15 Queen's Road Central, Hong Kong

PRINCIPAL FINANCIAL DATA AND INDICATORS


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Principal Financial Data and Indicators

Summary of Financial Data and Indicators Prepared in Accordance with International Financial Reporting Standards ("IFRS")

Unit: RMB'000

Items	As at 31 December 2021	As at 31 December 2020	As at 31 December 2019	As at 31 December 2018	As at 31 December 2017	Changes from the end of 2020 (%)
Non-current assets	7,979,567	7,409,911	7,256,957	7,034,787	7,540,799	7.7
Current assets	64,937,676	64,055,416	60,616,791	63,837,953	51,864,822	1.4
Current liabilities	41,370,338	40,672,278	37,791,658	41,998,840	31,015,076	1.7
Non-current liabilities	2,423,569	2,537,011	2,811,549	2,890,751	2,799,540	(4.5)
Consolidated equity attributable to equity holders of the Company	29,118,084	28,251,172	27,265,976	25,978,646	25,586,839	3.1
Net assets per share of equity holders of the Company (RMB)	6.58	6.38	6.16	5.87	5.78	3.1

Unit: RMB'000

Items	Year ended 31 December					Changes over the same period of 2020 (%)
	2021	2020	2019	2018	2017	
Revenue	57,759,590	52,352,584	52,261,051	47,019,024	36,208,723	10.3
Gross profit	6,468,189	5,714,072	5,482,733	5,195,574	4,026,172	13.2
Operating profit	1,701,898	2,204,379	2,017,007	1,435,534	1,112,267	(22.8)
Profit before taxation	2,592,407	3,010,562	2,827,400	2,121,515	1,635,101	(13.9)
Profit attributable to equity holders of the Company	2,129,589	2,381,905	2,183,457	1,679,472	1,129,974	(10.6)
Basic earnings per share (RMB)	0.48	0.54	0.49	0.38	0.26	(10.6)
Net cash flow generated from operating activities	2,943,228	2,956,836	300,047	6,104,192	4,240,508	(0.5)
Net cash flow generated from operating activities per share (RMB)	0.66	0.67	0.07	1.38	0.96	(0.5)

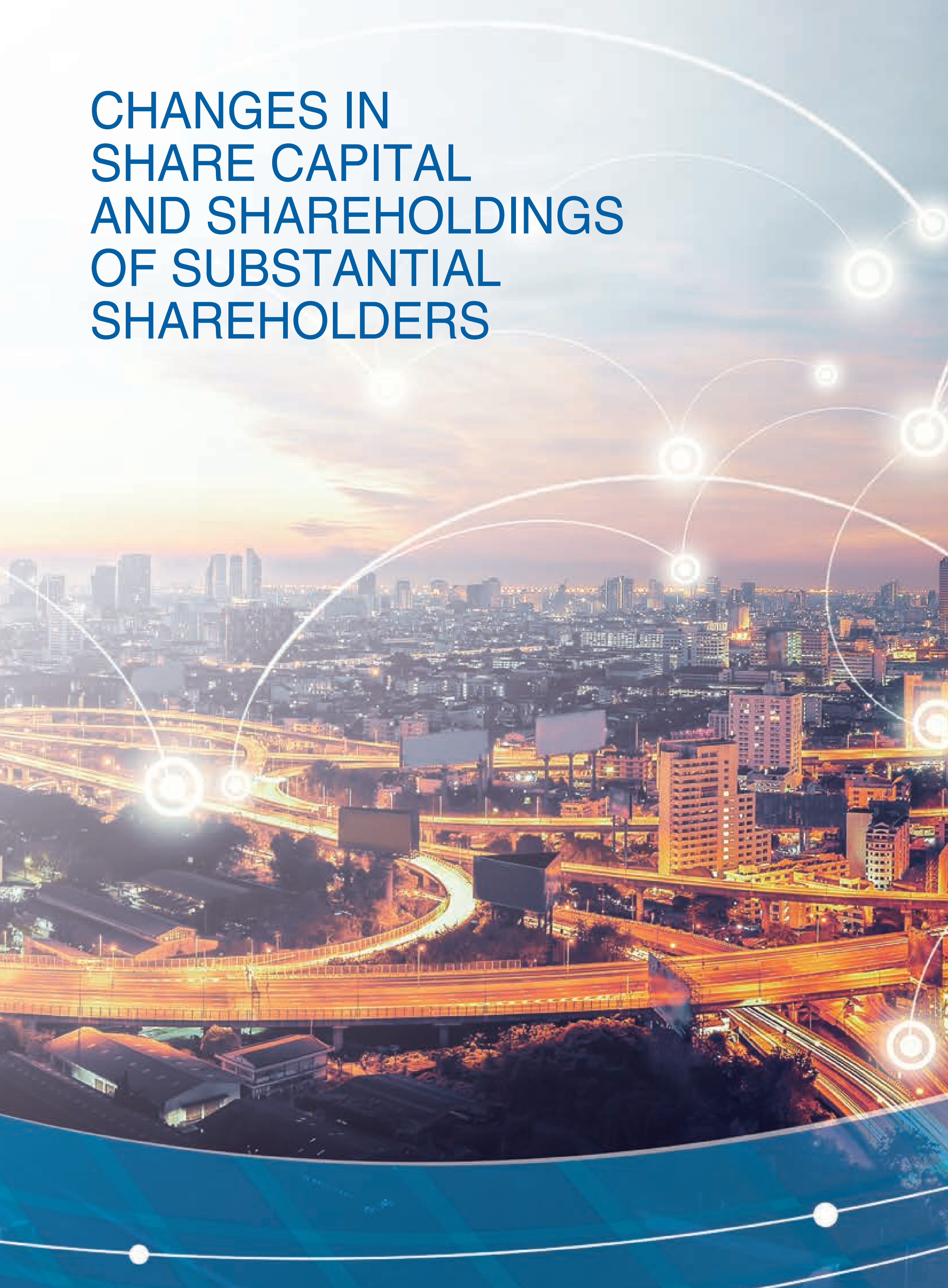
Items	Year ended 31 December				
	2021	2020	2019	2018	2017
Gross profit margin (%)	11.2	10.9	10.5	11.0	11.1
Net profit margin (%)	3.7	4.6	4.2	3.6	3.1
Return on assets (%)(1)	3.0	3.4	3.1	2.6	1.9

Items	As at 31 December 2021	As at 31 December 2020	As at 31 December 2019	As at 31 December 2018	As at 31 December 2017
Asset-liability ratio (%)(2)	60.1	60.5	59.8	63.3	56.9

(1) Return on assets = $\frac{\text{Profit for the year}}{\text{(Opening balance of total assets + Closing balance of total assets)/2}}$

(2) Asset-liability ratio = $\frac{\text{Total liabilities as at the end of the year}}{\text{Total assets as at the end of the year}}$

CHANGES IN SHARE CAPITAL AND SHAREHOLDINGS OF SUBSTANTIAL SHAREHOLDERS



Changes in Share Capital and Shareholdings of Substantial Shareholders

1 Changes in the Share Capital of the Company

Unit: Share

	As at 31 December 2020		Increase/Decrease during the Reporting Period (+, -)			As at 31 December 2021	
	Number	Percentage (%)	New shares issued	Others	Subtotal	Number	Percentage (%)
Promoter shares (Domestic Shares)	2,967,200,000	67.01	–	–	–	2,967,200,000	67.01
Foreign shares listed overseas (H Shares)	1,460,800,000	32.99	–	–	–	1,460,800,000	32.99
Total number of shares	4,428,000,000	100.00	–	–	–	4,428,000,000	100.00

2 Shareholdings of Substantial Shareholders

As at the end of the Reporting Period, there were a total of 935 shareholders of the Company. As at 20 March 2022, the public float of the Company satisfied the minimum requirements under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Hong Kong Listing Rules") according to the information publicly available to the Company and to the knowledge of the Directors.

(1) Shareholdings of the top ten shareholders

Unit: Share

Name of Shareholders	Increase/ Decrease during the Reporting Period (+, -)	Number of Domestic Shares held as at the end of the Reporting Period	Number of H Shares held as at the end of the Reporting Period	Percentage as at the end of the Reporting Period	
				In total share capital (%)	In relevant class of shares (%)
China Petrochemical Corporation [1]	0	2,967,200,000	–	67.01	100.00
HKSCC NOMINEES LIMITED	+20,408,991	–	1,453,744,280	32.83	99.52
ZHANG SAIYU	-700,000	–	2,900,000	0.07	0.20
HUI MO CHEE	+370,000	–	870,000	0.01	0.06
HUI SIU SHUN WAN	+140,000	–	340,000	0.01	0.02
WONG CHOK SHUN	0	–	300,000	0.01	0.02
WONG CHUI CHUNG	0	–	295,000	0.01	0.02
CHAN LAI KUEN SELINA	+500	–	195,500	0.00	0.01
WONG CHUI CHUNG	0	–	195,500	0.00	0.01
CHOI LAI MING	+130,000	–	130,000	0.00	0.01
CHAN KEUNG	+87,000	–	87,000	0.00	0.01
Statement on the connected relationship or acting in concert among or between the aforementioned shareholders	The Company is not aware of any connection or acting in concert among or between the aforementioned top ten shareholders				

(2) Information disclosed according to the Securities and Futures Ordinance

In accordance with the archiving notice submitted through Disclosure of Interests Online System, save as the information disclosed below, as at the end of the Reporting Period, to the knowledge of the Board, no person(s) had an interest or short position in the shares or underlying shares or debentures of the Company which would fall to be disclosed under the provisions of Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance (the "SFO") or, who was, directly or indirectly, interested in 5% or more of the nominal value of any class of share capital carrying the rights to vote in all circumstances at general meetings of the Company:

Name of Shareholders	Class of share	Capacity	Number of shares with interests held or regarded as being held (Share)	Percentage in shares of the Company of the same class (%)[7]	Percentage in the total share capital of the Company (%)[8]
China Petrochemical Corporation[1]	Domestic Share	Beneficial owner/Interests of controlled corporation	2,967,200,000(L)	100.00(L)	67.01(L)
Brown Brothers Harriman & Co.[2]	H Share	Agent	102,302,925 (L)	7.00 (L)	2.31 (L)
			102,321,779 (P)	7.00 (P)	2.31 (P)
FMR LLC[3]		Interests of controlled corporation	90,338,771(L)	6.18(L)	2.04 (L)
JPMorgan Chase & Co.[4]	H Share	Interests of controlled corporation/Investment manager/Persons having a security interest in shares/ Approved lending agent	84,058,435 (L)	5.75 (L)	1.90(L)
			3,716,753 (S)	0.25 (S)	0.08(S)
			77,593,431 (P)	5.31 (P)	1.75 (P)
Pandanus Associates Inc.[5]	H Share	Interests of controlled corporation	76,193,353 (L)	5.22 (L)	1.72 (L)
Pandanus Partners L.P.[5]	H Share	Interests of controlled corporation	76,193,353 (L)	5.22 (L)	1.72 (L)
FIL Limited[5]	H Share	Interests of controlled corporation	76,193,353 (L)	5.22 (L)	1.72 (L)
BlackRock, Inc.[6]	H Share	Beneficial owner	73,535,691 (L)	5.03 (L)	1.66(L)

Notes: (L): long position; (S): short position; (P): lending pool.

Notes:

(1) China Petrochemical Corporation ("Sinopec Group") directly and/or indirectly holds 2,967,200,000 domestic shares of the Company ("Domestic Shares"), representing 100% of the Domestic Shares and approximately 67.01% of the total share capital of the Company, respectively. Sinopec Assets Management Co., Ltd. is a wholly-owned subsidiary of Sinopec Group and directly holds 59,344,000 Domestic Shares, representing 2.00% of the Domestic Shares and approximately 1.34% of the total share capital of the Company, respectively. For the purposes of the SFO, Sinopec Group is also deemed to be interested in the Domestic Shares held by Sinopec Assets Management Co., Ltd.

(2) The information is based on the Corporate Substantial Shareholders Notice dated 23 November 2021 and filed by Brown Brothers Harriman & Co. with the Hong Kong Stock Exchange.

(3) The information is based on the Corporate Substantial Shareholders Notice dated 13 July 2021 and filed by FMR LLC with the Hong Kong Stock Exchange.

(4) The information is based on the Corporate Substantial Shareholders Notice dated 25 October 2021 and filed by JPMorgan Chase & Co. with the Hong Kong Stock Exchange.

(5) The information is based on the Corporate Substantial Shareholders Notices dated 22 July 2021 and filed by Pandanus Associates Inc., Pandanus Partners L.P. and FIL Limited with the Hong Kong Stock Exchange. According to these notices, Pandanus Associates Inc. holds 100% interest in Pandanus Partners L.P. and Pandanus Partners L.P. holds 36.86% interest in FIL Limited.

(6) The information is based on the Corporate Substantial Shareholders Notice dated 6 October 2021 and filed by BlackRock, Inc. with the Hong Kong Stock Exchange.

(7) It is calculated on the basis that the Company has issued 2,967,200,000 Domestic Shares and 1,460,800,000 H Shares.

(8) It is calculated on the basis that the Company has issued 4,428,000,000 Shares in total.

CHAIRWOMAN'S STATEMENT

Mdm. SUN Li Li

Chairwoman of the Board

Dear shareholders,

On behalf of the Board of Directors, I would like to present the 2021 annual report to all shareholders, and express my heartfelt appreciation for your interest and support!

As the first year of the "14th Five-Year Plan", the year 2021 witnessed the Group's high-quality development reaching a new level. In the face of the COVID-19 pandemic and the challenge and risks brought by industrial changes, the Group adhered to science-and-technology-guided progress, innovation-driven growth, value creation, reform and development, with a number of business indicators hitting record highs, achieving revenue of RMB57.760 billion, net profit of RMB2.130 billion, and newly-signed contracts with a total value of RMB63.150 billion for the whole year, which represented remarkable results.

The Group always attaches great importance to returns for the shareholders and stands ready to share the Company's growth with them. Despite multiple difficulties and challenges, based on an overall consideration of the profitability of the Group, shareholders' returns and the needs for sustainable development in the future, the Board proposed a final dividend of RMB0.222 per share for the year of 2021, which is the largest final dividend payout since IPO. Taking into account of the interim dividend of RMB0.091 per share, the total dividend for the year was RMB0.313 per share with a dividend payout ratio of 65%, which is 9 percentage points higher than that of 2020, ensuring the continuity of dividend payment.

In 2021, the Company's production and operation were integrated and mutually promoted with the Party building effort, and all business lines gave full play to the integrated strength of the "Large Troop Formation" combat mode, pooling together powerful synergies to push forward high-quality development, thus remarkable results were attained in all aspects of work.

New breakthroughs were made in tackling key problems in science and technology. We exerted the advantages of our leading position in science and technology, and intensified innovation with focus on new energies, new materials, carbon reduction, quality improvement, efficiency enhancement, and chemicals from crude oil. In respect to new energies, we sped up the development of the whole industrial chain technology of hydrogen energy, formed an integrated R&D layout covering hydrogen production, storage, transportation and terminal applications, undertook a number of major special projects of hydrogen energy research and industrial application demonstration, and entered the project implementation stage of Xinjiang Kuqa photovoltaic hydrogen production, the largest green hydrogen project in the world. In terms of carbon reduction, quality improvement and efficiency enhancement, we actively promote green and low-carbon businesses such as CO2 recycling, waste heat resource utilization, and distributed photovoltaic power generation to help the energy industry in energy conservation, emission reduction and green development. In terms of new materials, Poly Alpha Olefin lubricating oil (PAO) was successfully put into production with the production technology and industrial application in place, filling the technical gap of low-viscosity and fully-synthesized high quality lubricating oil in China; and Jinling and Maoming High-end Carbon Materials Project went into production one after another, which produced qualified high-end carbon products, opening up a new technical path for the utilization of heavy and inferior oil such as catalytic oil slurry. The first domestic industrial demonstration plant of 3,000 t/a high-isotactic polybutene-1, a product that enjoys the reputation of "plastic gold", was put into production successfully in Zhenhai, marking another major technological breakthrough in the field of high-end synthetic new materials. In the area of chemicals from crude oil, the technologies of directly cracking crude oil to ethylene and directly catalytic cracking crude oil to chemicals achieved their first industrial application in China, blazing a new trail for "reducing oil and increasing chemical output" and efficient utilization of crude oil. In terms of digitalization, we obtained a breakthrough in extending the application of engineering digital twinning in smart factories, with nearly 30 projects delivered digitally. Throughout the year, we won 92 scientific and technological progress awards of the provincial and ministerial level, among which, the "Packaged Technology for Million-ton-scale Ethylene Production from Complex Raw Materials" won the first prize of National Scientific and Technological Progress Award.

Corporate governance was further optimized. The Board earnestly fulfilled the duties entrusted by the relevant national laws and regulations, the Articles of Association and the general meeting of shareholders, ensured that the resolutions of the general meeting of shareholders could be implemented, strengthened corporate governance, laid emphasis on shareholders' returns, and achieved good results in all aspects. In October 2021, the term of the Third Board of Directors of the Company expired, and the members of the Fourth Board of Directors was successfully elected, resulting in a more rational structure of the new board with stronger decision-making competence. Under the strong support of independent directors and shareholders, the continuous connected transactions between the Company and the controlling shareholders from 2022 to 2024 gained approval at the meeting of independent shareholders. In addition, we comprehensively promoted the integration of risk control, internal control and compliance management, carried out actions to improve the effectiveness of internal control system for three consecutive years, well managed and took control of major operational risks, and built a defense line of joint prevention and control. In order to further improve the modern corporate governance, an expert panel was formed at the Company's headquarters to carry out a comprehensively management system enhancement campaign for all aspects based on risk prevention, process standards and intensive process control, and successfully passed Lloyd's management audit and certification by the end of 2021, becoming the first listed company in China's petrochemical engineering industry that holds the certification.

New heights was made in our core competence in engineering. Giving full play to our strengths of the collective operation as a "Large Troop Formation" and the integration of EPC overall planning and coordination, we implemented 1,423 projects during the year, of which 804 were delivered and no safety, quality and environmental protection accidents were reported. Among them: A number of key projects, such as Zhenhai Refinery Ethylene Project, Gu Lei Refinery Integration Project, crude oil storage facilities and LNG terminals, were fully completed and put into operation. Maoming High-end Lubricants and High-end Carbon Project started smoothly, and Hainan Ethylene, Baling Caprolactam and other projects were efficiently proceeded in coordination, which provided important impetus for customers' high-quality development as well as industry transformation and upgrading. In the whole year, we won 2 national-level gold awards and 2 silver awards of quality engineering, and 21 provincial- and ministerial-level quality awards.

New achievements were attained in market exploration. By actively leveraging our advantages in engineering consulting business, we locked down several key projects in advance by undertaking the overall design and engineering for the projects of Tahe Ethylene, Luoyang Ethylene, Guizhou PGA, etc., and completed new contracts for design, consulting and technology licensing business with a total value of RMB5.920 billion in the whole year, up 46.3% year-on-year. We signed 375 new consulting contracts, more than half of which entered the stage of the project implementation. In a bid to facilitate clients' needs for transformation and upgrading, we signed a number of major project contracts such as Hainan Ethylene, Shandong LNG (Phase III) and Russian Amur natural gas chemical project, further consolidating our leading position in the market.

New progress was made in ESG convergence. The ESG Committee was established under the Board of Directors, dedicating to building green and efficient productivity with advanced technology and exploring a coupled development path of multiple energy sources. Efforts were made to innovate technology, develop while cutting carbon emission, and concretely promote the integration and symbiosis of corporate development, ecological environment protection and social responsibility fulfillment. The carbon fiber that we co-developed was successfully used in manufacturing the torch shell of 2022 Beijing Winter Olympics, and the three hydrogen refueling stations that we undertook were put into use for Beijing Winter Olympics, providing clean energy for the "Green Winter Olympics". A series of projects represented by Tianjin LNG Phase II were completed and put into use, effectively supporting the winter energy supply in North China. We are committed to protecting clear water, blue sky and pure land, and eight member enterprises won the title of "Green Enterprise". We actively fulfill our social responsibilities, systematically carry out external donations and volunteer services, and contribute to regional economic development and rural revitalization.

So far, the global pandemic is still evolving, the external environment remains complicated and severe, and various industries in the energy field are experiencing an accelerated reconstruction and in-depth adjustment. At the same time, China's ability for macroeconomic regulation and control is constantly improved, and the fundamentals of strong economic resilience and long-term improvement remain unchanged. The Company will enter a new development period of important opportunities, but it still faces with more complex environment and challenges. The Board has approved the Company's "14th Five-Year Plan", and is moving towards the development goal of "building a world's leading technology-oriented engineering company". Committed to our mission of ensuring national energy security, supporting the transformation and development of petrochemical industry, serving the people's better life and sharing the company's growth with shareholders, we will deepen the implementation of the development strategy of "Value-Oriented, Innovation-Driven, Green & Clean, Talent-Based, Globalization-Targeted, Fusion Symbiosis ", and take "Engineering Innovation" and "Value Creation" as our development engines. We will bravely ride the waves in meeting the major challenges of energy security, industrial transformation, independent innovation and green transformation, take the initiative to act as a strong guarding force for energy security, an efficient support force for industrial upgrading, a reliable backbone for independent innovation and a leading force for innovative green transformation, and strive to achieve new development, unfold new accomplishments and create new records in the coming new year.

In terms of corporate governance, we will continue to optimize and improve the management system on the basis of the management system certification obtained by the Headquarters, and strive to strengthen and upgrade our management ability to ensure the compliance, effectiveness and continuous improvement of the system. We will further promote the construction of major operational risk management and control system, give full play to the management functions such as legal risk audit, financial risk investigation, fund safety inspection, patrol and audit supervision, and resolutely curb the occurrence of major operational risks. We will continue to carry forward the construction of the management system of the Group, and realize the integration and mutual promotion among enterprises. Adhering to engineering innovation and value creation, we will integrate and coexist with all relevant stakeholders, and comprehensively advance the overall service capability of the whole business chain and the whole life cycle.

In terms of scientific and technological innovation, we will focus on the targets of "Carbon Peaking and Carbon Neutrality", explore the refining process reengineering under the new energy and new power system, analyze and study the carbon neutralization strategy and implementation path of the industry, and focus on the development and reserve of related technologies. With focus on tackling key core technologies around "oil producing chemicals", "oil transformed to chemicals" and "oil transformed to special products", high-end chemical materials, hydrogen energy industry chain, CCUS, etc., we will actively undertake major scientific and technological tasks, and promote industry transformation and upgrading. We will continuously improve the innovation mechanism by promoting collaborative innovation, deepening industry-university-research-design cooperation, carrying out joint laboratory pilot, and giving full play to the role of engineering design as a bridge, thus making the Company an important hub for transforming scientific and technological achievements into practical productive forces. New progress was made in digitalization. Business domain process standardization and data governance has been carried out with unified application architecture, platform architecture, technical route and standards, so as to promote integrated application to the cloud platform.

In terms of production and operation, we will take the foothold of the new "dual-cycle" development pattern and the goals of "carbon peaking and carbon neutrality", adhere to market orientation, reinforced the role as a "radar" for market development, and closely track and judge market changes. While consolidating business of traditional strength, we will take initiative in developing new areas and new markets. By leveraging our operational advantages of "Large Troop Formation" and the integrated synergy under overall coordination, we will continue to strengthen the whole process service for projects from earlier stage, engineering design, procurement and construction, to start-up, carry out the process evaluation of implementation for major projects, and promote the high-quality, safe and efficient implementation of key projects. We will intensify efforts in the quality management of the whole life cycle of the project, and continuously improve the essential safety level in design. We will strictly implement pandemic prevention and control measures, and cement our good records of "zero infection" in China and "zero gathering" outside China.

In terms of talent cultivation, we will carry out the strategy of "Talent-based Enterprises" and implement the medium and long-term talent development plan. We will conduct the "Talent Seedling Program" for young cadres, promote the multi-post exchange training of young cadres within and among different business units, provide broader opportunities for young cadres to experience, and comprehensively enhance the professionalism and overall management ability of cadres. We will launch the training programs of "Approaching Scientists" and "Towards Advanced Enterprises", adopt the method of "Exchanging Visits with Outside Resources", strengthen professional quality training, improve the comprehensive quality and ability of cadres and employees, and provide better human resources guarantee for corporate development.

The new blueprint has been rolled out, and the new journey has a long way to go. As a company with a glorious history of nearly 70 years, we will never forget our original aspiration and shoulder the responsibility and mission entrusted to us by the times. I believe that with the unremitting efforts of the Board, the management team and all employees, as well as the strong support of shareholders and all sectors of society, SINOPEC SEG will achieve higher quality and more effective growth, make greater contributions to ensuring national energy security, add more momentum to the high-quality development of petrochemical industry, offer more excellent outcomes to customers and create greater value for shareholders, society and employees!

SUN Lili

Chairwoman of the Board

Beijing, the PRC

20 March 2022

BUSINESS REVIEW AND PROSPECTS

1 Business Review

Mr. JIANG Dejun

Director and President

(1) Operating Environment

In 2021, the global COVID-19 pandemic resurged repeatedly. Loose fiscal and monetary policies made inflation high and commodity prices continued to rise. Confronted with multiple challenges such as complicated and severe international environment and domestic resurgence of COVID-19 cases from time to time, the Chinese government adhered to the general tone of striving for stability, scientifically coordinated pandemic prevention and control and economic and social development, and a stable recovery of national economy was made and high-quality development achieved, presenting a good start for the 14th Five-Year Plan. In 2021, China achieved a GDP growth rate of 8.1%.

In 2021, the global COVID-19 vaccination rate gradually increased, propelling the recovery of global economic activities, and sustaining the growth of oil demand. At the same time, affected by the additional issuance of US currency, the international oil price climbed significantly during the year. Domestically, with the active promotion of "Carbon Peaking and Neutrality", the green and low-carbon development of energy was solidly promoted, China's energy structure was continuously optimized, and China's energy industry has entered a new stage of high-quality development.

In 2021, the high-quality development of China's refining and chemical industry continued to advance, and the level of scale, integration, high-end and cleanliness continued to improve; the demand for clean energy represented by natural gas was growing steadily, and natural gas projects such as LNG Receiving Terminal entered the peak period of construction. Under the goals of "Carbon Peaking and Neutrality", renewable energy represented by green electricity and green hydrogen becomes a hot spot in the industry, which brings opportunities for the green transformation and development of traditional energy enterprises.

(2) Operation Overview

During the Reporting Period, the Group's total revenue was RMB57.760 billion, representing an increase of 10.3% on a year-on-year basis; profits attributable to equity holders of the Company was RMB2.130 billion, representing a decrease of 10.6% on a year-on-year basis. As at the end of the Reporting Period, the Group's backlog was RMB111.045 billion, representing an increase of 5.1% on a year-on-year basis; the value of new contracts entered into by the Group during the Reporting Period was RMB63.150 billion, representing an increase of 0.2% on a year-on-year basis.

The business of the Group mainly comprises four segments: (1) engineering, consulting and licensing; (2) engineering, procurement and construction contracting ("EPC Contracting"); (3) construction and (4) equipment manufacturing.

The following table sets forth the revenue generated from each of the segments and their respective percentage of the Group's total revenue (before inter-segment elimination) during the periods indicated:

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)	(%)
Engineering, consulting and licensing	3,863,479	5.8	3,695,022	6.2	4.6
EPC Contracting	35,704,443	54.0	33,577,673	56.0	6.3
Construction	25,539,549	38.6	21,912,398	36.5	16.6
Equipment manufacturing	1,036,860	1.6	761,389	1.3	36.2
Subtotal	66,144,331	100.0	59,946,482	100.0	10.3
Total (after inter-segment elimination) [1]	57,759,590	N/A	52,352,584	N/A	10.3

Note:

(1) "Total (after inter-segment elimination)" means the aggregate revenue generated from each business segment after inter-segment elimination to exclude the impact of inter-segment transactions. Inter-segment elimination mainly arises from the inter-segment sales to the EPC Contracting segment made by the engineering, consulting and licensing, construction and equipment manufacturing segments.

During the Reporting Period, thanks to the Group's business strategy of "engineering technology as the guide, engineering consultation as the link, engineering design as the mainstay and engineering construction as the support", the revenue from the engineering, consulting and licensing business continued to grow, with the revenue from the engineering, consulting and licensing business reaching RMB3.863 billion, representing an increase of 4.6% on a year-on-year basis. Thanks to Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project, Crude Oil Storage Facility Project Cluster, Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project Phase II and other large-scale projects all entering the peak period for project execution during the Reporting Period, the revenue from the EPC Contracting business reached RMB35.704 billion with a year-on-year increase of 6.3%. Thanks to peaking of the implementation of the above-mentioned large projects during the Reporting Period, the construction business income amounted to RMB25.540 billion, representing an increase of 16.6% on a year-on-year basis. Thanks to the increase of equipment manufacturing business, the equipment manufacturing business income amounted to RMB1.037 billion, representing an increase of 36.2% on a year-on-year basis.

The following table sets forth the revenue generated from different industries in which the Group's clients operate for the periods indicated:

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)30	(%)
Oil refining	13,142,234	22.8	11,941,849	22.8	10.1
Petrochemicals	30,022,255	52.0	29,839,940	57.0	0.6
New coal chemicals	1,353,656	2.3	3,649,328	7.0	(62.9)
Storage & transportation and others	13,241,445	22.9	6,921,467	13.2	91.3
Total	57,759,590	100.0	52,352,584	100.0	10.3

The Group's revenue mainly comes from providing services to customers in oil refining, petrochemicals, new coal chemicals, storage and transportation and other industries. During the Reporting Period, large projects such as Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project, Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project (Phase II) entered the peak period of implementation, and the oil refining industry and petrochemicals industry all experienced different growth rates, among which the revenue from the oil refining industry amounted to RMB13.142 billion, representing an increase of 10.1% on a year-on-year basis, and the revenue from the petrochemicals industry amounted to RMB30.022 billion, up slightly year-on-year. Thanks to the contribution of the Crude Oil Storage Facility Project Cluster, Wenzhou LNG Project and Tianjin LNG Project (phase II), the revenue from storage and transportation and other industries amounted to RMB13.241 billion, representing an increase of 91.3% on a year-on-year basis. Affected by the shortage of new projects in new coal chemicals industry, the revenue from new coal chemicals industry was RMB1.354 billion, representing a decrease of 62.9% on a year-on-year basis.

The following table sets forth the Group's revenue generated in the PRC and overseas for the periods indicated:

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)	(%)
PRC	53,120,489	92.0	47,629,649	91.0	11.5
Overseas	4,639,101	8.0	4,722,935	9.0	(1.8)
Total	57,759,590	100.0	52,352,584	100.0	10.3

During the Reporting Period, domestic projects including Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project, Crude Oil Storage Facility Project Cluster, Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project Phase II and other large EPC contracting projects were accelerated, and the revenue generated in the PRC was RMB53.120 billion, representing an increase of 11.5% on a year-on-year basis; as for overseas projects, efforts were made to overcome the impact of the continued spread of the COVID-19 pandemic and the difficulty in mobilizing human resources, the revenue generated from overseas was RMB4.639 billion, which remained broadly stable on a year-on-year basis.

The following table sets forth the Group's new contract and backlog for the periods indicated:

	Year ended 31 December		
	2021	2020	Change
	(RMB'000)	(RMB'000)	(%)
New contract	63,150,160	63,013,631	0.2

	As at 31 December 2021	As at 31 December 2020	Change
	(RMB'000)	(RMB'000)	(%)
Backlog	111,045,177	105,654,607	5.1

As at the end of the Reporting Period, the backlog of the Group amounted to RMB111.045 billion, representing an increase of 5.1% as compared to that as at 31 December 2020, and was 1.92 times of the total revenue of RMB57.760 billion in 2021. During the Reporting Period, the value of new contracts amounted to RMB63.150 billion, which remained broadly stable on a year-on-year basis.

The following table sets forth the Group's capital expenditure for the periods indicated:

	Year ended 31 December		
	2021	2020	Change
	(RMB'000)	(RMB'000)	(%)
Capital expenditure	**1,341,166**	918,364	46.0

During the Reporting Period, the Group's capital expenditure was approximately RMB1.341 billion, representing an increase of 46.0% on a year-on-year basis. During the Reporting Period, the Group's capital expenditure was mainly used for purchase and renewal of engineering facilities and equipment, construction of temporary facilities for engineering projects, contract energy management investment, lease of use right assets, office facilities and other supporting auxiliary construction, informatization construction, etc.

The discussions on the Group's environmental policies, relationships with its major stakeholders and compliance with applicable laws and regulations are set out in the "28. Report on Corporate Environmental, Social and Governance" on page 95 of this report.

(3) Business Highlights

Successful implementation of major projects

Zhenhai Refining and Chemical Ethylene Expansion Project: please refer to the announcements dated 28 February 2020 and 16 April 2020 published by the Company for further details. As at the end of the Reporting Period, the project has been delivered and started smoothly.

Hainan Refining and Chemical Integration Project: please refer to the 2020 annual report dated 21 March 2021 and announcement dated 16 April 2021 published by the Company for further details. As at the end of the Reporting Period, the project has entered the stage of rapid construction with an overall progress of over 70%.

Fujian Gulei Refining and Chemical Integration Project: please refer to the announcement dated 15 April 2019 published by the Company for further details. As at the end of the Reporting Period, the project has been delivered and started smoothly.

SINOPEC SABIC Polycarbonate Project: please refer to the announcement dated 11 June 2018 published by the Company for further details. As at the end of the Reporting Period, the project has been handed over, and the main installations have started operation smoothly.

Wenzhou LNG Project: please refer to the announcement dated 16 April 2021 published by the Company for further details. As at the end of the Reporting Period, this project has entered the peak period of construction, with an overall progress exceeding 40%.

Tianjin LNG Project (Phase II): please refer to the 2020 annual report dated 21 March 2021 published by the Company for further details. As at the end of the Reporting Period, the project has entered the stage of rapid construction with an overall progress of over 60%.

Shandong LNG Project (Phase II): please refer to the announcement dated 16 April 2020 published by the Company for further details. During the Reporting Period, the project has been delivered and started smoothly.

Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project (Phase II): please refer to the announcement dated 28 February 2020 published by the Company for further details. As at the end of the Reporting Period, the project is in the final stage of construction, with an overall progress exceeding 90%, and some installations have started operation.

Russian AGCC Polyolefin Project: please refer to the 2020 interim report dated 23 August 2020 published by the Company for further details. As at the end of the Reporting Period, the project has been in the design and procurement stage, with an overall progress exceeding 60%.

Russia AGCC Ethylene Plant Project: please refer to the announcement dated 4 March 2021 published by the Company for further details. As at the end of the Reporting Period, the project has been in the stage of civil engineering and underground pipe construction, with all the progress at the initial phase.

Forge ahead in market development

During the Reporting Period, the Group continued to strengthen its foothold in domestic market. The Group entered into new contracts for a number of large projects, include the EPC contract of Hainan Refining and Chemical Integration Project with a total contract value of approximately RMB9.506 billion; EPC contract of Wenzhou Liquefied Natural Gas (LNG) Receiving Terminal Project with a total contract value of approximately RMB3.364 billion; EPC contract for the third phase project of Shandong Liquefied Natural Gas (LNG) Receiving Terminal with a total contract value of approximately RMB981 million; EPC contract for desulfurization station project of Leikoupo Formation Project in West Sichuan Gas Field with a total contract value of approximately RMB2.315 billion; EPC contract of Bohe New Port to Maoning Oil Pipeline Project with a total contract value of approximately RMB2.040 billion; engineering design contract of Beifang Huajin Refined Chemical Project with a total contract value of approximately RMB626 million; engineering design contract of CNOOC Daxie Petrochemical Project with a total contract value of approximately RMB303 million; engineering design contract of Ningbo Zhongjin Petrochemical Upgrading Project with a total contract value of approximately RMB154 million.

During the Reporting Period, the Group signed the ethylene plant construction project for Russia AGCC project with a total contract value of approximately USD942 million; the Group made the MTO plant process technology transfer and package contract signed for natural gas chemical complex of Uzbekistan, achieving SMTO technology went abroad for the first time; and signed melamine basic design contract of Malaysia, and signed the EPC contract of FMTG proprietary equipment export project in Chile.

Strong support for engineering service

During the Reporting Period, by overcoming the adverse impact of the pandemic, we strengthened the overall planning of project resources, and made efforts to ensure the smooth operation of the project; strengthened the coordination of the construction of key projects, reviewed the implementation plan of major projects, and ensured that measures were made and implemented for risk prevention and control of each project; focusing on profitability and progress, the Group implemented the "triple warning" for progress deviation, revenue deviation and budget deviation, rectified the deviations in a timely manner, and strengthened closed-loop management; through optimising the design workflow and professional division interface, the Group strengthened standardization, integration, modular design and modular construction to improve the efficiency of design and construction.

During the Reporting Period, the Group continued to strengthen the construction of subcontracting management system, and dynamically evaluated the operational effectiveness of the QHSE (quality, health, safety and environment) system of strategic subcontractors; continued to strengthen the cultivation of strategic subcontractors, and ensured the quality, safety, progress and cost control of project construction; realized the integrated management of subcontractor resource pool and subcontractor evaluation, optimized the allocation of subcontracting resources and reduced the cost of subcontracting management. The Group has actively explored ways and means to improve procurement management, procurement efficiency, cost reduction and efficiency promotion, continued to promote the practice of framework agreement procurement and centralized procurement, and carried out strategic cooperation with overseas project suppliers.

System construction has improved management efficiency in an all-round way

During the Reporting Period, focusing on the construction of management system, the Company strengthened process management and risk prevention and control, benchmarked with international standards, established a management system based on risk thinking, process standards, strengthened process control integrated with institutional systems. We have introduced 24 process modules, formulated 254 business process control processes, formulated and revised 95 management systems, which is of great significance for the Company to improve management ability, define the management interfaces, and clarify work processes and standards. The Company's management system has passed Lloyd's audit and certification and obtained ISO9001, ISO45001 and ISO14001 certification.

Quality, safety and environmental protection management are carried out solidly

During the Reporting Period, all executives and employees of the Company actively responded to adverse factors such as extreme weather, repeated pandemic situation. By means of system audit, special actions, rectification and promotion, we made every effort to promote the construction and operation of QHSE management system, effectively implemented the main responsibility of enterprises, and achieved double victories in pandemic prevention and control and safe production. No accidents were reported in safety, quality and environmental protection throughout the year; in terms of pandemic prevention and control, the record of "zero infection" was always maintained for our projects within the territory of China, the public safety and infection risk of overseas projects were generally controlled. As at the end of the Reporting Period, 295 million continuous safety man-hours were achieved, and a good trend was maintained in respect to safe production. During the Reporting Period, eight member enterprises of the Group won the title of "Green Enterprise", and in total the Group won 2 national quality engineering gold awards, 2 silver awards and 21 provincial and ministerial quality awards.

The advantages of engineering technology innovation are prominent

Steady advancement in research and development of engineering technologies and major progress in key scientific research projects

During the Reporting Period, the Group signed 214 new technology development contracts and 72 new technology licensing contracts. All of the engineering technology innovations closely focused on the Company's strategic development and technical requirements of the engineering market. The key scientific research projects were steadily advanced, and important progress was made in tackling key core technologies.

In the field of new energy and hydrogen energy, we accelerated the technology deployment and development of the whole hydrogen energy industry chain, and undertook the research and industrial application demonstration of a number of major hydrogen energy projects of Sinopec, including hydrogen production by electrolyzing water with Proton Exchange Membrane (PEM) and Solid Oxide Electrolysis Cell (SOEC), green hydrogen and blue hydrogen production, energy-saving hydrogen production by conversion of hydrocarbons and alcohols, hydrogen storage in organic liquids, hydrogen compression and transportation, hydrogen liquefaction, research and development of non-metallic hydrogen storage containers and other technical fields, we have initially formed an integrated R&D layout of hydrogen production, storage and transportation and terminal utilization, which will provide technical support and guarantee for the Company to comprehensively expand hydrogen energy business; the world largest green hydrogen project that we contract – Xinjiang Kuqa photovoltaic hydrogen production project entered the state of implementation, and the 10,000-ton green hydrogen projects in Ordos and Wulanchabu steadily advanced; the hydrogen purification installation for 3,000Nm^3/h fuel cell in Tianjin was completed and put into operation, and three hydrogen refueling stations, such as Xiwanzi in Chongli of Hebei Province, were put into operation successfully, providing hydrogen energy guarantee for Beijing Winter Olympics.

In promoting the development of energy saving and environmental protection technologies for green development, fractal enhanced mass transfer technology of Shijiazhuang diesel liquid-phase hydrotreating unit was successfully applied, and various technologies and energy saving indexes are superior to the research and development targets. The development and industrial test of wet oxidation technology of sulfur-containing waste alkali liquor for million-ton-scale ethylene production line was successfully put into production in Zhenhai, and all technical indexes have reached the research and development targets. The industrial test of 100m^3/h biological fluidized bed for PTA wastewater treatment was put into operation in Sinopec Shanghai Petrochemical Co., Ltd. and passed the appraisal, which effectively promoted the green development of petrochemical enterprises.

In the field of new materials, the production technology development and industrial application of poly α olefin lubricating oil (PAO) have been successfully put into production, filling the technical gap of fully-synthesized high quality lubricating oil with low viscosity in China; and Jinling and Maoming high-end carbon materials project have successively put into production and produced qualified needle coke products, opening up a new technical path for the high-value utilization of catalytic slurry; the first domestic 3,000-ton/year high-gauge polybutene-1 industrial demonstration plant, which enjoys the reputation of "plastic gold", was successfully put into operation in Zhenhai,marking another major technological breakthrough of the Company in the field of high-end synthetic new materials; the carbon fiber involved in the development project was successfully used in the shell of the torch "Feiyang" of the 2022 Beijing Winter Olympics, which successfully solved the problems of high temperature resistance and cold feel of the metal shell used for the torch relay in winter.

In the field of traditional oil refining and chemical industry, the industrial application demonstration of deep catalytic cracking technology for residue to chemicals (RTC) with the Company's participation was progressing smoothly in Anqing, and has become one of the first-choice technologies for the transformation and development of many domestic oil refining enterprises. Known as "using wheat to make bread", the technology of direct cracking of crude oil to produce ethylene was successfully tested in Tianjin petrochemical industry, which opened up a new path for "reducing oil and increasing chemical output" and efficient utilization of crude oil. "Complete technology development of VOC removal process for gas-phase polypropylene products" has been implemented in Maoming and Yangzi, all of which have achieved the technical development goal and provided technical support for improving the quality and efficiency of polypropylene products.

Increasing number of patent applications and numerous fruitful results in technological innovation

During the Reporting Period, the Group completed 681 new patent applications, among which, 476 were invention patents, accounting for 69.9%, and the proportion of invention patents continued to increase. The Group also had 422 newly licensed patents, 171 of which were invention patents.

During the Reporting Period, the Group received a total of 92 scientific advancement awards in scientific innovation and engineering construction fields at the provincial and above level. Among these awards, "Research and development and industrial application of packaged technology for million-ton-scale ethylene production from complex raw materials" won the second prize of National Scientific and Technological Progress Award. We won 6 first prizes, 5 second prizes and 4 third prizes of Sinopec Science and Technology Progress Award; 2 special prizes, 6 first prizes and 4 second prizes of other provincial and ministerial level awards for scientific and technological progress; 2 gold, 1 silver and 1 bronze prizes in the national excellent design appraisal.

The new format of engineering digital twinning application has taken shape

During the Reporting Period, the Group promoted the top-level design of refining and chemical engineering business domain as a whole. We have implemented the work plan of "domain leader" responsibility system, and worked out the implementation plan for 22 key business lines and 229 key tasks. In terms of digital engineering application, we sped up the integration of systems in all aspects of the whole life cycle of engineering construction, and delivered high-quality digital factories for projects such as Zhongke, Zhenhai and Gulei. The Company has nearly 30 digital delivery projects in process of implementation.

Strategy leads to drives high-quality development

During the Reporting Period, the Group comprehensively summarized the achievements and experience of the 13th Five-Year Plan, and made an in-depth analysis of the development environment, opportunities and challenges faced by the Company, formulated of the 14th Five-Year Plan, defined the development vision of "building a world-leading technology-oriented engineering company", while taking the vision of "an integrated service provider in the whole industrial chain and the whole life cycle of the energy and chemical industry" as its development orientation, "engineering innovation and value creation" as development engines, and "Value-Oriented, Innovation-Driven, Green & Clean, Talent-Based, Globalization-Targeted, Fusion & Symbiosis" as the development strategy. With these strategies in place, the Company aims to achieve higher quality and more efficient development.

2 Business Prospects

Looking forward to 2022, there is still uncertainty in the raging global pandemic situation. The international crude oil price has crossed the 100-dollar threshold, the rising commodity prices and the accumulation of inflation risks, the instability, uncertainty and imbalance of world economic development are still outstanding. At the same time, China's ability for macroeconomic regulation and control has constantly improved, the fundamentals of long-term improvement remain unchanged, and the government work report proposes a target of 5.5% GDP growth in 2022.

In 2022, China's energy industry will accelerate restructuring and move towards a new stage of high-quality development. In the coming period, the energy industry will face a series of transformational challenges: firstly, the rapid development of new energy industry will profoundly influence the energy industry pattern; secondly, the green and low-carbon transformation under the goal of "Carbon Peaking and Neutrality" will become the fundamental drive of the development of traditional energy industry; thirdly, industrial transformation and upgrading pose higher requirements for independent innovation capability of enterprises.

In 2022, the Group will continue to make "Building world-leading technology-oriented engineering company" as its development goal, focus on "Engineering Innovation and Value Creation", strengthen and optimize traditional advantageous businesses, and accelerate integrated innovation and engineering transformation of new energy and new materials projects. In 2022, the Group's target for new contracts signed in China is RMB60 billion and target for new overseas contracts is USD1 billion.

(1) Adhere to technological innovation and empower high-quality development

High-quality development is the main theme of economic development in the 14th Five-Year Plan. In 2022, the Group will focus on the "Dual Carbon" strategy, constantly improve the innovation system and mechanism, give full play to the leading role of R&D center and the bridging function of engineering design and construction, build an efficient R&D chain around the integration and mutual promotion of basic research, engineering transformation and user demand, aim at the fields of hydrogen energy, photovoltaic power generation and other new energy and new materials, continuously improve the independent innovation capability, better seize the new opportunities of energy and chemical industry transformation and upgrading, form a series of key core technologies for the Company, and provide technical support for green, low-carbon and high-quality development. The company plans to carry out work in relevant fields as follows:

Firstly, to make intensive efforts in breakthrough of the key core technologies. In the field of oil refining, accelerate the research and development and industrial application of Zhenhai integrated ebullated-bed and fixed-bed residue hydrogenation, crude oil catalytic cracking, naphtha catalytic cracking, conversion of catalytic diesel oil to aromatics and other technologies. In the field of chemical industry, we will make great efforts in carrying out industrial application of technologies for the direct cracking of crude oil to ethylene, Zhenhai propane dehydrogenation and Tianjin Ultra-High Molecular Weight Polyethylene (UHMWPE) project. In the field of hydrogen energy, make full efforts in the whole industrial chain of preparation, storage, transportation and application of blue hydrogen and green hydrogen, complete the industrial demonstration of hydrogen production by megawatt renewable power PEM in Zhongyuan Oilfield, the delivery of kilowatt SOEC electrolyzed water hydrogen production test device and the delivery of Xinjiang Kuqa 10,000-ton green hydrogen project, and accelerate the implementation process of Ordos 10,000-ton green electricity hydrogen production project; promote the research and development process of hydrogen production from alcohol and hydrocarbon conversion, CO_2 high-temperature capture and in-situ conversion, organic liquid hydrogen storage, hydrogen liquefaction and other technologies. In the field of new materials, carry on with in the industrial application of Maoming POE, Qilu special rubber, SVW EVOH, Baling epichlorohydrin and other projects. In the field of oil transformed to special products, pursue the technical development of coated asphalt and high-performance carbon nanotubes for lithium battery cathode materials, complete the side-line test of Luoyang activated carbon industry, and continuously tackle the knowhow concerning needle coke products for ultra-high power electrodes in Jinling and Maoming high-end carbon materials projects. In the field of common technologies, promote the construction and industrial application of Fuling high-purity helium recovery, Zhongke intelligent ethylene and other projects, and develop CO_2 capture and utilization, biomass utilization, membrane tanks, liquid hydrogen storage tanks, ultra-high strength and high-pressure hydrogen storage materials and equipment.

Secondly, to optimize and upgrade existing proprietary technologies. Strengthen collaborative innovation and integrated innovation of multi-field technologies, and develop a new integrated coupling process of refining and chemical industry based on the deep coupling of steam cracking and catalytic cracking. Study on the optimized coupling scheme of coal chemicals and petrochemicals, aiming at the high value-added product schemes such as coal-based special fuels and coal-based special materials, explore the technical route of mutual supply of materials for coal chemicals and petrochemicals, win-win products and multi-energy complementarity, and realize comprehensive and efficient utilization of coal resources.

Thirdly, to optimize and upgrade existing proprietary technologies. Strengthen collaborative innovation and integrated innovation of multi-field technologies, and develop a new integrated coupling process of refining and chemical industry based on the deep coupling of steam cracking and catalytic cracking. Study on the optimized coupling scheme of coal chemicals and petrochemicals, aiming at the high value-added product schemes such as coal-based special fuels and coal-based special materials, explore the technical route of mutual supply of materials for coal chemicals and petrochemicals, win-win products and multi-energy complementarity, and realize comprehensive and efficient utilization of coal resources.

Fourthly, to focus on the strategy of goal of "Carbon Peaking and Neutrality". Actively integrate the initiative into Sinopec's research program of "Refining with Green Hydrogen", and explore refining and chemical process reengineering under new energy and new power system; comprehensively sort out the carbon sources in petrochemical industry, systematically analyze and study all the aspects of carbon reduction at source, carbon reduction in process, carbon capture at end, carbon resource reuse and storage, put forward the carbon neutralization strategy and implementation path for the industry, and focus on the development and reserve of related technologies; carry out research on the coupling application of nuclear power and refining and chemical industry, and make systematic sorting and in-depth study on the difficult problems of new generation nuclear power technologies such as high-temperature gas-cooled reactors applied to power supply and heating systems of refining and chemical enterprises, so as to provide technical reserves for helping to achieve the goal of carbon neutrality.

(2) Take initiative in industrial layout in new areas and new markets with focus on energy transformation and upgrading

In 2022, the Group will grasp the strategic opportunity period of the transformation and upgrading of the energy and chemical industry, co-ordinate internal and external superior resources, insist on perfecting "refining sector" and strengthening "chemical sector", seek market development for the initiatives of "oil product to chemicals and special oil" & "crude oil to chemicals", and make every effort to consolidate the Group's leading position in the industry. Strengthen technological advantages, promote the coupling of new business and traditional business, and accelerate the market layout of new energy and new materials business. The Group will form a demonstrative lead in the hydrogen energy industry chain, and promote the extension of high-end chemical materials industry chain. The Group will continue to expand high value-added services such as large-scale engineering consulting and digital engineering services, and provide comprehensive consulting, value-added services and life-cycle services for customers.

(3) Strengthen strategic planning and risk prevention and control, and promote the steady development of international business

In 2022, the Group will strengthen the comprehensive analysis and judgment of the global macro environment, overseas market situation and industry competition situation, further optimize the global layout, strengthen the capability of global resource integration, give full play to the advantages of the industrial chain, actively promote "technology guidance" and "one-stop overall solution", provide customers with all-round high-quality services, and continuously improve the international operation capability. Further consolidate and develop mutually beneficial and win-win relations with owners and partners, expand and optimize market development channels and modes, and strengthen the capacity building of investment and financing businesses. Ensure intensive development of overseas key markets and maintain the dominant position of traditional regional markets such as the Middle East, Central Asia and Southeast Asia; actively cultivate emerging regional markets such as Africa, South Asia and America, and strive for new breakthroughs.

(4) Strengthen process management of projects, reduce costs and increase efficiency to avoid risks

In 2022, the Group will continue to strengthen project control and project coordination to fully guarantee the smooth implementation of projects under construction. Focus on income transformation and cost reduction, strengthen production and operation plan management, and improve economic benefits with progress of the projects. Further strengthen the refined management of project cost, continuously promote design optimization, promote centralized procurement, promote inventory and contract asset management, strengthen the process management of project implementation, confirm the progress and contract changes in time, improve the actual effect of settlement of accounts, and further reduce costs and increase efficiency. Concentrate our efforts on the management of changes and claims caused by pandemic situation, and try our best to avoid business risks.

(5) Strengthen the top-level design of refining and chemical engineering business domain, and promote the deep integration of digital technology and engineering construction application as a whole

In 2022, the Group will carry out business domain process standardization and integrated application on the cloud platform with unified application architecture, platform architecture, technical routes and standards. Give full play to the advantages of factory massive data management and engineering rich scene application experts, accelerate the implementation of projects such as domestic research and development of intelligent design production lines, key technology research of desktop refining and chemical plants, service of engineering data asset center, etc., and unite the efforts of owners, engineering companies, construction units, suppliers, integrators, scientific research institutes and other stakeholders to accelerate the innovation and digital transformation of low-carbon processes in the engineering field.

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis should be read in conjunction with the Group's audited financial statements and the accompanying notes contained in this annual report. The relevant financial data below, unless otherwise stated, are extracted from the Group's audited financial statements prepared according to the IFRS.

1 Consolidated Results of Operations

The following table sets forth the consolidated statement of profit or loss and other comprehensive income of the Group for the indicated years.

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)	(%)
Revenue	57,759,590	100.0	52,352,584	100.0	10.3
Cost of sales	(51,291,401)	(88.8)	(46,638,512)	(89.1)	10.0
Gross profit	6,468,189	11.2	5,714,072	10.9	13.2
Other income	111,613	0.2	463,852	0.9	(75.9)
Selling and marketing expenses	(144,504)	(0.3)	(134,841)	(0.3)	7.2
Administrative expenses	(1,293,004)	(2.2)	(1,255,804)	(2.4)	3.0
Research and development costs	(2,379,149)	(4.1)	(2,175,183)	(4.2)	9.4
Other operating expenses	(1,118,375)	(1.9)	(420,877)	(0.8)	165.7
Other gains – net	57,128	0.1	13,160	0.0	334.1
Operating profit	1,701,898	2.9	2,204,379	4.2	(22.8)
Finance income	954,622	1.7	881,495	1.7	8.3
Finance expenses	(82,796)	(0.1)	(90,390)	(0.2)	(8.4)
Finance income – net	871,826	1.5	791,105	1.5	10.2
Share of profits/(losses) of joint arrangements	1,448	0.0	(41)	(0.0)	N/A
Share of profit of associates	17,235	0.0	15,119	0.0	14.0
Profit before taxation	2,592,407	4.5	3,010,562	5.8	(13.9)
Income tax expense	(462,432)	(0.8)	(628,356)	(1.2)	(26.4)
Profit for the year	2,129,975	3.7	2,382,206	4.6	(10.6)

(1) Revenue

The revenue of the Group increased by 10.3% from RMB52.353 billion for the year ended 31 December 2020 to RMB57.760 billion for the year ended 31 December 2021, which was mainly due to the fact that large EPC Contracting projects such as Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project, Crude Oil Storage Facility Project Cluster and Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project (Phase II) entered the peak of implementation in the Reporting Period, thus the revenue increased year-on-year.

(2) Cost of sales

The cost of sales of the Group increased by 10.0% from RMB46.639 billion for the year ended 31 December 2020 to RMB51.291 billion for the year ended 31 December 2021, mainly due to the corresponding increase in cost with the increase of revenue.

(3) Gross profit

The gross profit of the Group increased by 13.2% from RMB5.714 billion for the year ended 31 December 2020 to RMB6.468 billion for the year ended 31 December 2021, the gross profit margin increased from 10.9% for the same period of last year to 11.2%, which was mainly due to the fact that the Company strengthened cost control, the cost increase was lower than the income increase, resulting in a year-on-year increase in gross profit and gross profit margin.

(4) Other income

The other income of the Group mainly includes income from rental of fixed assets, income from reversal of long-term outstanding payables, government subsidies and incentives, etc. During the Reporting Period, other income of the Group decreased by 75.9% from RMB464 million for the year ended 31 December 2020 to RMB112 million for the year ended 31 December 2021, mainly due to the gain of RMB254 million from the government subsidies for enterprise's electricity supply, water supply, heat supply and property management cost in the same period last year, which was not available in the Reporting Period.

(5) Selling and marketing expenses

The selling and marketing expenses of the Group were RMB145 million, which remained broadly stable on a year-on-year basis.

(6) Administrative expenses

The administrative expenses of the Group were RMB1.293 billion, which remained broadly stable on a year-on-year basis.

(7) Research and development costs

The research and development costs of the Group increased by 9.4% from RMB2.175 billion for the year ended 31 December 2020 to RMB2.379 billion for the year ended 31 December 2021, mainly due to the Group's increased R&D investment in "oil product to chemicals and special oil" & "crude oil to chemicals" technology, high-end new materials, new energy and hydrogen energy, energy conservation and environmental protection, digitization and construction automation, etc.

(8) Other operating expenses

Other operating expenses of the Group increased by 165.7% from RMB421 million for the year ended 31 December 2020 to RMB1.118 billion for the year ended 31 December 2021. Main reasons were the financial difficulties of the owners of the Qinghai Damei Project during the Reporting Period, and based on the principle of prudence, the impairment allowance for the Qinghai Damei Project was RMB1.096 billion, representing an increase of RMB769 million year-on-year.

(9) Other gains – net

The net other gains of the Group increased by 334.1% from RMB13 million for the year ended 31 December 2020 to a gain of RMB57 million for the year ended 31 December 2021, which was mainly due to the year-on-year increase in asset disposal gain.

(10) Operating profit

Due to the above reasons, the operating profit of the Group decreased by 22.8% from RMB2.204 billion for the year ended 31 December 2020 to RMB1.702 billion for the year ended 31 December 2021.

(11) Finance income – net

The net finance income of the Group increased by 10.2% from RMB791 million for the year ended 31 December 2020 to RMB872 million for the year ended 31 December 2021, which was mainly due to the increase in interest income receivable from the ultimate holding company.

(12) Income tax expense

The Group's income tax expense decreased by 26.4% from RMB628 million for the year ended 31 December 2020 to RMB462 million for the year ended 31 December 2021. The effective income tax rate decreased from 20.9% to 17.8% on a year-on-year basis. The change in the effective income tax rate was mainly due to the profit fluctuation of certain subsidiaries with different tax rates.

(13) Profit for the year

Due to the above reasons, the profit for the year decreased by 10.6% from RMB2.382 billion for the year ended 31 December 2020 to RMB2.130 billion for the year ended 31 December 2021.

2 Discussion on the Results by Business Segments

The following table sets forth the revenue, gross profit, gross profit margin, operating profit and operating profit margin of each of our business segments for the periods indicated:

	Segment revenue		Segment gross profit		Segment gross profit margin		Segment operating profit		Segment operating profit margin	
	Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December		Year ended 31 December	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
	(RMB'000)		(RMB'000)		(%)		(RMB'000)		(%)	
Engineering, consulting and licensing	3,863,479	3,695,022	1,269,322	1,195,430	32.9	32.4	106,695	62,397	2.8	1.7
EPC Contracting	35,704,443	33,577,673	3,169,287	3,056,335	8.9	9.1	814,711	1,696,337	2.3	5.1
Construction	25,539,549	21,912,398	1,955,469	1,406,374	7.7	6.4	645,392	296,752	2.5	1.4
Equipment manufacturing	1,036,860	761,389	74,111	55,933	7.1	7.3	14,386	1,027	1.4	0.1
Unallocated	N/A	N/A	N/A	N/A	N/A	N/A	120,714	147,866	N/A	N/A
Subtotal	66,144,331	59,946,482	6,468,189	5,714,072	N/A	N/A	1,701,898	2,204,379	N/A	N/A
Total after inter-segment elimination (3)	57,759,590	52,352,584	6,468,189	5,714,072	11.2(1)	10.9(1)	1,701,898	2,204,379	2.9(2)	4.2(2)

Notes:

(1) Total gross profit margin is calculated based on total gross profit divided by total revenue, and total revenue is the gross earnings generated after inter-segment elimination in all the business segments.

(2) Total operating profit margin of the segment is calculated based on the total operating profit of the segment divided by total revenue, and total revenue is the gross earnings generated after inter-segment elimination in all the business segments.

(3) Inter-segment elimination is mainly caused by the inter-segment sales made by the engineering, consulting and licensing, construction and equipment manufacturing segments to the EPC Contracting segment. Other information on inter-segment sales is set out in Note 7 to the financial statements contained in this annual report.

Engineering, Consulting and Licensing

The operating results of the Group's engineering, consulting and licensing business are as follows:

	Year ended 31 December			
	2021		2020	
	Amount	Percentage of segment revenue	Amount	Percentage of segment revenue
	(RMB'000)	(%)	(RMB'000)	(%)
Revenue	3,863,479	100.0	3,695,022	100.0
Cost of sales	(2,594,157)	(67.1)	(2,499,592)	(67.6)
Gross profit	1,269,322	32.9	1,195,430	32.4
Selling and marketing expenses	(34,987)	(0.9)	(32,269)	(0.9)
Administrative expenses	(253,334)	(6.6)	(250,032)	(6.8)
Research and development costs	(738,621)	(19.1)	(674,861)	(18.3)
Other income and expenses	(135,685)	(3.5)	(175,871)	(4.8)
Operating profit	106,695	2.8	62,397	1.7

(1) Revenue

The revenue generated from the Group's engineering, consulting and licensing segment increased by 4.6% from RMB3.695 billion for the year ended 31 December 2020 to RMB3.863 billion for the year ended 31 December 2021, which was mainly due to the increase in engineering business volume.

(2) Cost of sales

The cost of sales of the Group's engineering, consulting and licensing segment increased by 3.8% from RMB2.500 billion for the year ended 31 December 2020 to RMB2.594 billion for the year ended 31 December 2021, which was mainly due to the cost increase corresponding to the increase of business volume.

(3) Gross profit

The gross profit of the Group's engineering, consulting and licensing segment increased by 6.2% from RMB1.195 million for the year ended 31 December 2020 to RMB1.269 million for the year ended 31 December 2021, the gross profit margin was 32.9%, which remained broadly stable on a year-on-year basis.

(4) Selling and marketing expenses

The selling and marketing expenses of the Group's engineering, consulting and licensing segment were RMB35 million, which remained broadly stable on a year-on-year basis.

(5) Administrative expenses

The administrative expenses of the Group's engineering, consulting and licensing segment were RMB253 million, which remained broadly stable on a year-on-year basis.

(6) Research and development costs

The research and development costs of the Group's engineering, consulting and licensing segment increased by 9.4% from RMB675 million for the year ended 31 December 2020 to RMB739 million for the year ended 31 December 2021, which were mainly due to the Group's increased R&D investment in the fields of "oil product to chemicals and special oil" & "crude oil to chemicals" technology, high-end new materials, new energy and hydrogen energy, energy conservation and environmental protection, etc.

(7) Operating profit

Due to the above reasons, the operating profit of the Group's engineering, consulting and licensing segment increased by 71.0% from RMB62 million for the year ended 31 December 2020 to RMB107 million for 2021.

EPC Contracting

The operating results of the Group's EPC Contracting business are as follows:

	Year ended 31 December			
	2021		2020	
	Amount	Percentage of segment revenue	Amount	Percentage of segment revenue
	(RMB'000)	(%)	(RMB'000)	(%)
Revenue	35,704,443	100.0	33,577,673	100.0
Cost of sales	(32,535,156)	(91.1)	(30,521,338)	(90.9)
Gross profit	3,169,287	8.9	3,056,335	9.1
Selling and marketing expenses	(57,216)	(0.2)	(53,720)	(0.2)
Administrative expenses	(436,966)	(1.2)	(422,492)	(1.3)
Research and development costs	(1,008,688)	(2.8)	(922,620)	(2.7)
Other income and expenses	(851,706)	(2.4)	38,834	0.1
Operating profit	814,711	2.3	1,696,337	5.1

(1) Revenue

The revenue generated from the Group's EPC Contracting segment increased by 6.3% from RMB33.578 billion for the year ended 31 December 2020 to RMB35.704 billion for the year ended 31 December 2021, which was mainly due to the revenue contribution of large EPC Contracting projects such as Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project, Crude Oil Storage Facility Project Cluster and Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project Phase II.

(2) Cost of sales

The cost of sales of the Group's EPC Contracting segment increased by 6.6% from RMB30.521 billion for the year ended 31 December 2020 to RMB32.535 billion for the year ended 31 December 2021, which was mainly due to the corresponding increase in costs with the increase in business volume.

(3) Gross profit

Due to the above reasons, the gross profit of the Group's EPC Contracting segment increased by 3.7% from RMB3.056 billion for the year ended 31 December 2020 to RMB3.169 billion for the year ended 31 December 2021, and the gross profit margin decreased from 9.1% to 8.9% on a year-on-year basis.

(4) Selling and marketing expenses

The selling and marketing expenses of the Group's EPC Contracting segment were RMB57 million, which remained broadly stable on a year-on-year basis.

(5) Administrative expenses

The administrative expenses of the Group's EPC Contracting segment were RMB437 million, which remained broadly stable on a year-on-year basis.

(6) Research and development costs

The research and development costs of the Group's EPC Contracting segment increased by 9.3% from RMB923 million for the year ended 31 December 2020 to RMB1.009 billion for the year ended 31 December 2021, which were mainly due to the Group's increased R&D investment in "oil product to chemicals and special oil" & "crude oil to chemicals" technology, high-end new materials, new energy and hydrogen energy, energy conservation and environmental protection, digitization, construction automation and other fields.

(7) Operating profit

Due to the above reasons and the impact of the increase in impairment allowance, the operating profit of the Group's EPC Contracting segment decreased by 52.0% from RMB1.696 billion for the year ended 31 December 2020 to RMB815 million for the year ended 31 December 2021.

Construction

The operating results of the Group's construction business are as follows:

	Year ended 31 December			
	2021		2020	
	Amount	Percentage of segment revenue	Amount	Percentage of segment revenue
	(RMB'000)	(%)	(RMB'000)	(%)
Revenue	25,539,549	100.0	21,912,398	100.0
Cost of sales	(23,584,080)	(92.3)	(20,506,024)	(93.6)
Gross profit	1,955,469	7.7	1,406,374	6.4
Selling and marketing expenses	(46,640)	(0.2)	(44,740)	(0.2)
Administrative expenses	(582,115)	(2.3)	(565,219)	(2.6)
Research and development costs	(630,099)	(2.5)	(576,393)	(2.6)
Other income and expenses	(51,223)	(0.2)	76,730	0.4
Operating profit	645,392	2.5	296,752	1.4

(1) Revenue

The revenue generated from the Group's construction segment increased by 16.6% from RMB21.912 billion for the year ended 31 December 2020 to RMB25.540 billion for the year ended 31 December 2021, which was mainly due to the increased business volume in construction.

(2) Cost of sales

The cost of sales of the Group's construction segment increased by 15.0% from RMB20.506 billion for the year ended 31 December 2020 to RMB23.584 billion for the year ended 31 December 2021, which was mainly due to the corresponding increase in cost with the increase in business volume.

(3) Gross profit

The gross profit of the Group's construction segment increased by 39.0% from RMB1.406 billion for the year ended 31 December 2020 to RMB1.955 billion for the year ended 31 December 2021, and the gross profit margin increased from 6.4% to 7.7% on a year-on-year basis, which were mainly due to the increase in gross profit after the completion of settlement changes of some completed projects.

(4) Selling and marketing expenses

The selling and marketing expenses of the Group's construction segment were RMB47 million, which remained broadly stable on a year-on-year basis.

(5) Administrative expenses

The administrative expenses of the Group's construction segment were RMB582 million, which remained broadly stable on a year-on-year basis.

(6) Research and development costs

The research and development costs of the Group's construction segment increased by 9.3% from RMB576 million for the year ended 31 December 2020 to RMB630 million for the year ended 31 December 2021, which were mainly due to the Group's increased R&D investment in digitization, construction automation and other fields.

(7) Operating profit

Due to the above reasons, the operating profits of the construction segment of the Group increased by 117.5% from RMB297 million for the year ended 31 December 2020 to RMB645 million for the year ended 31 December 2021.

Equipment Manufacturing

The operating results of the Group's equipment manufacturing business are as follows:

	Year ended 31 December			
	2021		2020	
	Amount	Percentage of segment revenue	Amount	Percentage of segment revenue
	(RMB'000)	(%)	(RMB'000)	(%)
Revenue	1,036,860	100.0	761,389	100.0
Cost of sales	(962,749)	(92.9)	(705,456)	(92.7)
Gross profit	74,111	7.1	55,933	7.3
Selling and marketing expenses	(5,660)	(0.5)	(4,112)	(0.5)
Administrative expenses	(20,589)	(2.0)	(18,061)	(2.4)
Research and development costs	(1,741)	(0.2)	(1,309)	(0.2)
Other income and expenses	(31,735)	(3.1)	(31,424)	(4.1)
Operating profits	14,386	1.4	1,027	0.1

(1) Revenue

The revenue generated from the Group's equipment manufacturing segment increased by 36.2% from RMB761 million for the year ended 31 December 2020 to RMB1.037 billion for the year ended 31 December 2021, which was mainly due to the increased business volume in equipment manufacturing.

(2) Cost of sales

The cost of sales of the Group's equipment manufacturing segment increased by 36.5% from RMB705 million for the year ended 31 December 2020 to RMB963 million for the year ended 31 December 2021, which was mainly due to the cost increase with the increase of business volume.

(3) Gross profit

The gross profit of the Group's equipment manufacturing segment increased by 32.5% from RMB56 million for the year ended 31 December 2020 to RMB74 million for the year ended 31 December 2021, and gross profit margin was 7.1%, which remained broadly stable on a year-on-year basis.

(4) Selling and marketing expenses

The selling and marketing expenses of the Group's equipment manufacturing segment were RMB6 million, which remained broadly stable on a year-on-year basis.

(5) Administrative expenses

The administrative expenses of the Group's equipment manufacturing segment were RMB21 million, which remained broadly stable on a year-on-year basis.

(6) Research and development costs

The research and development costs of the Group's equipment manufacturing segment were RMB2 million, which remained broadly stable on a year-on-year basis.

(7) Operating profits

Due to the above reasons, the operating profit of the Group's equipment manufacturing segment increased from RMB1 million for the year ended 31 December 2020 to RMB14 million for the year ended 31 December 2021.

3 Discussion on the results by other classification

The following table sets forth the revenue generated from different industries in which the Group's clients operate:

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)	(%)
Oil refining	13,142,234	22.8	11,941,849	22.8	10.1
Petrochemicals	30,022,255	52.0	29,839,940	57.0	0.6
New coal chemicals	1,353,656	2.3	3,649,328	7.0	(62.9)
Storage and transportation and others	13,241,445	22.9	6,921,467	13.2	91.3
Total	57,759,590	100.0	52,352,584	100.0	10.3

The revenue of the Group mainly comes from providing services to customers in oil refining, petrochemicals, new coal chemicals, storage and transportation and other industries. During the Reporting Period, the large EPC Contracting projects such as Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project and Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project (Phase II) entered the peak of implementation, the oil refining industry and petrochemicals industry increased by varying degrees, of which the revenue generated from oil refining industry was RMB13.142 billion, representing an increase of 10.1% on a year-on-year basis, revenue generated from petrochemicals industry was RMB30.022 billion, up slightly year-on-year; thanks to the contribution of Crude Oil Storage Facility Project Cluster, Wenzhou LNG Project and Tianjin LNG Project (phase II), the revenue from storage and transportation and other industries was RMB13.241 billion, representing an increase of 91.3% on a year-on-year basis; affected by the insufficient newly-opened projects in new coal chemicals, revenue from the new coal chemicals was RMB1.354 billion, representing a decrease of 62.9% on a year-on-year basis.

The following table sets forth the revenue generated from different regions where the Group's clients operate:

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)	(%)
PRC	53,120,489	92.0	47,629,649	91.0	11.5
Overseas	4,639,101	8.0	4,722,935	9.0	(1.8)
Total	57,759,590	100.0	52,352,584	100.0	10.3

During the Reporting Period, the Group accelerated promotion of large EPC Contracting projects such as Zhenhai Refining and Chemical Ethylene Expansion Project, Hainan Refining and Chemical Integration Project, Fujian Gulei Refining and Chemical Integration Project, Crude Oil Storage Facility Project Cluster and Zhejiang Petrochemical Zhoushan Refining and Chemical Integration Project, the revenue of the Group generated in the PRC was RMB53.120 billion, representing an increase of 11.5% on a year-on-year basis; the Group has made efforts to overcome the impact of the continuing spread of COVID-19 pandemic and difficulties in human resource mobilization in overseas, revenue generated from overseas was RMB4.639 billion, which remained broadly stable on a year-on-year basis.

The following table sets forth the revenue generated from services provided by the Group for (i) Sinopec Group and its associates; and (ii) non-Sinopec Group and its associates:

	Year ended 31 December				
	2021		2020		
	Revenue	Percentage of total revenue	Revenue	Percentage of total revenue	Change
	(RMB'000)	(%)	(RMB'000)	(%)	(%)
Sinopec Group and its associates	37,700,873	65.3	33,114,832	63.3	13.8
Non-Sinopec Group and its associates	20,058,717	34.7	19,237,752	36.7	4.3
Total	57,759,590	100.0	52,352,584	100.0	10.3

During the Reporting Period, the revenue generated from Sinopec Group and its associates and the revenue generated from non-Sinopec Group and its associates both increased by different degrees year-on-year, of which the revenue generated from Sinopec Group and its associates was RMB37.701 billion, representing an increase of 13.8% on a year-on-year basis, the revenue generated from non-Sinopec Group and its associates was RMB20.059 billion, representing an increase of 4.3% on a year-on-year basis.

4 Discussion on the backlog and new contracts

Backlog represents the total estimated contract value of work that remains to be completed pursuant to outstanding contracts as at a certain date, net of estimated value added tax, and is calculated based on the Group's assumption that the relevant contracts will be performed in accordance with their terms. Backlog is not a measure defined by generally accepted accounting principles. Any modification, termination or suspension of these contracts by the Group's clients may have a substantial and immediate effect on the Group's backlog. Projects may also remain in the Group's backlog for an extended period of time beyond what is initially anticipated due to various factors beyond the Group's control.

In order to more accurately and effectively reflect the Group's backlog and new contracts, the Group has re-stated the segments in which some backlogs and new contracts are located. The total value of backlog and the total value of new contracts remain unchanged.

The following table sets forth the total value of backlog for each business segment of the Group as at the dates indicated:

	As at 31 December 2021	As at 31 December 2020	Change
	(RMB'000)	(RMB'000)	(%)
Engineering, consulting and licensing	10,776,048	8,636,102	24.8
EPC Contracting	68,746,486	76,223,009	(9.8)
Construction	30,646,674	20,003,498	53.2
Equipment manufacturing	875,969	791,998	10.6
Total	111,045,177	105,654,607	5.1

The following table sets forth the total value of backlog categorised by the industries in which the Group's clients operate as at the dates indicated:

	As at 31 December 2021	As at 31 December 2020	Change
	(RMB'000)	(RMB'000)	(%)
Oil refining	28,305,346	30,826,320	(8.2)
Petrochemicals	28,068,384	27,071,948	3.7
New coal chemicals	11,006,627	11,582,761	(5.0)
Storage & transportation and others	43,664,820	36,173,578	20.7
Total	111,045,177	105,654,607	5.1

The following table sets forth the total value of the backlog by regions as at the dates indicated:

	As at 31 December 2021	As at 31 December 2020	Change
	(RMB'000)	(RMB'000)	(%)
PRC	81,327,589	79,977,151	1.7
Overseas	29,717,588	25,677,456	15.7
Total	111,045,177	105,654,607	5.1

The following table sets forth the total value of backlog categorised by the clients of each of (i) Sinopec Group and its associates, and (ii) non-Sinopec Group and its associates as at the dates indicated:

	As at 31 December 2021	As at 31 December 2020	Change
	(RMB'000)	(RMB'000)	(%)
Sinopec Group and its associates	66,686,358	58,420,185	14.1
Non-Sinopec Group and its associates	44,358,819	47,234,422	(6.1)
Total	111,045,177	105,654,607	5.1

As at 31 December 2021, the Group's backlog was RMB111.045 billion, representing an increase of 5.1% compared to that as at 31 December 2020, and 1.92 times of the total revenue of RMB57.760 billion in 2021.

The following table sets forth the total value of new contracts entered into categorised by the Group's each business segment in the periods indicated:

	Year ended 31 December		
	2021	2020	Change
	(RMB'000)		(%)
Engineering, consulting and licensing	5,919,716	4,046,963	46.3
EPC Contracting	28,194,050	37,138,017	(24.1)
Construction	28,165,412	21,154,013	33.1
Equipment manufacturing	870,982	674,638	29.1
Total	63,150,160	63,013,631	0.2

The following table sets forth the total value of new contracts entered into by the Group categorised by the industries in which the Group's clients operate in the periods indicated:

	Year ended 31 December		
	2021	2020	Change
	(RMB'000)		(%)
Oil refining	10,621,260	14,566,521	(27.1)
Petrochemicals	31,018,691	28,626,388	8.4
New coal chemicals	777,522	1,837,419	(57.7)
Storage & transportation and others	20,732,687	17,983,303	15.3
Total	63,150,160	63,013,631	0.2

The following table sets forth the total value of new contracts entered into by the Group by regions in the periods indicated:

	Year ended 31 December		
	2021	2020	Change
	(RMB'000)		(%)
PRC	54,470,927	52,852,315	3.1
Overseas	8,679,233	10,161,316	(14.6)
Total	63,150,160	63,013,631	0.2

The following table sets forth the total value of new contracts entered into by the Group with the clients of each of (i) Sinopec Group and its associates, and (ii) non-Sinopec Group and its associates in the periods indicated:

	Year ended 31 December		
	2021	2020	Change
	(RMB'000)		(%)
Sinopec Group and its associates	45,967,046	41,745,969	10.1
Non-Sinopec Group and its associates	17,183,114	21,267,662	(19.2)
Total	63,150,160	63,013,631	0.2

During the Reporting Period, the value of the Group's new contracts was RMB63.150 billion, representing an increase of 0.2% on a year-on-year basis.

5 Assets, Liabilities, Equity and Cash Flows

The Group's funds mainly came from operating activities and were primarily used for working capital, capital expenditure and dividend distribution.

(1) Assets, Liabilities and Equity

Unit: RMB'000

	As at 31 December 2021	As at 31 December 2020	Changes
Total assets	72,917,243	71,465,327	1,451,916
Current assets	64,937,676	64,055,416	882,260
Non-current assets	7,979,567	7,409,911	569,656
Total liabilities	43,793,907	43,209,289	584,618
Current liabilities	41,370,338	40,672,278	698,060
Non-current liabilities	2,423,569	2,537,011	(113,442)
Net assets	29,123,336	28,256,038	867,298
Share capital	4,428,000	4,428,000	–
Reserves	24,690,084	23,823,172	866,912
Equity attributable to equity holders of the Company	29,118,084	28,251,172	866,912
Non-controlling interests	5,252	4,866	386

As at the end of the Reporting Period, the total assets of the Group were RMB72.917 billion, the total liabilities were RMB43.794 billion, the non-controlling interests were RMB5 million, and the equity attributable to the equity holders of the Company was RMB29.118 billion. The changes in the assets and liabilities as compared with those as at the end of 2020 and the main reasons are as follows:

As at the end of the Reporting Period, the total assets were RMB72.917 billion, increased by RMB1.452 billion as compared with that as at the end of 2020. In particular, the current assets were RMB64.938 billion, increased by RMB882 million as compared with that as at the end of 2020, which was mainly due to an increase of RMB1.864 billion in cash and cash equivalents and an increase of RMB1.447 billion in contract assets, an increase of RMB353 million in prepayments and other receivables, a decrease of RMB1.571 billion in notes and trade receivables, a decrease of RMB868 million in inventories, a decrease of RMB500 million in loans receivable from the ultimate holding company; non-current assets amounted to RMB7.980 billion, an increase of RMB570 million over the end of 2020, which was mainly due to an increase of RMB517 million in property, plant and equipment.

As at the end of the Reporting Period, the total liabilities were RMB43.794 billion, increased by RMB585 million as compared with that as at the end of 2020. In particular, the current liabilities were RMB41.370 billion, increased by RMB698 million as compared with that as at the end of 2020, which was mainly due to the increase of contract liabilities by RMB1.975 billion, the decrease of notes and trade payables by RMB1.286 billion and the increase of RMB112 million in spot income tax liabilities. The non-current liabilities were RMB2.424 billion, decreased by RMB113 million as compared with that as at the end of 2020, which was mainly due to a decrease of RMB99 million in retirement and other supplementary benefit obligations.

The equity attributable to equity holders of the Company was RMB29.118 billion, increased by RMB867 million as compared with that as at the end of 2020, which was mainly due to the increase in retained earnings in the Reporting Period.

(2) Cash Flows

During the Reporting Period, the net increase in cash and cash equivalents was RMB2.057 billion and net cash generated from operating activities was RMB2.943 billion. The following table sets forth the main items and their changes in the Group's consolidated cash flow statements for the year ended 31 December 2021 and 2020, respectively.

Unit: RMB'000

Major items of cash flow	Year ended 31 December	
	2021	2020
Net cash generated from operating activities	**2,943,228**	2,956,836
Net cash generated from/(used in) investing activities	**503,375**	(2,951,614)
Net cash used in financing activities	**(1,389,437)**	(1,255,306)
Net increase/(decrease) in cash and cash equivalents	**2,057,166**	(1,250,084)

During the Reporting Period, the profit before taxation was RMB2.592 billion, and the profit was RMB3.603 billion after adjusting the items (non-cash expense items) in expenses that did not affect the cash flow in operating activities. Major non-cash expense items included depreciation and amortisation of RMB874 million; gains on disposal of property, plant, equipment and land use rights of RMB51 million; provision for ECL on trade and other receivables and contract assets of RMB993 million; exchange losses of RMB83 million, net interest income and expenditure of RMB872 million. Changes in working capital increased cash outflows of RMB411 million, which were mainly shown in: the decrease in trade and other receivables balance which caused the cash inflow from operating activities of RMB242 million; the increase in contract assets which caused the cash outflow from operating activities of RMB1.699 billion; the decrease in inventory balance which caused the cash inflow from operating activities of RMB868 million; the decrease in trade and other payables balance which caused the cash outflow from operating activities of RMB1.725 billion; the increase in contract liabilities which caused cash inflow from operating activities of RMB1.975 billion. After adjusting non-cash expense items, receivables and payables for the profit before taxation, deducting the income tax paid amounting to RMB482 million, and increasing inflow of received interest by RMB233 million, the net cash generated from operating activities was RMB2.943 billion.

Net cash generated from investing activities was RMB503 million, which was mainly due to the decrease in loans to the ultimate holding company.

Net cash used in financing activities was RMB1.389 billion, which was mainly due to the dividend distribution, reduced borrowings from affiliated companies and rental expenses of the leased right-of-use assets.

Based on the cash flows during the Reporting Period, the Group has adequate working capital. The Group will continue to strengthen the settlement of trade debts and reduce the use of working capital in operating activities. The Group will also continue to effectively manage the investment risk, as well as to expand the scale of investment and increase the return on capital.

(3) Summary of Financial Ratios

The following table sets forth the Group's key financial ratios for the periods indicated:

Main financial ratios	Year ended 31 December	
	2021	2020
Net profit margin (%)	**3.7**	4.6
Return on assets (%)[(1)]	**3.0**	3.4
Return on equity (%)[(2)]	**7.3**	8.4
Return on invested capital (%)[(3)]	**7.5**	8.6

Main financial ratios	As at 31 December 2021	As at 31 December 2020
Gearing ratio (%)[(4)]	**0.8**	1.1
Net debt to equity ratio (%)[(5)]	**Net cash**	Net cash
Current ratio[(6)]	**1.6**	1.6
Quick ratio[(7)]	**1.6**	1.5

(1) Return on assets $= \dfrac{\text{Profit for the year}}{\text{(Opening balance of total assets + Closing balance of total assets)/2}}$

(2) Return on equity $= \dfrac{\text{Profit for the year}}{\text{Total equity at the end of the year}}$

(3) Return on invested capital $= \dfrac{\text{Earnings before interest and tax (EBIT) for the year x (1 – effective income tax rate)}}{\text{Total interest bearing debt at the end of the year – Credit loans + Total equity at the end of the year}}$

(4) Gearing ratio $= \dfrac{\text{Total interest bearing debt at the end of the year}}{\text{Total interest bearing debt at the end of the year + Total equity at the end of the year}}$

(5) Net debt to equity ratio $= \dfrac{\text{Net debt at the end of the year}}{\text{Total equity at the end of the year}}$

(6) Current ratio $= \dfrac{\text{Current assets}}{\text{Current liabilities}}$

(7) Quick ratio $= \dfrac{\text{Current assets - Inventories}}{\text{Current liabilities}}$

Return on assets

During the Reporting Period, the Group's return on assets decreased to 3.0% from 3.4% for the same period in 2020, mainly due to the decrease in the profit and the increase in the total assets during the Reporting Period.

Return on equity

The Group's return on equity decreased to 7.3% from 8.4% for the same period in 2020, mainly due to the decrease in the profit and the increase in the total equity during the Reporting Period.

Return on invested capital

The Group's return on invested capital decreased to 7.5% from 8.6% for the same period in 2020 for the same reason as the increase in return on equity.

Gearing ratio

The Group's gearing ratio decreased to 0.8% from 1.1% at the end of 2020, mainly due to the decrease in interest-bearing borrowings at the end of the Reporting Period.

Net debt to equity ratio

The Group maintained positive net cash as at 31 December 2020 and as at 31 December 2021.

Current ratio

The Group's current ratio was 1.6, which was basically the same as at the end of 2020.

Quick ratio

The Group's quick ratio was 1.6, which was basically the same as at the end of 2020.

SIGNIFICANT EVENTS

1 Corporate governance

During the Reporting Period, the Company was in compliance with the code provisions of the Corporate Governance Code set out in Appendix 14 to the Hong Kong Listing Rules and did not deviate from any code provision.

2 The annual dividend distribution plan as at 31 December 2021

The second meeting of the fourth session of the Board approved the dividend distribution plan for the year ended 31 December 2021. A final cash dividend of RMB0.222 (inclusive of applicable taxes) per share would be distributed based on 4,428,000,000 shares (including 1,460,800,000 H Shares and 2,967,200,000 Domestic Shares), being the total share capital of the Company as at 31 December 2021. The above dividend distribution plan will be submitted to the annual general meeting of shareholders in 2021 for review and approval.

The final dividend of 2021 will be paid on or before Tuesday, 19 July 2022 to all Shareholders whose names appear on the register of members of the Company at the close of business on Monday, 23 May 2022. In order to qualify for the final dividend, the holders of H Shares must lodge all share certificates accompanied by the transfer documents with Computershare Hong Kong Investor Services Ltd. (address: Shops 1712-1716, 17/F, Hopewell Centre, 183 Queen's Road East, Wan Chai, Hong Kong) before 4:30 p.m. on Tuesday, 17 May 2022 for registration. For the purpose of ascertaining Shareholders who qualify for the dividend, the register of members for H Shares will be closed from Wednesday, 18 May 2022 to Monday, 23 May 2022 (both days inclusive).

The dividend will be denominated and declared in Renminbi. The holders of Domestic Shares will be paid in Renminbi and the holders of H Shares will be paid in Hong Kong dollars. The exchange rate for the dividend to be paid in Hong Kong dollars will be the mean of the exchange rates of Renminbi to Hong Kong dollars as announced by the People's Bank of China during the five business days preceding the date of approval of the final dividend by the annual general meeting to be convened on 12 May 2022.

In accordance with the Enterprise Income Tax Law of the People's Republic of China (中華人民共和國企業所得稅法) and its implementation regulations, the Company is required to withhold and pay enterprise income tax at the rate of 10% on behalf of the non-resident enterprise Shareholders whose names appear on the register of members for H Shares when distributing the cash dividends. Any H Shares not registered under the name of an individual Shareholder, including HKSCC Nominees Limited, other nominees, agents or trustees, or other organisations or groups, shall be deemed as shares held by non-resident enterprise shareholders. Therefore, enterprise income tax shall be withheld from dividends payable to such Shareholders. If holders of H Shares intend to change their shareholder status, please enquire about the relevant procedures with their agents or trustees. The Company will strictly comply with the law and the requirements of the relevant government authority and withhold and pay enterprise income tax on behalf of the relevant Shareholders based on the register of members for H Shares as at Monday, 23 May 2022.

If the individual holders of H Shares are Hong Kong or Macau residents or residents of the countries which had an agreed tax rate of 10% for the cash dividends given to them under the relevant tax agreement with the PRC, the Company should withhold and pay individual income tax on behalf of the relevant Shareholders at a rate of 10%. Should the individual holders of H Shares be residents of the countries which had an agreed tax rate of less than 10% under the relevant tax agreement with the PRC, the Company shall withhold and pay individual income tax on behalf of the relevant shareholders at a rate of 10%. In that case, if the relevant individual holders of H Shares wish to reclaim the extra amount withheld due to the application of 10% tax rate, the Company can apply for the relevant agreed preferential tax treatment provided that the relevant Shareholders submit the information required by the notice of the tax agreement to the H share registrar of the Company. The Company will assist with the tax refund of the extra amount withheld after obtaining the approval of the competent tax authority. Should the individual holders of H Shares be residents of the countries which had an agreed tax rate of over 10% but less than 20% under the tax agreement with the PRC, the Company shall withhold and pay the individual income tax at the agreed actual rate in accordance with the relevant tax agreement. In the case that the individual holders of H Shares are residents of the countries which have had an agreed tax rate of 20% under the relevant tax agreement with the PRC, or which has not entered into any tax agreement with PRC, or otherwise, the Company shall withhold and pay the individual income tax at a rate of 20%.

For investors investing in the H Shares of the Company listed on the Hong Kong Stock Exchange through the Shanghai Stock Exchange or Shenzhen Stock Exchange (including enterprises and individuals) (the "Southbound Trading"), the Company has entered into the Agreement on Appropriation of Cash Dividends of H Shares for Southbound Trading《港股通H股股票現金紅利派發協議》with China Securities Depository and Clearing Corporation Limited, pursuant to which, China Securities Depository and Clearing Corporation Limited, as the nominee of the holders of H Shares for Southbound Trading, will receive all cash dividends distributed by the Company and distribute the cash dividends to the relevant investors of H Shares of Southbound Trading through its depositary and clearing system. The cash dividends for the investors of H Shares of Southbound Trading will be paid in Renminbi.

Pursuant to the relevant requirements under the "Notice on the Tax Policies Related to the Pilot Program of the Shanghai-Hong Kong Stock Connect" (Caishui [2014] No. 81)《關於滬港股票市場交易互聯互通機制試點有關稅收政策的通知》(財稅[2014]81號) and the "Notice on the Tax Policies Related to the Pilot Program of the Shenzhen-Hong Kong Stock Connect" (Caishui [2016] No. 127)《關於深港股票市場交易互聯互通機制試點有關稅收政策的通知》(財稅[2016]127號)), for dividends received by domestic investors from investing in H shares listed on the Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect, the company of such H shares shall withhold and pay individual income tax at the rate of 20% on behalf of the investors. For dividends received by domestic securities investment funds from investing in H shares listed on the Hong Kong Stock Exchange through Shanghai-Hong Kong Stock Connect or Shenzhen-Hong Kong Stock Connect, the tax payable shall be the same as that for individual investors. The company of such H shares will not withhold and pay the income tax of dividends for domestic enterprise investors and those domestic enterprise investors shall report and pay the relevant tax themselves.

3 Connected Transactions

Continuing Connected Transactions between the Group and Sinopec Group

During the Reporting Period, the Group entered into a series of continuing connected transactions or agreements with Sinopec Group, including the following:

(1) the Engineering and Construction Services Framework Agreement and the supplemental agreement;

(2) the Financial Services Framework Agreement and the supplemental agreement;

(3) the Technology R&D Framework Agreement and the supplemental agreement;

(4) the General Services Framework Agreement and the supplemental agreement;

(5) the Land Use Right and Property Lease Framework Agreement;

(6) the Counter-guarantees provided by Sinopec Group;

(7) the Safe Production Insurance Fund; and

(8) the Trademark Licensing Agreement.

For further details, please refer to the section headed "Connected Transactions" in the Company's prospectus published on 10 May 2013, the Company's announcement entitled "Continuing Connected Transactions – Financial Services Framework Agreement" published on 19 August 2013, the contents related to the Financial Services Framework Agreement in the Company's circular to its shareholders published on 10 September 2013, the Company's announcement entitled "Adjustments to Annual Caps for Continuing Connected Transactions under the Technology R&D Framework Agreement" published on 17 March 2014, the contents in relation to the Financial Services Framework Agreement and the Engineering Services Framework Agreement in the Company's circular to its shareholders published on 15 September 2015, the Company's announcement entitled "Renewal of Technology R&D Framework Agreement, Financial Services Framework Agreement and Engineering and Construction Services Framework Agreement and the Annual Caps" published on 31 August 2015, the Company's announcement entitled "Renewal of Technology R&D Framework Agreement, Financial Services Framework Agreement and Engineering and Construction Services Framework Agreement and the Annual Caps and the Continuing Connected Transactions and Major Transactions under the Financial Services Framework Agreement" published on 15 September 2015, the Company's announcement entitled "Renewal of the General Services Framework Agreement, the Technology R&D Framework Agreement, the Financial Services Framework Agreement and Engineering and Construction Services Framework Agreement and the Annual Caps and Major Transactions and the Continuing Connected Transactions under the Financial Services Framework Agreement and the Engineering and Construction Services Framework Agreement" published on 21 August 2018 and the contents in relation to the Financial Services Framework Agreement and the Engineering Services Framework Agreement in the Company's circular to its shareholders published on 19 September 2018, the Company's announcement entitled "Renewal of the General Services Framework Agreement, the Technology R&D Framework Agreement, the Financial Services Framework Agreement and Engineering and Construction Services Framework Agreement and the Annual Caps and the Continuing Connected Transactions and Major Transactions under the Financial Services Framework Agreement and the Engineering and Construction Services Framework Agreement" published on 22 August 2021 and the contents in relation to the Financial Services Framework Agreement and the Engineering Services Framework Agreement in the Company's circular to its shareholders published on 15 September 2021.

The Group's Connected Transactions

During the Reporting Period, the aggregate value of the connected transactions entered into by the Group was RMB42.437 billion. In particular, the expenses amounted to RMB3.684 billion and the revenue amounted to RMB38.752 billion (including RMB37.986 billion from the sale of products and services and RMB767 million from interest income).

During the Reporting Period, the engineering and construction services (supply of equipment and materials, procurement of services and equipment leasing, technology licensing and other engineering-related services) provided by Sinopec Group to the Group amounted to RMB3.613 billion, which was within the annual cap. The engineering and construction services (engineering consulting, technology licensing, engineering design, EPC contracting, construction and equipment manufacturing, etc.) provided by the Group to Sinopec Group amounted to RMB37.819 billion, which was within the annual cap.

During the Reporting Period, the service fees in relation to the settlement and other financial services between the Group and Sinopec Finance Co., Ltd. and Sinopec Century Bright Capital Investment Limited were RMB2 million, which was within the annual cap. The maximum daily balance of deposits and interest income was RMB8.283 billion, which was within the annual cap. The maximum daily balance of entrustment loans was RMB22.0 billion, which was within the annual cap.

During the Reporting Period, the technology R&D services provided by the Group to Sinopec Group amounted to RMB151 million, which was within the annual cap.

During the Reporting Period, the general services provided by the Group to Sinopec Group amounted to RMB6 million, which was within the annual cap.

During the Reporting Period, the general services provided by Sinopec Group to the Group amounted to RMB62 million, which was within the annual cap.

During the Reporting Period, the land use and property lease contract provided by the Group to Sinopec Group amounted to RMB9 million, which was within the annual cap.

During the Reporting Period, the land use and property lease contract provided by Sinopec Group to the Group amounted to RMB8 million, which was within the annual cap.

In terms of the premium payable under the documents on safe production funds, the amount payable by the Group shall not be less than the amount specified in these documents.

For more information on the major related parties transactions (including the above-mentioned connected transactions) during the Reporting Period, please refer to Note 42 of the consolidated financial statements prepared in accordance with the IFRS in this annual report, among which the above transactions constitute connected transactions, and the Company has complied with the relevant requirements under Chapter 14A of the Hong Kong Listing Rules in relation to these connected transactions.

The above-mentioned connected transactions during the Reporting Period were approved at the second meeting of the Fourth Session of the Board. The connected transactions carried out during the Reporting Period are in compliance with the Hong Kong Listing Rules.

The external auditor of the Company was engaged to report on the Group's continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagement Other Than Audits or Reviews of Historical Financial Information" and Practice Note 740 "Auditor's Letter on Continuing Connected Transactions" under the Hong Kong Listing Rules" issued by Hong Kong Institute of Certified Public Accountants. The auditor has issued an unqualified letter containing the conclusions in respect of the above-mentioned continuing connected transactions in accordance with Rule 14A.56 of the Hong Kong Listing Rules and submitted a copy of the auditor's letter to the Hong Kong Stock Exchange.

Opinions of Independent Non-executive Directors on the Above-mentioned Continuing Connected Transactions

The independent non-executive Directors reviewed the nature, implementation of annual caps, pricing policy and internal control procedure of the above-mentioned continuing connected transactions, and confirmed as follows:

(a) The transactions were entered into in the ordinary and usual course of business of the Group;

(b) One of the following items was met:

i The transactions were entered into on normal commercial terms;

ii If there were not sufficient comparable transactions to decipher whether the transactions were on normal commercial terms, the transactions under the relevant agreements were entered into on terms no less favourable to the Company than terms available to or from independent third parties (as the case may be); or

iii If there were no appropriate assessments to determine whether the transactions met the conditions under (i) and (ii) above, the transactions were entered into on terms that were fair and reasonable to the shareholders of the Company; and

(c) The transactions were conducted in accordance with the relevant agreements and the terms are fair and reasonable and in the interests of the shareholders of the Company as a whole.

4 Material Litigation or Arbitration Events

The Company was involved in claims which arose in connection with the collapse of a partially completed oil storage tank of the oil and gas storage tank project in Alberta, Canada on 24 April 2007, which resulted in the deaths of two workers and injuries of four others. The case has not progressed for a long time. The Company submitted a formal application for withdrawal of the case to the court and was approved, the other party has filed an appeal and is currently entering the appeal process.

There were no other material litigation or arbitration events during the Reporting Period.

5 Other Material Contracts

Save as disclosed in this annual report, the Group had no other contracts of significance which should be disclosed during the Reporting Period.

6 Repurchase, Sale and Redemption of Shares

During the Reporting Period, the Group did not repurchase, sell or redeem any securities of the Company.

7 Reserves

During the Reporting Period, movements in the reserves of the Group were set out in the consolidated statement of changes in equity of the financial report, which was prepared in accordance with IFRS in this annual report.

8 Use of IPO Proceeds

During the Reporting Period, the Group used a total of RMB74 million net proceeds from the global offering, which was mainly used for the purchase of large-scale lifting and transportation equipment and specialized construction equipment amounted to RMB66 million, and the construction of information system amounted to RMB8 million. As at the end of the Reporting Period, the total amount of net proceeds from the global offering used by the Group amounted to RMB4.640 billion, and the remaining balance of the net proceeds from the global offering was approximately RMB6.517 billion (approximately RMB580 million of the unused net proceeds for establishing an engineering and technological R&D center, modular construction base and machinery manufacturing projects; approximately RMB300 million of the unused net proceeds for improving and developing overseas marketing networks; approximately RMB445 million of the unused net proceeds for information technology development projects; approximately RMB299 million of the unused net proceeds for purchasing large lifting and transport equipment and specialised construction equipment; approximately RMB1.035 billion of the unused net proceeds for newly added long-term equity investment; and approximately RMB3.859 billion of the unused net proceeds for mergers and acquisitions of engineering companies, purchase of patents and proprietary technologies and other item). The expected timeline for the use of net proceeds will be subject to the business development of the Company. The use of proceeds from the global offering by the Company is in consistence with that previously disclosed in the announcement. For details of the use of proceeds, please refer to the announcements of the Company entitled “Adjustment in Use of Proceeds from the Global Offering” dated 13 December 2013 and the “Adjustment in the Allocations of the Use of Proceeds from the Global Offering” dated 26 October 2018. During the Reporting Period, there was no material change to the use of proceeds from the global offering of the Group.

9 Assets Transactions

During the Reporting Period, the Group has no material assets transactions other than in the ordinary and usual course of business.

10 Insolvency and Restructuring

During the Reporting Period, the Group was not involved in any insolvency or restructuring matters.

11 Material Trusteeship, Contracting and Lease

During the Reporting Period, the Group was not involved in any material trusteeship, contracting or lease of any asset of other companies, nor placing its assets to or under any other companies' trusteeship, contracting or lease which were required to be disclosed.

12 Material Acquisitions and Disposal

During the Reporting Period, the Group has not made any material acquisition or disposal of subsidiaries, associates and joint ventures.

13 Financial Derivatives for Hedging Purposes

During the Reporting Period, the Group did not use any financial derivative for hedging purposes.

14 Pledged Assets

During the Reporting Period, the Group has no pledged assets.

15 Debt

The Group had USD10 million (about RMB64 million) loans to the fellow subsidiaries as at the end of the Reporting Period.

16 Contingent Liabilities

For details of the contingent liabilities of the Group, please refer to Note 41 to the financial statements contained in this annual report.

17 Review of Annual Report

The audit committee of the Company has reviewed this annual report. The audit committee did not have any disagreement concerning the financial statements contained in this annual report.

The audit committee is comprised of all independent non-executive Directors, namely, Mr. YE Zheng, Mr. HUI Chiu Chung, Stephen and Mr. JIN Yong. Among them, Mr. YE Zheng has the appropriate professional qualifications (including being a member of the Hong Kong Institute of Certified Public Accountants) and more than 25 years of experience in auditing, internal control and consultancy.

18 Significant Events Affecting the Group After the Reporting Periods

From 31 December 2021 and up to the date of this annual report, the Group has no other significant events.

19 Other Important Matters

During the Reporting Period, none of the Company, the Board, any Director or any Supervisor was punished by administrative means or public sanctioned by Hong Kong Securities and Futures Commission, or publicly condemned by the Hong Kong Stock Exchange.

CORPORATE GOVERNANCE

1 Enhancement of Corporate Governance during the Reporting Period

During the Reporting Period, the Company was strictly in compliance with the domestic and foreign laws and regulations on securities regulation and continuously improved its corporate governance.

During the Reporting Period, in accordance with relevant domestic and foreign laws and regulations and its actual situation, the Company strictly standardised corporate governance based on the working rules, systems and norms such as the Rules and Procedures for the Shareholders Meetings, the Rules and Procedures for the Board Meetings and the Rules and Procedures for the Supervisory Committee and updated the internal documents in accordance with the Hong Kong Listing Rules and other applicable laws and regulations in a timely manner; continuously improved the quality of investor relations and information disclosure, receiving the recognition of the capital market; modified its internal control system to intensify the execution thereof.

During the Reporting Period, the Company further enhanced on-the-job trainings to enhance the awareness of responsibility of all Directors, Supervisors and its senior management (the "Senior Management"), optimised the procedures and detailed services. The Company also provided Directors with reports of "Company Information" every month, which provided the Directors with relevant data and information to make reasonable decisions. The Company also continued to enhance voluntary information disclosure and the relationship with investors by strengthening two-way communication and increasing the transparency of the Company. The Company actively performed its social responsibilities and promoted its sustainable development.

During the Reporting Period, the Supervisory Committee had no disagreement to any supervised matters. Furthermore, none of the Company, the Board, any Director, any Supervisor, any senior management member, any of the controlling shareholders or de facto controllers was punished by administrative means or public sanctioned by Hong Kong Securities and Futures Commission, or publicly condemned by the Hong Kong Stock Exchange.

2 Equity Interests of Directors, Supervisors and the Senior Management Members

During the Reporting Period, none of the Directors, Supervisors or any member of the Senior Management, as well as their respective associates had any interests or short positions in any Shares, underlying Shares or debentures of the Company or any associated corporations (as defined under Part XV of the SFO) which were required to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they are taken or deemed to have under such provisions of the SFO), or which were required, pursuant to section 352 of the SFO, to be entered in the register maintained by the Company referred to therein, or which are required, pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "Model Code") in Appendix 10 to the Hong Kong Listing Rules, to be notified to the Company and the Hong Kong Stock Exchange that are regarded, or treated as being held, in accordance with the SFO in the shares of the Company or any associated corporation. Based on specific enquiries to all Directors and Supervisors, all Directors and Supervisors have confirmed that they complied with the standards stipulated in the Model Code during the Reporting Period.

3 Confirmation of Independence of Independent Non-executive Directors and Overview of their Performance

The Company has a sufficient number of independent non-executive Directors with appropriate professional qualifications or accounting or related financial management expertise in accordance with the Hong Kong Listing Rules. The Company appointed three independent non-executive Directors, namely Mr. HUI Chiu Chung, Stephen, Mr. JIN Yong and Mr. YE Zheng. The Company received an annual confirmation letter from each of independent non-executive Directors regarding their compliance with relevant independence requirements set out in Rule 3.13 of the Hong Kong Listing Rules. The Company considers all of its independent non-executive Directors to be independent.

During the Reporting Period, the independent non-executive Directors earnestly fulfilled their responsibilities prescribed by relevant laws, regulations and the Articles of Association and made positive contributions to the development of the Group. They actively attended the meetings of the Board and its special committees (for details about the attendance of the meetings, please refer to the Report of the Board in this annual report), carefully reviewed relevant documents, and made judgment with their own expertise in offering advices and suggestions on the development strategy, production and operation, internal control, risk management and social responsibility of the Company. The independent non-executive Directors also provided independent opinions according to regulations on connected transactions, external guarantee, dividend distribution plan and appointment of senior management members of the Company. The independent non-executive Directors maintained timely and effective communications with the executive Directors, management, external auditors and internal supervision and audit department and conducted several domestic and overseas investigations or surveys to better understand the Company's practice on internal control, internal audit, risk management, environmental protection and social responsibility, information disclosure and oversea project implementation. The independent non-executive Directors also independently and objectively safeguarded the legitimate rights and interests of the Company and investors, especially the medium and minority investors, during the performance of their duties.

4 The Company's Independence from the Controlling Shareholder

After obtaining confirmations from the Company and Sinopec Group, the following statements are declared:

During the Reporting Period, Sinopec Group complied with the principles and terms of the Non-Competition Agreement and the undertakings therein, fulfilled obligations and responsibilities in accordance with the Non-Competition Agreement and the undertakings therein, and did not violate the Non-Competition Agreement and the undertakings therein. The aforesaid was concluded based on Sinopec Group's overall review of the compliance with each provision (including but not limited to the provision of options for new business opportunities, options for acquisitions and pre-emptive rights) under the Non-Competition Agreement and the undertakings therein.

Opinions of the independent non-executive Directors of the Company regarding the compliance with the Non-Competition Agreement of Sinopec Group are as follows:

Based on the review of relevant situations, the independent non-executive Directors of the Company are of the view that during the Reporting Period, Sinopec Group performed and complied with the Non-Competition Agreement entered into with the Company.

5 Construction and Implementation of Internal Control System of the Group

Internal Control Construction

During the Reporting Period, the Company continued to improve the "Internal Control Manual of the Company" (the "Internal Control Manual"). Internal Control Manual regulates internal management, prevents operational risks and guarantees the realisation of the development strategies and operation goals of the Company. The Internal Control Manual was in compliance with domestic and overseas regulatory requirements such as the "Basic Standard for Internal Control of Enterprises", the "Implementation Guidelines for Internal Control of Enterprises", and the "Guidelines for Assessment of Internal Control of Enterprises", which was jointly issued by five ministries and commissions including the Ministry of Finance of PRC, as well as the requirements under the SFO and the Hong Kong Listing Rules, and established a comprehensive internal control system. The risk-oriented Internal Control Manual has realised the top-down integrated management of business processes, unification of internal management standards in business control, business management has realised the integration of risk, internal control and system. The Company pays high attention to the level of internal control and risk prevention. The internal control manual has further taken effective measures to strengthen internal control, leading to all-round enhancement of internal control.

Working Plans for Establishment and Improvement of Internal Control System and Implementation

The Company prepares annual goals and working plans with regard to internal control, and conducts comprehensive trainings, daily management and evaluation. Under the uniform deployment of the Company, the subsidiaries of the Company, through summary, revision and organisation of their respective management systems and implementation of various internal control requirements, has realised effective fusion of internal control, business and system. The Company has established an effective risk management mechanism. The first line of defense: core business departments such as market, operation, and overseas business at all levels, as the first responsible body for risk prevention; the second line of defense: legal, risk, compliance, and financial, human, quality, safety, technology, information and other support functional departments assist the first line of defense to prevent risks from different business areas; the third line of defense: as the assurance functional department, the supervision and audit departments at all levels independently conduct audit evaluations on the company's risk and internal control system. The Company has established three lines of defense for continuous supervision of internal control, namely, regular testing of department (unit) or enterprise (department) in charge of internal control, daily supervision and management of management departments in charge of internal control, and comprehensive audit, inspection and evaluation of audit department, which as a whole form an internal control supervision and evaluation system.

Setup of Internal Control Examination and Supervision Department

The Corporate Reform and Legal Department of the Company, which is assigned to administer the overall supervision of internal control, is responsible for the daily supervision of internal control and the organisation of individual inspection. The Supervision and Audit Department is in charge of internal control evaluations and independent comprehensive inspections and evaluation of internal control. The Company and its subsidiaries have established a two-level internal control inspection and evaluation system where the subsidiaries of the Company conduct self-inspections and evaluate internal control annually and the Company inspects the evaluation of internal control annually in a comprehensive manner.

Improvement of the Internal Control System Associated with Financial Accounting

The Internal Control Manual of the Company specifies the internal control requirements with regard to the financial statements and establishes connections with the professional management system. Fund and asset management, costs and expenses accounting and management, financial analysis and budget, connected transactions and the preparation of financial statements, are respectively included in the related work flow, control procedures and control points. At the same time, items and matters in accounting statements are connected with control measures, so that the internal control measures can provide reasonable assurance that the disclosed financial statements are authentic and reliable.

Internal Control Deficiencies and Rectification

During the Reporting Period, no material internal control deficiency was identified. For the other general deficiencies of internal control discovered during the inspection, the management of the Company has designed and adopted various rectification measures, and discussed these measures with external auditors of the Company. After a follow-up examination, all internal control issues relating to financial reporting were rectified during the Reporting Period. Other management deficiencies were rectified or addressed by adopting the relevant rectification measures. The rectification was in compliance with relevant requirements.

Businesses with Sanctioned Countries

In 2016 and 2017, the Group entered into the engineering, procurement and construction ("**EPC**") contract with National Iranian Oil Engineering and Construction Company in relation to Iranian Abadan Refinery Product Upgrading Project Phase I and Phase II, respectively, in 2021, the Group participated the Russia AGCC Ethylene Plant Project (the "**Pertinent Projects**"). For details, please refer to the announcements published by the Company on 22 February 2017, 27 December 2017, 23 February 2018 and 4 March 2021.

In order to monitor the possible sanction risks faced by the Company and ensure compliance with the related undertakings made to the Hong Kong Stock Exchange, the Company has adopted sufficient and effective internal control measures, including renewal of the appointment of outsourced international legal counsels with necessary expertise and experience in dealing with legal matters related with sanction and convening the risk management committee meetings to evaluate and monitor sanction risks faced by the Group. From 2016 to 2021, the Group completed evaluations on the legal and operating risks related with the Pertinent Projects and sanctions according to the internal control procedures and the relevant information. During the Reporting Period, the Company did not violate the related undertakings.

Arrangement for Internal Control by the Board

The Board will review the updated Internal Control Manual annually. The Board is responsible for the communication, supervision and inspection of internal and external auditing through the Audit Committee, as well as the inspection and supervision of the effectiveness of self-evaluation of internal control.

Inside information management system

During the Reporting Period, with due consideration of the information disclosure requirements under the Hong Kong Listing Rules and the Guideline for Disclosure of Inside Information issued by the Securities and Futures Commission in June 2012, the Group instructed special institution and staff to take responsibilities for the registration and management of persons who are aware of inside information. The Company also established the management archive of persons who are aware of inside information, updated the archive regularly and conducted regular trainings to persons who are aware of inside information and management staff, so as to strengthen their consciousness to comply with the relevant law.

The Group prohibits senior management members and employees who are likely to be aware of the Group's unpublished inside information or other information about the Group from using confidential or inside information without authorisation in accordance with the relevant stipulations of the Inside Information Disclosure Guideline. At the same time, in case of any enquiry about the affairs of the Group, only the secretary to the Board and the relevant authorised personnel are responsible for communicating with external persons.

6 Corporate Governance Report (pursuant to the Hong Kong Listing Rules)

(1) Compliance with Corporate Governance Code

From the listing date of the Company to 31 December 2021, the Company was in compliance with the code provisions of the Corporate Governance Code set out in Appendix 14 to the Hong Kong Listing Rules and did not deviate from any code provision.

A Board

A.1 Board

a. The Board is the decision-making body of the Company, and all decisions made by the Board are carried out by the management of the Company. The Board follows sound corporate governance practices and procedures, operates standardly, and commits itself to improving the corporate governance of the Company.

b. The Board holds at least four meetings annually. The Board communicates the time and subject matters 14 days prior to the meeting. The documents and materials for the meeting will usually be distributed 10 days in advance to each Director. In 2021, the Company held five Board meetings. For details of the attendance of each Director, please refer to the Report of the Board in this annual report.

c. Each member of the Board may submit proposals to be included in the agenda for Board meetings, and each Director is entitled to request other related information.

d. The Board reviewed and evaluated its performance for the past year. The Board was of the view that the composition of the Board was appropriate and balanced. The Board made decisions in compliance with domestic and foreign laws and regulations and the Company's internal rules, and safeguarded the rights and interests of the Company and its Shareholders. The Directors and the Senior Management diligently fulfilled their responsibilities and actively took part in trainings and continuing professional development.

e. The secretary to the Board and company secretary will assist the Directors in handling the routine tasks of the Board and continuously provide the Directors with and keep them informed of the regulations, policies and other requirements of domestic and overseas regulatory bodies in relation to corporate governance, and ensure that in performing their duties and responsibilities, the Directors comply with domestic and foreign laws and regulations as well as the Articles of Association. The Company has purchased liability insurance for all the Directors to minimise any risk which may arise from the performance of their duties.

A.2 Chairwoman of the Board and President

a. Mdm. SUN Lili serves as the Chairwoman of the Board, Mr. JIANG Dejun serves as the President. The Chairwoman of the Board is elected by the majority of the Directors, while the President is nominated and appointed by the Board. The duties and responsibilities of the Chairwoman of the Board and the President are clearly distinguished from each other and the scope of their respective duties and responsibilities are set out in the Articles of Association.

b. The Chairwoman of the Board highly values the communication with the independent non-executive Directors and holds meetings with them at least once each year without the presence of other Directors.

c. The Chairwoman of the Board encourages open and active discussions. Directors may speak freely and actively participate in discussions on production and operation, corporate governance and material investments of the Company in Board meetings.

A.3 Board Composition

a. As at the date of this annual report, the Board consists of nine members, with one female Director (for details, please refer to the section headed “Directors, Supervisors, Other Members of Senior Management and Employees” of this annual report). All Directors have rich experience in specialties and governance. Among the 9 members, there are 3 executive Directors, 3 non-executive Directors and 3 independent non-executive Directors. The independent non-executive Directors represent at least one-third of the Board. The executive Directors and non-executive Directors of the Company are experienced in the management of refining and chemical engineering, or petroleum and petrochemical enterprise. The independent non-executive Directors are well-known technological experts of chemical engineering, financial and accounting, respectively, and have experiences in managing large corporations, capital operation and finance investments, respectively. The composition of the Board is reasonable and diversified.

b. There is no financial, business, family or other material/relevant relationship between the board members of the Company (especially between the Chairwoman of the Board and the President) except for the working relationship.

c. The Company received the confirmation letter for the year 2021 from each of the independent non-executive Directors regarding his compliance with relevant independence requirements as set out in Rule 3.13 of the Hong Kong Listing Rules. The Company considers each of the independent non-executive Directors to be independent.

A.4 Appointment, Re-election and Dismissal

a. The term of office of each Director (including non-executive Directors) is 3 years, and the term of office (excluding the first tenure) of any independent non-executive Director may not be renewed for more than 6 years. If an independent non-executive Director has already served 9 years, his further appointment shall be subject to a separate resolution to be approved at the Shareholders meeting.

b. All Directors will be elected through legal procedures, and the Board has no power to appoint temporary Directors.

c. For newly appointed Directors, the Company will engage professional consultants to prepare detailed materials, inform such Directors of regulatory requirements of the place where the Company is listed and remind such Directors of their rights, obligations and responsibilities.

A.5 Nomination Committee

a. The Company has established a nomination committee (the "Nomination Committee"). Mdm. SUN Lili, the Chairwoman of the Board and executive Director, is the chairwoman of the Nomination Committee. Mr. HUI Chiu Chung, Stephen, an independent non-executive Director, is the vice chairman of the Nomination Committee. Mr. XIANG Wenwu, the Vice Chairman of the Board and executive Director, and Mr. JIN Yong and Mr. YE Zheng, each an independent non-executive Director, are members of the Nomination Committee. The terms of reference of the Nomination Committee have been established and are available on the websites of the Company and the Hong Kong Stock Exchange. The Nomination Committee will recommend the appointment or re-election of the Directors as well as the succession plan of Directors (especially the Chairwoman of the Board and the President of the Company), seek candidates for directorship with appropriate qualifications and competence; elect and nominate relevant personnel to be appointed as Directors, and propose recommendations thereof to the Board. The Nomination Committee is also responsible for evaluating the independence of independent non-executive directors.

b. After discussions and consideration, the Nomination Committee was of the view that the structure, number of members and composition of the Board in 2021 were reasonable and in consistence with the strategies of the Group.

c. Nomination Committee members may engage independent professionals when performing duties. Reasonable costs arising from or in connection with such consultation are borne by the Group. The expenses of the Nomination Committee will be included in the budget of the Company.

d. Please refer to the "Report of the Board – Meetings Held by the Special Committees of the Board" of this annual report for information about meetings held by the Nomination Committee.

e. The Board has established the Board Diversity Policy, which provides that the nomination and appointment of Board members should be based on the skills and experience necessary for the overall sound operation of the Board, with due considerations given to the goal and requirement for the diversification of Board members. When determining the composition of Board members, the Company should consider their diversity from multiple aspects, including but not limited to sex, age, culture, educational background, race, professional experience, skills, knowledge and length of service.

f. Board Diversity Policy has set up two measurable objectives, (1) to consider candidates for appointment as directors from a wide pool of talents taking into account the culture, educational background, expertise and professional experience, skills, experience, and other contributions that would complement the current needs of the Board, and (2) to review whether the composition and structure of the Board is suitable for the overall development strategy of the Group based on its business operation and the developmental need on an annual basis and to propose adjustment and implementation plans where appropriate.

During the Reporting Period, the progress made by the Group regarding such measurable objectives are as follows: (1) selection and appointment of the Directors of the Company is in compliance with the requirements of the Board Diversity Policy and in line with the overall development strategy of the Group. The Nomination Committee will identify the candidates for directorships and make recommendation to the Board according to the Board Diversity Policy of the Company for any replacement of Director or an addition to the Board. The Board would also appoint suitable candidates for directorship based on the overall development of the Group and the Board Diversity Policy of the Company; and (2) the current composition and structure of the Board of the Company is appropriate for the development need of the existing business operation of the Group and is conducive for providing the Company with extensive valuable advice and supervision on decision-making. The Company will continually assess the diversity of the Board and objectively consider the composition and effectiveness of the Board.

A.6 Responsibility of Directors

a. All the non-executive Directors of the Company have the same duties and authorities as executive Directors. In addition, the non-executive Directors, especially the independent non-executive Directors, are vested certain specific powers. The rights and obligations of Directors and non-executive Directors (including the independent non-executive Directors) are clearly defined in the Articles of Association and the Rules and Procedures for the Board Meetings.

b. All Directors were able to devote sufficient time and effort in handling the matters of the Company.

c. The Company has adopted Model Code as code of conduct regarding the Directors' securities transactions. All Directors of the Company have confirmed that they have been in compliance with the Model Code during the Reporting Period.

d. The Company is responsible for arranging trainings for Directors and providing for the corresponding expenses. The Directors actively participated in continuing professional development. The Company has received the training records from Directors. For details, please refer to the Report of the Board in this annual report.

A.7 Provision for and Access to Information

a. The meeting agenda as well as other reference documents of the Board and each special committee will be distributed prior to the meetings so that each member will have sufficient time to review, which enables them to have comprehensive discussions at the meetings. Each Director can obtain all related information in a comprehensive and timely manner, and may seek advice from professional consultants if needed.

b. The secretary to the Board is responsible for organising and preparing materials for the Board meetings, including the explanation for each proposal to ensure thorough understanding by each Director. The management of the Group shall provide the Directors with necessary information and materials. The Director may request the President, or request, via the President, relevant departments to provide necessary information of the Group or related explanations.

B Remuneration of Directors and the Senior Management

a. The Company has established a remuneration committee (the "Remuneration Committee"). Mr. HUI Chiu Chung, Stephen, an independent non-executive Director, is the chairman of the Remuneration Committee, and Mr. YE Zheng and Mr. JIN Yong, each an independent non-executive Director, are members of the Remuneration Committee. The terms of reference of the Remuneration Committee are available on the websites of the Company and the Hong Kong Stock Exchange. The Remuneration Committee is responsible for studying the compensation structures and policies of all Directors, Supervisors and Senior Management members and making recommendations to the Board or determining the compensation and welfare of individual executive Director and Senior Management member as authorised by the Board or making recommendations to the Board. The remuneration of Directors shall be determined in accordance with relevant laws and regulations of the PRC and the internal measures on remuneration of the Company. The Remuneration Committee appointed the advisory member to assist the Remuneration Committee in carrying out daily works. The expenses of the Remuneration Committee are included in the budget of the Company.

b. The Remuneration Committee consults the Chairman and Vice Chairman of the Board regarding the remuneration recommendations for other executive Directors. As assessed by the Remuneration Committee, it considered that for the year 2021, each of the executive Directors has fulfilled his/her responsibilities as stipulated under the service contract entered into with the Company.

c. Please refer to "Report of the Board – Meetings Held by the Special Committees of the Board" of this annual report for information about meetings held by the Remuneration Committee.

C Accountability and Auditing

C.1 Financial Reporting

a. The Directors are responsible for supervising the compilation of accounts in each financial period, which shall be prepared on a going concern basis, and should ensure that the accounts can authentically and fairly reflect the business conditions, operating results and cash flows of the Group during the corresponding period. The Board approved the financial statements for the year 2021 and warranted that there were no misrepresentations, misleading statements or material omissions contained in this annual report, and take jointly and severally responsibility for the authenticity, accuracy and integrity of the contents therein.

b. The Company provides financial information, production and operation status to the Directors every month to ensure that the Directors are informed of the Company's latest developments in a timely manner.

c. The Company adopted an internal control mechanism to ensure that the management and relevant departments provide sufficient financial data and related explanations to the Board and the Audit Committee.

d. The external auditors of the Company issued a statement about their reporting responsibilities in the financial statements contained in the independent auditors' report.

C.2 Risk Management and Internal Control

a. The Company has established a comprehensive and basic process for risk management that is composed of target setting, risk identification, risk assessment, risk response, supervision and improvement. At the beginning of each year, the Company and its subsidiaries will take into account then production and operation situation to analyse the changes and impact of the internal and external environment, identify the risk factors and major risk areas confronting various professional fields, rank and evaluate the identified risks, work out countermeasures and indicators of monitoring and early warning, to address the major and principal risks and place operation risks under dynamic monitoring.

b. The Company has deeply integrated risk management with internal control. In the internal control matrix, risks are described according to the Company's list of risks and, on this basis, the internal control measures have been modified and improved to take risk prevention counter-measures in daily business management activities. The Company has clarified the responsible parties and strengthened supervision and inspection through means including internal control evaluation to ensure that its internal risks are controllable and being under control.

c. The Board is the highest decision-making authority for the Company's overall risk control measures. The Board acknowledges that it is its responsibility to ensure that the Company has established and maintained appropriate and effective risk management and internal control systems, and has the responsibility to review the effectiveness of these systems. Such systems are designed to manage rather than eliminate risks such as failure to achieve business objectives, and can only provide reasonable, but not absolute, assurance against material misstatement or loss. The Company has established the Risk Management Committee to organise and lead the comprehensive risk management and internal control efforts of the Company. The departments and subsidiaries of the Company specifically implement overall risk management and internal control measures. They are responsible for promptly identifying, analysing and evaluating the risks in production and operations to put forward the counter-measures and solutions for internal control that are to be implemented afterwards.

d. For the purpose of inspecting and evaluating the internal risk control measures of the Company, the risk management departments of the Company and its subsidiaries will test on the implementation of internal control on a quarterly basis. The supervision and audit department of the Company will carry out comprehensive annual inspections and evaluations on the effectiveness of the risk-oriented internal control design and operation of the Company. The general procedures of inspection and evaluation mainly include drawing up a plan for inspection and evaluation of internal control, setting up a working group for inspection and evaluation of internal control, implementing online testing of the internal control system or onsite inspection and evaluation, identifying the deficiencies in internal control, re-checking and confirming the deficiencies, arriving at a conclusion based on onsite evaluation, summarising and analysing the results of inspection and evaluation, compiling the seasonal test report of internal control as well as the annual and interim work report on risk management and internal control, and regularly reporting to the management members and the Board.

e. The Company prepares and issues regular reports such as annual reports and interim reports in accordance with the requirements of the place where the Company is listed. The regular reports are reviewed by the executives and considered by the management of the Company before being submitted to the Board and the Supervisory Committee for approval. The Company office will finalise the regular reports according to the opinions of the Board and disclose the reports together with other relevant documents required to be submitted and disclosed on the designated websites within the given timeframe. The Company has established procedures on disclosure of inside information to ensure that inside information is promptly identified, assessed and submitted, where applicable, for the attention of the Board. In case of the occurrence of any significant event that needs to be disclosed, the Company office will organise the drafting of a report according to the actual conditions and go through the relevant approval procedures according to the Articles of Association and rules and procedures of the Company before disclosing the information.

f. Statement of risk management and internal control: Internal risk control departments of the Company and its subsidiaries carry out risk management and internal control inspection and evaluation at least quarterly, and supervision and audit departments organise and implement risk-oriented internal control comprehensive inspection evaluation at least annually. During the Reporting Period, risk management and internal control inspection of the Company cover the Reporting Period, and the scope of inspection covers all major control aspects (including finance, business operation, compliance control and risk management function). In particular, the Board considers that the Company has adequacy of resources, staff qualifications and experience in accounting, internal audit and financial reporting functions, and the training courses received by the staff and relevant budget are also sufficient. The risk management and internal control evaluation results of the Company indicated that the Company has gradually enhanced consciousness on internal control as well as risk prevention from top down, revised internal control manual and realised online publication, further adopted effective measures to strengthen internal control management, and comprehensively increased internal control management level. The Company is not aware of any material deficiency, and the internal control of the Company (including financial report and compliance procedures according to the Hong Kong Listing Rules) is effective in general.

C.3 Audit Committee

a. The Company has established the Audit Committee. Mr. YE Zheng, an independent non-executive Director, is the chairman of the Audit Committee, and Mr. HUI Chiu Chung, Stephen and Mr. JIN Yong, each an independent non-executive Director, are members of the Audit Committee. Terms of reference of the Audit Committee have been established, and are available on the websites of the Company and the Hong Kong Stock Exchange. The Audit Committee advises on the appointment, re-appointment, termination of the independent auditors and their remuneration, reviews the financial statements to be submitted to the Board, and examines the Company's financial policies, internal audit system, internal control system and risk management system. As confirmed, none of the members of the Audit Committee had served as a partner or former partner in the Company's existing auditing firm.

According to the Letter to Issuers released by the Hong Kong Stock Exchange dated 19 December 2014 and relevant amendments to the "Corporate Governance Code" set out in Appendix 14 to the Hong Kong Listing Rules, and in order to improve the corporate governance practice and reinforce the risk management and internal control functions of the Board, the third meeting of the Second Session of the Board held by the Company on 18 March 2016 has resolved to incorporate the risk management function into the scope of authority of the Audit Committee and also to amend the terms of reference of the Audit Committee as appropriate. Such amendment was aim to add and specify the description of risk management function. This resolution has been implemented after the approval by the Board.

b. Please refer to "Report of the Board – Meetings Held by the Special Committees of the Board" of this annual report for information about meetings held by the Audit Committee. Review opinions signed by the members of the Audit Committee were issued at such meetings and submitted to the Board. During the Reporting Period, there was no disagreement between the Board and the Audit Committee.

c. Members of the Audit Committee may engage independent professionals when performing duties. Reasonable costs arising from or in connection with such consultation are borne by the Group. Meanwhile, the Audit Committee appointed the advisory member to assist the Audit Committee in specific daily routines. The expenses of the Audit Committee are included in the budget of the Group.

d. During the Reporting Period, the Audit Committee held meetings with the auditors twice without the presence of the management members, either in writing or through meeting in person, discussing the audit situations of financial reports and the auditors' fees for the year as well as coordinating the work allocation between the internal and external auditors. The Audit Committee considered the adequacy of resources, staff qualifications and experiences, as well as the training programmes provided to the relevant staffs and the budget of the Company's accounting, internal audit and financial reporting functions during the Reporting Period. The Audit Committee considers that the Company's management performed their duties and established an effective internal control system. In addition, the Audit Committee also considered the adequacy of the resource of the Company's internal audit function, reviewed and monitored the effectiveness of the internal audit function on a constant basis. According to the Company's internal control mechanism, the Company has established whistle-blowing mechanism, whereby the staff and stakeholders may have a channel, such as online reporting, reporting through letters, meeting with reporters, complaint mail box, to report and complain on their discovered activities that have breached the Company's internal control system. The Audit Committee has reviewed and approved such system.

D Delegation of Power by the Board

a. The Board, the management and the special committees of the Board have clear terms of references. The Articles of Association, the Rules and Procedures for the Shareholders Meetings, the Rules and Procedures for the Board Meetings, and the Working Rules for the President specify clear scopes of duties, authorities and authorisations of the Board and the management.

b. The Board has established the Strategy and Development Committee. The executive Director, Mdm. SUN Lili, serves as the chairwoman of the committee. Mr. JIN Yong, an independent non-executive Director, serves as the vice chairman of the committee. Mr. XIANG Wenwu (the executive Director and Vice Chairman of the Board), Mr. WANG Zizong (a non-executive Director), Mr. LI Chengfeng (a non-executive Director), Mr. WU Wenxin (a non-executive Director) and Mr. JIANG Dejun (an executive Director and the President), serve as members of the committee. The Strategy and Development Committee is responsible for studying the long-term development strategies as well as major decisions on capital expenditure, investment and financing of the Company. Please refer to “Report of the Board – Meetings Held by the Special Committees of the Board” of this annual report for information about meetings held by the Strategy and Development Committee.

c. As of the release date of this report, the Board has established the ESG Committee, the Chairwoman of the Board executive Director, Mdm. SUN Lili, serves as the chairwoman of the committee, Mr. LI Chengfeng, a non-executive Director, Mr. JIANG Dejun, an executive Director and the President, Mr. JIN Yong, an independent non-executive Director and Mr. YE Zheng, an independent non-executive Director, serve as members of the committee. The ESG Committee is responsible for the research and planning of the Company’s ESG management, and overseeing the Company’s commitment and performance on key ESG issues.

d. All special committees under the Board have clear written scope of responsibilities. The terms of reference of all special committees under the Board specify that such committees should report its decisions or recommendations to the Board.

e. The Board confirms that corporate governance should be joint responsibilities of directors, and corporate governance functions include:

(i) to develop and review the policies and practices on corporate governance of the Company;

(ii) to review and monitor the training and continuous professional development of Directors, Supervisors and Senior Management;

(iii) to review and monitor the policies and practices on compliance with legal and regulatory requirements of the Company;

(iv) to develop, review and monitor the code of conduct and compliance manual (if any) applicable to employees, Directors and Supervisors; and

(v) to review the compliance with Corporate Governance Code and disclosure in the Corporate Governance Report of the Company.

E Investor Relations

a. The Company places great emphasis on investor relations. The Senior Management conducts road shows for investors every year to introduce matters that investors may be concerned about, such as development strategies, production and business performance of the Company. The office of the Board is responsible for communicating with investors in compliance with regulatory requirements through meetings with, site visits by and setting up email accounts for investors, which enhanced communications with investors.

b. During the Reporting Period, for each substantially separate issue at a general meeting, a separate resolution was proposed. All resolutions were voted by poll to safeguard the interests of all the shareholders of the Company. A meeting notice was delivered to each shareholder at least 45 days (exclusive of the day of the meeting) prior to shareholders meetings.

c. The Chairwoman of the Board hosted the shareholders meetings as the chairman of such meeting. Members of the Board and the Senior Management also attended shareholders meetings and answered questions raised by the shareholders of the Company.

d. During the Reporting Period, the Company has made the following four amendments to the Articles of Association. The first is to add a general counsel clause. Including clarifying that the Company adheres to the management of enterprises according to law; implementing the general counsel system, giving play to the role of the general counsel in legal review and control in operation and management, and promoting the Company's lawful operation and compliance management; clarifying that if the matters discussed and considered by the Board involve legal issues, the general counsel shall attend the meeting and provide legal opinions; clarify the positioning of the senior management of the general counsel; and increase the relevant contents of the appointment or dismissal of the general counsel in the authority of the Board. The second is to revise the relevant contents of the role of the Company's party organization. The third is to clarify the responsibilities of the Board and management. The fourth is to adjust the number of members of the Board and the Supervisory Committee.

During the Reporting Period, the Company revised the Rules and Procedures for the Board Meetings to increase the authority of the Board to appoint or dismiss the general counsel; increase the matters on which the general counsel attends the Board Meeting and gives opinions; adjust the number of members of the Board; and increase the contents on which the Audit Committee of the Board shall promote and guide the Company's law construction and compliance management, etc.

During the Reporting Period, the Company revised the Rules and Procedures for the Supervisory Committee, and adjusted the number of members of the Supervisory Committee.

F Company Secretary

a. The company secretary of the Company is recognised by the Hong Kong Stock Exchange as the professional, and is nominated by the Chairwoman of the Board and appointed by the Board. Company secretary is a Senior Management and reports to the Company and the Board. The company secretary of the Company gives opinions on corporate governance to the Board and arranges orientation training and professional development of the Directors.

b. The company secretary of the Company actively participated in professional development training and has taken no less than 15 hours of relevant professional training during the Reporting Period.

G Shareholders' Rights

a. Shareholders who individually or collectively hold 10% or more of the total voting shares issued by the Company may request in writing for the Board to convene an extraordinary shareholders meeting or class meetings. If the Board fails to grant the request to call the meeting according to the Rules and Procedures for Shareholders Meetings, shareholders may call and hold the meeting at their discretion according to laws, and reasonable expenses arising therefrom are to be borne by the Company. The aforesaid provisions are subject to the following conditions: the proposals proposed at the shareholders meeting shall fall within the scope of authorities of the shareholders meetings, with specified proposals and resolutions, and in compliance with the relevant laws, administrative regulations and the Articles of Association.

b. When the Company holds a shareholders meeting, shareholders who individually or collectively hold 3% or more of the total voting shares issued by the Company may propose a provisional proposal 10 days before the date of the meeting.

c. The eligibility for attending the general meeting, the shareholders' rights and the meeting agenda are clearly stated in the notices to the shareholders of the Company.

d. The Company requires that the company secretary is responsible for establishing an effective communication channel between the Company and its shareholders, setting up a special organisation for contacting shareholders, and passing their opinions and advice to the Board and the management members in a timely manner. Contact details of the Company can be found under the "Investor Center" section on the website of the Company.

(2) Auditors

At the 2020 annual general meeting of the Company held on 10 May 2021, the Company approved the appointment of BDO China Shu Lun Pan Certified Public Accountants LLP and BDO Limited as the domestic and international auditors of the Company for the year 2021 and authorised the Board to determine their remuneration for the year 2021. As approved at the fifteenth meeting of the Third Session of the Board, the audit fee for 2021 is RMB4.57 million. The financial statement of 2021 was audited by BDO Limited.

During the Reporting Period, BDO China Shu Lun Pan Certified Public Accountants LLP and BDO Limited did not provide any material non-audit services to the Company.

(3) Other Information about Corporate Governance of the Company

For the composition of the Board, please refer to page 80; for information regarding changes in share capital and shareholdings of substantial shareholders, please refer to page 14 to page 15; for information regarding meetings of the Board, please refer to page 80 to page 81; for the attendance of each Director in Board meetings and Shareholders meetings, please refer to page 82; for information regarding the equity interests of Directors, Supervisors and other Senior Management members, please refer to page 64; for information regarding the resume and annual remuneration of Directors, Supervisors and other Senior Management members, please refer to page 102 to page 112.

REPORT OF THE BOARD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The Board is pleased to present the report for the year ended 31 December 2021 for Shareholders' review.

1 Board Composition

As at the date of this annual report, the composition of the Fourth Session of the Board consists Mdm. SUN Lili, Mr. XIANG Wenwu and Mr. JIANG Dejun, as executive Directors; and Mr. WANG Zizong, Mr. LI Chengfeng and Mr. WU Wenxin, as non-executive Directors; Mr. HUI Chiu Chung, Stephen, Mr. JIN Yong and Mr. YE Zheng, as the independent non-executive Directors.

2 Principal Business Activities

The Group is a leading energy and chemical engineering company in the PRC with strong international competitiveness and can provide domestic and overseas clients with overall solutions for petrol refining, chemical engineering, aromatics, coal chemicals, inorganic chemicals, pharmaceutical chemicals, clean energy, storage and transportation facilities, environmental protection and energy saving, among other industry sectors. The Group is a service provider for the whole life cycle from project planning to project operation and can provide overall industry chain services including engineering consulting, technology licensing, project management contracting, financing assistance, EPC (engineering, procurement and construction) contracting, as well as design, procurement, construction and installation, lifting and transportation of large equipment, pre-commissioning and start-up.

The list of the Company's major subsidiaries as at 31 December 2021, together with (among others) details of their principal countries of operation, places of incorporation or establishment and particulars of their issued share capital, is set out in Note 44 to the financial statements contained in this annual report.

3 Meetings of the Board

During the Reporting Period, the Company held four 5 Board meetings. The details are as follows:

The fourteenth meeting of the Third Session of the Board was held in Beijing, the PRC, on 22 February 2021, whereby the proposal on adjustment of members of the Special Committees of the Board of SINOPEC SEG and the proposal on appointment of the authorized representative of SINOPEC SEG were considered and approved.

The fifteenth meeting of the Third Session of the Board was held in Beijing, the PRC, on 20 March 2021, whereby the following resolutions were considered and approved: the report of the Board for the year 2020, the report on the business operation for the year 2020 and the work arrangements for the year 2021; the report on the operating results, financial performance and other relevant matters for the year 2020; proposal on the audited financial statements for the year of 2020; proposal on the 2020 annual report and results announcement; proposal on the environmental, social and governance report for the year 2020; proposal on the business operation plan, investment plan and financial budget for the year 2021; the proposed cap for the amount of performance guarantee(s) to be provided by the Company (as the parent company) for the benefit of its subsidiaries for the year 2021; proposal on the final dividend distribution plan for the year 2020 and the authorisation to the Board to determine the interim profit distribution plan for the year 2021 to be put forward for approval at the Company's annual general meeting; proposal on the appointment of domestic auditor and international auditor and the authorisation to the Board to fix their remuneration for the year 2021; proposal on submitting for approval the Internal Control Manual (2021 version); proposal on submitting for approval the Report on the Work of internal Control System in 2020; proposal on grant of a general mandate to the Board to repurchase domestic shares and/or H shares to be put forward for approval at the annual general meeting and the class meetings; proposal on grant of a general mandate to the Board to issue domestic shares and/or H shares of the Company to be put forward for approval at the annual general meeting; proposal on approving the convening of 2020 annual general meeting and the class meeting for shareholders.

The sixteenth meeting of the Third Session of the Board was held in Beijing, the PRC, on 20 August 2021, whereby the following resolutions were considered and approved: the report on the fulfillment of the key targets for the first half of 2021 and the report on the work arrangements for the second half of 2021, report on the operating results, financial performance and other relevant matters for the first half of 2021, audit opinion of the independent auditor on the Company's 2021 interim financial report, review opinion of the Audit Committee regarding 2021 interim financial report and relevant matters, proposal on audited 2021 interim financial report, proposal on 2021 interim report and results announcement, proposal on 2021 interim dividend distribution plan, proposal on Amendments of Articles of Association, proposal on Amendments of the Rules of Procedures of the Board and the Rules of Procedure of the Supervisory Committee, proposal on Amendments of Working Rules of the Audit Committee of the Board, proposal regarding signing of Supplemental Agreement on Continuing Connected Transactions with Sinopec Group and approval of continuing connected transactions in 2022 to 2024 and caps of respective years, work report of the Third Session of the Board, proposal on nominating directors of the Fourth Session of the Board, proposal on approval to convene the Second Extraordinary General Meeting for the Year 2021.

The seventeenth meeting of the Third Session of the Board was held in Beijing, the PRC, on 28 September 2021, whereby the description regarding the management term system and contractual management of managerial level, proposals on approving the Management Measures for Remuneration of Members of Managerial Level and the Management Performance Assessment Measures of Members of Managerial Level, and proposal on optimization of structural establishment and functional adjustment of Company Headquarter were considered and approved.

The first meeting of the Fourth Session of the Board was held in Beijing, the PRC, on 26 October 2021, whereby the following resolutions were considered and approved: proposal on election of chairwoman and vice chairman of the Board of SINOPEC SEG; proposal on adjustment of members of the Special Committees of the Board of SINOPEC SEG; proposal on appointment of president of SINOPEC SEG; proposal on appointment of vice president, Chief Financial Officer and general counsel of SINOPEC SEG, and description regarding the service contract for directors of the fourth session of the Board and supervisors of Supervisory Committee.

4 Implementation of Resolutions Approved at Shareholders Meetings by the Board

During the Reporting Period, in accordance with relevant laws and regulations as well as the Articles of Association, all members of the Board diligently implemented the resolutions approved at the Shareholders meetings, and have completed various tasks delegated to them at the Shareholders meetings.

5 Attendance of Board Meetings and Shareholders Meetings

During the Reporting Period, the attendance of each Director of the Third Session and Fourth Session of the Board to the Board meetings and Shareholders meetings, and the trainings they received, are as follows:

Name	Board Meetings		Attendance at the general meeting for the year 2021 and the 2021 extraordinary shareholders meeting	Trainings
	Attend in person	Attend by proxy		
SUN Lili	5	0	5	2
XIANG Wenwu	4	1	5	2
WANG Zizong (1)	1	0	0	1
LI Chengfeng (1)	1	0	0	1
WU Wenxin	3	2	5	2
JIANG Dejun	5	0	5	2
HUI Chiu Chung, Stephen	5	0	5	2
JIN Yong	5	0	5	2
YE Zheng	5	0	5	2

Notes:

(1) On 26 October 2021, Mr. WANG Zizong, and Mr. LI Chengfeng were elected as directors of the Fourth Session of the Board of the Company upon the approval of the second extraordinary general meeting of the Company for the year 2021.

6 Meetings held by the Special Committees of the Board

The Board has established five special committees, namely, the Audit Committee, the Remuneration Committee, the Nomination Committee, the Strategy and Development Committee and the ESG Committee[1]. The Company's management has established three special committees, namely, the Risk Control Committee, the Confidentiality Committee and the QHSE Committee. During the Reporting Period, the Audit Committee held 2 meetings, the Remuneration Committee and the Nomination Committee each held 1 meeting; as there are no particular issues that need to be discussed and considered, the Strategy and Development Committee did not convene any meeting during the Reporting Period. The attendance of special committee meetings by members of each committee are as follows:

Name	Number of meetings required to be attended	Number of meetings attended in person	Number of meetings attended by proxy
Audit Committee			
YE Zheng	2	2	0
HUI Chiu Chung, Stephen	2	2	0
JIN Yong	2	2	0
Remuneration Committee			
YE Zheng	1	1	0
HUI Chiu Chung, Stephen	1	1	0
JIN Yong	1	1	0
Nomination Committee			
SUN Lili	1	1	0
XIANG Wenwu	1	1	0
HUI Chiu Chung, Stephen	1	1	0
JIN Yong	1	1	0
YE Zheng	1	1	0

1 The Company established the ESG Committee on 18 March 2022. Please refer to the announcement of the Company dated 20 Mach 2022 for details.

Specific situations of meetings of each committee are as follows:

The fifth meeting of the Audit Committee of the Third Session of the Board was held in Beijing, the PRC, on 18 March 2021, whereby the following resolutions were considered and approved: the audited opinion of independent auditor on the Company's financial statements of 2020, execution of the continuing connected transactions in 2020, proposal on the appointment of domestic auditor and international auditor and the authorisation to the Board to fix their remuneration for the year 2021, description of 2020 annual report of the Company, description of environmental, social and governance report for the year 2020, description of non-competition situation for the year 2020, summary report of internal control audit for the year 2020, proposal on submitting for approval the Report on the Work of internal Control System in 2020.

The sixth meeting of the Audit Committee of the Third Session of the Board was held in Beijing, the PRC, on 19 August 2021, whereby the following resolutions were considered and approved: audit opinion of the independent auditor on the Company's 2021 interim financial report, description on the 2021 interim report of the Company, work report of comprehensive risk management and internal control in the first half of 2021, execution of the continuing connected transactions in the first half of 2021.

The meeting of the Independent Director Committee of the Third Session of the Board was held in Beijing, the PRC, on 19 August 2021, whereby the proposal regarding signing of Supplemental Agreement on Continuing Connected Transactions with Sinopec Group and approval of continuing connected transactions in 2022 to 2024 and caps of respective years was considered and approved.

The fourth meeting of the Nomination Committee of the Third Session of the Board was held in Beijing, the PRC, on 19 August 2021, whereby the proposal on election of directors of the Fourth Session of the Board of SINOPEC SEG and proposal on election of chairwoman and vice chairman of the Fourth Session of the Board of SINOPEC SEG were considered and approved.

The fourth meeting of the Remuneration Committee of the Third Session of the Board was held in Beijing, the PRC, on 28 September 2021, whereby the description regarding the management term system and contractual management of members of managerial level was considered and approved.

7 Performance

The financial results of the Group for the year ended 31 December 2021 were prepared in accordance with the IFRS and its financial position as at that date and the corresponding analysis are set out from page 120 to page 192 in this annual report.

8 Dividends

In accordance with the Company Law and other relevant laws and regulations, the Company attaches great importance to the reasonable return on investment to investors and ensures the continuity and stability of the Company's profit distribution policy. The Company's distributable profits in the form of cash each year shall be no less than 30% of the net profits attributable to the Company's shareholders in the year, under the circumstances that there are net profits attributable to the Company's shareholders and accumulated undistributable profits, and that the Company's investment plan and cash expenses can be satisfied. A decision to declare or to pay any dividends in the future, and the amount of any dividends, will depend on, among other things, the Company's results of operations, cash flows and financial condition, operating and capital expenditure requirements, distributable profits as determined under PRC GAAP or IFRS (whichever is lower), the Articles of Association, the Company Law and any other applicable PRC law and regulations and other relevant requirements of the supervisory authorities of the place where the Company is listed.

At the annual general meeting for the year 2020 convened on 10 May 2021, an ordinary resolution was passed to approve the authorisation to the Board to determine the interim profit distribution plan for the year 2021. The dividend distribution plan of RMB0.091 per share (inclusive of applicable tax) for the six months ended 30 June 2021 was approved at the sixteenth meeting of the Third Session of the Board convened on 20 August 2021. The dividend distribution plan was implemented.

With the approval of the second meeting of the fourth session of the Board held by the Company on 18 March 2022, details of the final dividend distribution plan for the year ended 31 December 2021 are set out on pages 54 to 55 of this annual report. The above dividend distribution plan will be submitted to the 2021 annual general meeting for review and approval.

9 Major Suppliers and Clients

During the Reporting Period, the total purchases from the top five suppliers of the Group accounted for 10.9% of the total purchases of the Group, of which the purchases from the largest supplier accounted for 4.9% of the total purchases of the Group.

During the Reporting Period, the total sales to the top five clients of the Group accounted for 64.7% of the total sales of the Group, of which sales to the largest client accounted for 49.1% of the total sales. For details on the Group's relationships with major clients and the risks that the Group's business may face due to such relationships, please see the section headed "Report of the Board – 27 Risk Factors – Risks relating to decreased orders from major clients" in this annual report.

During the Reporting Period, other than the connected transactions with the controlling shareholder, Sinopec Group, and its subsidiaries, as disclosed in the section headed "Connected Transactions" of this annual report, to the knowledge of the Board, none of the Directors, Supervisors and their close associates or any Shareholder holding 5% or more of the share capital of the Company had any interest in any of the above-mentioned major suppliers and clients.

10 Bank Loans and Other Borrowings

The Group had USD10 million (about RMB64 million) loans to the fellow subsidiaries as at the end of the Reporting Period.

11 Fixed Assets

During the Reporting Period, changes to the fixed assets of the Group are set out in Note 17 to the financial statements prepared in accordance with the IFRS in this annual report.

12 Donations

During the Reporting Period, the amount of charity donations made by the Group amounted to approximately RMB865,000.

13 Pre-emptive Right

According to the Articles of Association and the applicable PRC laws, the Shareholders are not entitled to any preemptive rights. Therefore, the existing Shareholders cannot request the Company for the right of first refusal in proportion to their shareholdings.

14 Issuance of Equity Securities or Debentures

During the Reporting Period, neither the Company nor any of its subsidiaries has issued any equity securities (including securities convertible into equity securities) or debentures.

15 Management Contract

During the Reporting Period, neither the Company nor any of its subsidiaries has entered into any contract by which a person undertakes the management and administration of the whole or any substantial part of any business of the Company or any of its subsidiaries.

16 Equity-Linked Agreements

During the Reporting Period, neither the Company nor any of its subsidiaries has entered into or there subsisted any equity-linked agreement, or any agreement requiring the Company or any of its subsidiaries to enter into the agreement that will or may result in the issuance of shares by the Company.

17 Resignation of Director and Supervisor

The resignation of Directors and Supervisors of the Company during the Reporting Period is set out in the section headed "Directors, Supervisors, Other Members of Senior Management and Employees – 2 Appointment and Resignation of Directors, Supervisors and Other Members of the Senior Management during and after the Reporting Period" in this annual report.

18 Permitted Indemnity Provisions

During the Reporting Period, the Company purchased liability insurance for Directors to reduce their risks in the normal course of performing their duties. Save for this, there has been no permitted indemnity provision being in force for the benefit of any existing directors or the then directors of the Company (whether made by the Company or otherwise) or any associated company of the Company (if made by the Company).

19 Significant Investment

During the Reporting Period, the Company has made no significant investment (including any investment with a value of 5% or more of the Company's total assets as at 31 December 2021).

20 Accounting Standard

The difference between the main accounting policies adopted by the Company for compilation of 2021 audited consolidated financial statement and the main accounting policies for compilation of 2020 audited consolidated financial statement are indicated in details in Note 3.1 to the financial statements.

21 Retirement and Employee Benefit Plan

Details of the Group's retirement and employee benefit plan are set out in Note 32 to the financial statements.

For the disclosures in relation to the employees of the Group, please refer to the section headed "Directors, Supervisors, Other Members of Senior Management and Employees – 7 Employees" in this annual report.

22 Compliance with Laws and Regulations

In 2021, the Group was strictly in compliance with laws and regulations such as the Civil Code of the People's Republic of China, the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Construction Law of the People's Republic of China, the Tendering/Bidding Law of the People's Republic of China and the Safe Production Law of the People's Republic of China and other applicable environmental policies in China; and under the existing system, the Company also continuously increased or improved various systems.

We launched the work of comprehensively promoting the construction of the compliance management system, and compiled the "Plan for Comprehensively Promoting the Construction of the Compliance Management System of the SEG" and the "Handbook of Integrity and Compliance of the SEG" in Both Chinese and English. The compliance management process and flow chart were issued, and a relatively complete compliance operation mechanism was established, which prevented and avoided the occurrence of major legal risks to the maximum extent. The compliance management training and compliance commitment signing activities were carried out, and the construction of corporate compliance culture was promoted, which provided strong compliance guarantee for the Company's operation and development under the existing system.

23 The Directors and Supervisors Interests in Acquiring Shares or Debentures

During the Reporting Period, there has not subsisted any arrangement to which the Company, a subsidiary of the Company, the parent company of the Company or a subsidiary of the Company's parent company is a party and whose objects are to enable directors, supervisors or any of their respective associates of the Company or any of its subsidiaries to acquire benefits by means of acquisition of shares in, or debentures of, the Company or any other body corporate.

24 Interests of Directors and Supervisors in Material Transactions, Arrangements and Contracts of Significance

During the Reporting Period, for details of the interests of Directors and Supervisors in material transactions, arrangements and contracts of significance, please refer to the section headed "Directors, Supervisors, Other Members of Senior Management and Employees – 5 Contract Benefits of Directors and Supervisors" in this annual report.

25 Change of Auditors

The Company has not changed auditors since the date of preparation for listing to 8 May 2020, when the annual general meeting for the year 2019 was held.

Sinopec Group is a controlling shareholder of the Company, which in turn is a state-owned enterprise under the control of the State-owned Assets Supervision and Administration Commission of the State Council of the People's Republic of China (the "SASAC"). According to the relevant regulations issued by the Ministry of Finance of the People's Republic of China and the SASAC, there are restrictions in respect of the number of years of audit services that an accounting firm can continuously provide to a state-owned enterprise and its subsidiaries. In accordance with such requirements, the annual general meeting for the year 2019 of the Company has approved the appointment of BDO China Shu Lun Pan Certified Public Accountants LLP and BDO Limited as the domestic and international auditors of the Company, respectively. For details of the resolution, please refer to the announcement and circular of the Company dated 23 March 2020, and the resolution of the annual general meeting for the year 2019 issued on 8 May 2020.

The Company has not changed auditors since the annual general meeting for the year 2019 on 8 May 2020.

26 Core Competitiveness Analysis

The Group is a leading energy and chemical engineering company in the PRC. The Group has the legacy of being among very first oil refining and petrochemical engineering enterprises established in the PRC in the 1950s. Leveraging on long operating history and sophisticated industry experiences, we have developed the strong execution capabilities in the PRC with respect to engineering and constructing large-scale oil refining, petrochemical and new coal chemicals complexes, etc., which usually include a series of process units and public utilities, and we are highly competitive in the international engineering markets.

While adhering to the technical advantages in the petrochemical field, the Group focuses on the development of dual-carbon process technology and equipment related to the petrochemical engineering field, forming a group of cutting-edge technologies, standards and guidelines with independent characteristics such as energy saving, carbon reduction and carbon sequestration, and realizing the development of industrial application and process package.

The competitive strengths of the Group are particularly reflected in the large business scale, strong executive capacity, excellent management and technical team, advanced industrialised proprietary and patented technologies, sound management system, advanced software and equipment, rich and reliable suppliers and subcontractors resources, complete service chain in the technology R&D and licensing, preliminary project consulting, financing assistance, engineering, procurement, construction, trial test/commissioning and maintenance services and excellent one-stop engineering service capability.

Given our competitive advantages in industry chain, business chain, technology chain and supply chain, the Group is now a leader in China's oil refining and engineering industry. The Group is also on the cutting edge of the rapidly developing Chinese and international engineering markets.

27 Risk Factors

The trend of the global macro-economic situation is going down

The business performance of the Group is closely related to the economic situation of the PRC as well as the global economic situation. In 2021, the world economy has shown a gradual recovery, with China, the US and other major economies playing an important role. However, many emerging economies and developing countries still face difficulties in economic growth, and world economic growth remains relatively unbalanced. In addition, global inflation pressure, blocked circulation of industrial chains, shrinking supply chains, security situation in some regions and deteriorating public health environment are also constraining the further recovery of the world economy. The international engineering industry is still facing the impact of the ongoing global pandemic on tightening of personnel entry-exit management, poor cross-border flow, and high raw material and logistics costs. The Company's operation may also be adversely affected by various other factors, such as the negative influence upon overseas refinery/chemical projects brought by discontinuity and unpredictability of international geopolitics as well as uncertainty of international oil price fluctuation, and the lack of demand for oil product and chemical product due to the lower-than-expected economic growth.

Risks brought by changes in market environment

In 2022, the world as a whole has entered a post-pandemic era, and the prospects for economic recovery are still uncertain and obstacles remain. The global trade pattern will be reshaped, and industrial and supply chains will become more diversified, localized and regionalized. The pace of capacity expansion in the refining industry will slow down, the ethylene industrial chain will face excessive pressure, and the integration and substitution of production capacity will accelerate. China still faces a complex external environment. Under the "Carbon Peaking and Neutrality" target, the substitution of non-fossil energy is increasing, the development environment of energy and chemical industry will face deep adjustment, the pattern of industry supply and demand, operating entities and market layout will be reconstructed, and the refining and chemical industry will face more harsh state of survival of the fittest. As far as the engineering market is concerned, diversified investment subjects, diversified competition subjects, insufficient market capacity, declining contract benefits and rising execution risks will become the new normal faced by engineering companies for a long time.

Risks relating to changes in policies

(1) Nationalisation, cancellation, seizure, confiscation, suspension and other risks with regard to projects undertaken by us

In the context of the ongoing COVID-19 pandemic on a global scale, some of the countries where the Company's overseas projects are located or the target countries where the market is developed have political instability, government governance capabilities are questioned, and partisan political differences have increased, and the resulting policy discontinuities and possible government intervention in investment matters have increased the political risks of investment. In some regions, government nationalisation, cancellation, seizure, confiscation, and suspension of refinery projects occur from time to time. Little or even no compensation is paid to investors. Thus, relevant project participants may suffer huge losses. Under such circumstances, the risks relating to exploration of new markets in affected countries are relatively high and this may hinder market expansion of the Group. However, in terms of the type of company and the category of overseas business, the Group is an asset-light company, mainly providing engineering services, has not undertaken overseas projects in the form of investment or equity participation in the past, and will also have a strict risk review for overseas projects that may involve investment in the future, and in general, the direct impact of the above risks on the Group's international business is limited.

(2) Risks relating to host country's inadequate policy and regulation

If the host country's public policies and regulations, in particular, security-related policies and regulations, are flawed, for instance, if the regulations on rallies, demonstrations and strikes are imperfect, in case that certain events occur, project implementation will be directly affected, and even legal proceedings could be initiated, thus affecting the implementation of projects and any new market exploration in the country hereof.

(3) Risks relating to changes in financial and legal systems

The Group pays taxes in overseas countries and regions where it operates, changes in value-added tax, income tax, customs tax and other aspects of host countries' financial and tax systems will directly affect the economic results of the projects and may reduce the profitability of the project. With the growth of overseas business income, the tax expenditure related to overseas business also increases. In the process of overseas business market development, the Group will fully analyze and evaluate the current fiscal, tax and legal systems of the host country, but it is difficult to predict the possible changes in the tax and legal policies of the country or region during the implementation of the project, and these policy changes may have a significant adverse impact on the profitability and financial performance of the Company's overseas business.

Meanwhile, if changes are made in the legal system of the host regions of major overseas projects in the Middle East, Russia and Southeast Asia, such as changes in environmental protection law, investment law, labour law and other relevant law, and if regulations may become restrictive, the execution of our projects will become more difficult and potentially affect the development of new projects in relevant countries; if the current laws and regulations related to environmental protection, safety and health are revised or updated, or standards are raised, the costs of compliance and operating efficiency will be affected.

Risks relating to project delay and budget overview

(1) Risks relating to inaccurate project quotation and preliminary budget

Insufficient accumulation of basic data required for project quotation and budget (man hour, procurement and construction price), coupled with the impact of the epidemic on the global supply chain, inquiry is difficult, may affect the efficiency and accuracy of preparing quotations and budget, which will in turn affect the decision-making of projects and subsequent project implementation. For large projects with higher complexity, particularly the EPC contracting projects and emerging projects of investment-construction-operation integration, some projects have a long cooperative operation period, inaccurate initial project quotations and estimations may cause difficulties in implementing the projects as planned.

(2) Risks relating to sub-contractor management

The Group usually engages sub-contractors to provide assistance in completing projects; however, if the resource distribution of sub-contractors is inadequate, it will delay current project completion and impede undertaking of other projects. Concurrently, the delay in sub-contractors' progress will increase the risk of project delay. In addition, the Group assumes joint liability for subcontracted projects, which means that the Group may be subject to compensation liability due to quality problems of subcontracted projects and may be subject to lawsuits and compensation claims, may undertake joint liability for the on-site security accidents of the sub-contractors and bear the risk of the losses in project performance and damages to company image. It is possible that our business and financial status as well as our business operations will be adversely affected by these matters.

(3) Risks relating to regular fluctuation of raw material prices for construction

The price of steel, cement and other raw materials used in our domestic and overseas projects fluctuates frequently, which directly leads to the uncontrollable procurement cost of the project. Especially in the international market, sub-contractors compete by providing low bids in order to win contracts, leads to a decrease in the contractor's profit. If the price of raw materials increases significantly, the risk of completing a project outside the limits of our budget will be elevated.

(4) Risks relating to inflation, including the increase in cost of human resources

The Middle East and Central Asia are the primary target markets of the Group's international business. Currently, we are vigorously developing the regional markets in Southeast Asia. Considering that the economy in such areas as a whole is unstable with high inflation rates, this may directly lead to increase in price of sub-contracting and labour markets. Concurrently, due to the fluctuation in the exchange rate of Renminbi, the cost of exported labour services increases, which further boosts project costs.

(5) Risk relating to project management

Risks relating to project management are mainly reflected in financing service support, engineering design and capability for claiming indemnity. Some of our on-going overseas projects are financing projects. Insufficient financing service support may lead to delays in construction because we may not solve problems in a timely manner. For projects where design standards are substantially different from standards of the PRC, the Group's design team's abilities may be hampered. Delay in design implementation will result in difficulties in the execution of procurement and construction. Due to the complexity of the construction projects, the capability for claiming indemnity may directly affect the profitability of a project. If the project team's experience in claims and counter claims is inadequate to meet the requirements of the undertaken project, especially for our overseas projects, if we fail to properly deal with claims and counter claims in some EPC contracting projects where the conditions are complex and the demand is high, especially for the overseas projects, these will cause a negative impact on the effectiveness and profitability of such projects.

Risks relating to QHSE

In recent years, both the domestic and overseas markets require better QHSE management, and the social media has also become increasingly concerned about QHSE. Thus, the QHSE management ability of a company has become much more important to its survival and future development. The Group is a participant in the petrochemical engineering industry, which has both "petrochemical" and "engineering" production characteristics. The high-risk features of the petrochemical and engineering industries in fact increase the pressure on and difficulty in our QHSE management, the triple pressures of construction timeline, cost and resources are superimposed, and the risk of instability related to safety and quality remains high.

Any non-standard, non-regulated, imperfect situation or insufficient execution in the Group' QHSE management principles, models and system may result in QHSE incidents. On the other hand, the social situation confronted by the Company's overseas projects is relatively unstable, coupled with the impact of the COVID-19 pandemic, the overseas public safety risks are under great pressure, which may lead to overseas public safety incidents.

Risks relating to exchange rate

During the Reporting Period, there were accounts receivable and payable and cash balances in relation to our overseas projects, which are settled in foreign currencies. During the Reporting Period, our foreign currencies mainly consist of U.S. dollars, euro, ruble, Kuwaiti dinar, Malaysian ringgit and Saudi riyal. Exchange rates will affect the pricing of our services as well as our material procurement costs settled in foreign currencies. Thus, fluctuation in exchange rates may affect our business performance and financial status. Moreover, the exchange and remittance of foreign currencies are subject to PRC laws and regulations on foreign currency, and therefore, it cannot be guaranteed that foreign trade policies of current accounts and capital accounts will remain unchanged. Foreign currency policies may limit our ability to obtain adequate foreign currencies. We cannot ensure that we have enough foreign currencies to meet the demand of the Group under certain exchange rates. This will affect the execution of our projects settled in foreign currencies.

During the Reporting Period, relevant hedge transactions implemented by the Company regarding exchange rate fluctuation are set out in the section headed "SIGNIFICANT EVENTS – 13 Financial Derivatives For Hedging Purposes" in this annual report.

Risks relating to the uncertainty of obtaining new projects

The Group's revenue mainly comes from offering services in petrochemical and new coal chemicals industries services, as well as refining services. Client demands are affected by periodic variation of traditional resources and overall business levels. Resource supply and price variations will significantly affect our ability to obtain new projects. At the same time, the competitiveness of traditional resources in the resource market is the prerequisite of ensuring service demand. If government subsidies or other economic stimulating measures are implemented to lower the prices of substitute resources, and if technological breakthroughs for substitute resource suppliers and users may be achieved, the cost advantages of traditional resources will diminish. This will decrease our new business volume on a large scale.

Risks relating to decreased orders from major clients

The industries in which our clients are involved are capital and technology-intensive with high entrance thresholds. Our major clients are relatively concentrated, resulting in the Group being dependent on a small group of clients, especially on the largest client which is SINOPEC SEG's controlling shareholder (and its associates). If our major clients choose to switch to a competitor of the Group, or reduce orders because of financial difficulties and other factors, we will face severe business or income fluctuations or decreases. We endeavour to attract more new clients for both our domestic and international businesses. However, it is likely that the majority of our clients and revenue will continue to come from our current major clients. Therefore, we cannot guarantee stability and growth of our revenue due to potential risks which may result in significant negative impact on our business performance.

Risks relating to changes in investment strategies and tactics

In recent years, both domestic and overseas engineering companies have placed emphasis on investment strategies such as acquisition, sales and new market exploration. Entering a new business domain by acquisition may result in additional business risks which differ from our previous risk factors. There might be great difficulties in how to recognise all significant risks during our due diligence investigation, how to achieve synergy and resource integration, and how to successfully operate an expanded company after acquisition. We will strive to assist potential buyers to assume liabilities of the business, and execute the contracts and other rights should we sell any part of the Group or pursue acquisitions in the future. The Group plans to explore the overseas markets and potential new businesses. It may also increase research investment in substitute resources and substitute chemical raw materials. The future of these investments and trades will be mainly under the influence of government policies, which is out of our control, superimposition of the impact of global epidemic, the unclear global macro-economic situation and fluctuations in international oil prices, we cannot guarantee maintaining our powerful growth momentum. If the investments are not successful, this may result in a significant negative impact on the business and financial status of the Group.

Risks relating to new business segments

When the Group expands new businesses such as new coal chemicals, energy saving and environmental protection, LNG, hydrogen energy, photovoltaic, wind power, faced with the intricate market environment, the Group's technical reserves in new fields may not be perfect enough, project engineering and constructional experience may be insufficient, if it has little knowledge of the credit status of the clients, it is very difficult for the Group to fully identify and avoid major risks existing in the new businesses.

Risks relating to the new business models

The Group proactively explores new business models such as contract environmental protection management and contract energy management. The Group will invest in the whole process of a project, and scale back on costs and earn profits by sharing environmental protection and energy saving benefits with its clients. As it involves the corporate operation and project operation of its clients, the Group will face, for instance, credit risks due to the transferring of project benefits by the clients, the risks brought about by improper corporate operation of the clients or by legal disputes, the project risks in failure to achieve expected targets in terms of energy saving and environmental protection benefits and failures in timely pay-back of investments.

Risks associated with pursuit of petroleum and natural gas projects in sanctioned countries

Relevant jurisdictions (including Iran and Russia) are expected to lift sanctions, but the uncertainty is still high, so there is still scrutiny on the Group's business or result in one of or more of the Group's business activities being deemed to violate sanctions laws. In view of this, the Group can provide no assurances that its future business will be free of risk under U.S. sanctions or sanctions from other countries, or that the Group will conform its business to the expectations and requirements of U.S. authorities or the authorities of any other government that does not have jurisdiction over the Group's business but may impose sanctions on an extraterritorial basis. Shareholders and potential investors should consider (1) if investment in the Company would expose them to any OFAC or sanctions law risk arising from their nationality or residency, and (2) the risk that, if the Group engages in oil and gas engineering business in sanctioned countries, such business may result in reduction of the marketability of the shares of the Company and may have an adverse effect on the share price of the Company.

Risks of COVID-19 Pandemic to the Group's Operation

The COVID-19 pandemic continues globally, posing challenges to the Group's overseas market development and project implementation. The Group' current overseas key markets and project implementation are mainly concentrated in such regions as the Middle East, Russia and Southeast Asia. The epidemic situation continues to spread in the above regions, making the Group's development of new projects still facing great difficulties. In terms of project implementation, it may also be adversely affected by projects suspension, delays in construction period, increased difficulty in project management, delays in project payment, and increased operating costs, etc.

28 Report on Corporate Environmental, Social and Governance

For details of the Group' environmental, social and governance practices, please refer to the 2021 environmental, social and governance report to be issued by the Company on April 2022.

By Order of the Board

SUN Lili

Chairwoman of the Board

Beijing, the PRC

20 March 2022

REPORT OF THE SUPERVISORY COMMITTEE

ZHU Fei

Chairman of the Supervisory Committee

Dear Shareholders,

Under the leadership of shareholders' general meetings of the Company and under the support of the Board, the Supervisory Committee and all supervisors of the Company earnestly perform the duties required by relevant laws and regulations, Articles of Association of the Company, and the shareholders general meetings. The Supervisory Committee's responsibilities mainly include timely inspecting the financial status of the Company, supervising directors and senior management members of the Company to perform duties in the Company, convening meetings of the Supervisory Committee as scheduled, verifying and reviewing relevant proposals to be submitted by the Board to the shareholders general meetings, exercising the powers of Supervisory Committee in accordance with relevant laws and regulations as well as the Articles of Association and submitting proposals to shareholders general meetings at appropriate time, to remain true to our original aspiration and mission, adhering to work in a honest, diligent and pious manner, combining normalised supervision with good service, and supporting the Chairwoman of the Board, President and other senior management members of the Company to sufficiently exercise their legitimate rights and exert the functions of Supervisory Committee for the sustainable development of the Company.

During the Reporting Period, the Supervisory Committee held three meetings, in which the Company's financial reports, annual report, dividend distribution plan, operation and investment plan and financial budget, the report of the Supervisory Committee and so on were reviewed and considered.

The sixth meeting of the Third Session of the Supervisory Committee of the Company was held on 20 March 2021. The report of the Supervisory Committee for the year 2020, the financial statements of 2020, the 2020 annual report, the dividend distribution plan for the year 2020, production and operation plan, investment plan and financial budget for the year 2021 and so on were considered and approved at the meeting.

The seventh meeting of the Third Session of the Supervisory Committee of the Company was held on 20 August 2021. The 2021 interim financial statements, the 2021 interim report, the 2021 interim dividend distribution plan, work report of the Third Session of the Supervisory Committee, proposal on Amendments of Articles of Association and the Rules of Procedure of the Supervisory Committee and so on were considered and approved at the meeting, and elected candidates for supervisors of the Fourth Session of the Supervisory Committee.

The first meeting of the Fourth Session of the Supervisory Committee of the Company was held on 26 October 2021, elected the chairman of the Fourth Session of the Supervisory Committee.

Furthermore, the Supervisory Committee organised supervisors to attend the shareholders general meetings of the Company and attended the Board meetings as nonvoting delegates, and supervision of the decision-making process for major issues of the Company.

Through the supervision of operation, management and financial of the Company, the Supervisory Committee and all supervisors believe that in 2021, the Board of the Company and senior management members of the Company have faithfully fulfilled the responsibilities and obligations assigned by relevant laws and regulations, the Articles of Association and the shareholders general meetings, further optimised the internal control system of the Company, strengthened risk prevention and control, actively used the Audit Committee of the Board and the large-scale supervision system to give play to the functions of supervision and restraint, continued to strengthen the construction of the Company's compliance management system, and the operational standards, as well as the decision-making procedures of the Company are in compliance with the relevant requirements of the PRC Company Law and the Articles of Association. The Supervisory Committee did not identify any behavior of any Directors and senior management members of the Company in violation of applicable PRC laws, regulations or the Articles of Association or in infringement of the interests of the Company and Shareholders in performing of their duties. The financial statements of the Company are in compliance with the China Business Accounting Standards, the International Financial Reporting Standard and related regulations. The Company's financial operation is in good condition, and the financial statements truly and fairly represented financial status and operating results of the Company. The Company strictly implements relevant stipulations on the use of proceeds, and the actual use of the proceeds were consistent with the previous disclosure. The decision-making procedure for connected transactions of the Company complied with the stipulations of relevant laws, regulations and Articles of Association, and there was no infringement of the interests of the Company and other Shareholders.

This session of the Supervisory Committee will stick to the principle of integrity, perform its supervisory duties, actively participate in the supervision of key decision-making processes of the Company, put greater efforts in inspection and supervision and protect the interests of the Company and its Shareholders.

ZHU Fei

Chairman of the Supervisory Committee

Beijing, the PRC

20 March 2022

DIRECTORS, SUPERVISORS, OTHER MEMBERS OF SENIOR MANAGEMENT AND EMPLOYEES

1 Directors, Supervisors and Other Members of Senior Management

(1) Directors

Mdm. SUN Lili (孫麗麗) – Chairwoman of the Board

Mdm. SUN Lili (孫麗麗), is an expert in petrochemical engineering technology and management, a master of national engineering survey and design, and the academician of Chinese Academy of Engineering. Chairwoman of the Company, and an executive director of Sinopec Engineering Incorporation (中國石化工程建設有限公司). Mdm. SUN is a senior engineer with a university diploma. From June 2004 to April 2012, she served as the vice president of Sinopec Engineering Incorporation. From January 2006 to May 2008, she served as the vice president of SINOPEC International Petroleum Exploration and Development Co., Ltd. (中國石化國際石油勘探開發有限公司). From September 2011 to March 2015, she served as the chairwoman of the Project Supervision and Management Committee of Saudi Yanbu Refinery Joint Venture (沙特延布煉廠合資公司). From December 2011 to March 2015, she served as the president of Saudi Yanbu Refinery Project and a member of the remuneration committee and audit committee of the board of directors of Saudi Yanbu Refinery Joint Venture. From April 2012 to October 2013, she served as the vice president of SINOPEC Engineering Incorporation. From November 2013 to October 2019, she served as the president of Sinopec Engineering Incorporation. Since November 2013, she has served as a director of Sinopec Engineering Incorporation. From January 2014 to November 2014, she served as the Vice President of SINOPEC SEG. She served as a Director of SINOPEC SEG since January 2015. Since December 2020, she has been the Chairwoman of SINOPEC SEG.

Mr. XIANG Wenwu (向文武) – Vice Chairman of the Board

Mr. XIANG Wenwu (向文武), is the Vice Chairman of the Board and a Director of SINOPEC SEG, and executive director of Sinopec Group Fourth Construction Company. Mr. XIANG is a senior economist and holds a Ph.D. diploma. Mr. XIANG served as deputy manager of Sinopec Group Second Construction Company (中國石化集團第二建設公司) ("Sinopec Group SCC") from June 1999 to March 2004, the manager of Sinopec Group SCC from March 2004 to December 2008, the general manager of Sinopec Group SCC from December 2008 to July 2010, a director and the general manager of Sinopec Group Nanjing Engineering Co., Ltd. (中國石化集團南京工程有限公司) from December 2009 to April 2012, an executive director and the general manager of Sinopec Nanjing Engineering Co., Ltd. (中石化南京工程有限公司) from April 2012 to November 2014, and the vice president of the Company from August 2012 to January 2017. Mr. XIANG has been the President of SINOPEC SEG from January 2017 to December 2020, a Director of SINOPEC SEG since February 2017. He has been the Vice Chairman of the Board of SINOPEC SEG and an executive Director of Sinopec Group Fourth Construction Company since December 2020.

Mr. WANG Zizong (王子宗) – Director

Mr. WANG Zizong (王子宗), is a Director of SINOPEC SEG, and also serves as deputy chief engineer of Sinopec Group, general manager of information and digital management department of Sinopec Group, general manager of information and digital management department of Sinopec Corp., and chairman of Petro-CyberWorks Information Technology Co., Ltd. Mr. WANG is a senior engineer with a Ph. D degree. Mr. Wang served as deputy manager of Beijing Petrochemical Engineering Company from October 1998 to July 1999. From July 1999 to May 2001, he undertook different roles at Sinopec Engineering Incorporation (中國石化工程建設有限公司). From May 2001 to April 2012, he was the vice president and chief engineer of Sinopec Engineering Incorporation. From April 2012 to July 2013, he was the vice president and chief engineer of Sinopec Engineering Incorporation. Since July 2013, he has been the deputy chief engineer of Sinopec Group. From March 2019 to December 2019, he was the director of information management department of Sinopec Group. Since March 2019, he has been the Chairman of Petro-CyberWorks Information Technology Co., Ltd. Since December 2019, he has been the general manager of information and digital management department of Sinopec Group and general manager of information and digital management department of Sinopec Corp., and he has been a Director of SINOPEC SEG since October 2021.

Mr. LI Chengfeng (李成峰) – Director

Mr. LI Chengfeng (李成峰) is a Director of SINOPEC SEG, and also serves as deputy chief engineer of Sinopec Corp., general manager of chemical business department of Sinopec Corp., chairman of Shanghai SECCO Petrochemical Co., Ltd. and AGCC (阿穆爾天然氣化工) project joint venture, executive director of Sinopec Asset Management Co., Ltd., and Vice chairman of ZTHC Energy Co., Ltd. (中天合創能源有限責任公司). Mr. LI is a senior engineer with a master degree. From December 2004 to September 2005, Mr. Li served as vice president of BASF-YPC Company Limited (BASF-YPC). From September 2005 to March 2008, he served as a director of Sinopec Yangzi Petrochemical Co., Ltd. From September 2005 to October 2006, he served as the vice president of Sinopec Yangzi Petrochemical Corporation. From October 2006 to June 2007, he served as the general manager of Sinopec Yangzi Petrochemical Corporation. From June 2007 to March 2008, he served as the general manager of Sinopec Yangzi Petrochemical Co., Ltd. From October 2006 to March 2008, he served as the chairman of BASF-YPC Company Limited (BASF-YPC). From March 2008 to December 2008, he served as the manager of chemical sales branch of Sinopec Corp. (中國石油化工股份有限公司). From December 2008 to March 2012, he served as the general manager of chemical sales branch of Sinopec Corp. From January 2009 to November 2014, he served as the executive director of Sinopec Chemical Commercial Holding Co., Ltd. From April 2009 to November 2014, he served as the general manager of Sinopec Chemical Commercial Holding Co., Ltd. From July 2010 to November 2014, he served as deputy director of chemical business department of Sinopec Corp. From October 2014 to November 2014, he served as chairman of Sinopec Chemical Commercial Holding (Hong Kong) Co., Ltd. From November 2014 to December 2016, he served as the director of Sinopec Wuhan Petrochemical plant, the general manager of Sinopec Wuhan Branch and the chairman of Sino-Korean (Wuhan) Petrochemical Co., Ltd. From November 2014 to May 2016, he served as the general manager of Sino-Korean (Wuhan) Petrochemical Co., Ltd. From December 2016 to June 2018, he served as the chairman of Sinopec Yangzi Petrochemical Co., Ltd., Yangzi Petrochemical Co., Ltd. and chairman of BASF-YPC Company Limited (BASF-YPC). From June 2018 to December 2019, he served as the director of the chemical business department of Sinopec Corp. Since September 2018, he has been vice chairman of ZTHC Energy Co., Ltd. Since January 2019, he has been chairman of Shanghai SECCO Petrochemical Co., Ltd. Since December 2019, he has served as the general manager of the chemical business department of Sinopec Corp. and the executive director of Sinopec Asset Management Co., Ltd. Since May 2020, he has served as the chairman of AGCC (阿穆爾天然氣化工) project joint venture. Since December 2020, he has served as the deputy chief engineer of Sinopec Corp. and he has been a Director of SINOPEC SEG since October 2021.

Mr. WU Wenxin (吳文信) – Director

Mr. WU Wenxin (吳文信), is a Director of SINOPEC SEG and also serves as the general manager of the engineering department of Sinopec Group (中國石化集團有限公司工程部), and the general manager of the engineering department of Sinopec Corp. (中國石油化工股份有限公司工程部). Mr. WU is a senior engineer with a Master degree. From May 2007 to September 2010, he served as the deputy general manager of Fujian Petrochemical Company Limited (福建煉油化工有限公司). From December 2007 to September 2010, he was the director of the refining and ethylene integration project of Fujian Refining & Petrochemical Co., Ltd. (福建聯合石油化工有限公司). From November 2009 to September 2010, he served as a director of Fujian Petrochemical Co., Ltd. (福建煉油化工有限公司). From July 2010 to March 2018, he served as a deputy director of the engineering department of Sinopec Corp. From September 2013 to March 2018, he was a deputy director of the engineering department of Sinopec Group. From October 2017 to October 2018, he was an executive director and general manager of Sinopec Engineering Quality Supervision Co., Ltd. (中石化工程質量監測有限公司). From March 2018 to December 2019, he served as the director of the engineering department of Sinopec Group (中國石化集團工程部) and the director of the engineering department of Sinopec Corp. (中國石油化工股份有限公司工程部). He has been a Director of SINOPEC SEG since October 2018, and has been the general manager of the engineering department of Sinopec Group (中國石化集團工程部) and the general manager of the engineering department of Sinopec Corp. (中國石油化工股份有限公司工程部) since December 2019.

Mr. JIANG Dejun (蔣德軍) – Director and President

Mr. JIANG Dejun (蔣德軍), is a Director and President of SINOPEC SEG. Mr. JIANG is a senior engineer with a Ph. D degree. From November 2001 to September 2003, he was the deputy head of Lanzhou Design Institute of Sinopec Group (中國石化集團蘭州設計院). From September 2003 to June 2007, he was the director and vice president of Sinopec Ningbo Engineering Co., Ltd. (中石化寧波工程有限公司). From June 2007 to December 2008, he was the deputy manager of SINOPEC Engineering Co., Ltd. (中石化集團煉化工程有限公司). From December 2008 to September 2012, he was the Vice President of SINOPEC SEG and deputy Director of Engineering Enterprise Management Department of Sinopec Group. From September 2012 to October 2019, he was the vice president of Sinopec Fifth Construction Co., Ltd. (中石化第五建設有限公司). He was an employee representative Supervisor of SINOPEC SEG from January 2015 to December 2020, and was the general manager of Sinopec Engineering Incorporation from October 2019 to December 2020. Since December 2020, he has been the President of SINOPEC SEG. Since February 2021, he has been a Director of SINOPEC SEG.

Mr. HUI Chiu Chung, Stephen (許照中) – Independent Director

Mr. HUI Chiu Chung (許照中), J.P., is an independent Director of SINOPEC SEG. Mr. HUI is currently the chairman and chief executive officer of Luk Fook Financial Services Limited. He also serves as an independent non-executive director of Zhuhai Holdings Investment Group Limited (Stock Code: 908), Gemdale Properties and Investment Corporation Limited (Stock Code: 535), Lifestyle International Holdings Limited (Stock Code: 1212), China South City Holdings Limited (Stock Code: 1668), Agile Group Holdings Limited (Stock Code: 3383) and FSE Engineering Holdings Limited (Stock Code: 331) and a non-executive director of Luk Fook Holdings (International) Limited (Stock Code: 590), whose shares are listed on the Hong Kong Stock Exchange. Mr. HUI was appointed as the independent non-executive director of Hong Kong Exchanges and Clearing Limited (Stock Code: 388) by the Hong Kong SAR Government since April 2009, at which his term expires in April 2015. Mr. HUI has over 47 years of experience in the securities and investment industry. He was the managing director of UOB Kay Hian (Asia) Limited (大華繼顯(亞洲)有限公司) from 2002 to 2005; group managing director of OSK Asia Holdings Limited (僑豐金融集團有限公司) ("OSK") from August 2005 to March 2007; chief executive officer of OSK from April 2007 to March 2011; and the vice chairman of OSK Asia Holdings Hong Kong Limited (僑豐金融集團(香港)限公司) from April 2011 to September 2011. He served for years as a council member and vice chairman of the Hong Kong Stock Exchange, a member of the Advisory Committee and the Committee on Real Estate Investment Trusts of the Hong Kong Securities and Futures Commission, a director of the Hong Kong Securities Clearing Company Limited, a member of the Listing Committee of the Hong Kong Exchanges and Clearing Limited, an appointed member of the Securities and Futures Appeal Tribunal, a member of the Standing Committee on Company Law Reform, and an appointed member of the Hong Kong Institute of Certified Public Accountants Investigation Panel. Mr. HUI became a senior fellow member of the Hong Kong Securities and Investment Institute and fellow member of the Hong Kong Institute of Directors in 2011 and 2002, respectively. Mr. HUI has been an independent Director of SINOPEC SEG since April 2013.

Mr. JIN Yong (金涌) – Independent Director

Mr. JIN Yong (金涌), is an independent Director of SINOPEC SEG. Mr JIN currently is a member of Chinese Academy of Engineering, the dean of the Chemical Engineering Science and Technology Research Institute of Tsinghua University (清華大學化工科學與技術研究院), a professor of the Chemical Engineering department of Tsinghua University, an executive officer of China Society of Particuology (中國顆粒學會) and an executive officer of Chemical Industry and Engineering Society of China (中國化工學會). Mr. JIN worked as an assistant teacher in Electrical Engineering Research Office in the University of Science and Technology of China ("USTC") (中國科學技術大學電工程教研室) from October 1959 to February 1960. He also served as a teacher engaging in advanced studies in the Chemical Research Office in Tianjin University (天津大學化工教研室) from February 1960 to February 1961, and worked as a teacher in the Chemistry Department in USTC from February 1961 to May 1973. Since 1973, Mr. JIN has been a lecturer, associate professor, professor and tutor of doctoral candidates at the Chemical Engineering Department of Tsinghua University. Mr. Jin has been an independent Director of SINOPEC SEG since April 2013.

Mr. YE Zheng (葉政) – Independent Director

Mr. YE Zheng (葉政), is an independent Director of SINOPEC SEG. Mr. YE is a director of Ace Sustainability & Risk Advisors Limited, and an independent non-executive director of Hainan Meilan International Airport Company Limited (海南美蘭國際空港股份有限公司) (Stock Code: 357) whose shares are listed on the Main Board of The Stock Exchange of Hong Kong Limited. He worked in Shanghai Municipal Finance Bureau (上海市財政局) from October 1982 to January 1989. Mr. YE has over 25 years of experience in audit, internal control and consultancy. He served as an auditor in Ernst & Young (安永會計師事務所) from October 1995 to April 2000; an audit manager in KPMG (畢馬威會計師事務所) from May 2000 to December 2001; a senior audit manager in Grant Thornton (香港均富會計師事務所) from January 2002 to July 2005; a director in Ernst &Young from August 2005 to October 2006, and a practicing director of Mazars CPA Limited from November 2006 to April 2021. Mr. YE obtained a bachelor's degree in accounting and finance in May 1993, and a master's degree in business administration in December 1994, both from California State University, Long Beach. Mr. YE became a member of the American Institute of Certified Public Accountants in September 1998 and a member of the Hong Kong Institute of Certified Public Accountants in May 2003. He has been a director of Ace Sustainability & Risk Advisors Limited since April 2021, an independent Director of SINOPEC SEG since April 2013, and an independent non-executive director of Hainan Meilan International Airport Company Limited (海南美蘭國際空港股份有限公司) (Stock Code: 357) since October 2021. Mr. YE was a consulting expert for the third session of the committee for enterprise internal control standards appointed by the Ministry of Finance of the People's Republic of China from 1 November 2014 to 31 October 2016.

Profile of the Directors of the Fourth Session of the Board as at the date of this annual report

Name	Gender	Age	Position in the Company	Term of Office as Director
SUN Lili	Female	60	Chairwoman of the Board	October 2021 – October 2024
XIANG Wenwu	Male	55	Vice Chairman of the Board	October 2021 – October 2024
WANG Zizong	Male	56	Director	October 2021 – October 2024
LI Chengfeng	Male	57	Director	October 2021 – October 2024
WU Wenxin	Male	58	Director	October 2021 – October 2024
JIANG Dejun	Male	56	Director and President	October 2021 – October 2024
HUI Chiu Chung, Stephen	Male	74	Independent Director	October 2021 – October 2024
JIN Yong	Male	86	Independent Director	October 2021 – October 2024
YE Zheng	Male	57	Independent Director	October 2021 – October 2024

(2) Supervisors

Mr. ZHU Fei (朱斐) – Chairman of the Supervisory Committee, Chairman of the Trade Union

Mr. ZHU Fei (朱斐), is the Chairman of the Supervisory Committee and the Chairman of the Trade Union of SINOPEC SEG. Mr. ZHU is a senior engineer with a university diploma. From October 1998 to July 1999, he was the deputy head of Beijing Design Institute (北京設計院). From July 1999 to December 2002, he undertook different roles at Sinopec Engineering Incorporation (中國石化工程建設公司). From December 2002 to April 2012, he worked as the vice president of Sinopec Engineering Incorporation. From April 2012 to October 2014, he was the vice president of Sinopec Engineering Incorporation. From November 2014 to April 2017, he was the vice president of Sinopec Fourth Construction Co., Ltd. (中石化第四建設有限公司). He has been an employee representative Supervisor of the SINOPEC SEG since January 2015, has been the Chairman of the Supervisory Committee of SINOPEC SEG since May 2017, and has been the Chairman of the Trade Union of SINOPEC SEG since November 2019.

Mr. ZHANG Xinming (張新明) – Supervisor

Mr. ZHANG Xinming (張新明), is a Supervisor of SINOPEC SEG, as well as the chairman of Sinopec Shanghai Engineering Co., Ltd. (中國石化上海工程有限公司). Mr. ZHANG Xinming is a senior engineer with a master's degree in business administration. Mr. Zhang served as the deputy general manager of Sinopec Luoyang Engineering Co., Ltd. and the deputy general manager of Sinopec Guangzhou Engineering Co., Ltd. from August 2013 to March 2015, the deputy director of the development planning department of Sinopec Group from March 2015 to December 2019, the deputy general manager of the development planning department of Sinopec Group from December 2019 to April 2021. Since September 2020, he has been the chairman of Sinopec Shanghai Engineering Co., Ltd. Since May 2021, he has been a Supervisor of SINOPEC SEG.

Mr. ZHOU Yingguan (周赢冠) – Supervisor

Mr. ZHOU Yingguan (周赢冠), is a Supervisor of SINOPEC SEG, as well as an executive director of Sinopec Nanjing Engineering Co., Ltd. (中石化南京工程有限公司). Mr. ZHOU is a senior economist with a university diploma. From March 2004 to July 2010, Mr. ZHOU served as the vice president of the Sinopec Group Second Construction Company (中國石化集團第二建設公司). From July 2010 to April 2012, he served as the vice president of Sinopec Group Nanjing Engineering Co., Ltd. (中國石化集團南京工程有限公司). From April 2012 to April 2017, he has been the vice president of Sinopec Nanjing Engineering Co., Ltd. (中石化南京工程有限公司). He was the Supervisor of SINOPEC SEG from January 2015 to October 2018. He was an executive director and president of Sinopec Fourth Construction Co., Ltd. from April 2017 to December 2020. He has been a Director of SINOPEC SEG from October 2018 to December 2020. Since December 2020, he has been an executive director of Sinopec Nanjing Engineering Co., Ltd. (中石化南京工程有限公司). Since February 2021, he has been a Supervisor of SINOPEC SEG.

Mr. ZHOU Chengping (周成平) – Supervisor

Mr. ZHOU Chengping (周成平), is a Supervisor of SINOPEC SEG, as well as an executive director of Sinopec Luoyang Engineering Co., Ltd. and Sinopec Guangzhou Engineering Co., Ltd., and a director of Hainan Refinery Chemical Co., Ltd. Mr. ZHOU is a senior engineer with a master degree. Mr. ZHOU served as deputy manager of Luoyang Engineering Company of Sinopec Engineering Incorporation (中國石化集團工程建設公司) from November 2001 to May 2003. From May 2003 to December 2008, he served as deputy manager of Luoyang Engineering Company of Sinopec Group, vice president of Luoyang Engineering Company of Sinopec Group from December 2008 to April 2012. From April 2012 to October 2014, he served as vice president of Sinopec Luoyang Engineering Co., Ltd. and Sinopec Guangzhou Engineering Co., Ltd., general manager of Sinopec Luoyang Engineering Co., Ltd. and Sinopec Guangzhou Engineering Co., Ltd. from October 2014 to May 2020. He was the executive director of Sinopec Luoyang Engineering Co., Ltd. and Sinopec Guangzhou Engineering Co., Ltd. since October 2014. Since October 2021, he has been a supervisor of SINOPEC SEG. Since December 2021, he has been a director of Hainan Refinery Chemical Co., Ltd.

Mr. XU Yijun (許一君) – Employee Representative Supervisor

Mr. XU Yijun (許一君), is an employee representative Supervisor of SINOPEC SEG, who is also an executive director of Sinopec Ningbo Engineering Co., Ltd. (中石化寧波工程有限公司). Mr. XU is a senior economist with a Ph. D degree. From April 2001 to September 2003, he was the deputy manager of the Third Construction Company of Sinopec Group (中國石化集團第三建設公司). From September 2003 to April 2012, he was the vice president of Sinopec Group Ningbo Engineering Co., Ltd (中國石化集團寧波工程有限公司). He was the vice president of Sinopec Ningbo Engineering Co., Ltd. from April 2012 to November 2017. He has been an employee representative Supervisor of SINOPEC SEG since January 2015. He has been an executive director of Sinopec Ningbo Engineering Co. Ltd. since November 2017.

Mr. WU Zhongxian (吳忠憲) – Employee Representative Supervisor

Mr. WU Zhongxian (吳忠憲), is an employee representative Supervisor of SINOPEC SEG and also serves as an executive director of Sinopec Tenth Construction Company Limited (中石化第十建設有限公司). Mr. WU is a senior engineer with a university diploma. From March 1996 to April 2012, Mr. WU was the chief engineer of Sinopec Tenth Construction Company Limited. From October 2006 to December 2008, he was the deputy manager of Sinopec Tenth Construction Company Limited. From December 2008 to April 2012, he was the vice president of Sinopec Tenth Construction Company Limited. From April 2012 to December 2015, he was the vice president and the chief engineer of Sinopec Tenth Construction Company Limited. From December 2015 to August 2020, he was the vice president of Sinopec Tenth Construction Company Limited. He has been an employee representative Supervisor of SINOPEC SEG since October 2018. Since August 2020, he has been the executive director of Sinopec Tenth Construction Company Limited.

Mr. YI Hao (衣浩) – Employee Representative Supervisor

Mr. YI Hao (衣浩), is an employee representative Supervisor of the Company, as well as an executive director of Sinopec Fifth Construction Co., Ltd. (中石化第五建設有限公司). Mr. YI is a senior economist with a university diploma. Mr. Yi served as the vice president of Fifth Construction Co., Ltd. of Sinopec Group from July 2000 to April 2012. From April 2012 to April 2015, he served as the vice president of Sinopec Fifth Construction Co., Ltd. (中石化第五建設有限公司). From April 2015 to April 2017, he served as the chairman and supervisor of the trade union of Sinopec Fifth Construction Co., Ltd. From April 2017 to December 2018, he served as the vice president of Sinopec Fifth Construction Co., Ltd., president of Sinopec Fifth Construction Co., Ltd. from December 2018 to December 2019. Since December 2019, he has been the executive director of Sinopec Fifth Construction Co., Ltd. Since October 2021, he has been an employee representative Supervisor of SINOPEC SEG.

Profile of the Supervisors of the Fourth Session of the Supervisory Committee during the Reporting Period

Name	Gender	Age	Position in the Company	Term of Office as Supervisor
ZHU Fei	Male	57	Chairman of the Supervisory Committee and Chairman of the Trade Union	October 2021 – October 2024
ZHANG Xinming	Male	55	Supervisor	October 2021 – October 2024
ZHOU Yingguan	Male	54	Supervisor	October 2021 – October 2024
ZHOU Chengping	Male	59	Supervisor	October 2021 – October 2024
XU Yijun	Male	58	Employee Representative Supervisor	October 2021 – October 2024
WU Zhongxian	Male	59	Employee Representative Supervisor	October 2021 – October 2024
YI Hao	Male	53	Employee Representative Supervisor	October 2021 – October 2024

List of relevant information of the resigned Supervisors as at the date of this annual report

Name	Gender	Age	Position in the Company	Term of office
WANG Guoliang	Male	61	Supervisor	October 2018 – March 2021
YE Wenbang	Male	59	Supervisor	October 2018 – March 2021
WU Jibo	Male	53	Supervisor	October 2018 – March 2021

Notes:
(1) Due to his age, Mr. WANG Guoliang ceased to be the supervisor of the Company since 20 March 2021.
(2) Due to work adjustment, Mr. YE Wenbang and Mr. WU Jibo ceased to be the supervisors of the Company since 20 March 2021.

(3) Other Senior Management

Please refer to the subsection headed "Directors" in this section for biographical details of Mr. JIANG Dejun.

Please refer to the subsection headed "Supervisors" in this section for biographical details of Mr. ZHU Fei.

Mr. WANG Guohua (王國華) – Vice President

Mr. WANG Guohua (王國華), is the Vice President of SINOPEC SEG and the president of Sinopec Heavy Lifting and Transportation Co., Ltd. (中石化重型起重運輸工程有限公司). Mr. WANG is a senior economist with a bachelor degree. Mr. WANG served as the deputy manager of Sinopec Fourth Construction Company (中石化第四建設公司) (the "FCC") from July 2003 to December 2008, the deputy general manager of FCC from December 2008 to April 2012, the deputy general manager of Sinopec Fourth Construction Co., Ltd (中石化第四建設有限公司) (the "SFCC") from April 2012 to October 2014, an executive director and the president of the SFCC from October 2014 to April 2017, and the vice president of the SFCC from April 2017 to March 2019. Mr. WANG has been the president of Sinopec Heavy Lifting and Transportation Co., Ltd. (中石化重型起重運輸工程有限公司) since March 2019, and has been a Vice President of SINOPEC SEG since April 2019.

Mr. JIA Yiqun (賈益群) – Chief Financial Officer, Secretary to the Board and Company Secretary

Mr. JIA Yiqun (賈益群), is the Chief Financial Officer, Secretary to the Board and Company Secretary of SINOPEC SEG, and the chief accountant of Sinopec Engineering Incorporation (中國石化工程建設有限公司). Mr. JIA is a senior engineer with a master degree. From July 1990 to April 2003, Mr. JIA has held positions in Sinopec Research Institute of Petroleum Engineering (中國石化石油化工科學研究院), China Petrochemical International Company (中國石化國際事業公司), foreign affairs bureau of Sinopec Group (中國石化集團外事局). Mr. JIA served as deputy chief representative of the Hong Kong representative office of Sinopec Corp. from April 2003 to June 2012, has been the Chief Financial Officer of SINOPEC SEG since August 2012 and the Company Secretary of SINOPEC SEG since July 2019. He has been the chief accountant of Sinopec Engineering Incorporation since April 2021. He has been the Secretary to the Board of SINOPEC SEG since October 2021. Mr. JIA obtained the qualifications of Chartered Financial Analyst issued by CFA Institute in September 2006.

Mr. ZHENG Lijun (鄭立軍) – Vice President

Mr. ZHENG Lijun (鄭立軍), is the vice president of SINOPEC SEG. Mr. ZHENG is a senior engineer with a university diploma. From August 1990 to March 2017, Mr. Zheng held positions in SINOPEC Beijing Design Institute (中國石化北京設計院) and SINOPEC Engineering Incorporation (中國石化工程建設有限公司). He served as a vice president of SINOPEC Engineering Incorporation (中國石化工程建設有限公司) from March 2017 to November 2019, and has served as a vice president of SINOPEC SEG since November 2019.

Profile of other members of the Senior Management during the Reporting Period

Name	Gender	Age	Position in the Company	Date of Taking Office
JIANG Dejun	Male	56	President	December 2020
WANG Guohua	Male	52	Vice President	March 2019
JIA Yiqun	Male	54	Chief Financial Officer Secretary to the Board Company Secretary	August 2012 October 2021 July 2019
ZHENG Lijun	Male	53	Vice President	October 2019

2 Relationship among Directors, Supervisors and Other Members of the Senior Management

There is no financial, business, family or other material relationship between Directors, Supervisors and other members of the Senior Management except for the working relationship.

3 Positions Held by the Directors and Supervisors in Shareholders and Their Competition Interests during the Reporting Period

During the Reporting Period and as at the date of this annual report, (i) Mr. WANG Zizong served as deputy chief engineer of Sinopec Group, general manager of information and digital management department of Sinopec Group, general manager of information and digital management department of Sinopec Corp., and chairman of Petro-CyberWorks Information Technology Co., Ltd.; (ii) Mr. LI Chengfeng served as deputy chief engineer of Sinopec Corp., general manager of chemical business department of Sinopec Corp., chairman of Shanghai SECCO Petrochemical Co., Ltd. and AGCC project joint venture, executive director of Sinopec Asset Management Co., Ltd., and Vice chairman of ZTHC Energy Co., Ltd.; (iii) Mr. WU Wenxin served as the general manager of the engineering department of Sinopec Group, and the general manager of the engineering department of Sinopec Corp; and Mr. ZHOU Chengping served as a director of Hainan Refinery Chemical Co., Ltd. Save for the above, to the knowledge of the Board, none of the Directors and Supervisors is a director or employee of a company which has an interest in the shares or underlying shares of the Company which would fall to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance, or owns interest in any other business which competes or is likely to compete, directly or indirectly, with the business of the Group.

4 Contract Benefits of Directors and Supervisors

As at 31 December 2021 or any time during the Reporting Period, there is no any transaction, arrangement or contract of significance to which the Company, a parent company of the Company, a subsidiary of the Company or a subsidiary of the Company's parent company is a party, and in which the Directors or Supervisors or any entity connected with any of the Directors or Supervisors is or was materially interested, either directly or indirectly.

All Directors have entered into service agreements with the Company. Such service agreements are effective from the date of approval by the shareholders to the expiry of the term of the Third Session of the Board. The service agreements can be renewed in accordance with the Articles of Association and applicable laws and regulations. There is no service contract signed between the Directors and the Company which is not determinable by the Company within one year without payment of compensation (other than statutory compensation).

All Supervisors have entered into agreements with the Company concerning the compliance with relevant laws and regulations, the Articles of Association and arbitration regulations. The term of office for Supervisors starts from the date of their respective appointment to the expiry of the Fourth Session of the Supervisory Committee. The service agreements can be renewed in accordance with the Articles of Association and applicable laws and regulations. There is no service contract signed between the Supervisors and the Company which is not determinable by the Company within one year without payment of compensation (other than statutory compensation).

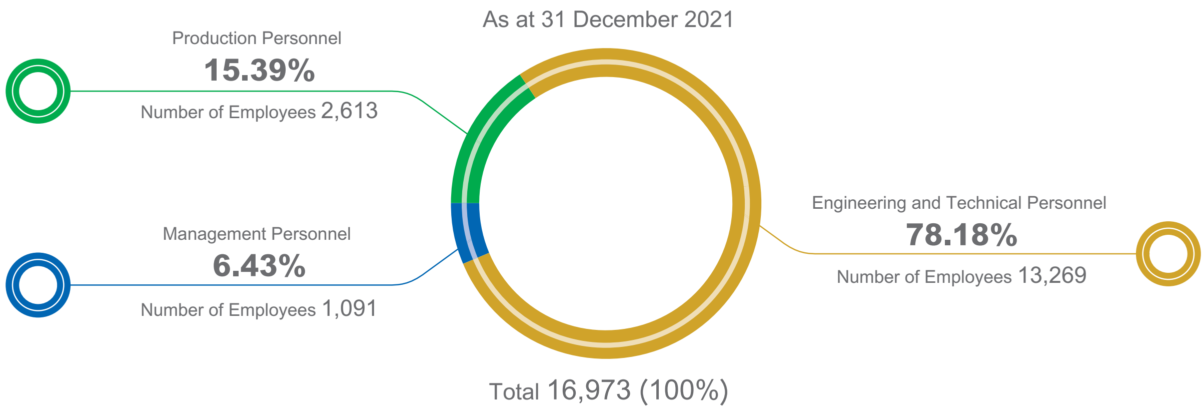
5 Remuneration of Directors, Supervisors and other Senior Management Members

During the Reporting Period, the total number of Directors, Supervisors and other Senior Management members paid by the Company was 16, and the annual total remuneration paid was RMB14.01 million. For details of the remuneration of Directors, Supervisors and the five highest paid individuals for the year ended 31 December 2021, please see notes 15 and 42(b) to the financial statements in this annual report.

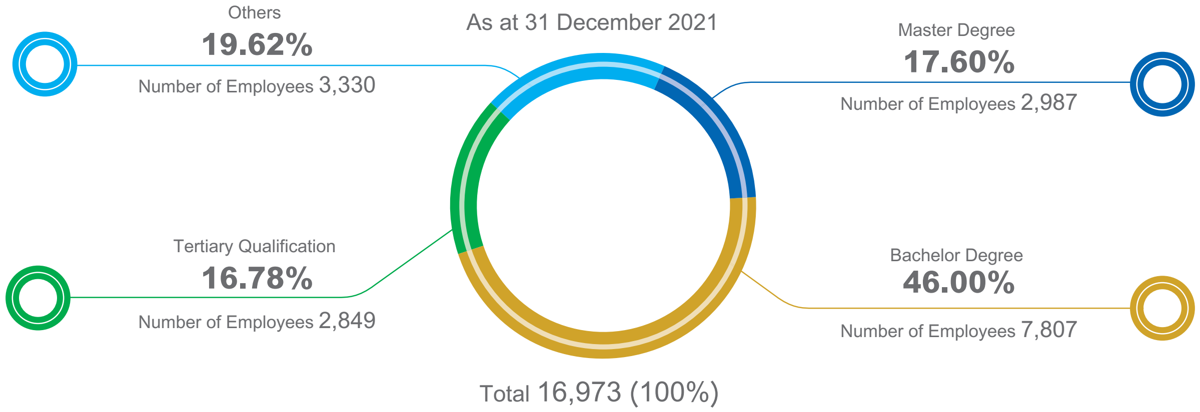
6 Employees

As at 31 December 2021, there were a total of 16,973 employees in the Group.

The following table lists the information of employees classified by business as at 31 December 2021.



The following table lists the information of employees classified based on education background as at 31 December 2021.



7 Employee Remuneration

During the Reporting Period, we maintained good labour relationship. The remuneration of our employees mainly consists of salary, discretionary bonuses and contributions to the compulsory social security funds. In accordance with the laws and regulations of the PRC, the Group participates in different retirement pension related programmes for our employees, including the programmes organised by the provincial and municipal governments of the PRC and other complementary retirement pension related plans. Bonuses are usually determined in accordance with the overall performance of the Group's business. For the years ended 31 December 2020 and 31 December 2021, the employment costs of the Group were approximately RMB6.040 billion and RMB6.591 billion, respectively.

8 Employee Training Programmes

During the Reporting Period, over 20 key special trainings was organised by the Group. Throughout the year, a total of 35.9 thousand attendees attended the trainings inside and outside the Group, of which there were 3.5 thousand attendees who were operation management staff, 28.9 thousand attendees who were engineering and technical staff, and 3.4 thousand attendees who were operational staff.

FINANCIAL STATEMENTS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INDEPENDENT AUDITOR'S REPORT

TO THE SHAREHOLDERS OF SINOPEC ENGINEERING (GROUP) CO., LTD.

(Established in the People's Republic of China with limited liability)

OPINION

We have audited the consolidated financial statements of SINOPEC Engineering (Group) Co., Ltd. (the "Company") and its subsidiaries (together the "Group") set out on pages 120 to 192, which comprise the consolidated statement of financial position as at 31 December 2021, and the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group in accordance with Hong Kong Institute of Certified Public Accountants' "Code of Ethics for Professional Accountants" (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Revenue recognition of construction contracts

(Refer to notes 3.23, 5(a) and 6 to the consolidated financial statements)

The Group recognised revenue of RMB57,759,590,000 for the year ended 31 December 2021.

Revenue from construction contracts is recognised over the period of the contract by reference to the progress towards complete satisfaction of that performance obligation, depending on the nature of the contract, is measured by reference to the proportion of contract costs incurred for work performed to date to estimated total contract costs for each contract. Management estimates the total contract revenue and total contract costs at the inception of each contract. As the contract progresses, management regularly reviews and revises the estimates of contract revenue and contract costs if circumstances change, such as variations in contract work, claims and incentive payments. The increases or decreases in estimated total contract revenue or total contract costs resulted in the adjustments to the extent of progress toward completion and revenue recognised in the period in which the circumstances that give rise to the revision becomes known by management.

These transactions require individual consideration and involve management's estimates and judgment. We have identified the revenue recognition related to construction contracts as a key audit matter.

Our responses:

Our procedures in relation to the revenue recognition of construction contracts included:

- assessing and testing the related internal control of the management's accounting estimates and judgment of construction contracts;
- obtaining material construction contracts to review key contract terms and verify the total contract revenues;
- checking, on a sample basis, the principal terms set out in the relevant construction contracts and the implementation status and testing on the accuracy of the calculation of percentage of completion and revenue and costs recognised during the year;
- testing, on a sample basis, the amount and timing of the construction contract cost recognised and performing cut-off testing procedures to check that cost had been recognised in the appropriate account period; and
- performing analytical review procedures on the gross margins of material construction contracts of the Group.

KEY AUDIT MATTERS (CONTINUED)

Provision for expected credit losses (“ECL”) of trade receivables and contract assets

(Refer to notes 3.8(c), 21 and 23(a) to the consolidated financial statements)

ECL for trade receivables and contract assets are based on management’s estimate of the lifetime ECL to be incurred, which is estimated by taking into account the credit loss experience, ageing of overdue trade receivables, customers’ repayment history and customers’ financial position and an assessment of both the current and forecast general economic conditions, all of which involve a significant degree of management judgment.

We have identified ECL assessment of trade receivables and contract assets as a key audit matter because their assessment is a subjective area as it requires the management’s judgment and uses of estimates.

Our responses:

Our procedures in relation to management’s ECL assessment on trade receivables and contract assets included:

– reviewing and assessing the application of the Group’s policy for calculating the ECL;

– evaluating techniques and methodology in the ECL model against the requirements of IFRS 9;

– assessing the reasonableness of management’s loss allowance estimates by examining the information used by management to form such judgments, including testing the accuracy of the historical default data, evaluating whether the expected credit loss rates are appropriately adjusted based on current economic conditions and forward-looking information and examining the actual losses recorded during the current financial year and assessing whether there was an indication of management bias when recognising loss allowances;

– evaluating the design, implementation and operating effectiveness of key internal controls which govern credit control, debt collection and estimation of ECL; and

– discussing with management the estimates of the recoverable amounts for those material trade receivables balances which are past due over 180 days, including customers’ payment history and current ability to pay, and take into account information specific to the customer as well as pertaining to the economic environment in which the customer operates.

OTHER INFORMATION

The directors are responsible for the other information. The other information comprises all the information in the annual report of the Company, but does not include the consolidated financial statements and our auditor’s report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

DIRECTORS’ RESPONSIBILITIES FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRSs and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The directors are also responsible for overseeing the Group’s financial reporting process. The Audit Committee assists the directors in discharging their responsibility in this regard.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue the auditor's report that includes our opinion. The report is made solely to you, as a body, in accordance with the terms of our engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

BDO Limited

Certified Public Accountants

Ng Wai Man

Practising Certificate number P05309

Hong Kong, 18 March 2022

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE YEAR ENDED 31 DECEMBER 2021

	Notes	2021 RMB'000	2020 RMB'000
Revenue	6	**57,759,590**	52,352,584
Cost of sales		**(51,291,401)**	(46,638,512)
Gross profit		**6,468,189**	5,714,072
Other income	8	**111,613**	463,852
Selling and marketing expenses		**(144,504)**	(134,841)
Administrative expenses		**(1,293,004)**	(1,255,804)
Research and development costs		**(2,379,149)**	(2,175,183)
Other operating expenses		**(1,118,375)**	(420,877)
Other gains – net	9	**57,128**	13,160
Operating profit		**1,701,898**	2,204,379
Finance income	10	**954,622**	881,495
Finance expenses	10	**(82,796)**	(90,390)
Finance income – net		**871,826**	791,105
Share of profit/(loss) of a joint arrangement	20(a)	**1,448**	(41)
Share of profit of associates	20(b)	**17,235**	15,119
Profit before taxation	11	**2,592,407**	3,010,562
Income tax expense	12	**(462,432)**	(628,356)
Profit for the year		**2,129,975**	2,382,206

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME (CONTINUED)

	Notes	2021 RMB'000	2020 RMB'000
Other comprehensive (expense)/income for the year, net of tax			
Item that may be reclassified subsequently to profit or loss:			
Exchange differences arising on translation of foreign operations		**(13,453)**	(54,247)
Item that will not be reclassified subsequently to profit or loss:			
Losses/(gains) on revaluation of retirement benefit plans obligations, net of income tax effect		**(18,240)**	90,278
Other comprehensive (expense)/income for the year, net of tax		**(31,693)**	36,031
Total comprehensive income for the year		**2,098,282**	2,418,237
Profit attributable to:			
Equity holders of the Company		**2,129,589**	2,381,905
Non-controlling interests		**386**	301
Profit for the year		**2,129,975**	2,382,206
Total comprehensive income attributable to:			
Equity holders of the Company		**2,097,896**	2,417,936
Non-controlling interests		**386**	301
Total comprehensive income for the year		**2,098,282**	2,418,237
		RMB	RMB
Earnings per share for profit attributable to equity holders of the Company during the year (expressed in RMB per share)			
– Basic and diluted	13	**0.48**	0.54

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
ASSETS			
Non-current assets			
Property, plant and equipment	17	**4,398,287**	3,881,466
Right-of-use assets	18	**2,372,201**	2,448,301
Intangible assets	19	**203,079**	218,959
Investment in a joint arrangement	20(a)	**3,923**	2,475
Investments in associates	20(b)	**158,915**	149,680
Deferred income tax assets	36	**843,162**	709,030
Total non-current assets		**7,979,567**	7,409,911
Current assets			
Inventories	24	**479,931**	1,348,122
Notes and trade receivables	21	**6,853,516**	8,424,388
Prepayments and other receivables	22	**8,058,422**	7,705,785
Contract assets	23(a)	**10,273,333**	8,826,268
Loans due from the ultimate holding company	25	**20,500,000**	21,000,000
Restricted cash	26	**109,685**	36,661
Time deposits	27	**8,357,613**	8,273,435
Cash and cash equivalents	28	**10,305,176**	8,440,757
Total current assets		**64,937,676**	64,055,416
Total assets		**72,917,243**	71,465,327

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

	Notes	2021 RMB'000	2020 RMB'000
EQUITY			
Share capital	29	**4,428,000**	4,428,000
Reserves		**24,690,084**	23,823,172
Equity attributable to equity holders of the Company		**29,118,084**	28,251,172
Non-controlling interests		**5,252**	4,866
Total equity		**29,123,336**	28,256,038
LIABILITIES			
Non-current liabilities			
Lease liabilities	31	**88,241**	97,629
Retirement and other supplemental benefit obligations	32	**2,154,036**	2,252,789
Provision for litigation claims	33	**181,292**	186,593
Total non-current liabilities		**2,423,569**	2,537,011
Current liabilities			
Notes and trade payables	34	**20,390,057**	21,675,887
Other payables	35	**2,886,826**	2,897,093
Loan due to a fellow subsidiary	37	**63,757**	163,123
Contract liabilities	23(b)	**17,485,967**	15,511,149
Lease liabilities	31	**73,489**	66,314
Current income tax liabilities		**470,242**	358,712
Total current liabilities		**41,370,338**	40,672,278
Total liabilities		**43,793,907**	43,209,289
Total equity and liabilities		**72,917,243**	71,465,327
Net current assets		**23,567,338**	23,383,138
Total assets less current liabilities		**31,546,905**	30,793,049

On behalf of the directors

SUN Lili	**JIANG Dejun**	**JIA Yiqun**
Chairwoman of the Board	*Director, President*	*Chief Financial Officer*

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2021

	Attributable to equity shareholders of the Company								
	Share capital	Capital reserve	Statutory surplus reserve	Specific reserve	Exchange translation reserve	Retained earnings	Total	Non-controlling interests	Total equity
	RMB'000 (Note 29)	RMB'000 (Note 30(v))	RMB'000 (Note 30(iv))	RMB'000 (Note 30(vi))	RMB'000 (Note 30(vii))	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2021	4,428,000	10,098,729	1,470,998	175,048	(54,233)	12,132,630	28,251,172	4,866	28,256,038
Profit for the year	–	–	–	–	–	2,129,589	2,129,589	386	2,129,975
Other comprehensive income:									
Defined benefits obligation revaluation of actuarial gain and loss – gross	–	–	–	–	–	(21,831)	(21,831)	–	(21,831)
Defined benefits obligation revaluation of actuarial gain and loss – tax	–	–	–	–	–	3,591	3,591	–	3,591
Exchange differences arising on translation of foreign operations	–	–	–	–	(13,453)	–	(13,453)	–	(13,453)
Total comprehensive income	–	–	–	–	(13,453)	2,111,349	2,097,896	386	2,098,282
Transactions with owners:									
Final dividends for 2020	–	–	–	–	–	(828,036)	(828,036)	–	(828,036)
Interim dividends for 2021	–	–	–	–	–	(402,948)	(402,948)	–	(402,948)
Appropriation of specific reserve	–	–	–	175,570	–	(175,570)	–	–	–
Utilisation of specific reserve	–	–	–	(213,264)	–	213,264	–	–	–
Appropriation of statutory surplus reserve	–	–	35,181	–	–	(35,181)	–	–	–
Total transactions with owners	–	–	35,181	(37,694)	–	(1,228,471)	(1,230,984)	–	(1,230,984)
At 31 December 2021	4,428,000	10,098,729	1,506,179	137,354	(67,686)	13,015,508	29,118,084	5,252	29,123,336

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)

	Attributable to equity shareholders of the Company								
	Share capital	Capital reserve	Statutory surplus reserve	Specific reserve	Exchange translation reserve	Retained earnings	Total	Non-controlling interests	Total equity
	RMB'000 (Note 29)	RMB'000 (Note 30(v))	RMB'000 (Note 30(iv))	RMB'000 (Note 30(vi))	RMB'000 (Note 30(vii))	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	4,428,000	10,092,369	1,357,583	191,889	14	11,196,121	27,265,976	4,565	27,270,541
Profit for the year	–	–	–	–	–	2,381,905	2,381,905	301	2,382,206
Other comprehensive income:									
Defined benefits obligation revaluation of actuarial gain and loss – gross	–	–	–	–	–	109,580	109,580	–	109,580
Defined benefits obligation revaluation of actuarial gain and loss – tax	–	–	–	–	–	(19,302)	(19,302)	–	(19,302)
Exchange differences arising on translation of foreign operations	–	–	–	–	(54,247)	–	(54,247)	–	(54,247)
Total comprehensive income	–	–	–	–	(54,247)	2,472,183	2,417,936	301	2,418,237
Transactions with owners:									
Final dividends for 2019	–	–	–	–	–	(938,736)	(938,736)	–	(938,736)
Interim dividends for 2020	–	–	–	–	–	(500,364)	(500,364)	–	(500,364)
Appropriation of specific reserve	–	–	–	123,988	–	(123,988)	–	–	–
Utilisation of specific reserve	–	–	–	(140,829)	–	140,829	–	–	–
Appropriation of statutory surplus reserve	–	–	113,415	–	–	(113,415)	–	–	–
Other	–	6,360	–	–	–	–	6,360	–	6,360
Total transactions with owners	–	6,360	113,415	(16,841)	–	(1,535,674)	(1,432,740)	–	(1,432,740)
At 31 December 2020	4,428,000	10,098,729	1,470,998	175,048	(54,233)	12,132,630	28,251,172	4,866	28,256,038

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
Cash flows from operating activities			
Cash generated from operations	40	**3,191,890**	3,400,159
Income tax paid		**(481,999)**	(564,914)
Interest received		**233,337**	121,591
Net cash generated from operating activities		**2,943,228**	2,956,836
Cash flows from investing activities			
Purchase of property, plant and equipment		**(650,860)**	(406,607)
Purchase of intangible assets		**(31,679)**	(45,592)
Interest income on the loans to the ultimate holding company		**753,686**	617,893
Proceeds from disposal of property, plant and equipment		**7,401**	6,638
Proceeds from disposal of an associate		**3,405**	37,479
Dividends received from joint arrangements		**5,600**	25,944
Net increase in time deposits		**(84,178)**	(1,187,369)
Loans to the ultimate holding company		**(20,500,000)**	(21,000,000)
Loans repaid by the ultimate holding company		**21,000,000**	19,000,000
Net cash generated from/(used in) investing activities		**503,375**	(2,951,614)
Cash flows from financing activities	43		
(Repayment)/drawdown of borrowings from a fellow subsidiary		**(95,642)**	170,140
Interest paid		**(4,208)**	–
Dividends paid		**(1,187,602)**	(1,382,895)
Payments of lease liabilities		**(101,985)**	(42,551)
Net cash used in financing activities		**(1,389,437)**	(1,255,306)
Net increase/(decrease) in cash and cash equivalents		**2,057,166**	(1,250,084)
Cash and cash equivalents at beginning of year		**8,440,757**	9,935,338
Exchange losses on cash and cash equivalents		**(192,747)**	(244,497)
Cash and cash equivalents at end of year	28	**10,305,176**	8,440,757

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

31 DECEMBER 2021

1. General Information

1.1 Principal activities

SINOPEC Engineering (Group) Co., Ltd. (中石化煉化工程(集團)股份有限公司, the "Company") and its subsidiaries (together, the "Group") is principally engaged locally and overseas in (1) engineering, consulting and licensing, (2) EPC Contracting, (3) construction and (4) equipment manufacturing in respect of oil refining, petrochemical engineering, storage and transportation etc.

1.2 Organisation and reorganisation

The Company was established as a company with limited liability under the name of Sinopec Engineering Co., Ltd (中國石化集團煉化工程有限公司) in the People's Republic of China (the "PRC") on 24 July 2007 under the Company Law of the PRC. The address of the Company's registered office is No. 8 Building, Shenggujiayuan, Shenggu Middle Road, Chaoyang District, Beijing, PRC.

The directors of the Company (the "Directors") regard China Petrochemical Corporation (中國石油化工集團有限公司, "Sinopec Group") as being the ultimate holding company of the Group, which is owned and controlled by the State-owned Assets Supervision and Administration Commission of the State Council of the PRC.

Pursuant to a reorganisation of engineering, consulting and licensing, EPC Contracting, construction and equipment manufacturing in respect of oil refining, petrochemical engineering, storage and transportation of Sinopec Group in preparation for the primary listing (the "Listing") of the Company's shares on the Main Board of The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange") ("the Reorganisation"), Sinopec Group transferred the equity interests of its refining and engineering entities to the Company and the Company became the holding company of the subsidiaries now comprising the Group. Subsequent to the above reorganisation transactions which were completed in April 2012, the Company was transformed into a joint stock company with limited liability and renamed as SINOPEC Engineering (Group) Co., Ltd. (中石化煉化工程(集團)股份有限公司) on 28 August 2012.

The Company has completed its listing on the Main Board of the Hong Kong Stock Exchange on 23 May 2013.

These consolidated financial statements are presented in Renminbi ("RMB"), unless otherwise stated.

The consolidated financial statements have been approved for issue by the Board of Directors on 18 March 2022.

2. Basis of Preparation

The consolidated financial statements have been prepared in accordance with all International Financial Reporting Standards, International Accounting Standards ("IASs") and Interpretations (hereinafter collectively referred to as the "IFRSs") issued by the International Accounting Standards Board (the "IASB") and the disclosure requirements of the Hong Kong Companies Ordinance. The consolidated financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on the Stock Exchange (the "Listing Rules").

The consolidated financial statements have been prepared under the historical cost basis except for certain financial instruments that are measured at fair values as explained in the accounting policies set out below.

The preparation of consolidated financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the accounting policies of the Group. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 5.

3. Summary of Significant Accounting Policies

3.1 New or amended IFRS

The IASB has issued a number of new or amended IFRSs that are first effective for the current accounting period of the Group:

Amendments to IFRS 16	COVID-19 Related Rent Concessions
Amendments to IAS 39, IFRS 4, IFRS 7, IFRS 9 and IFRS 16	Interest Rate Benchmark Reform – Phase 2

Other than as noted below, the adoption of the new or amended IFRSs had no material impact on how the results and financial position for the current and prior periods have been prepared and presented. The Group has not early applied any new or amended IFRSs that is not yet effective for the current accounting period.

Amendments to IFRS 16 – COVID-19 Related Rent Concessions

The amendment exempts lessees from having to consider individual lease contract to determine whether rent concessions occurring as a direct consequence of the COVID-19 pandemic are lease modifications and allows lessees to account for such rent concessions as if they were not lease modifications. It applies to COVID-19-related rent concessions that reduce lease payments due on or before 30 June 2021. The amendment does not affect lessors.

Amendments to IAS 39, IFRS 4, IFRS 7, IFRS 9 and IFRS 16 "Interest Rate Benchmark Reform- Phase 2"

The amendments address issues that might affect financial reporting when a company replaces the old interest rate benchmark with an alternative benchmark rate as a result of the interest rate benchmark reform (the "Reform"). The amendments complement those issued in November 2019 and relate to (a) changes to contractual cash flows in which an entity will not have to derecognise or adjust the carrying amount of financial instruments for changes required by the Reform, but will instead update the effective interest rate to reflect the change to the alternative benchmark rate; (b) hedge accounting in which an entity will not have to discontinue its hedge accounting solely because it makes changes required by the Reform, if the hedge meets other hedge accounting criteria; and (c) disclosures in which an entity will be required to disclose information about new risks arising from the Reform and how it manages the transition to alternative benchmark rates.

The following new or amended IFRSs, potentially relevant to the Group's consolidated financial statements, have been issued, but not yet effective and have not been early adopted by the Group. The Group's current intention is to apply these changes on the date they become effective.

Amendments to IFRS 16	COVID-19-Related Rent Concessions beyond 30 June 2021[1]
Amendments to IAS 16	Property, Plant and Equipment: Proceeds before Intended Use[2]
Amendments to IAS 37	Onerous Contracts – Cost of Fulfilling a Contract[2]
Amendments to IFRS 3	Reference to the Conceptual Framework[2]
Annual Improvements to IFRS Standards 2018-2020	Amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41[2]
Amendments to IAS 1	Classification of Liabilities as Current or Non-current[3]
Amendments to IAS 12	Deferred Tax Related to Assets and Liabilities arising from a Single Transaction[3]
IFRS 17	Insurance Contracts[3]
Amendments to IAS 8	Definition of Accounting Estimate[3]
Amendments to IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting policies[3]
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture [4]

1 Effective for annual periods beginning on or after 1 April 2021
2 Effective for annual periods beginning on or after 1 January 2022
3 Effective for annual periods beginning on or after 1 January 2023
4 The amendments shall be applied prospectively to the sale or contribution of assets occurring in annual periods beginning on or after a date to be determined.

The directors of the Company anticipate that the application of other new or amended IFRSs will have no material impact on the results and the financial position of the Group.

3. Summary of Significant Accounting Policies (Continued)

3.2 Consolidation

Subsidiaries

Subsidiaries are entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has the rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the Group controls another entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date that the Group ceases control.

Merger accounting for common control combinations

The transfer/acquisition of equity interests in subsidiaries which are regarded as common control combinations are accounted for in a manner similar to a uniting of interests. Assets and liabilities are transferred at book value, adjusted only to harmonies accounting policies, and no goodwill arises. Any difference between the consideration given and the aggregate book value of the assets and liabilities acquired (as of the date of the transaction) is included in equity. The financial statements incorporate the acquired entity's results as if both entities (acquirer and acquiree) had always been combined. Consequently, the financial statements reflect both entities' full year's results, even though the business combinations may have occurred part of the way throughout the year. In addition, the corresponding amounts for the previous year also reflect the combined results of both entities, even though the transaction did not occur until the current year.

Acquisition method of accounting for non-common control combinations

The acquisition method of accounting is used to account for business combinations other than common control combinations by the Group. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities incurred and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognises any non-controlling interests in the acquiree either at fair value or at the non-controlling interests' proportionate share of the acquiree's net assets.

In the statement of financial position of the Company, investments in subsidiaries are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments. Cost also includes direct attributable costs of investment.

The excess of the consideration transferred the amount of any non-controlling interests in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired in the case of bargain purchase, the difference is recognised directly in the consolidated statement of profit or loss and other comprehensive income.

Inter-group transactions, balances and unrealised gains and losses on transactions between group companies are eliminated in preparing the consolidated financial statements. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Transactions with non-controlling interests

The Group treats transactions with non-controlling interests as transactions with equity holders of the Group. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

When the Group ceases to have control or significant influence, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying value for the purposes of subsequent accounting for the retained interest as an associate, joint arrangement or financial asset as the fair value on initial recognition for subsequent accounting under IFRS 9 "Financial Instruments". In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss or transferred directly to retained earnings.

3. Summary of Significant Accounting Policies (Continued)

3.2 Consolidation (Continued)

Joint Arrangement

A joint arrangement is an arrangement which operates under a contractual arrangement between the Group and other parties, where the contractual arrangement establishes the Group and other parties have joint control of the arrangement.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Assets, liabilities, revenue and expenses of a joint operation are apportioned between the joint operators in accordance with the agreement.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. The Group recognises its interest in a joint venture using the equity method. The equity method is detailed in accounting policies of interests in associates as below. The unrealised gains and losses will be eliminated in accordance with the Group's share of the interests in a joint venture if the Group enters into transactions with the joint venture.

Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting and are initially recognised at cost. The Group's investment in associates includes goodwill identified on acquisition, net of any accumulated impairment loss (Note 3.8).

The Group's shares of its associates' post-acquisition profits or losses is recognised in the profit or loss and its share of post acquisition movements in other comprehensive income is recognised in the consolidated statement of profit or loss and other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amounts of the investments. When the Group's share of losses in an associate equals or exceeds its interest in that associate (which includes any other unsecured receivables that, in substance, form part of the Group's net investment in the associate), the Group does not recognise further losses, unless the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interests in the associates. Where unrealised losses on assets sales between the Group and its associate are reversed on equity accounting, the underlying asset is also tested for impairment from the Group's prospective. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

The Group discontinues the use of equity method from the date when it ceases to have significant influence over an associate. If the retained interest in that former associate is a financial asset, the retained interest is measured at fair value, which is regarded as its fair value on initial recognition as a financial asset in accordance with IFRS 9. The difference between (i) the fair value of any retained interest and any proceeds from disposing of a part interest in the associate; and (ii) the carrying amount of the investment at the date the equity method was discontinued, is recognised in the profit or loss. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that associate on the same basis as would have been required if the associate had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in other comprehensive income by the investee would be reclassified to profit or loss on the disposal of the related assets or liabilities, the entity reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) when the equity method is discontinued.

3.3 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the executive directors and certain senior management (including chief financial officer) (together referred to as the "Senior Management") that makes strategic decisions.

3. Summary of Significant Accounting Policies (Continued)

3.4 Foreign currency translation

Functional currency and presentation currency

Items included in the individual financial statements of each of the entities within the Group are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in Renminbi ("RMB"), which is the Group's functional currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the reporting date retranslation of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents and all other foreign exchange gains and losses are presented in the consolidated statement of profit or loss and other comprehensive income within "other gains – net" and "other operating expenses".

Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated (i.e. only translated using the exchange rates at the transaction date).

Group companies

The results and financial position of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

(a) assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;

(b) income and expenses for each statement of profit or loss and other comprehensive income are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions); and

(c) all resulting exchange differences are recognised in other comprehensive income and accumulated separately in the exchange translation reserve.

3.5 Property, plant and equipment

Property, plant and equipment, except for construction-in-progress ("CIP"), are stated at historical cost less accumulated depreciation and accumulated impairment loss. Historical cost includes expenditures that are directly attributable to the acquisition of the items, including the purchase price, import duties, non-refundable purchase taxes and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Depreciation is calculated using the straight-line method to allocate their costs to their residual values over their estimated useful lives, as follows:

Buildings and other facilities	12 – 40 years
Machinery, transportation equipment and other equipment	4 – 30 years

CIP represents buildings and plant under construction and is stated at cost less accumulated impairment loss. Cost includes costs of construction of buildings, cost of plant and other direct costs. No depreciation is made on CIP until such time as the relevant assets are completed and ready for intended use. When the assets concerned are brought into use, the costs are transferred to the relevant asset categories and depreciated in accordance with the policy as stated above.

3. Summary of Significant Accounting Policies (Continued)

3.5 Property, plant and equipment (Continued)

The estimates of assets' residual values, useful lives and depreciation method are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 3.7).

Gains or losses on disposals are determined by comparing the proceeds on disposal with the carrying amount and are included within "other (losses)/gains – net" in the consolidated statement of profit or loss and other comprehensive income.

Subsequent costs are included in the asset's carrying amount or recognised as separate assets, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the consolidated statement of profit or loss and other comprehensive income during the financial period in which they are incurred.

3.6 Intangible assets

Computer software

Acquired computer software are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. After initial recognition, intangible assets with finite useful lives are carried at cost less accumulated amortisation and any accumulated impairment losses. These costs are amortised over their estimated useful lives of 5 years, and recorded in "depreciation and amortisation" within administrative expenses in the consolidated statement of profit or loss and other comprehensive income.

Patent and proprietary technologies

Patents and proprietary technologies are initially recorded at cost. After initial recognition, intangible assets with finite useful lives are carried at cost less accumulated amortisation and any accumulated impairment losses. These intangibles assets are amortised on a straight-line basis over their estimated useful lives of 8 to 10 years, and recorded in "depreciation and amortisation" within administrative expenses in the consolidated statement of profit or loss and other comprehensive income.

Amortisation methods and useful lives on computer software, patent and proprietary technologies are reviewed and adjusted if appropriates, at each reporting period.

3.7 Impairment of non-financial assets

Assets that have an indefinite useful life, for example goodwill, are not subject to amortisation and are tested annually for impairment. Property, plant and equipment, intangible assets and interest in associate and joint venture that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Corporate assets are allocated to individual cash-generating units, when a reasonable and consistent basis of allocation can be identified, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment if there has been a favourable change in the estimates used to determine the asset's recoverable amount and only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised at each reporting date.

3.8 Financial instruments

Financial assets and financial liabilities are recognised in the consolidated statements of financial position when the Group becomes a party to the contractual provision of the financial instrument. Financial assets and financial liabilities are initially measured at fair value.

A financial asset or financial liability (unless it is a trade receivable without a significant financing component) is initially measured at fair value plus, for an item not at fair value through profit or loss ("FVTPL"), transaction costs that are directly attributable to its acquisition or issue. Transaction costs of financial assets carried at FVTPL are expensed in the consolidated statement of profit or loss and other comprehensive income. A trade receivable without a significant financing component is initially measured at the transaction price.

3. Summary of Significant Accounting Policies (Continued)

3.8 Financial instruments (Continued)

(a) Classification and measurement of financial assets

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (“FVTOCI”) – debt investment; FVTOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition, except if and in the period the Group changes its business model for managing financial assets.

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at FVTPL:

(i) the asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and

(ii) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment’s fair value in other comprehensive income. This election is made on an investment-by-investment basis.

All financial assets not classified as measured at amortised cost or FVTOCI as described above are measured at FVTPL. On initial recognition, the Group may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVTOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets: Business model assessment

The Group makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group’s continuing recognition of the assets.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Financial assets: Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, “principal” is defined as the fair value of the financial asset on initial recognition. “Interest” is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

(i) contingent events that would change the amount or timing of cash flows;

(ii) terms that may adjust the contractual coupon rate, including variable rate features;

(iii) prepayment and extension features; and

(iv) terms that limit the Group’s claim to cash flows from specified assets (e.g. non-recourse features).

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a significant discount or premium to its contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

3. Summary of Significant Accounting Policies (Continued)

3.8 Financial instruments (Continued)

(a) Classification and measurement of financial assets (Continued)

Financial assets: Subsequent measurement and gains and losses

Financial assets at amortised cost

Notes and trade receivables, other receivables, loans due from the ultimate holding company, restricted cash, time deposits and cash and cash equivalents are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognised in the profit or loss. Any gain or loss on derecognition is recognised in the profit or loss.

Financial assets at FVTOCI

They are measured at fair value with gains and losses arising from changes in fair value recognised in OCI and accumulated in the fair value reserve (non-recycling); and are not subject to impairment assessment. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments, and will continue to be held in the fair value reserve (non-recycling).

Dividends on these investments in equity instruments are recognised in profit or loss when the Group's right to receive the dividends is established in accordance with IFRS 9, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the "other income" line item in profit or loss.

(b) Derecognition of financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognised on its consolidated statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In such cases, the transferred assets are not derecognised.

(c) Impairment of financial assets

The Group recognises loss allowances for ECL on financial assets measured at amortised cost.

The Group measures loss allowances at an amount equal to lifetime ECL. For trade receivables and contract assets, the Group applies the simplified approach to providing for ECL prescribed by IFRS 9, which requires the use of the lifetime expected losses provision for all trade receivables. The Group determines the ECL on these items by using a provision matrix, estimated based on historical credit losses experience based on the past due status of the debtors, adjusted as appropriate to reflect current conditions and estimates of future economic conditions.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

Lifetime ECL are the ECL that result from all possible default events over the expected life of a financial instrument.

12-month ECL are the portion of ECL that results from default events on a financial instrument that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

In all cases, the maximum period considered when estimating ECL is the maximum contractual period over which the Group is exposed to credit risk.

3. Summary of Significant Accounting Policies (Continued)

3.8 Financial instruments (Continued)

(c) Impairment of financial assets (Continued)

Measurement of ECL

The Group assesses on a forward-looking basis the ECL associated with its debt instruments carried at amortised cost. ECL are a probability-weighted estimation of credit losses (i.e. the present value of all cash shortfalls) over the expected life of the financial assets.

The Group has the following types of assets that are subject to IFRS 9's new ECL model:

- notes and trade receivables
- contract assets
- cash and cash equivalents
- restricted cash
- time deposits
- loans due from the ultimate holding company
- other receivables

While cash and cash equivalents, restricted cash, time deposits, and loans due from the ultimate holding company are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial.

For trade receivables and contract assets with no significant financing component, the Group applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the assets. The provision matrix is determined based on historical observed default rates over the expected life of the trade receivables and contract assets with similar credit risk characteristics and is adjusted for forward-looking estimates. At every reporting date the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

Impairment on other financial assets measured at amortised cost are measured as either 12-month ECL or lifetime ECL, depending on whether there has been a significant increase in credit risk since initial recognition. If a significant increase in credit risk of a receivable has occurred since initial recognition, then impairment is measured as lifetime ECL.

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

The Group assesses on in particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indication of credit risk, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- an actual or expected significant adverse change in the regulatory, economic or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the reversal of the previously recognised impairment loss is recognised in profit or loss.

3. Summary of Significant Accounting Policies (Continued)

3.8 Financial instruments (Continued)

(c) Impairment of financial assets (Continued)

Credit-impaired financial assets

At each reporting date, the Group assesses on a forward-looking basis whether financial assets carried at amortised cost are credit-impaired. A financial asset is "credit-impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

(i) significant financial difficulty of the borrower or issuer;

(ii) a breach of contract such as a default or past due event;

(iii) the restructuring of a loan or advance by the Group on terms that the Group would not consider otherwise;

(iv) it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or

(v) the disappearance of an active market for a security because of financial difficulties.

The Group recognises an impairment loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade and other receivables and contract assets where the corresponding adjustment is recognised through a loss allowance account.

Write-off

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due, taking into account legal advice where appropriate.

A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

(d) Classification and measurement of financial liabilities

The Group's financial liabilities include notes and trade payables, other payables, and lease liabilities. Financial liabilities (other than lease liabilities) are classified as measured at amortised cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognised in the profit or loss. Other financial liabilities (other than lease liabilities) are subsequently measured at amortised cost using the effective interest method, in the case of loans and borrowings, net of directly attributable transaction costs. Interest expense and foreign exchange gains and losses are recognised in the profit or loss. Any gain or loss on derecognition is also recognised in the profit or loss. Accounting policies of lease liabilities are set out in note 3.27.

(e) Derecognition of financial liabilities

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire.

The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different. In this case, a new financial liability based on the modified terms is recognised at fair value. The difference between the carrying amount of the financial liability extinguished and the new financial liability with modified terms is recognised in the profit or loss.

(f) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the consolidated statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

Income and expenses are presented on a net basis only when permitted under IFRS, or for gains and losses arising from a group of similar transactions.

3. Summary of Significant Accounting Policies (Continued)

3.9 Derivative financial instruments

Derivative financial instruments are recognised at fair value at the end of each reporting period with gain or loss on remeasurement to fair value is recognised immediately in profit or loss, except where the derivatives qualify for hedged accounting under IFRS 9.

3.10 Inventories

Inventories are stated at the lower of cost and net realisable value. Inventories are expensed to relevant operating expenses when used, sold or capitalised to property, plant and equipment when installed, as appropriate, using moving weighted average method. The cost of finished goods and work-in-progress comprises design costs, raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity). It excludes borrowing costs. Net realisable value is the estimated selling price in the ordinary course of business, less selling expenses.

3.11 Cash and cash equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less.

3.12 Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

3.13 Share-based payment transactions

Cash-settled share-based payment transactions

The Group operates a cash-settled H share appreciation rights plan. The related cost of services received from the employees and the liability to pay for such services are measured at fair value of the liability. Fair value is established at the grant date and re-measured at each reporting date until the liability settled. The fair value of the liability at each reporting date is expensed on a straight-line basis over the vesting period, based on the Group's estimate of the cash-settled share appreciation rights that will eventually vest. At the end of each reporting period, the Group revises its estimation of the number of the cash-settled share appreciation rights expected to vest. The impact of the revision and remeasurement, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimation. After the vesting date, changes in fair value of the liability is recognised in profit or loss until the liability is settled.

3.14 Borrowings

Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised in the consolidated statement of profit or loss and other comprehensive income over the period of the borrowings using the effective interest method.

Borrowings are classified as current liabilities unless the Group has contractual or an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

3.15 Payables

Payables primarily include notes and trade payables and other payables, and are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

3. Summary of Significant Accounting Policies (Continued)

3.16 Employee benefits

Pension obligations

The full-time employees of the Group in the PRC are covered by various government-sponsored pension plans under which the employees are entitled to a monthly pension based on certain formulas. The relevant government agencies are responsible for the pension liability to these retired employees. The Group contributes on a monthly basis to these pension plans. Under these plans, the Group has no obligation for post-retirement benefits beyond the contributions made. Contributions to these plans are expensed as incurred.

The Group also provides supplementary pension subsidies to certain employees in the PRC. Such supplementary pension subsidies are considered to be defined benefit plans as the Group is obligated to provide post-employment benefits to these employees. The liability recognised in the consolidated statement of financial position in respect of these defined benefit plans is the present value of the defined benefit obligation at the end of the reporting period, together with adjustments for unrecognised actuarial gains or losses and past service costs. The defined benefit obligation is calculated annually by independent qualified actuaries using the projected unit credit method. Net interests are recognised to the profit or loss and are calculated by the discount rate, which is determined by reference to the market yields of the high-quality government bonds at the end of the reporting period, multiplied the net defined benefit liabilities or assets at each of the beginning of the reporting period. The differences between the actual return on plan assets and with the passage of time in the plan assets are recognised in other comprehensive income.

The Group has various defined contribution plans in accordance with the local conditions and practices in the municipalities and provinces in which they operate. Defined contribution plans are pension and/or other social benefit plans under which the Group pay fixed contributions into a separate entity (a fund) and will have no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees benefits relating to employee service in the current and prior periods. The contributions are recognised as labour costs when they are due.

Other post-employment obligations

Some of the companies comprising the Group provide post-retirement medical benefits to their retired employees. The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. These obligations are valued annually by independent qualified actuaries.

Termination and early retirement benefits

Termination and early retirement benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination and early retirement benefits when it is demonstrably committed to either: (i) terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or (ii) providing termination benefits as a result of an offer made to encourage voluntary redundancy. The specific terms vary among the terminated and early retired employees depending on various factors including position, length of service and district of the employee concerned. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

Housing benefits

The Group contributes to the state-prescribed housing fund. Such costs are charged to the consolidated statement of profit or loss and other comprehensive income as incurred. Apart from those described above, the Group does not have other legal or constructive obligations over such benefits.

Bonus entitlements

The expected cost of bonus payments is recognised as a liability when the Group has a present contractual or constructive obligation as a result of services rendered by employees and a reliable estimate of the obligation can be made. Liabilities for bonus are expected to be settled within twelve months and are measured at the amounts expected to be paid when they are settled.

3. Summary of Significant Accounting Policies (Continued)

3.17 Borrowing costs

Borrowing costs incurred, net of any investment income earned on the temporary investment of the specific borrowings, for the acquisition, construction or production of any qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use. A qualifying asset is an asset which necessarily takes a substantial period of time to get ready for its intended use or sale. Other borrowing costs are expensed when incurred.

Borrowing costs are capitalised as part of the cost of a qualifying asset when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are being undertaken. Capitalisation of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are completed.

3.18 Taxation

Current and deferred income tax

The tax expense for the year comprises current and deferred income tax. Income tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the income tax is also recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax rates and tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred income tax liabilities are not recognised if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Changes in deferred tax assets or liabilities are recognised in profit or loss, or in other comprehensive income or directly in equity if they relate to items that are charged or credited to other comprehensive income or directly in equity.

Deferred income tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries, a joint arrangement and associates, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and deferred income tax liabilities are offset when meeting all the conditions below:

- The Group has the legally enforceable right to settle current income tax assets and current income tax liabilities; and
- The deferred income tax assets and liabilities relate to income tax levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

Value-added taxation ("VAT")

Sales of goods and provision of engineering, consulting and licensing services of the Group are subjected to VAT. VAT payable is determined by applying 13% or 6% on the taxable revenue arising from sales of goods and provision of engineering, consulting and licensing service in certain regions after offsetting deductible input VAT of the period.

Taxable revenue from construction services is subject to VAT at the rate of 9% after offsetting deductible input VAT. Certain revenue resulting from providing construction services was taxed by using applicable simple tax method, paying VAT at 3%.

3. Summary of Significant Accounting Policies (Continued)

3.19 Contingent liabilities and contingent assets

A contingent liability is a possible obligation that arises from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group. It can also be a present obligation arising from past events that is not recognised because it is not probable that an outflow of economic resources will be required or the amount of the obligation cannot be measured reliably.

A contingent liability is not recognised but is disclosed in the consolidated financial statements unless the probability of outflow of resources embodying economic benefits is remote. When a change in the probability of an outflow occurs so that the outflow is probable, it will then be recognised as a provision.

A contingent asset is not recognised in the consolidated financial statements unless virtually certain but disclosed when an inflow of economic benefits is probable.

3.20 Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated.

All provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

3.21 Government grants

Grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to purchase of assets are deferred and recognised in the consolidated statement of profit or loss and other comprehensive income over the period necessary to match them with the costs that they are intended to compensate.

Government grants relating to income is presented in gross under “other income” in the consolidated statement of profit or loss and other comprehensive income.

3.22 Contract assets and contract liabilities

The contract asset is the Group’s right to consideration in the exchange for services that the Group has transferred to customer. The contract assets transferred to trade receivables when receipt of the consideration is conditional only on the passage of time.

The Group expects that contract assets have the same risk characteristics as trade receivables. The ECL assessment of contract assets in accordance with the accounting policy set out in Note 3.8.

A contract liability is recognised when the customer pays consideration before the Group recognises the related revenue. A contract liability would also be recognised if the Group has an unconditional right to receive consideration before the Group recognises the related revenue. In such cases, a corresponding receivable would also be recognised.

For a single contract with the customer, either a net contract asset or a net contract liability is presented. For multiple contracts, contract assets and contract liabilities of unrelated contracts are not presented on a net basis.

3. Summary of Significant Accounting Policies (Continued)

3.23 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the construction contracts and sale of goods and services in the ordinary course of the Group's activities. Revenue is shown net of value-added tax, returns, rebates and discounts and after eliminating sales within the Group.

To determine whether to recognise revenue, the Group follows a 5-step process:

(1) Identifying the contract with a customer;

(2) Identifying the performance obligations;

(3) Determining the transaction price;

(4) Allocating the transaction price to the performance obligations; and

(5) Recognising revenue when/as performance obligation(s) are satisfied.

In all cases, the total transaction price for a contract is allocated amongst the various performance obligations based on their relative stand-alone selling prices. The transaction price for a contract excludes any amounts collected on behalf of third parties.

Revenue is recognised either at a point in time or over time, when (or as) the Group satisfies performance obligations by transferring the promised goods or services to its customers.

Where the contract contains a financing component which provides a significant financing benefit to the customer for more than 12 months, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction with the customer, and interest income is accrued separately under the effective interest method. Where the contract contains a financing component which provides a significant financing benefit to the Group, revenue recognised under that contract includes the interest expense accreted on the contract liability under the effective interest method.

Further details of the Group's revenue and other income recognition policies are as follows:

Revenue from construction and service contracts

According to the nature of the contracts, the stage of contract completion is based on that the customer is able to control goods in progress during the Group's performance, revenue on construction contracts is recognised based on the Group's efforts or input to the satisfaction of the performance obligation over time. The input method recognises revenue based on the proportion of the actual costs incurred relative to the estimated total costs for satisfaction of the construction services. Variations in contract work are recognised as contract revenue to the extent that the modification has been approved by the parties to the contracts and it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur.

When the outcome of the contract cannot be reasonably measured, revenue is recognised only to the extent of contract costs incurred that are expected to be recovered.

Services rendered

Revenue for services rendered mainly includes technological development, engineering, consultation and supervision is recognised over time when services are rendered.

Sales of products

Revenue from sales of products is recognised when i) control of the products has transferred, being when the products are delivered to the customers and there is no unfulfilled obligation that could affect the customer's acceptance of the products; and ii) collectability of the related receivables is reasonably assured. No contract liability and right to the returned goods are recognised as insignificant amount of returns are expected based on previous experience.

Dividend income

Dividend income is recognised when the right to receive payment is established.

3. Summary of Significant Accounting Policies (Continued)

3.23 Revenue recognition (Continued)

Interest income

Interest income is recognised on a time-proportion basis using the effective interest method. When a loan and receivable is impaired, the Group reduces the carrying amount to its recoverable amount, being the estimated future cash flow discounted at the original effective interest rate of the instrument, and continues unwinding the discount as interest income. Interest income on impaired loan and receivables is recognised using the original effective interest rate.

3.24 Research and development

Research expenditure is recognised as an expense as incurred. Costs incurred on development projects (relating to the design and testing of new or improved products) are recognised as intangible assets when the following criteria are fulfilled:

(i) it is technically feasible to complete the intangible asset so that it will be available for use or sale;

(ii) management intends to complete the intangible asset and use or sell it;

(iii) the Group's an ability to use or sell the intangible asset is demonstrated;

(iv) it can be demonstrated how the intangible asset will generate probable future economic benefits;

(v) adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available; and

(vi) the expenditure attributable to the intangible asset during its development can be reliably measured.

Other development expenditures that do not meet these criteria are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period. Capitalised development costs are recorded as intangible assets and amortised from the point at which the asset is ready for use on a straight-line basis over its useful life.

3.25 Dividend distribution

Dividend distribution to the Company's equity holders is recognised as a liability in the consolidated financial statements in the year in which the dividends are approved by the Company's equity holders or directors, where appropriate.

3.26 Financial guarantee contracts

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- The amount determined in accordance with the ECL model under IFRS 9 "Financial Instruments"; and
- The amount initially recognised less, where appropriate, the cumulative amount of income recognised in accordance with the principles of IFRS 15 Revenue from Contracts with Customers.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between the contractual payments required under the debt instruments and the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where consideration is received or receivable for the issuance of the guarantee, the consideration is recognised in accordance with the Group's policies applicable to that category of asset. Where no such consideration is received or receivable, an immediate expense is recognised in profit or loss on initial recognition of any deferred income.

3. Summary of Significant Accounting Policies (Continued)

3.27 Leases

(a) Definition of a lease and the Group as a lessee

For any new contracts entered into on or after 1 January 2019, the Group considers whether a contract is, or contains a lease. A lease is defined as 'a contract, or part of a contract, that conveys the right to use an identified asset (the underlying asset) for a period of time in exchange for consideration'. To apply this definition, the Group assesses whether the contract meets three key evaluations which are whether:

- the contracts contain an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Group;
- the Group has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use, considering its rights within the defined scope of the contract; and
- the Group has the right to direct the use of the identified asset throughout the period of use. The Group assess whether it has the right to direct 'how and for what purpose' the asset is used throughout the period of use.

For contracts that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices. However, for leases of properties in which the Group is a lessee, the Group elected not to separate non-lease components and will instead account for the lease and non-lease components as a single lease component.

Measurement and recognition of leases as a lessee

At lease commencement date, the Group recognises a right-of-use asset and a lease liability on the condensed consolidated statement of financial position. The right-of-use asset is measured at cost, which is made up of the initial measurement of the lease liability, any initial direct costs incurred by the Group, an estimate of any costs to dismantle and remove the underlying asset at the end of the lease, and any lease payments made in advance of the lease commencement date (net of any lease incentives received).

The Group depreciates the right-of-use assets on a straight-line basis from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term unless the Group is reasonably certain to obtain ownership at the end of the lease term. The Group also assesses the right-of-use asset for impairment when such indicator exists.

At the commencement date, the Group measures the lease liability at the present value of the lease payments unpaid at that date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate.

Lease payments included in the measurement of the lease liability are made up of fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable payments based on an index or rate, and amounts expected to be payable under a residual value guarantee. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payment of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate.

Subsequent to initial measurement, the liability will be reduced for lease payments made and increased for interest cost on the lease liability. It is remeasured to reflect any reassessment or lease modification, or if there are changes in in-substance fixed payments. The variable lease payments that do not depend on an index or a rate are recognised as expense in the period on which the event or condition that triggers the payment occurs.

3. Summary of Significant Accounting Policies (Continued)

3.27 Leases (Continued)

(a) Definition of a lease and the Group as a lessee (Continued)

Measurement and recognition of leases as a lessee (Continued)

The Group remeasures lease liabilities whenever:

- there are changes in lease term, in which case the related lease liability is remeasured by discounting the revised lease payments using a revised discount rate at the date of reassessment.
- the lease payments changes due to changes in market rental rates following a market rent review in which cases the related lease liability is remeasured by discounting the revised lease payments using the initial discount rate.

For lease modification that is not accounted for as a separate lease, the Group remeasures the lease liability based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of modification.

When the lease is remeasured, the corresponding adjustment is reflected in the right-of-use asset, or profit and loss if the right-of-use asset is already reduced to zero.

The Group has elected to account for short-term leases using the practical expedients. Instead of recognising a right-of-use asset and lease liability, the payments in relation to these leases are recognised as an expense in profit or loss on a straight-line basis over the lease term. Short-term leases are leases with a lease term of 12 month or less.

Refundable rental deposits paid are accounted for under IFRS 9 and initially measured at fair value. Adjustments to fair value at initial recognition are considered as additional lease payments and included in the cost of right-of-use assets.

(b) The Group as a lessor

As a lessor, the Group classifies its leases as either operating or finance leases.

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of the underlying asset, and classified as an operating lease if it does not.

The Group also earns rental income from operating leases. Rental income is recognised on a straight-line basis over the term of the lease.

3.28 Related parties

For the purposes of these consolidated financial statements, a party is considered to be related to the Group if:

(a) the party is a person or a close member of that person's family and if that person:

(i) has control or joint control over the Group;

(ii) has significant influence over the Group, or

(iii) is a member of the key management personnel of the Group or of a parent of the Group.

(b) the party is an entity and if any of the following conditions applies:

(i) the entity and the Group are members of the same group;

(ii) one entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member);

(iii) the entity and the Group are joint ventures of the same third party;

(iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;

(v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;

(vi) the entity is controlled or jointly controlled by a person identified in (a);

(vii) a person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and

(viii) the entity, or any member of a group of which it is a part, provided key management personnel services to the Group or to the parent of the Group.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

4. Financial and Capital Risks Management

The Group works out general principles for overall risk management, including management of financial risks, as well as management policies covering specific areas. In considering the importance of risks, the Group identifies and evaluates risks at head office and individual subsidiary level, and requires analysis and proper communication for the information collected periodically.

4.1 Financial risk management

The activities of the Group expose them to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The overall risk management program of the Group focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on financial performance of the Group.

The carrying amounts presented in the consolidated statement of financial position relate to the following categories of financial assets and financial liabilities:

	2021	2020
	RMB'000	RMB'000
Financial assets		
Financial assets at amortised cost		
Notes, trade and other receivables	8,118,975	9,629,241
Restricted cash	109,685	36,661
Time deposits	8,357,613	8,273,435
Cash and cash equivalents	10,305,176	8,440,757
Loans due from the ultimate holding company	20,500,000	21,000,000
Total financial assets	47,391,449	47,380,094
Financial liabilities		
Financial liabilities measured at amortised cost		
Notes, trade and other payables	22,658,233	23,940,359
Loan due to a fellow subsidiary	63,757	163,123
Lease liabilities	161,730	163,943
Total financial liabilities	22,883,720	24,267,425

4. Financial and Capital Risks Management (Continued)

4.1 Financial risk management (Continued)

(a) Market risk

Foreign exchange risk

The functional currency of the entities within the Group is RMB and most of the transactions are settled in RMB.

The Group carries out operations outside the PRC where transactions are usually denominated in the United States Dollars ("USD") which are translated into RMB at the prevailing exchange rates on the dates of the transactions.

The Group is exposed to currency risk primarily through provision of engineering contracting services which give rise to notes, trade and other receivables, notes, trade and other payables, restricted cash, time deposits and cash and cash equivalents that are denominated in a foreign currency. The currency that gives rise to this risk is primarily in USD as at 31 December 2021 and 31 December 2020.

On the other hand, RMB is not a freely convertible currency and the PRC government may at its discretion restrict access to foreign currencies for current account transactions in the future. Changes in the foreign exchange control system may prevent the Group from satisfying sufficient foreign currency demands.

The following table details the Group's exposure at the end of the reporting period to currency risk arising from recognised assets or liabilities denominated in a currency other than RMB to which they relate.

	USD	Others
At 31 December 2021	**RMB'000**	**RMB'000**
Restricted cash, time deposits and cash and cash equivalents	**2,811,345**	**2,447,819**
Notes, trade and other receivables	**32,908**	**792,587**
Notes, trade and other payables	**(281,951)**	**(1,316,352)**
Loans due to a fellow subsidiary	**(63,757)**	**–**
Lease liabilities	**(1,199)**	**(25,840)**
Net exposure in RMB	**2,497,346**	**1,898,214**

	USD	Others
At 31 December 2020	RMB'000	RMB'000
Restricted cash, time deposits and cash and cash equivalents	2,954,607	1,824,105
Notes, trade and other receivables	66,386	731,626
Notes, trade and other payables	(440,165)	(1,306,556)
Loan due to a fellow subsidiary	(163,123)	–
Lease liabilities	(300)	(19,649)
Net exposure in RMB	2,417,405	1,229,526

A 5% strengthening of RMB against the USD as at 31 December 2021 and 31 December 2020 would have changed the equity and net profit by the amounts shown below:

	2021	2020
	RMB'000	RMB'000
Decrease in equity and net profit		
– USD	**(93,650)**	(96,770)

A 5% weakening of RMB as at 31 December 2021 and 31 December 2020 would have had the equal but opposite effect on the above currency to the amounts shown above, on the basis that all other variables remain constant.

The stated changes represent management's assessment of reasonably possible changes in foreign exchange rates over the period until the end of the next annual reporting period. The analysis is performed on the same basis at the relevant period.

4. Financial and Capital Risks Management (Continued)

4.1 Financial risk management (Continued)

(a) Market risk (Continued)

Interest rate risk

The Group's ordinary income and operating cash flows are substantially independent of changes in market interest rates. The interests arise from the loans between the Group and the ultimate holding company and time deposits are mainly based on fixed interest rate.

Price risk

The Group is not exposed to equity securities price risk because the Group's equity securities investments are classified as financial assets at FVTOCI which are stated at fair value.

(b) Credit risk

Credit risk refers to the risk that the counterparty to a financial instrument would fail to discharge its obligation under the terms of the financial instrument and cause a financial loss to the Group. The Group's exposure to credit risk mainly arises from restricted cash, time deposit, cash and cash equivalent, notes, trade and other receivables, contract assets and loans due from the ultimate holding company.

In order to minimise credit risk, the Group has developed and maintained the Group's credit risk grading to categorise exposures according to their degree of risk of default. The credit rating information is based on the Group's own trading records to rate its major customers and other debtors. The Group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties.

For financial assets measured at amortised cost and contract assets, the exposures to credit risk are monitored such that any outstanding debtors are reviewed and followed up on an ongoing basis. In the opinion of the Directors, the Group has no significant concentration of credit risk arising from its ordinary course of business due to its large customer base. The Group does not hold any collateral from its debtors.

Impairment assessment under ECL model

The Group's current credit risk grading framework comprises the following categories:

Category	Description	Basis for recognising ECL
Performing	The counterparty has a low risk of default and does not have any past-due amounts	12-month ECL
Doubtful	There has been a significant increase in credit risk since initial recognition	Lifetime ECL – not credit-impaired
In default	There is evidence indicating the asset is credit-impaired	Lifetime ECL – credit-impaired
Write-off	There is evidence indicating that the debtor is in severe financial difficulty and the Group has no realistic prospect of recovery	Amount is written off

Trade receivables and contract assets

As set out in Note 3.8, the Group assesses ECL under IFRS 9 on trade receivables and contract assets based on provision matrix, the expected loss rates are based on the payment profile for sales in the past 5 years as well as the corresponding historical credit losses during that period. The historical rates are adjusted to reflect current and forwarding looking macroeconomic factors affecting the customer's ability to settle the amount outstanding. At each reporting date, the historical default rates are updated and changes in the forward-looking estimates are analysed.

Based on the Group's assessment of historical credit loss experience of the existing debtors and all available forward looking information, for trade receivables and contract assets, the Group used estimated loss rates based on aging for classes with different credit risk characteristics and exposures.

4. Financial and Capital Risks Management (Continued)

4.1 Financial risk management (Continued)

(b) Credit risk (Continued)

Impairment assessment under ECL model (Continued)

Other receivables

The Group measures the loss allowance equal to 12-month ECL of other receivables. For those balances expected to have significant increase in credit risk since initial recognition, the Group apply lifetime ECL based on aging for classes with different credit risk characteristics and exposures.

Restricted cash, time deposits and cash and cash equivalents

Restricted cash, time deposits and cash and cash equivalents are placed at financial institutions that have sound credit ratings assigned by international credit-rating agencies and the Group considers the credit risk to be insignificant.

Loans due from the ultimate holding company

The 12-month ECL calculated by the Group is not significant and there has been no significant increase in credit risk since initial recognition.

(c) Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and the availability of funding from an adequate amount of committed credit facilities. Due to the dynamic nature of the underlying business, the Group aims to maintain flexibility in funding by keeping committed credit lines available.

Management monitors the cash flow forecasts of the Group in meeting its liabilities.

The table below analyses the Group's non-derivative financial liabilities that will be settled on a net basis into relevant maturity groupings based on the remaining period from the end of the reporting period to the contractual maturity dates. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances, as the impact of discounting is not significant.

	Weighted average effective interest rate	Within 1 year	1-2 years	2-5 years	Over 5 years	Total undiscounted cash flows	Carrying amount
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 31 December 2021							
Notes, trade and other payables	N/A	22,658,233	–	–	–	22,658,233	22,658,233
Loan due to a fellow subsidiary	2.16%	63,757	–	–	–	63,757	63,757
Lease liabilities	4.76%	78,264	39,404	33,874	28,337	179,879	161,730
Total other liabilities		22,800,254	39,404	33,874	28,337	22,901,869	22,883,720

	Weighted average effective interest rate	Within 1 year	1-2 years	2-5 years	Over 5 years	Total undiscounted cash flows	Carrying Amount
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 31 December 2020							
Notes, trade and other payables	N/A	23,940,359	–	–	–	23,940,359	23,940,359
Loan due to a fellow subsidiary	1.74%	163,123	–	–	–	163,123	163,123
Lease liabilities	4.83%	70,354	44,317	37,857	32,922	185,450	163,943
Total other liabilities		24,173,836	44,317	37,857	32,922	24,288,932	24,267,425

4. Financial and Capital Risks Management (Continued)

4.2 Capital risk management

The objectives of the Group when managing capital are to safeguard the ability of the Group in continuing as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, issue new shares or sell assets to reduce debts.

The Group monitors their capital structure on the basis of gearing ratio. This ratio is calculated as net debt divided by total capital. Net debts are calculated as other liabilities (including notes and trade payables, other payables, and lease liabilities, as shown in the consolidated statement of financial position) less restricted cash, time deposits and cash and cash equivalents. Total capital is calculated as equity, as shown in the consolidated statement of financial position, plus net debts less non-controlling interests.

	2021	2020
	RMB'000	RMB'000
Total other liabilities	22,883,720	24,267,425
Less: Restricted cash, time deposits and		
cash and cash equivalents	(18,772,474)	(16,750,853)
Net debt	4,111,246	7,516,572
Total equity (excluding non-controlling interests)	29,118,084	28,251,172
Total capital	33,229,330	35,767,744
Gearing ratio	12%	21%

4.3 Fair value measurement of financial instruments

Fair value measurements

Apart from the below mentioned, the carrying amounts of the Group's financial assets and financial liabilities as re-elected in the consolidated statement of financial position approximate their respective fair values.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Group discloses fair value measurements of financial instruments by level of the following fair value measurement hierarchy:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1).
- Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly (level 2).
- Inputs for the asset or liability that are not based on observable market data (i.e. unobservable inputs) (level 3).

5. Critical Accounting Estimates and Judgments

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes accounting estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal to the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

(a) Construction contracts

Revenue from individual contracts is recognised according to progress of the project. The determination of the progress of the construction service involves judgments. According to the nature of contract, the Group recognises revenue by reference to the stage of completion of the contract activity at the end of the reporting period as measured by the proportion that the actual costs incurred relative to the estimated total costs for satisfaction of the construction services. In addition, when determining the transaction price, the Group consider factors such as whether there is any financing component. The Group considers whether the payment schedule is commensurate with the Group's performance and whether the delayed payment is for finance purpose. The Group does not consider the arrangement with customers have significant financing component. The Group has, therefore, recognised revenue on progress confirmation over the period during which the services are rendered and transferred to customers. As at 31 December 2021 the contract assets (Note 23(a)) and contract liabilities (Note 23(b)) are RMB10,273,333,000 (31 December 2020: RMB8,826,268,000) and RMB17,485,967,000 (31 December 2020: RMB15,511,149,000) respectively.

(b) Useful lives of property, plant and equipment

The Group determines the estimated useful lives and related depreciation charges for the Group's property, plant and equipment (Note 17). This estimate is based on projected wear and tear incurred during the useful life of property, plant and equipment. This could change significantly as a result of technical renovations and competitor actions in response to severe industry cycles. Management will increase the depreciation charge where useful lives or residual values vary with previously estimated, or it will write-off or write-down technically obsolete or non-strategic assets that have been abandoned or sold. As at 31 December 2021, the net carrying amount of property, plant and equipment is RMB4,398,287,000 (31 December 2020: RMB3,881,466,000).

(c) Provision for ECL of trade receivables and contract assets

The Group determines the provision for ECL on trade receivables (Note 21) and contract assets (Note 23(a)). This estimate is based on the credit history of the customers and the current market condition and forward-looking information. Management reassesses the adequacy of provision on a regular basis by reviewing the individual account based on past credit history and any prior knowledge of debtor insolvency or other credit risk which might not be easily accessible public information and market volatility might bear a significant impact which might not be easily ascertained. As at 31 December 2021, the provision for impairment on trade receivables and contract assets are RMB2,303,492,000 (31 December 2020: RMB1,541,497,000) and RMB465,962,000 (31 December 2020: RMB214,459,000) respectively.

(d) Deferred taxes

The estimates of deferred income tax assets (Note 36) require estimates over future taxable profit and corresponding applicable income tax rates of respective years. The change in future income tax rates and timing would affect income tax expense or benefit, as well as deferred income tax balance. The realisation of deferred income tax assets also depends on the realisation of sufficient profitability (taxable profit) of the Group. Deviation of future profitability from the estimate could result in material adjustments to the carrying amount of deferred income tax assets. Deferred tax assets relating to certain temporary differences and tax losses are recognised as management considers it is probable that future taxable profit will be available against which the temporary differences or tax losses can be utilised. Where the expectation is different from the original estimate, such differences will impact the recognition of deferred tax assets and taxation in the years in which such estimates are changed. As at 31 December 2021, deferred tax assets recognised in the consolidated statement of financial position is RMB843,162,000 (31 December 2020: RMB709,030,000).

(e) Pension obligations

The present value of the pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for provisions include the discount rate. Any changes in these assumptions will impact the carrying amount of pension obligations. The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the Group considers the interest rates of corporate securities which have maturity approximating to the terms of the related pension liability. Other key assumptions for pension obligations are based on current market conditions. As at 31 December 2021, the net liabilities of retirement benefit plan obligations (Note 32(b)) is RMB2,154,036,000 (31 December 2020: RMB2,252,789,000).

5. Critical Accounting Estimates and Judgments (Continued)

(f) Provision for litigation claims

The Group are from time to time involved in legal proceedings arising in the ordinary course of our business. If the management believes that the legal proceedings may result claims for compensation to third parties against the Group, the best estimate of provision for litigation claims will be recognised. If the management believes that the legal proceedings may be more likely not to result claims for compensation to third parties against the Group, no provision will be recognised under any potential litigation claims. Except to the extent that the situations and uncertainties involved, that will be disclosed as contingent liabilities. To access the outcome of legal proceedings and any potential amount of litigation claims, significant judgment is required. As at 31 December 2021, provision for litigation claims (Note 33) is RMB181,292,000 (31 December 2020: RMB186,593,000).

6. Revenue

The Group's revenue is set out below:

	2021	2020
	RMB'000	RMB'000
Engineering, consulting and licensing	3,779,770	3,603,524
EPC Contracting	35,670,573	33,577,673
Construction	17,522,236	14,804,376
Equipment manufacturing	787,011	367,011
	57,759,590	52,352,584

Remaining performance obligations

As at 31 December 2021, amount of remaining performance obligations is RMB111,045,177,000 (2020: RMB105,654,607,000), which is expected to be completed in the coming 60 months (2020: 60 months).

7. Segment Information

Management has determined the operating segments based on the reports reviewed by the Senior Management that are used to make strategic decisions.

The Senior Management considers the business from a product and service perspective, which mainly includes four reportable operating segments:

(i) Engineering, consulting and licensing – providing design, consulting, research and development, feasibility studies, compliance certification services to oil refining and chemical etc industries;

(ii) EPC Contracting – providing integrated engineering, procurement, construction, maintenance and project management services to oil refining and chemical etc industries;

(iii) Construction – providing infrastructure for oil refining and chemical etc industries, oil and gas storage, pipelines transportation, construction, renovation, expansion, repair and maintenance services and large equipment lifting and transportation services in construction projects; and

(iv) Equipment manufacturing – providing design, development, manufacture and sales of equipment and spare parts for facilities including oil refining and chemical facilities.

Inter-segment sales were conducted at prices no less than cost and with terms mutually agreed among those business segments. Operating expenses of a functional unit are allocated to the relevant segment which is the predominant user of the services provided by the unit. Operating expenses of other shared services which cannot be allocated to a specific segment and corporate expenses are included as unallocated costs.

Segment assets consist primarily of property, plant and equipment, rights of use assets, construction in progress, intangible assets, investment in a joint arrangement and investment in associates, other non-current assets, inventories, notes and trade receivables, prepayments and other receivables, restricted cash and cash and cash equivalents. Unallocated assets comprise items such as some of the time deposits, cash and cash equivalents, loans due from the ultimate holding company, deferred income tax assets and other unallocated assets.

Segment liabilities comprise operating liabilities.

Capital expenditure comprises additions to property, plant and equipment (Note 17), right-of-use assets (Note 18), intangible assets (Note 19) and other non-current assets.

7. Segment Information (Continued)

The segment information provided to the Senior Management for the reportable segments is as follow:

(i) As at and for the year ended 31 December 2021:

The segment results for the year ended 31 December 2021 are as follows:

	Engineering, consulting and licensing	EPC contracting	Construction	Equipment manufacturing	Unallocated	Elimination	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Segment revenue and results							
Revenue from external customers	3,779,770	35,670,573	17,522,236	787,011	–	–	57,759,590
Inter-segment revenue	83,709	33,870	8,017,313	249,849	–	(8,384,741)	–
Segment revenue	3,863,479	35,704,443	25,539,549	1,036,860	–	(8,384,741)	57,759,590
Segment results	106,695	814,711	645,392	14,386	120,714	–	1,701,898
Finance income							954,622
Finance expenses							(82,796)
Share of profit of a joint arrangement	1,448	–	–	–	–	–	1,448
Share of profit of associates	12,626	4,609	–	–	–	–	17,235
Profit before taxation							2,592,407
Income tax expense							(462,432)
Profit for the year							2,129,975
Other segment items							
Depreciation	248,326	102,923	469,732	22,042	–	(32,725)	810,298
Amortisation	29,556	32,397	1,870	–	–	–	63,823
Capital expenditures							
– Property, plant and equipment	269,132	113,671	782,256	1,912	11,020	–	1,177,991
– Right-of-use assets	21,006	40,521	47,290	6,415	–	–	115,232
– Intangible assets	38,687	5,968	3,288	–	–	–	47,943
Provision/(Reversal of provision) for ECL on trade and other receivables and contract assets, net	81,738	860,445	23,786	28,895	(1,442)	–	993,422

The segment assets and liabilities as at 31 December 2021 are as follows:

	Engineering, Consulting and licensing	EPC Contracting	Construction	Equipment manufacturing	Elimination	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Assets						
Segment assets	28,441,216	32,302,344	22,727,109	1,097,452	(41,551,062)	43,017,059
Investment in a joint arrangement	3,923	–	–	–	–	3,923
Investment in associates	127,682	31,233	–	–	–	158,915
Unallocated assets						29,737,346
Total assets						72,917,243
Liabilities						
Segment liabilities	30,249,398	28,950,927	19,742,143	758,840	(35,907,401)	43,793,907
Total liabilities						43,793,907

7. Segment Information (Continued)

(ii) As at and for the year ended 31 December 2020:

The segment results for the year ended 31 December 2020 are as follows:

	Engineering, consulting and licensing	EPC contracting	Construction	Equipment manufacturing	Unallocated	Elimination	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Segment revenue and results							
Revenue from external customers	3,603,524	33,577,673	14,804,376	367,011	–	–	52,352,584
Inter-segment revenue	91,498	–	7,108,022	394,378	–	(7,593,898)	–
Segment revenue	3,695,022	33,577,673	21,912,398	761,389	–	(7,593,898)	52,352,584
Segment results	62,397	1,696,337	296,752	1,027	147,866	–	2,204,379
Finance income							881,495
Finance expenses							(90,390)
Share of profit of a joint arrangement	(41)	–	–	–	–	–	(41)
Share of profit of associates	3,515	11,604	–	–	–	–	15,119
Profit before taxation							3,010,562
Income tax expense							(628,356)
Profit for the year							2,382,206
Other segment items							
Depreciation	201,608	82,341	296,938	18,158	23,079	(32,540)	589,584
Amortisation	15,565	27,783	3,184	–	13,416	–	59,948
Capital expenditures							
– Property, plant and equipment	232,868	34,638	485,143	3,143	4,415	–	760,207
– Right-of-use assets	36,222	10,780	64,622	–	752	–	112,376
– Intangible assets	13,919	10,624	5,352	–	15,886	–	45,781
Provision/(Reversal of provision) for ECL on trade and other receivables and contract assets, net	(211,277)	322,429	107,923	4,518	1,849	–	225,442

The segment assets and liabilities as at 31 December 2020 are as follows:

	Engineering, consulting and licensing	EPC contracting	Construction	Equipment manufacturing	Elimination	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Assets						
Segment assets	8,154,079	23,789,296	16,042,430	1,028,556	(11,106,981)	37,907,380
Investment in a joint arrangement	2,475	–	–	–	–	2,475
Investment in associates	48,822	100,858	–	–	–	149,680
Unallocated assets						33,405,792
Total assets						71,465,327
Liabilities						
Segment liabilities	1,935,053	17,156,567	12,078,301	702,871	(11,204,287)	20,668,505
Unallocated liabilities						22,540,784
Total liabilities						43,209,289

7. Segment Information (Continued)

Analysis of information by geographical regions:

The following table lists out the information about geographical regions. The geographical regions of the sales to external customers are based on the locations where the services are rendered or the places where the goods are delivered. The specific non-current assets include property, plant and equipment, right-of-use assets, intangible assets, investment in a joint arrangement and investment in associates, which the geographical regions are based on the places where the assets are located for property, plant and equipment and land use rights, the places where they are allocated to for intangible assets and the places where the business are conducted for a joint arrangement and associates.

Revenue

	2021	2020
	RMB'000	RMB'000
The PRC	53,120,489	47,629,649
Saudi Arabia	1,622,794	2,516,112
Kuwait	989,022	1,357,639
Russian Federation	742,906	205,472
Malaysia	402,963	–
Other countries	881,416	643,712
	57,759,590	52,352,584

Information about major customers

The customers accounted for more than 10% of the total revenue of the Group and revenue from them for the year ended 31 December 2021 and 2020, the details are as follows:

	2021	2020
	RMB'000	RMB'000
Fellow subsidiary and its subsidiaries		
– Customer group A	28,365,516	17,262,576

The revenue from the customers are derived from the segment of engineering, consulting and licensing, EPC contracting, construction and equipment manufacturing.

Specified non-current assets

	2021	2020
	RMB'000	RMB'000
The PRC	6,893,411	6,434,643
Other countries	242,994	275,538
	7,136,405	6,710,181

7. Segment Information (Continued)

Disaggregation of revenue from contracts with customer

The Group derives revenue from the transfer of goods and service at a point in time and over time in the following customers' segment for engineering, consulting and licensing, EPC contracting, construction and equipment manufacturing:

	Engineering, consulting and licensing	EPC contracting	Construction	Equipment manufacturing	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Timing of revenue recognition					
For the year ended 31 December 2021					
– At a point in time	**–**	**–**	**–**	**787,011**	**787,011**
– Over time	**3,779,770**	**35,670,573**	**17,522,236**	**–**	**56,972,579**
Total revenue	**3,779,770**	**35,670,573**	**17,522,236**	**787,011**	**57,759,590**
For the year ended 31 December 2020					
– At a point in time	–	–	–	367,011	367,011
– Over time	3,603,524	33,577,673	14,804,376	–	51,985,573
Total revenue	3,603,524	33,577,673	14,804,376	367,011	52,352,584
For the year ended 31 December 2021					
– Oil refining	**1,167,846**	**8,440,987**	**3,476,343**	**57,058**	**13,142,234**
– Petrochemicals	**1,718,192**	**17,646,105**	**9,928,241**	**729,717**	**30,022,255**
– New coal chemicals	**234,618**	**771,843**	**347,195**	**–**	**1,353,656**
– Storage and transportation and others	**659,114**	**8,811,638**	**3,770,457**	**236**	**13,241,445**
Total revenue	**3,779,770**	**35,670,573**	**17,522,236**	**787,011**	**57,759,590**
For the year ended 31 December 2020					
– Oil refining	1,139,202	7,680,939	3,110,637	11,071	11,941,849
– Petrochemicals	1,683,755	18,913,180	8,888,692	354,313	29,839,940
– New coal chemicals	125,964	2,882,663	640,073	628	3,649,328
– Storage and transportation and others	654,603	4,100,891	2,164,974	999	6,921,467
Total revenue	3,603,524	33,577,673	14,804,376	367,011	52,352,584

8. Other Income

	2021	2020
	RMB'000	RMB'000
Operating lease rental income on property, plant and equipment	56,265	76,420
Income from write back long outstanding payables	6,749	21,149
Government grants (note)	43,918	339,683
Others	4,681	26,600
	111,613	463,852

Note: Government grants mainly represent financial subsidies from "Water/electricity/gas supply and property management", Talent Development Fund and job stabilisation subsidies.

9. Other Gains – Net

	2021	2020
	RMB'000	RMB'000
Gains on disposal/write-off of property, plant and equipment	51,342	17,215
(Losses)/gains on disposal/write-off of land use rights	(163)	846
Gain on disposal of investment in an associate (note 20(b))	–	13,072
Gains/(losses) on separation and transfer of "Water/electricity/gas supply and property management"	5,949	(17,973)
	57,128	13,160

10. Finance Income and Finance Expenses

	2021	2020
	RMB'000	RMB'000
Finance income		
Interest income from the ultimate holding company	711,024	617,893
Interest income from the fellow subsidiaries	55,500	68,415
Bank interest income	188,098	195,187
	954,622	881,495
Finance expenses		
Interest expenses to a fellow subsidiary on balances wholly repayable within 5 years	(4,323)	(2,957)
Interest expenses on retirement and other supplementary benefit obligation	(69,440)	(76,674)
Finance charges on lease liabilities	(8,578)	(8,817)
Other interest expense	(455)	(1,942)
	(82,796)	(90,390)
	871,826	791,105

11. Profit Before Taxation

Profit before taxation is arrived at after charging/(crediting):

	2021 RMB'000	2020 RMB'000
Staff costs, including directors and supervisors emoluments (Note 16)	**6,590,754**	6,040,323
Retirement benefit plan contribution (including in the above mentioned staff costs)	**857,824**	712,050
Cost of goods sold	**20,445,779**	19,907,162
Subcontracting costs	**20,567,047**	17,496,313
Depreciation and amortisation		
– Property, plant and equipment	**640,524**	458,904
– Right of use assets	**169,774**	130,680
– Intangible assets	**63,823**	59,948
Operating lease rentals		
Short term leases expenses	**339,952**	358,245
Provision for ECL on trade and other receivables and contract assets, net	**993,422**	225,442
Rental income from property, plant and equipment after relevant expenses	**(56,265)**	(47,785)
Research and development costs	**2,379,149**	2,175,183
Gains on disposal/write-off of property, plant and equipment	**(51,342)**	(17,215)
Losses/(gains) on disposal/write-off of land use rights	**163**	(846)
Auditor's remuneration		
– Audit service	**4,570**	4,570
Exchange losses, net	**82,990**	122,154
Reversal of cash-settled share-based payment	**–**	(6,344)

12. Income Tax Expense

	2021 RMB'000	2020 RMB'000
Current tax		
PRC enterprise income tax	576,402	520,989
Overseas enterprise income tax	23,514	106,628
Over provision for income tax in prior years	(6,943)	(8,981)
	592,973	618,636
Deferred tax		
Origination and reversal of temporary differences (note 36)	(130,541)	9,720
Income tax expense	462,432	628,356

According to the Corporate Income Tax Law of the PRC, the applicable income tax of the years ended 31 December 2021 and 2020 is 25%.

According to the normal statutory PRC corporate income tax and relevant rules, for the years ended 31 December 2021 and 2020, certain subsidiaries of the Company have been qualified as new high-tech enterprises which can enjoy 15% preferential tax rate in the related period, other members of the Group are subject to 25% income tax rate.

The tax of other countries is based on the nation's tax laws, where the relevant subsidiary of the Group operates in.

The difference between the actual income tax charge in the consolidated statement of profit or loss and other comprehensive income and the amounts which would result from applying the enacted tax rate to profit before income tax can be reconciled as follows:

	2021 RMB'000	2020 RMB'000
Profit before tax	2,592,407	3,010,562
Taxation calculated at the statutory tax rate	648,101	752,640
Income tax effects of:		
Preferential income tax treatments of certain companies	(365,212)	(341,636)
Difference in overseas profits tax rates	(1,824)	(1,415)
Non-deductible expenses	249,576	228,225
Income not subject to tax	(57,882)	(24,014)
Unrecognised tax losses	16,076	35,717
Utilisation of previously unrecognised tax losses	(19,721)	(12,180)
Over provision for income tax in prior years	(6,682)	(8,981)
Income tax expense	462,432	628,356
Effective income tax rate	17.8%	20.9%

13. Earnings Per Share

Basic earnings per share for each of the years ended 31 December 2021 and 2020 is calculated based on the profit attributable to the equity holders of the Company and the weighted average number of ordinary shares in issue.

	2021	2020
Profit attributable to equity holders of the Company (RMB'000)	**2,129,589**	2,381,905
Weighted average number of ordinary shares in issue	**4,428,000,000**	4,428,000,000
Basic earnings per share (RMB)	**0.48**	0.54

Diluted earnings per share is equal to basic earnings per share as there was no potential diluted shares outstanding for the reporting period.

14. Dividends

Dividends represented dividends declared by the Company during each of the years ended 31 December 2021 and 2020.

	2021	2020
	RMB'000	RMB'000
Interim dividends of RMB0.091 per ordinary share (2020: RMB0.113) (1)	**402,948**	500,364
Proposed final dividends of RMB0.222 per ordinary share (2020: RMB0.187)(2)	**983,016**	828,036

(1) Pursuant to a resolution passed at the board of Directors' meeting on 21 August 2020, the Directors authorised to declare the interim dividends for the year ended 31 December 2021 of RMB0.091 (2020: RMB0.113) per share totalling RMB402,948,000 (2020: RMB500,364,000).

(2) Pursuant to the board of Directors' meeting on 18 March 2022, the Directors recommended to declare the final dividends for the year ended 31 December 2021 of RMB0.222 (2020: RMB0.187) per share totalling RMB983,016,000 (2020: RMB828,036,000). Such recommendation is to be approved by the shareholders at the Annual General Meeting. Dividends declared after the year end of the reporting period are not recognised as a liability at the end of the reporting period.

15. Directors' and Supervisors' Emoluments and Five Highest Individuals' Emoluments

(a) Directors' and supervisors' emoluments

Details of directors and supervisors of the Company are as follows:

(i) For the year ended 31 December 2021

	Fee	Basic salaries, other allowances and benefits-in-kind	Discretionary bonus	Contributions to pension plans	Cash-settled share-based payment	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Executive directors						
SUN Lili(8)	–	583	718	109	–	1,410
XIANG Wenwu(8)	–	437	642	109	–	1,188
JIANG Dejun(5) (8)	–	382	711	109	–	1,202
	–	1,402	2,071	327	–	3,800
Non-executive directors						
WANG Zizong(9)	–	–	–	–	–	–
LI Chengfeng(9)	–	–	–	–	–	–
WU Wenxin(8)	–	–	–	–	–	–
	–	–	–	–	–	–
Independent non-executive directors						
HUI Chiu Chung, Stephen(8)	200	–	–	–	–	200
JIN Yong(8)	200	–	–	–	–	200
YE Zheng(8)	200	–	–	–	–	200
	600	–	–	–	–	600
Supervisors						
ZHU Fei(8)	–	352	577	109	–	1,038
WANG Guoliang(1)(6)	–	–	–	–	–	–
XU Yijun(1) (9)	–	307	521	89	–	917
YE Wenbang(1)(6)	–	–	–	–	–	–
WU Jibo(1)(6)	–	–	–	–	–	–
WU Zhongxian(1)(8)	–	283	457	89	–	829
ZHOU Yingguan(1)(8)	–	258	568	95	–	921
ZHANG Xinming(1)(7)	–	262	648	102	–	1,012
ZHOU Chengping(1)(9)	–	333	609	86	–	1,028
YI Hao(1)(9)	–	293	438	88	–	819
	–	2,088	3,818	658	–	6,564
	600	3,490	5,889	985	–	10,964

15. Directors' and Supervisors' Emoluments and Five Highest Individuals' Emoluments (Continued)

(a) Directors' and supervisors' emoluments (Continued)

Details of directors and supervisors of the Company are as follows: (Continued)

(ii) For the year ended 31 December 2020

	Fee	Basic salaries, other allowances and benefits-in-kind	Discretionary bonus	Contributions to pension plans	Cash-settled share-based payment	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Executive directors						
YU Renming(3)(4)	–	526	766	127	–	1,419
SUN Lili	–	520	670	126	–	1,316
XIANG Wenwu	–	489	592	127	–	1,208
JIANG Dejun(5)	–	–	–	–	–	–
ZHOU Yingguan(4)	–	258	449	96	–	803
LU Dong(2)	–	–	–	–	–	–
		1,793	2,477	476	–	4,746
Non-executive directors						
YU Baocai(2)	–	–	–	–	–	–
WU Wenxin	–	–	–	–	–	–
	–	–	–	–	–	–
Independent non-executive directors						
HUI Chiu Chung, Stephen	200	–	–	–	–	200
JIN Yong	200	–	–	–	–	200
YE Zheng	200	–	–	–	–	200
	600	–	–	–	–	600
Supervisors						
ZHU Fei	–	300	523	126	–	949
JIANG Dejun(1)(4)	–	280	508	126	–	914
WANG Guoliang(1)	–	147	486	33	–	666
XU Yijun(1)	–	278	538	95	–	911
YE Wenbang(1)	–	510	307	113	–	930
WU Jibo(1)	–	258	465	97	–	820
WU Zhongxian(1)	–	258	422	94	–	774
ZHOU Yingguan(1)(5)	–	–	–	–	–	–
	–	2,031	3,249	684	–	5,964
	600	3,824	5,726	1,160	–	11,310

15. Directors' and Supervisors' Emoluments and Five Highest Individuals' Emoluments (Continued)

(a) Directors' and supervisors' emoluments (Continued)

Details of directors and supervisors of the Company are as follows: (Continued)

Notes:

(1) These supervisors receive no emoluments for their services provided to the Company but they however receive emoluments from the Group for their services as directors and/or supervisors of a number of subsidiaries.
(2) Resigned on 18 February 2020
(3) Appointed on 18 February 2020
(4) Resigned on 30 December 2020
(5) Appointed on 22 February 2021
(6) Resigned on 22 March 2021
(7) Appointed on 10 May 2021
(8) Retired and re-appointed on 26 October 2021
(9) Appointed on 26 October 2021

(b) Five highest paid individuals

The number of director or supervisor and non-director or supervisor included in the five highest paid individuals for the years ended 31 December 2021 and 2020 are set forth below:

	2021	2020
	Number of individuals	Number of individuals
Director or supervisor	3	2
Non-director or supervisor	2	3
	5	5

The aggregate of the emoluments in respect of the remaining highest paid non-director or supervisor are as follows:

	2021	2020
	RMB'000	RMB'000
Basic salaries, other allowances and benefits-in-kind	1,296	1,231
Discretionary bonuses	4,008	2,033
Contributions to pensions plans	425	318
	5,729	3,582

The emoluments two (2020:three) highest paid individuals who are non-director or supervisor are within the following bands:

	2021	2020
	Number of individuals	Number of individuals
HK$1,500,001 to HK$2,000,000	–	1
HK$1,000,001 to HK$1,500,000	2	2
Nil to HK$1,000,000	–	–
	2	3

No emoluments were paid by the Group to any director or the five highest paid individuals as an inducement to join or upon joining the Group or as compensation for loss of office during the year (2020: nil).

16. Employment Benefits

	2021	2020
	RMB'000	RMB'000
Salaries, wages and bonuses	4,433,334	4,061,612
Retirement benefits[1]	754,366	608,716
Early retirement and supplemental pension benefit (Note 32(b))		
– service cost	22,099	26,661
– interest cost	69,440	76,674
Immediate recognition of actuarial losses	11,919	1,605
Housing fund[2]	383,692	368,958
Welfare, medical and other expenses	915,904	902,441
Reversal of cash-settled shared-based payment (Note 38)	–	(6,344)
	6,590,754	6,040,323

Notes:

(1) Retirement benefits

The Group is required to make specific contributions to the state-managed retirement plan at a rate of 14% to 19% (2020: 14% to 19%) of the specified salaries of the PRC employees for the year ended 31 December 2021. The PRC government is responsible for the pension liability to the retired employees. The PRC employees of the Group are entitled to a monthly pension upon their retirements.

(2) Housing fund

In accordance with the PRC housing reform regulations, the Group is required to make contributions to the state-managed housing fund at rates of 12% of the specified salaries of the PRC employees. At the same time, the employees are required to make a contribution based on certain percentages. The employees are entitled to claim the entire sum of the fund under certain specified withdrawal circumstances. The Group has no further obligations for housing benefits beyond the contributions made above.

17. Property, Plant and Equipment

	Buildings and other facilities	Machinery, transportation equipment and other equipment	Construction-in-progress	Total
	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020				
Cost	3,450,076	4,630,885	518,989	8,599,950
Accumulated depreciation and impairment	(1,550,153)	(3,452,445)	–	(5,002,598)
Net book amount	1,899,923	1,178,440	518,989	3,597,352
Year ended 31 December 2020				
Opening net book amount	1,899,923	1,178,440	518,989	3,597,352
Transfers	3,969	314,221	(318,190)	–
Additions	48,843	219,567	491,797	760,207
Depreciation	(117,093)	(341,811)	–	(458,904)
Disposals/write-off	(14,158)	(3,031)	–	(17,189)
Closing net book amount	1,821,484	1,367,386	692,596	3,881,466
At 31 December 2020 and 1 January 2021				
Cost	3,454,045	4,896,970	692,596	9,043,611
Accumulated depreciation and impairment	(1,632,561)	(3,529,584)	–	(5,162,145)
Net book amount	1,821,484	1,367,386	692,596	3,881,466
Year ended 31 December 2021				
Opening net book amount	**1,821,484**	**1,367,386**	**692,596**	**3,881,466**
Transfers	**325,128**	**974,479**	**(1,299,607)**	**–**
Additions	**2,437**	**–**	**1,175,554**	**1,177,991**
Depreciation	**(120,136)**	**(520,388)**	**–**	**(640,524)**
Disposals/write-off	**(15,236)**	**(5,410)**	**–**	**(20,646)**
Closing net book amount	**2,013,677**	**1,816,067**	**568,543**	**4,398,287**
At 31 December 2021				
Cost	**3,745,323**	**5,375,963**	**568,543**	**9,689,829**
Accumulated depreciation and impairment	**(1,731,646)**	**(3,559,896)**	**–**	**(5,291,542)**
Net book amount	**2,013,677**	**1,816,067**	**568,543**	**4,398,287**

17. Property, Plant and Equipment (Continued)

Depreciation expense recognised is analysed as follows:

	2021	2020
	RMB'000	RMB'000
Cost of sales	561,635	383,286
Selling and marking expenses	25	255
Administrative expenses	24,124	22,272
Research and development costs	54,740	53,091
	640,524	458,904

18. Right-of-Use Assets

The Group leases assets including buildings and other facilities, Machinery, transportation equipment and other equipment and lands. Information about leases for which the Group is a lessee is presented below:

	Buildings and other facilities	Machinery, transportation equipment and other equipment	Land use right	Total
	RMB'000	RMB'000	RMB'000	RMB'000
Balance at 1 January 2020	172,763	7,198	2,343,809	2,523,770
Additions	68,375	40,063	3,938	112,376
Depreciation for the year	(68,692)	(4,360)	(57,628)	(130,680)
Disposal/written off	(109)	–	(56,727)	(56,836)
Modification	(3,811)	3,482	–	(329)
Balance at 31 December 2020 and 1 January 2021	168,526	46,383	2,233,392	2,448,301
Additions	83,490	31,742	–	115,232
Depreciation	(84,462)	(28,033)	(57,279)	(169,774)
Disposal/written off	(18,805)	(455)	(2,298)	(21,558)
Balance at 31 December 2021	148,749	49,637	2,173,815	2,372,201

Depreciation recognised is analysed as follows:

	2021	2020
	RMB'000	RMB'000
Cost of sales	109,418	76,752
Administrative expenses	60,356	53,928
	169,774	130,680

19. Intangible Assets

	Patent	Computer software	Total
	RMB'000	RMB'000	RMB'000
At 1 January 2020			
Cost	479,882	513,356	993,238
Accumulated amortisation	(431,642)	(328,281)	(759,923)
Net book amount	48,240	185,075	233,315
Year ended 31 December 2020			
Opening net book amount	48,240	185,075	233,315
Additions	–	45,781	45,781
Amortisation	(24,120)	(35,828)	(59,948)
Written-off	–	(189)	(189)
Closing net book amount	24,120	194,839	218,959
At 31 December 2020 and 1 January 2021			
Cost	479,882	552,630	1,032,512
Accumulated amortisation	(455,762)	(357,791)	(813,553)
Net book amount	24,120	194,839	218,959
Year ended 31 December 2021			
Opening net book amount	**24,120**	**194,839**	**218,959**
Additions	**–**	**47,943**	**47,943**
Amortisation	**(24,120)**	**(39,703)**	**(63,823)**
Closing net book amount	**–**	**203,079**	**203,079**
At 31 December 2021			
Cost	**479,882**	**600,574**	**1,080,456**
Accumulated amortisation	**(479,882)**	**(397,495)**	**(877,377)**
Net book amount	**–**	**203,079**	**203,079**

Amortisation recognised is analysed as follows:

	2021	2020
	RMB'000	RMB'000
Cost of sales	**12,121**	16,002
Administrative expenses	**51,702**	43,946
	63,823	59,948

20. Investment in a Joint Arrangement and Associates

(a) Investment in a joint arrangement

	2021	2020
	RMB'000	RMB'000
Joint venture		
Beginning of the year	2,475	2,516
Share of total comprehensive income/(expense)	1,448	(41)
End of the year	3,923	2,475

The Group's joint venture, is unlisted and established in a form of limited company, is as follows:

Name	Establishment/Place of incorporation	Registered and fully paid capital	Indirect effective interest held	Principal activities and place of operations
		RMB'000		
Hainan Great Wall Machinery Engineering Co., Ltd. (海南長城機械工程有限公司)	The PRC	3,000 (2020: 3,000)	50%	Technical development, sales of equipment/The PRC

The above joint venture is accounted for by using the equity method.

	2021	2020
	RMB'000	RMB'000
Current assets	10,238	18,924
Non-current assets	1,087	1,210
Total assets	11,325	20,134
Current liabilities	3,479	15,184
Total liabilities	3,479	15,184
Equity	7,846	4,950
Share of equity by the Group (50%) (2020: 50%)	3,923	2,475

	2021	2020
	RMB'000	RMB'000
Revenue	12,212	–
Profit/(loss) and total comprehensive income/(expense) for the year	2,896	(82)
Share of total comprehensive income/(expense) (50%) (2020:50%)	1,448	(41)

There are no material contingent liabilities and commitments relating to the Group's interests in the joint venture and no material contingent liabilities and commitments of the joint venture itself.

20. Investment in a Joint Arrangement and Associates (Continued)

(b) Investments in associates

	2021	2020
	RMB'000	RMB'000
Beginning of the year	**149,680**	161,952
Share of total comprehensive income	**17,235**	21,479
Dividend distribution	**(8,000)**	(9,344)
Disposal (note)	**–**	(24,407)
End of the year	**158,915**	149,680

Note:
The Group held a 40% interest in Huizhou Tianxin Petrochemical Engineering Co., Ltd ("Huizhou Tianxin"). In July 2020, the Group disposed of all the interests in Huizhou Tianxin to another shareholder of Huizhou Tianxin for cash proceeds of approximately RMB37,479,000. This transaction has resulted in the Group recognising a gain on disposal of RMB13,072,000 in profit or loss, calculated as follows:

	RMB'000
Proceeds of disposal	37,479
Less:	
Cost of investment in associate	(24,407)
Gain on disposal	13,072

The Group's associates, all of which are unlisted and established in a form of limited company, are as follows:

Name	Establishment/Place of incorporation	Registered and fully paid capital	Indirect effective interest held	Principal activities and place of operations
		RMB'000		
China Petrochemical Technology Co., Ltd. (中國石油化工科技開發有限公司)[1]	The PRC	50,000 (2020: 50,000)	35.00% (2020:35.00%)	Technical development, Technical service/The PRC
Shanghai KSD Bulk Solids Engineering Co., Ltd. (上海金申德粉體工程有限公司)[2]	The PRC	5,500 (2020: 5,500)	36.36% (2020: 36.36%)	Powder engineering services/The PRC

The above associates are accounted for by using the equity method.

(1) The Group's share of the results of China Petrochemical Technology Co., Ltd., its aggregated assets and liabilities, are as follows:

	2021	2020
	RMB'000	RMB'000
Current assets	**1,475,754**	1,311,532
Non-current assets	**60,292**	31,709
Total assets	**1,536,046**	1,343,241
Current liabilities	**1,132,155**	959,949
Non-current liabilities	**34**	31
Total liabilities	**1,132,189**	959,980
Equity attributable to equity holders	**364,805**	348,730
Non-controlling interests	**39,052**	34,531
	403,857	383,261
Share of equity by the Group (35%) (2019: 35%)	**127,682**	122,056

20. Investment in a Joint Arrangement and Associates (Continued)

(b) Investments in associates (Continued)

(1) The Group's share of the results of China Petrochemical Technology Co., Ltd., its aggregated assets and liabilities, are as follows: (Continued)

	2021 RMB'000	2020 RMB'000
Revenue	**626,337**	640,083
Profit and total comprehensive income for the year attributable to equity holders	**36,075**	25,107
Profit and total comprehensive income for the year attributable to non-controlling interest holders	**5,771**	5,594
Share of total comprehensive income (35%) (2020: 35%)	**12,626**	8,787

For the years ended 31 December 2021, China Petrochemical Technology Co., Ltd. declares dividends of RMB7,000,000 (2020: None).

(2) The Group's share of the results of Shanghai KSD Bulk Solids Engineering Co., Ltd., its aggregated assets and liabilities, are as follows:

	2021 RMB'000	2020 RMB'000
Current assets	**207,814**	158,641
Non-current assets	**1,516**	1,553
Total assets	**209,330**	160,194
Current liabilities	**123,402**	84,215
Non-current liabilities	**5**	4
Total liabilities	**123,407**	84,219
Equity	**85,923**	75,975
Share of equity by the Group (36.36%) (2020: 36.36%)	**31,242**	27,625

	2021 RMB'000	2020 RMB'000
Revenue	**128,867**	65,780
Profit and total comprehensive income for the year	**12,698**	12,308
Share of total comprehensive income (36.36%) (2020: 36.36%)	**4,609**	4,474

For the year ended 31 December 2021, Shanghai KSD Bulk Solids Engineering Co., Ltd. declares dividends of RMB1,000,000 (2020: RMB2,000,000).

There are no material contingent liabilities and commitments relating to the Group's interests in the associates and no material contingent liabilities and commitments of the associates themselves.

21. Notes and Trade Receivables

	2021 RMB'000	2020 RMB'000
Trade receivables		
Fellow subsidiaries	1,810,551	2,486,417
Joint ventures of fellow subsidiaries	445,412	513,944
Associates of fellow subsidiaries	323,414	39,031
Associates	2,473	–
Third parties	5,522,787	6,104,710
	8,104,637	9,144,102
Less: ECL allowance for impairment	(2,303,492)	(1,541,497)
Trade receivables – net	5,801,145	7,602,605
Notes receivables	1,052,371	821,783
Notes and trade receivables – net	6,853,516	8,424,388

The carrying amounts of the Group's notes and trade receivables as at 31 December 2021 and 31 December 2020 approximate their fair values.

All notes receivables of the Group are bank's acceptance bills and commercial's acceptance bills and usually collected within six months from the date of issue.

The Group usually provides customers with a credit term between 15 and 180 days. For the settlement of trade receivables from provision of services, the Group usually reaches an agreement on the term of each payment with the customer by taking into account of factors such as, among other things, the credit history of the customer, its liquidity position and the Group's working capital needs, which varies on a case-by-case basis that requires the judgment and experience of the management. The Group does not hold any collateral as security.

21. Notes and Trade Receivables (Continued)

Ageing analysis of notes and trade receivables, net of ECL allowance, by invoice date is as follows:

	2021	2020
	RMB'000	RMB'000
Within 1 year	6,169,387	6,606,543
Between 1 and 2 years	457,188	1,316,446
Between 2 and 3 years	160,573	391,939
Between 3 and 4 years	25,288	33,511
Between 4 and 5 years	9,987	32,830
Over 5 years	31,093	43,119
	6,853,516	8,424,388

The movements of ECL allowance on trade receivables are as follows:

	2021	2020
	RMB'000	RMB'000
At the beginning of the year	1,541,497	1,346,804
ECL allowance	996,625	390,643
Receivables written off as uncollectible	(2,598)	(75)
Reversal	(232,032)	(195,875)
At the end of the year	2,303,492	1,541,497

During the year ended 31 December 2021, the Group has performed an individual assessment on those trade debtors with significant outstanding balances, some trade receivables has provided full ECL allowance in light of the severe financial difficulty and long default payment record, this led to a significant change in the ECL allowance on trade receivables.

The carrying amounts of the Group's notes and trade receivables are denominated in the following currencies:

	2021	2020
	RMB'000	RMB'000
RMB	6,162,544	7,720,739
USD	18,253	56,854
SAR	314,181	372,066
KWD	285,725	270,950
MYR	47,955	–
RUB	18,038	3,465
Others	6,820	314
	6,853,516	8,424,388

22. Prepayments and Other Receivables

	2021 RMB'000	2020 RMB'000
Prepayments		
Prepayments for fellow subsidiaries	1,476,856	1,804,424
Prepayments for associates	–	6,336
Prepayments for joint ventures of fellow subsidiaries	385	385
Prepayments for associates of fellow subsidiaries	3	–
Prepayments for construction	1,190,350	1,096,386
Prepayments for materials and equipment	3,566,695	3,053,850
Prepayments for labour costs	10,315	6,157
Prepayments for rent	12,449	1,287
Others	86,378	80,687
	6,343,431	6,049,512
Other receivables		
Amounts due from fellow subsidiaries(1)	16,891	47,519
Amounts due from joint ventures of fellow subsidiaries(1)	245,495	153,990
Amounts due from associates of fellow subsidiaries(1)	190,787	247,138
Dividends receivable	10,000	7,600
Interests receivable	402,177	311,101
Petty cash funds	5,321	6,919
Other guarantee deposits and deposits	121,458	118,238
Payment in advance	237,969	246,109
Maintenance funds	64,393	67,557
Value-added tax credit	249,100	321,294
Prepaid value-added tax	105,075	33,833
Prepaid income tax	85,786	85,230
Value-added tax to be certified	9,571	11,063
Land disposal	827	36,515
Others	78,234	94,892
	1,823,084	1,788,998
Less: ECL allowance for impairment	(108,093)	(132,725)
Prepayments and other receivables – net	8,058,422	7,705,785

(1) The amounts due from related parties are unsecured, interest free and repayable on demand.

The carrying amounts of the Group's prepayments and other receivables as at 31 December 2021 and 31 December 2020 approximate their fair values.

The movements of ECL allowance on other receivables are as follows:

	2021 RMB'000	2020 RMB'000
At the beginning of the year	132,725	129,110
ECL allowance	24,464	30,448
Write-off of irrecoverable receivable	(1,958)	(332)
Reversal	(47,138)	(26,501)
At the end of the year	108,093	132,725

23. Contract Assets and Contract Liabilities

(a) Contract assets

	2021	2020
	RMB'000	RMB'000
Contract assets arising from construction contracts	10,273,333	8,826,268

Typical payment terms which impact on the amount of contract assets recognised are as follows:

The Group's construction contracts include payment schedules which require progress payments over the construction period once certain specified milestones are reached. The Group requires customers to pay deposits, normally 10% of total contract sum, as part of its credit risk management policies. The Group also agrees to have 1 to 2 years retention period for, normally 5% of the contract value. This amount is included in contract assets until the end of retention period as the Group's entitlement to this final payment is conditional on the Group's satisfactory work.

The amount of contract assets that is expected to be recovered after more than one year is RMB648,903,000 (2020: RMB474,762,000), all of which relates to retentions.

The movements of ECL allowance on contract assets are as follows:

	2021	2020
	RMB'000	RMB'000
At the beginning of the year	214,459	193,086
ECL allowance	267,663	79,487
Reversal	(16,160)	(57,493)
Write-off of irrecoverable contract assets	–	(621)
At the end of the year	465,962	214,459

(b) Contract liabilities

	2021	2020
	RMB'000	RMB'000
Contract liabilities arising from construction contracts	17,485,967	15,511,149

Notes:
When the Group receives a deposit before the production activity commences, this will give rise to contract liabilities at the start of a contract until the revenue recognised on the project exceeds the amount of the deposit.

The balance of contract liabilities as at 1 January 2021 is RMB15,511,149,000 (2020: RMB13,314,941,000), in which RMB12,884,276,000 (2020: RMB12,292,559,000) was recognised as revenue during the year.

Unsatisfied performance obligation:

The Group has signed construction contracts with a number of clients to provide construction services for a certain period of time in the future. These contracts normally constitute a single performance obligation as a whole. As at 31 December 2021, part of the construction projects of the Group was still in the process, and the total transaction price apportioned to the unsatisfied performance obligation was RMB111,045,177,000 (2020: RMB105,654,607,000), the amount of which was related to the progress of the performance of each construction contract, and will be recognised as revenue in accordance with the percentage of work performed in the future.

24. Inventories

	2021	2020
	RMB'000	RMB'000
Raw materials	259,480	1,120,990
Turnover materials	215,393	226,162
Goods in transit	5,058	970
	479,931	1,348,122

As at 31 December 2021 and 31 December 2020, no provision for impairment on inventories of the Group has been made.

For the year ended 31 December 2021 and 2020, the cost of inventories recognised as expense and included in cost of sales amounted to RMB20,445,779,000 and RMB19,907,162,000 respectively.

25. Loans Due from the Ultimate Holding Company

Loans due from the ultimate holding company are unsecured, repayable within one year and interest bearings as follows:

	2021	2020
Loans due from the ultimate holding company	3.60%	3.60%

26. Restricted Cash

	2021	2020
	RMB'000	RMB'000
Restricted cash		
– RMB	109,685	36,661

Restricted cash mainly represented restricted funds frozen by the order of Justice, bank deposits for guarantees and deposit for farmers' salaries.

As at 31 December 2021 and 31 December 2020, the weighted average effective interest rates per annum on restricted cash with maturities ranging from one to twelve months was determined in accordance with the interest rate per annum of bank current account.

The maximum exposure to credit risk approximates to carrying amounts of the Group's restricted cash at the end of the respective reporting periods.

27. Time Deposits

	2021	2020
	RMB'000	RMB'000
Time deposits with initial term over three months:		
Time deposits in banks	6,701,030	6,726,574
Time deposits in fellow subsidiaries	1,656,583	1,546,861
	8,357,613	8,273,435

	2021	2020
	RMB'000	RMB'000
Denominated in:		
– RMB	6,239,654	6,252,175
– USD	1,694,342	1,795,652
– MYR	276,323	225,608
– KWD	147,294	–
	8,357,613	8,273,435

The fellow subsidiaries are Sinopec Finance Co., Ltd. and Sinopec Century Bright Capital Investment Limited.

The effective interest rates per annum on time deposits, with maturities of three months to three years (2020: three months to five years), are approximately 0.16% to 4.13% as at 31 December 2021 (2020: 0.17% to 3.40%).

The maximum exposure to credit risk approximates to carrying amounts of the Group's time deposits at the end of the respective reporting periods.

28. Cash and Cash Equivalents

	2021 RMB'000	2020 RMB'000
Cash at bank and in hand		
– less than three months time deposits	1,220,933	594,824
– cash deposits	3,171,962	1,600,617
	4,392,895	2,195,441
Deposits in fellow subsidiaries		
– less than three months time deposits	324,264	117,447
– cash deposits	5,588,017	6,127,869
	5,912,281	6,245,316
	10,305,176	8,440,757

	2021 RMB'000	2020 RMB'000
Denominated in:		
– RMB	7,163,971	5,683,300
– USD	1,117,003	1,158,955
– SAR	219,777	575,244
– EUR	677,638	287,378
– KWD	330,093	454,373
– THB	23,640	20,484
– MYR	58,837	54,782
– RUB	561,753	16,457
– IRR	149,798	185,389
– Others	2,666	4,395
	10,305,176	8,440,757

The fellow subsidiaries are Sinopec Finance Co., Ltd. and Sinopec Century Bright Capital Investment Limited.

As at 31 December 2021 and 31 December 2020, the weighted average effective interest rates per annum on cash at bank are determined in accordance with the interest rate per annum of bank current account.

The effective interest rates per annum on deposits less than three months, with maturities of seven days to three months (2020: seven days to three months), are approximately 0.00% to 6.90% as at 31 December 2021 (2020: 0.10% to 1.50%).

The maximum exposure to credit risk approximates the carrying amounts of cash and cash equivalents at the end of the respective reporting periods.

29. Share Capital

	As at 31 December 2021		As at 31 December 2020	
	Number of shares	Share capital	Number of shares	Share capital
		RMB'000		RMB'000
Registered, issued and fully paid				
– Domestic shares of RMB1.00 each[1]	**2,967,200,000**	**2,967,200**	2,967,200,000	2,967,200
– H Shares of RMB1.00 each	**1,460,800,000**	**1,460,800**	1,460,800,000	1,460,800
	4,428,000,000	**4,428,000**	4,428,000,000	4,428,000

(1) The 2,967,200,000 domestic shares comprise as follows:
(a) 2,907,856,000 shares are held by Sinopec Group; and
(b) 59,344,000 shares are held by SAMC (a fellow subsidiary).

30. The Statement of Financial Position, the Statement of Changes in Equity and Reserves of the Company

(i) The statement of financial position of the Company

	2021	2020
	RMB'000	RMB'000
ASSETS		
Non-current assets		
Property, plant and equipment	**135,181**	158,088
Right-of-use assets	**76,925**	100,900
Intangible assets	**139,092**	130,189
Investment in subsidiaries	**7,920,086**	7,848,422
Deferred income tax assets	**4,748**	3,566
Total non-current assets	**8,276,032**	8,241,165
Current assets		
Inventories	**116**	61
Notes and trade receivables	**25,262**	73,285
Prepayments and other receivables	**1,334,454**	1,003,902
Contract assets	**26,030**	21,025
Loans due from the ultimate holding company	**20,500,000**	21,000,000
Time deposits	**6,782,069**	6,897,414
Cash and cash equivalents	**6,201,983**	4,919,113
Total current assets	**34,869,914**	33,914,800
Total assets	**43,145,946**	42,155,965

30. The Statement of Financial Position, the Statement of Changes in Equity and Reserves of the Company (Continued)

(i) The statement of financial position of the Company (Continued)

	2021	2020
	RMB'000	RMB'000
Equity		
Share capital	4,428,000	4,428,000
Reserves	14,770,615	14,430,960
Total equity	19,198,615	18,858,960
LIABILITIES		
Non-current liabilities		
Lease liabilities	6,156	22,440
Retirement and other supplemental benefit obligations	1,494	558
Total non-current liabilities	7,650	22,998
Current liabilities		
Trade payables	559,421	432,286
Other payables	23,168,563	22,620,711
Contract liabilities	46,931	60,464
Lease liabilities	22,575	23,679
Current income tax liabilities	142,191	136,867
Total current liabilities	23,939,681	23,274,007
Total liabilities	23,947,331	23,297,005
Total equity and liabilities	43,145,946	42,155,965
Net current assets	10,930,233	10,640,793
Total assets less current liabilities	19,206,265	18,881,958

Approved and authorised for issue by the board of directors on 18 March 2022.

SUN Lili
Chairwoman of the Board

JIANG Dejun
Director, President

JIA Yiqun
Chief Financial Officer

30. The Statement of Financial Position, the Statement of Changes in Equity and Reserves of the Company (Continued)

(ii) The statement of changes in equity of the Company

	Share capital	Capital reserve	Statutory surplus reserve	Retained earnings	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	4,428,000	11,207,894	1,357,583	1,746,375	18,739,852
Profit for the year	–	–	–	1,616,177	1,616,177
Other comprehensive income:					
Defined benefits obligation revaluation of actuarial gain and loss – gross	–	–	–	20	20
Defined benefits obligation revaluation of actuarial gain and loss – tax	–	–	–	(5)	(5)
Exchange differences arising on foreign operations	–	–	–	(57,984)	(57,984)
Total comprehensive income	–	–	–	1,558,208	1,558,208
Transactions with owners:					
Final dividends for 2019	–	–	–	(938,736)	(938,736)
Interim dividends for 2020	–	–	–	(500,364)	(500,364)
Transfer to Statutory surplus reserve	–	–	113,415	(113,415)	–
Total transactions with owners	–	–	113,415	(1,552,515)	(1,439,100)
At 31 December 2020 and 1 January 2021	**4,428,000**	**11,207,894**	**1,470,998**	**1,752,068**	**18,858,960**
Profit for the year	**–**	**–**	**–**	**1,589,370**	**1,589,370**
Other comprehensive income:					
Defined benefits obligation revaluation of actuarial gain and loss – gross	**–**	**–**	**–**	**4**	**4**
Defined benefits obligation revaluation of actuarial gain and loss – tax	**–**	**–**	**–**	**(1)**	**(1)**
Exchange differences arising on foreign operations	**–**	**–**	**–**	**(18,734)**	**(18,734)**
Total comprehensive income	**–**	**–**	**–**	**1,570,639**	**1,570,639**
Transactions with owners:					
Final dividends for 2020	**–**	**–**	**–**	**(828,036)**	**(828,036)**
Interim dividends for 2021	**–**	**–**	**–**	**(402,948)**	**(402,948)**
Transfer to Statutory surplus reserve	**–**	**–**	**35,181**	**(35,181)**	**–**
Total transactions with owners	**–**	**–**	**35,181**	**(1,266,165)**	**(1,230,984)**
At 31 December 2021	**4,428,000**	**11,207,894**	**1,506,179**	**2,056,542**	**19,198,615**

30. The Statement of Financial Position, the Statement of Changes in Equity and Reserves of the Company (Continued)

(iii) Distributable profits

The distributable profits of the Company are as follows:

	2021	2020
	RMB'000	RMB'000
Distributable profits	**2,056,542**	1,752,068

(iv) Statutory surplus reserve

In accordance with the relevant laws and regulations of the PRC and the articles of association of the Company, it is required to appropriate 10% of its net profit determined in accordance with China Accounting Standards for Enterprises issued by the Ministry of Finance of PRC, after offsetting any prior years' losses, to the statutory surplus reserve. When the balance of such a reserve reaches 50% of the respective companies registered capital, any further appropriation is optional. The reserve must be made before distribution of dividends to shareholders.

The statutory surplus reserve can be used to offset prior years' losses, if any, and may be converted into share capital by issuing new shares to shareholders in proportion to their existing shareholding or by increasing the par value of the shares currently held by them, provided that the remaining balance of the reserve after such an issue is not less than 25% of registered capital. The statutory surplus reserve is non-distributable.

(v) Capital reserve

Capital reserve arising from event-driven revaluation represented reserve recognised due to the revaluation arising from the Reorganisation, being the excess of fair value over carrying value net of the deferred tax liabilities. Apart from the above mentioned event-driven revaluation, capital reserve included transactions with holding company such as assets transferred from/ to Sinopec Group and also the share premium account and the fair value change arising from the financial assets designated as a fair value through other comprehensive income of associate.

(vi) Specific reserve

Pursuant to certain regulations issued by the State Administration of Work Safety of the PRC, the Group is required to set aside an amount to a safety fund for its engineering and construction contracting business. The fund can be used for improvements of safety at the worksite, and is not available for distribution to shareholders. Upon incurring qualifying safety expenditures, an equivalent amount is transferred from safety fund to retained earnings.

(vii) Exchange translation reserve

Exchange translation reserve represents exchange differences arising on the translation of financial statements of foreign operations and is treated according to accounting policies Note 3.4.

31. Lease Liabilities

	2021	2020
	RMB'000	RMB'000
Total minimum lease payments:		
Due within one year	78,264	70,354
Due in the second to fifth years	73,278	82,174
Due after the fifth year	28,337	32,922
	179,879	185,450
Future finance charges on leases liabilities	(18,149)	(21,507)
Present value of leases liabilities	161,730	163,943
Present value of minimum lease payments:		
Due within one year	73,489	66,314
Due in the second to fifth years	65,334	73,020
Due after the fifth year	22,907	24,609
	161,730	163,943
Less:		
Portion due within one year included under current liabilities	(73,489)	(66,314)
Portion due after one year included under non-current liabilities	88,241	97,629

During the year ended 31 December 2021, the Group entered into a number of lease agreements for usage of residential properties, office and equipment for 1 to 20 years (2020: 1 to 20 years). The Group makes fixed payments and additional variable payments depends on the usage of the buildings, plant and machinery, transportation equipment and other equipment during the contract period. On lease commencement, the Group recognised right-of-use assets included in property, plant equipment and lease liabilities amounting to RMB49,637,000 (2020: RMB46,383,000).

During the year ended 31 December 2021, the total cash outflows for the leases are RMB402,619,000 (2020: RMB457,709,000).

Details of the lease activities

As at 31 December 2021, the Group has entered into leases for office and staff quarter.

Types of right-of-use assets	Financial statements items of right-of-use assets included in	Number of leases	Range of remaining lease term
Office and staff quarter	Building and other facilities carried at cost in "property, plant and equipment"	89 (2020:76)	1 to 10 years (1 to 12 years)
Land use rights in PRC	Prepaid land use rights payments	133 (2020: 114)	22 to 61 years (2020: 22 to 62 years)

The Group considered that no extension option or termination option would be exercised at the lease commencement date.

32. Retirement and Other Supplemental Benefit Obligations

(a) State-managed retirement plan

For the year ended 31 December 2021, the Chinese employees of the Group participate in employee social security plans organised and administrated by the PRC government authority. The PRC companies are required to contribute from 14% to 19%, (2020: 14% to 19%) depending on the applicable legal regulations, of salaries, wages and bonuses to the state-managed retirement plans. The obligation of these PRC companies with respect to the state-managed retirement plans is to make the specified contributions (Note 16(1)).

The total costs charged to the consolidated statement of comprehensive income during the years ended 31 December 2021 and 2020 are as follows:

	2021	2020
	RMB'000	RMB'000
Contributions to state-managed retirement plan	754,366	608,716

32. Retirement and Other Supplemental Benefit Obligations (Continued)

(b) Group employee retirement benefit plans

The Group has implemented a retirement benefit plan to employees in the PRC who were retired on or before 30 June 2012. Such supplementary pension subsidies are considered to be defined benefit plans as the Group is obligated to provide post-employment benefits to these employees.

According to the plans, such employees after retirement can enjoy retirement pension, welfare allowance, part of medical expenses claim, living expenses and insurance and housing fund and other benefits. The employees' lifetime is guaranteed by the plans.

The exposure to actuarial risks of the Group's retirement benefit plans include: discount rate risk, benefit growth rate risk.

The Group is not obligated to provide post-employment benefits to incumbent employees.

The most recent actuarial valuation as at 31 December 2021 was performed by an independent qualified actuarial firm: Towers Watson Management Consulting (Shenzhen) Co., Ltd. Beijing Branch. The present value, related current service cost and past service cost of the Group's retirement benefit plan obligation are prepared by qualified actuary using the projected unit credit actuarial cost method.

(i) Discount rates adopted (per annum):

	2021	2020
Retirement with honors benefit plan	**2.50%**	3.00%
Retirement benefit plan	**3.00%**	3.25%
Early retirement benefit plan	**2.50%**	3.00%

(ii) Benefit growth rates (per annum):

	2021	2020
Retirement with honors benefit plan	**1.70%**	1.70%
Retirement benefit plan	**2.60%**	2.50%
Early retirement benefit plan	**1.70%**	1.50%

(iii) Duration:

	2021	2020
Retirement with honors benefit plan	**5.0 years**	5.0 years
Retirement benefit plan	**14.0 years**	14.0 years
Early retirement benefit plan	**3.0 years**	4.0 years

The below sensitivity analysis details how the Group's retirement benefit plan obligation as at the reporting date would have increased/(decreased) as a result of 0.25% reasonably possible increase or decrease assessed by management in each of the significant actuarial assumptions:

	As at 31 December 2021 Increase/(decrease) in retirement benefit plan obligation		As at 31 December 2020 Increase/(decrease) in retirement benefit plan obligation	
	Increase in assumption	**Decrease in assumption**	Increase in assumption	Decrease in assumption
	RMB'000	**RMB'000**	RMB'000	RMB'000
Discount rates	**(46,544)**	**48,454**	(48,541)	50,535
Benefit growth rates	**46,397**	**(44,790)**	48,544	(46,855)

The above sensitivity analysis is based on a change in an actuarial assumption while holding all other actuarial assumptions constant. Also, it is based on the assumption that changes in actuarial assumptions are not correlated.

(iv) Mortality: Average life expectancy of residents in the PRC.

(v) Benefit costs paid to the retirees are assumed to continue until the death of the retirees.

32. Retirement and Other Supplemental Benefit Obligations (Continued)

(b) Group employee retirement benefit plans (Continued)

The total costs of retirement benefit plans in the consolidated statement of comprehensive income are as follows:

	Retirement with honors benefit plan	Retirement benefit plan	Early retirement benefit plan	Total
	RMB'000	RMB'000	RMB'000	RMB'000
For the year ended 31 December 2020				
Service costs:				
Past service cost	–	–	26,661	26,661
Net interest expenses	2,028	70,412	4,234	76,674
Immediate recognition of actuarial losses	–	–	1,605	1,605
Benefit cost recognised in profit or loss	2,028	70,412	32,500	104,940
Revaluation of net benefit obligation liabilities				
Actuarial revaluation of economic assumptions change	(1,289)	(37,681)	–	(38,970)
Actuarial revaluation of other assumptions change	(14,895)	(55,713)	–	(70,608)
Benefit cost recognised in other comprehensive income	(16,184)	(93,394)	–	(109,578)
Total benefit cost recognised consolidated statement of comprehensive income	(14,156)	(22,982)	32,500	(4,638)
For the year ended 31 December 2021				
Service costs:				
Past service cost	**–**	**–**	**22,099**	**22,099**
Net interest expenses	**1,232**	**64,097**	**4,111**	**69,440**
Immediate recognition of actuarial losses	**–**	**–**	**11,919**	**11,919**
Benefit cost recognised in profit or loss	**1,232**	**64,097**	**38,129**	**103,458**
Revaluation of net benefit obligation liabilities				
Actuarial revaluation of economic assumptions change	**576**	**62,382**	**–**	**62,958**
Actuarial revaluation of other assumptions change	**(4,091)**	**(37,036)**	**–**	**(41,127)**
Benefit cost recognised in other comprehensive income	**(3,515)**	**25,346**	**–**	**21,831**
Total benefit cost recognised in the consolidated statement of comprehensive income	**(2,283)**	**89,443**	**38,129**	**125,289**

The Group's benefit plans do not include incumbent employees. No current service cost of each benefit plan incurred during each financial period. Meanwhile, the Group's benefit plans do not provide reserve of plan assets, therefore, there is no reserve of earnings from plan assets during each financial year.

Service cost and net interest expenses are recognised in employment benefits, part of the administrative expenses and finance expenses of the consolidated statement of comprehensive income. Revaluation of net liabilities of benefit obligation is recognised as other comprehensive income in the consolidated statement of profit or loss and other comprehensive income.

32. Retirement and Other Supplemental Benefit Obligations (Continued)

(b) Group employee retirement benefit plans (Continued)

As at the end of each reporting period, no assets reserve is under the Group's benefit plans. The net liabilities of retirement benefit plan obligations are recognised in the consolidated statement of financial position as follows:

	2021	2020
	RMB'000	RMB'000
Net liabilities of retirement benefit plan obligation	**2,154,036**	2,252,789

The movement of retirement benefit plan obligation as follows:

	Retirement with honors benefit plan	Retirement benefit plan	Early retirement benefit plan	Total
	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	72,587	2,240,564	175,775	2,488,926
Past service cost	–	–	26,661	26,661
Net interest expenses	2,028	70,412	4,234	76,674
Immediate recognition of actuarial losses	–	–	1,605	1,605
Revaluation gain/(loss):				
Actuarial revaluation of economic assumptions change	(1,289)	(37,681)	–	(38,970)
Actuarial revaluation of other assumptions change	(14,895)	(55,713)	–	(70,608)
Direct benefit paid by the Group	(13,065)	(168,046)	(50,388)	(231,499)
At 31 December 2020 and 1 January 2021	**45,366**	**2,049,536**	**157,887**	**2,252,789**
Past service cost	**–**	**–**	**22,099**	**22,099**
Net interest expenses	**1,232**	**64,097**	**4,111**	**69,440**
Immediate recognition of actuarial losses	**–**	**–**	**11,919**	**11,919**
Revaluation gain/(loss):				
Actuarial revaluation of economic assumptions change	**576**	**62,382**	**-**	**62,958**
Actuarial revaluation of other assumptions change	**(4,091)**	**(37,036)**	**-**	**(41,127)**
Direct benefit paid by the Group	**(11,251)**	**(160,863)**	**(51,928)**	**(224,042)**
At 31 December 2021	**31,832**	**1,978,116**	**144,088**	**2,154,036**

The Group has no reserve of plan assets, no capital injection of plan assets is established and no future contribution is arranged.

33. Provision For Litigation Claims

	2021 RMB'000	2020 RMB'000
Beginning of the year	**186,593**	196,945
Exchange difference	**(4,014)**	(8,508)
Payment	**(1,287)**	(1,844)
End of the year	**181,292**	186,593

The amounts represented the provision provided by a subsidiary of the Group for litigation.

The subsidiary of the Group has been sued during Year 2007 to Year 2009 due to a construction contract disputes and the case is ongoing process. The management of the Group has calculated all provision for the expected compensation incurred in accordance with the progress and solutions of the case.

For the years ended December 2021 and 2020, no additional provision for litigation claims is provided.

34. Notes and Trade Payables

	2021 RMB'000	2020 RMB'000
Trade payables		
– Fellow subsidiaries	**1,064,598**	919,162
– Associates of fellow subsidiaries	**240**	–
– Joint ventures of fellow subsidiaries	**1,769**	1,326
– Associates	**1,477**	195
– Third parties	**17,298,198**	18,733,926
	18,366,282	19,654,609
Notes payables	**2,023,775**	2,021,278
Notes and trade payables	**20,390,057**	21,675,887

The carrying amounts of the Group's notes and trade payables as at 31 December 2021 and 31 December 2020 approximate their fair values.

Ageing analysis of notes and trade payables based on invoice date is as follows:

	2021 RMB'000	2020 RMB'000
Within 1 year	**16,232,436**	17,839,807
Between 1 and 2 years	**2,100,996**	2,155,967
Between 2 and 3 years	**1,116,808**	818,865
Over 3 years	**939,817**	861,248
	20,390,057	21,675,887

34. Notes and Trade Payables (Continued)

The carrying amounts of notes and trade payables are denominated in the following currencies:

	2021	2020
	RMB'000	RMB'000
RMB	19,530,933	20,739,337
USD	55,447	61,298
EUR	1,251	18,957
KZT	4,221	3,894
SAR	392,183	683,160
RUB	206,706	2,630
KWD	63,654	76,102
MYR	94,149	64,649
AED	30,195	15,534
THB	11,318	10,326
	20,390,057	21,675,887

35. Other Payables

	2021	2020
	RMB'000	RMB'000
Salaries payables	422,844	293,607
Other taxation payables	612,686	621,526
Output value-added tax to be recognised	5,964	11,095
Payable of separation and transfer of "Water/electricity/gas supply and property management"	21,834	36,591
Deposits and guarantee deposits payables	71,677	58,498
Advanced payables	968,843	1,100,821
Rent, property management and maintenance payables	93,507	106,234
Contracts payables	351,170	305,972
Amounts due to ultimate holding company(1)	192	197
Amounts due to fellow subsidiaries(1)	264,958	285,451
Amounts due to a joint venture(1)	71	7
Amounts due to joint ventures of fellow subsidiaries(1)	–	4,961
Amounts due to associates of fellow subsidiaries(1)	888	888
Interest payables	214	714
Others	71,978	70,531
Total other payables	2,886,826	2,897,093

Note:
(1) Amounts due to related parties are unsecured, interest free and repayable on demand.

The carrying amounts of the Group's other payables as at 31 December 2021 and 31 December 2020 approximate their fair values.

36.Deferred Income Tax Assets

Deferred income tax assets recognised:

	2021	2020
	RMB'000	RMB'000
Deferred income tax assets	843,162	709,030

The gross movement on the deferred income tax account is as follows:

	2021	2020
	RMB'000	RMB'000
At the beginning of the year	709,030	738,052
Credited/(charged) to equity for defined benefit obligations revaluation of actuarial gain or loss	3,591	(19,302)
Tax credited/(charged) to profit for the year (Note 12)	130,541	(9,720)
At the end of the year	843,162	709,030

The movement in deferred income tax assets during the years ended 31 December 2021 and 2020, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

Deferred income tax assets

	Provision for retirement and other supplemental benefit obligation	Provision for impairment on assets	Others	Total
	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2020	422,530	282,255	33,267	738,052
Credited/(Charged) to:				
Loss/(profit) for the year	(35,017)	29,570	(4,273)	(9,720)
Equity	(19,302)	–	–	(19,302)
At 31 December 2020 and 1 January 2021	368,211	311,825	28,994	709,030
Credited/(Charged) to:				
Loss/(profit) for the year	**(15,899)**	**147,506**	**(1,066)**	**130,541**
Equity	**3,591**	**–**	**–**	**3,591**
At 31 December 2021	**355,903**	**459,331**	**27,928**	**843,162**

Deferred income tax assets not recognised

Deferred income tax assets are recognised for tax losses carried-forward to the extent that the realisation of the related income tax benefits through the future taxable profits is probable. In accordance with the PRC tax law applicable to those companies in their respective jurisdictions, tax losses may be carried forward against future taxable income. Deferred income tax assets not recognised in the Group is as follows:

	2021	2020
	RMB'000	RMB'000
Tax losses for which no deferred income tax asset was recognised	959,394	1,322,717

The Group did not recognise deferred income tax assets as the management believes it is not likely that such tax losses would be realised before they expire. The tax loss for which no deferred income tax assets recognised mentioned would be expired in five years.

37. Loan Due to a Fellow Subsidiary

Loan due to a fellow subsidiary is unsecured, repayable within one year and interest bearing at 1% to 2.16% (2020: 1.52% to 1.88%) per annum. The fellow subsidiary is Sinopec Century Bright Capital Investment Limited.

38. Cash-Settled Share-Based Payment

Pursuant to the announcement in relation to the approval of the proposed initial terms of H share appreciation rights scheme by the State-owned Assets Supervision and Administration Commission of the State Council of the PRC (the "SASAC") on 12 December 2017 and the resolution passed at the second extraordinary general meeting for the year 2017 dated 20 December 2017, the proposed adoption of the H share appreciation rights scheme and the proposed initial grant have been approved at the second extraordinary general meeting.

According to the Company's H Share appreciation rights scheme, the Company granted 13,143,000 units of cash settled H share appreciation rights to a total of 89 incentive recipients on 20 December 2017. The H Share appreciation rights are valid for 10 years from the date of grant. Subject to a lock-up period of two years following the date of grant, H share appreciation rights should be exercised from the second anniversary of the date of grant in 3 years on equal proportion, subject to the following conditions:

Conditions based on the Group's performance:

Effective Phases	Performance Evaluation Targets
First Effective Phase	• the ROE of the financial year immediately before the year of the effective date shall not be lower than 10.0% and shall not be lower than 75 percentile of such growth rate of revenue of benchmark companies; • the growth rate of revenue of the financial year immediately before the effective date as compared with that of the financial year immediately before the grant shall not be lower than 14.2% and shall not be lower than 75 percentile of such growth rate of revenue of benchmark companies; • the EVA of the financial year immediately before the year of the effective date shall not be less than RMB2.099 billion.
Second Effective Phase	• the ROE of the financial year immediately before the year of the effective date shall not be lower than 10.0% and shall not be lower than 75 percentile of such growth rate of revenue of benchmark companies; • the growth rate of revenue of the financial year immediately before the effective date as compared with that of the financial year immediately before the grant shall not be lower than 21.6% and shall not be lower than 75 percentile of such growth rate of revenue of benchmark companies; • the EVA of the financial year immediately before the effective date shall not be less than RMB2.233 billion.
Third Effective Phase	• the ROE of the financial year immediately before the year of the effective date shall not be lower than 10.0% and shall not be lower than 75 percentile of such growth rate of revenue of benchmark companies; • the growth rate of revenue of the financial year immediately before the effective date as compared with that of the financial year immediately before the grant shall not be lower than 29.3% and shall not be lower than 75 percentile of such growth rate of revenue of benchmark companies; • the EVA of the financial year immediately before the effective date shall not be less than RMB2.373 billion.

If the aforementioned conditions based on the Group's performance are satisfied, the H share appreciation rights granted to the incentive recipients shall become effective as determined based on the following:

- If the incentive recipient's performance evaluation rating for the previous year is "A", then 100% of the share appreciation rights in the relevant phase shall become effective;
- If the incentive recipient's performance evaluation rating for the previous year is "B", then 90% of the share appreciation rights in the relevant phase shall become effective;
- If the incentive recipient's performance evaluation rating for the previous year is "C", then 30% of the share appreciation rights in the relevant phase shall become effective;
- If the incentive recipient's performance evaluation rating for the previous year is "D", irrespective of whether the Company has satisfied the performance conditions or not, all the share appreciation rights in the relevant phase shall lapse; or
- If the incentive recipient does not satisfy the condition precedent set out above, then the share appreciation rights granted to such incentive recipient for the corresponding effective phase shall lapse.

As at 31 December 2021, the Group did not have any outstanding exercisable H share appreciation rights and any liability arising from H share appreciation rights.

As at 31 December 2020, the conditions to effect the H share appreciation rights in the Third Effective Phase of 4,468,620 units (representing 34% of the H share appreciation rights) were not fulfilled. Therefore, those H share appreciation rights have be lapsed

At 31 December 2020, the Group did not record any liabilities, which RMB6,344,000 was reversed in accrued charges during the year in respect of the lapse of H Share appreciation rights.

39. Commitments

(a) Capital commitments

Capital commitments for the purchase of property, plant and equipment outstanding as at 31 December 2021 and 31 December 2020 not provided for in the consolidated financial statements are as follows:

	2021	2020
	RMB'000	RMB'000
Contracted but not provided for		
– Property, plant and equipment	**6,922**	2,193

39. Commitments (Continued)

(b) Operating leasing commitments

At the reporting date, the lease commitments for short-term leases are as follows:

	2021	2020
	RMB'000	RMB'000
Less than 1 year	58,100	58,789

As at 31 December 2021 and 31 December 2020, the Group leases a number of residential properties, offices and equipment with a lease period of 6 to 12 months, which are qualified to be accounted for under short-term lease exemption under IFRS 16.

40. Cash Generated from Operations

	2021	2020
	RMB'000	RMB'000
Profit before taxation	2,592,407	3,010,562
Adjustments for:		
Provision for ECL on trade and other receivables		
and contract assets, net	993,422	225,442
Cash-settled share-based reversal	–	(6,344)
Depreciation of property, plant and equipment	640,524	458,904
Depreciation of right-of-use assets	169,774	130,680
Amortisation of intangible assets	63,823	59,948
Net gains on disposal/write-off of property, plant and equipment	(51,342)	(17,215)
Gain on disposal of investment in an associate	–	(13,072)
Net losses/(gains) on disposal/write-off land use rights and intangible assets	163	(846)
(Gains)/losses on separation and transfer of property, plant and equipment and land use rights	(5,949)	17,973
Interest income	(954,622)	(881,495)
Interest expense	82,796	90,390
Net foreign exchange losses	82,990	137,526
Share of (profit)/loss of a joint arrangement	(1,448)	41
Share of profit of associates	(9,235)	(15,119)
Cash flows from operating activities before changes in working capital	3,603,303	3,197,375
Changes in working capital:		
– Inventories	868,191	(154,642)
– Contract assets	(1,698,568)	(762,326)
– Contract liabilities	1,974,818	2,196,208
– Notes, trade and other receivables	242,293	(1,229,794)
– Notes, trade and other payables	(1,725,123)	151,912
– Restricted cash	(73,024)	1,426
Cash generated from operations	3,191,890	3,400,159

41. Contingencies

The Group has been named in a number of lawsuits and other legal proceedings arising in the ordinary course of business. Provisions have been made for the probable losses to the Group on those claims when management can reasonably estimate the outcome of the lawsuits based on management's judgments and the legal advice. No provision has been made for pending lawsuits when the outcome of the lawsuits cannot be reasonably estimated or management believes the outflow of resources is not probable.

It is not anticipated that any material liabilities will arise from the contingent liabilities other than those provided for (Note 33).

42. Significant Related Party Transactions and Balances

Parties are considered to be related to the Group if the Group has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group and the party are subject to control or common control. Related parties may be individuals (being members of key management personnel, significant shareholders and/or their close family members) or other entities and include entities which are under the significant influence of related parties of the Group where those parties are individuals, and post-employment benefit plans which are for the benefit of employees of the Group or of any entity that is a related party of the Group.

In addition to the related party information shown elsewhere in this report, the following is a summary of significant related party transactions entered into in the ordinary course of business between the Group and its related parties during the year ended 31 December 2021 and 2020 and balances as at 31 December 2021 and 31 December 2020.

The transactions with related parties are carried out on pricing and settlement terms agreed with counter parties in the ordinary course of business.

(a) Significant related party transactions and year end balances arising with the Sinopec Group, fellow subsidiaries, associates, joint ventures of fellow subsidiaries and associates of fellow subsidiaries:

	2021	2020
	RMB'000	RMB'000
Construction and services provided to		
– Ultimate holding company	**2,528**	75
– Joint ventures of fellow subsidiaries	**4,271,409**	10,470,908
– Associates of fellow subsidiaries	**1,825,310**	222,436
– Fellow subsidiaries	**31,687,423**	22,215,907
– Associates	**31,909**	22,621
– Joint ventures	**236**	–
	37,818,815	32,931,947
Construction and services received from		
– Ultimate holding company	**19,236**	12,251
– Joint ventures of fellow subsidiaries	**3,378**	1,121
– Associates of fellow subsidiaries	**1,487**	–
– Fellow subsidiaries	**3,574,878**	3,458,883
– Associates	**13,962**	184
	3,612,941	3,472,439
Technology research and development provided to		
– Ultimate holding company	**23,098**	8,401
– Fellow subsidiaries	**40,486**	185,753
– Associates	**87,848**	–
	151,432	194,154
General services provided to		
– Joint ventures of fellow subsidiaries	**1,656**	–
– Fellow subsidiaries	**4,804**	–
	6,460	–
General services received from		
– Fellow subsidiaries	**61,742**	34,748
Interest income on loans		
– Ultimate holding company	**711,024**	617,893
Interest expense on borrowings		
– Fellow subsidiaries	**4,323**	2,956
Expenses in relation to settlement and other financial services		
– Fellow subsidiaries	**1,835**	1,824
Deposit interest income from fellow subsidiaries	**55,500**	68,415

42. Significant Related Party Transactions and Balances (Continued)

(a) Significant related party transactions and year end balances arising with the Sinopec Group, fellow subsidiaries, associates, joint ventures of fellow subsidiaries and associates of fellow subsidiaries (Continued):

	2021	2020
	RMB'000	RMB'000
Deposits and time deposits placed in fellow subsidiaries	7,568,864	7,792,177

The majority of these significant related party transactions with Sinopec Group and fellow subsidiaries also constitute continuing connected transactions as defined under Chapter 14A of the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange.

Apart from transactions with Sinopec Group, fellow subsidiaries, associates, joint ventures of fellow subsidiaries and associates of fellow subsidiaries, the Group has transactions with other state-owned enterprises including but not limited to the following:

– Sales and purchases of goods and services;

– Purchases of assets;

– Lease of assets; and

– Bank deposits and borrowings.

In the ordinary course of business, the Group sells goods and services to, and purchase goods and services from other state-owned enterprises based on terms as set out in the underlying agreements, market price or actual cost incurred, or as mutually agreed.

In the ordinary course of business, the Group places deposits and borrowings mainly in state-owned financial institutions. The deposits and borrowings are in accordance with terms as set out in the respective agreement, and the interest rates are set at prevailing market rates.

Apart from the disclosure of loans due from the ultimate holding company in Note 25, trade receivables, prepayments and other receivables are unsecured, interest free and repayable on demand.

(b) Key management personnel remuneration

Key management includes directors, supervisors, and other key management personnel to the Board of Directors. The compensation paid or payable to key management for employee services is shown below:

	2021	2020
	RMB'000	RMB'000
Fee	600	600
Basic salaries, other allowances and benefits-in-kind	4,476	5,210
Discretionary bonus (i)	7,623	8,313
Contributions to pension plans	1,310	1,700
Cash-settled share-based payment	–	–
	14,009	15,823

(i) The Group determines and pays discretionary bonus based on the actual financial results and performance of employee.

43. Reconciliations of Liabilities Arising from Financing Activities

The changes in the Group's liabilities arising from financing activities can be classified as follows:

	Loans due to a fellow subsidiary	Lease liabilities
	RMB'000	RMB'000
At 1 January 2020	–	180,953
Cash-flow:		
– Drawdown	170,140	–
– Capital element of lease rentals paid	–	(118,581)
– Interest element of lease rentals paid	–	(7,736)
Non-cash:		
– Entered into new lease	–	103,454
– Interest expenses	–	8,817
– Modification	–	(1,637)
– Exchange difference	(7,017)	(1,327)
At 31 December 2020 and 1 January 2021	**163,123**	**163,943**
Cash-flow:		
– Drawdown	**173,841**	**–**
– Capital element of lease rentals paid	**–**	**(93,407)**
– Interest element of lease rentals paid	**–**	**(8,578)**
– Repayment	**(269,483)**	**–**
Non-cash:		
– Entered into new lease	**–**	**91,721**
– Interest expenses	**–**	**8,578**
– Modification	**–**	**(514)**
– Exchange difference	**(3,725)**	**(13)**
At 31 December 2021	**63,737**	**161,730**

44. Particulars of Principal Subsidiaries

As at 31 December 2021, the Company has direct and indirect interests in the following principal subsidiaries:

Name	Establishment/Place of incorporation and type of legal entity	Registered and fully paid capital	Effective interest held		Principal activities and place of operation
			Direct held	Indirect held	
		RMB'000			
SEI (中國石化工程建設有限公司)	The PRC/Limited liability company	500,000	100%	–	Engineering contracting, engineering and consulting/The PRC
LPEC (中石化洛陽工程有限公司)	The PRC/Limited liability company	500,000	100%	–	Engineering contracting, engineering and consulting/The PRC
SSEC (中石化上海工程有限公司)	The PRC/Limited liability company	500,000	100%	–	Engineering contracting, engineering and consulting/The PRC
SNEC (中石化寧波工程有限公司)	The PRC/Limited liability company	500,000	100%	–	Engineering contracting, design, equipment manufacturing/The PRC
SNEI (中石化南京工程有限公司)	The PRC/Limited liability company	556,005	100%	–	Engineering contracting, design/The PRC
FCC (中石化第四建設有限公司)	The PRC/Limited liability company	350,000	100%	–	Engineering contracting/The PRC
SFCC (中石化第五建設有限公司)	The PRC/Limited liability company	350,000	100%	–	Engineering contracting/The PRC
TCC (中石化第十建設有限公司)	The PRC/Limited liability company	350,000	100%	–	Engineering contracting/The PRC
Sinopec Guangzhou Engineering Co., Ltd. (中石化廣州工程有限公司)	The PRC/Limited liability company	300,000	100%	–	Engineering contracting/The PRC
Ningbo Institute (中石化寧波技術研究院有限公司)	The PRC/Limited liability company	10,000	100%	–	Technical services/The PRC
Sinopec Heavy Lifting and Transportation Co., Ltd. (中石化重型起重運輸工程有限責任公司)	The PRC/Limited liability company	500,000	100%	–	Engineering contracting technical service, equipment selling and leasing/The PRC
Sinopec Engineering Group Saudi Arabia Co., Ltd. (中石化煉化工程(集團)股份有限公司沙特公司)	Saudi Arabia/Limited liability company	33,558 (SAR18,000,000)	100%	–	Engineering contracting/Saudi Arabia
Sinopec Engineering Group America, L.L.C (中石化煉化工程(集團)股份有限公司美國公司)	United States/Limited liability company	3,075 (USD500,000)	100%	–	Engineering contracting, engineering and consulting/United States
Sinopec Energy-Saving Technology Service Co., Ltd (中石化節能技術服務有限公司)	The PRC/Limited liability company	500,000	100%	–	Technical service, contractual energy management and engineering research/The PRC
Sinopec Engineering Group Russia L.L.C (中石化煉化工程集團俄羅斯子公司)	Russia/Limited liability company	9,804 (USD1,500,000)	100%	–	Engineering contracting, engineering and consulting/Russia
SINOPEC Engineering Group Malaysia SDN BHD (中石化煉化工程(集團)股份有限公司馬來西亞公司)	Malaysia/Limited liability company	5,158 (MYR360,700)	100%	–	Engineering contracting/Malaysia
Sinopec Shanghai Pharmaceutical Industry Designing Institute Co., Ltd. (中石化上海醫藥工業設計研究院有限公司)	The PRC/Limited liability company	8,000	–	100%	Medicine, pesticide, chemical research/The PRC
Shanghai Petrochemical Machine Manufacturing Co., Ltd. (上海石化機械製造有限公司)	The PRC/Limited liability company	133,640	–	100%	Petrochemical equipment manufacturing/The PRC
Ningbo Tianyi Equipment Technology Co., Ltd. (寧波天翼裝備技術有限公司)	The PRC/Limited liability company	60,000	–	100%	Petrochemical equipment design, manufacturing and installation/The PRC
Ningbo Tianyi Petrochemical Heavy Equipment Manufacturing Co., Ltd. (寧波天翼石化重型設備製造有限公司)	The PRC/Limited liability company	60,000	–	97%	Petrochemical equipment manufacturing and installation/The PRC
SINOPEC Engineering Group (Thailand) Co., Ltd. (中石化煉化工程(集團)股份有限公司泰國公司)	Thailand/Limited liability company	356 (THB3,300,000)	–	100%	Engineering contracting/Thailand

The above table lists the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the period or formed a substantial portion of the net assets of the Group. To give details of other subsidiaries would, in the opinion of the directors, results in particulars of excessive length.

45. Comparative Figures

Certain comparative figures have been reclassified to conform the current year's presentation of the consolidated financial statements.